

PRODUCTS

FOR YOUR SUSTAINABLE **ELECTRONICS PROTECTION**











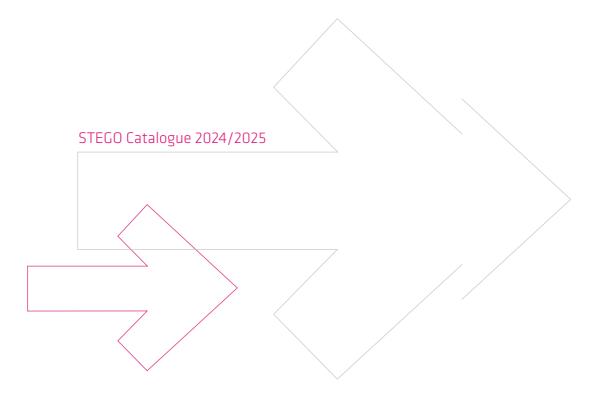












Global presence in Electronics Protection



This catalogue contains the full range of STEGO products for protection of electronic components. You will discover why STEGO products are perfectly suitable for the needs of professional users and how easy it is to obtain them worldwide – wherever you are out to succeed.



COMPANY

INNOVATION MADE IN GERMANY

We have been developing and producing innovative and future proof products for perfect electronics protection for over 40 years in Schwäbisch Hall, Germany.

STEGO:

SAFETY IS WHAT DRIVES US

STEGO products are used in all places where sensitive electronic components must be protected from humidity and other climatic influences. Heating elements, regulators, fans, LED lamps, sensors and STEGO accessories help you to optimise operating conditions and to reach maximum protection for your installations. So that you can be sure of lasting success!

PERFECT ELECTRONICS PROTECTION

Since it was founded in 1980, STEGO Elektrotechnik in Schwäbisch Hall, Germany, has been developing, producing and selling an evergrowing range of products for the protection of electric and electronic components. All STEGO products are aimed at reaching optimum climatic conditions in the most varied environments, ensuring that all sensitive components work reliably at all times.

Tried and tested temperature and humidity control systems ensure these optimised climatic conditions. If temperature and/or humidity are too low or too high, the necessary countermeasure is immediately initiated, for example a heater is turned on or a filter fan circulates cool air. A diversity of conditions such as the change from day to night, or particularly warm or cold regions, make climatisation an ever-increasing and challenging task. To meet this challenge, STEGO offers everything that is needed to protect sensitive components from corrosion and malfunction.

WORLDWIDE SERVICE SUPPORTING QUALITY WORLDWIDE

PRODUCT CATALOGUE - STEGO

STEGO's thermal management solutions are exported internationally and find use in the most diverse areas of application and climatic conditions. STEGO maintains an on-going exchange with partners and customers from many branches of industry in order to develop innovative products meeting the demands of the market. This close contact enables STEGO to incorporate market requirements from experts directly into our product design. As part of this global cooperation valuable know-how is permanently exchanged, thus strengthening the competence of our designers beyond local market knowledge. The continuous flow of information not only increases the quality of STEGO products, but also the final products our customers bring onto the market. STEGO believes in sustainability, acts in an environmentally-friendly manner and is quality-oriented. The company is DIN EN ISO 9001:2015 and 14001:2015 certified and has introduced the Six Sigma method to improve quality management. Furthermore STEGO meets the requirements of the new health & safety management standard for workplaces - ISO 45001. STEGO is now represented at 9 locations, one sales office in China and by more than 1500 sales partners worldwide.









PRODUCT SAFETY

The necessity for the safety of electrical devices has always been priority. STEGO continuously invests in product certifications by national and international testing authorities, who test and mark the products according to product safety requirements.

VDE

The VDE Testing and Certification Institute (Verband Deutscher Elektrotechnik) is an authority accredited in Germany but also internationally renowned, which ensures that products comply with applicable standards in terms of safety, quality, health and environmental protection, etc. VDE certified products are subject to factory inspections, manufacturing supervision, as well as product inspections. Depending on classification, our products carry the following VDE marks:



VDE Mark (electro-technical products)



VDE Registration Number (factory surveillance for electro-technical products)



VDE GS Mark (technical working equipment)



ENEC Mark of VDE (safety mark for the European market)

The operation of STEGO products in the US and Canada requires a safety approval by a North American authority due to stricter product liability laws and safety guidelines that deviate from the European IEC standard. The UL mark is the most accepted proof that a product meets applicable safety requirements, not only in the US and Canada but also in many other international markets, as well as in Europe. Underwriter Laboratories (UL) is one of the most recognized product testing and certification organisations today.



The distribution of electro-technical products within the territory of the Eurasian Economic Union (EAWU) requires EAC labeling. The Eurasian Conformity label indicates that the product complies with applicable safety requirements in the EAWU.



CCC/COC

In the People's Republic of China the CCC mark (China Compulsory Certification) is the applicable standard for products that are subject to certification, which can then be imported, sold and used in business activities in China. Most STEGO products are not required to be certified. Only our products in the categories "Lighting" and "Ex-Protection" must be CCC-certified. CQC is the nonmandatory counterpart to the CCC mark. CQC is provided for individual product categories to simplify their use in China.



The CE mark is considered "Key to the European market". It indicates that a product complies with applicable EU laws. It is not a test mark by an authority, but a self-declaration by the manufacturer. With this mark, the manufacturer documents that a marked product complies with all relevant European directives and national laws for product safety and that it has undergone required conformity assessment procedures. With the beginning of 2022, the UK will have UKCA as its variation of the CE mark, due to its secession from the EU.



EXPLOSION PROTECTION

Our Ex heaters and thermostats that find use in hazardous areas, such as the chemical, petrochemical and pharmaceutical industry, oil and gas production, mining, etc. are subject to special requirements. The requirements for explosion protection are legally anchored in the ATEX Directive 2014/34/EU of the European Union and the basis for the certification of our Ex

Our products are also internationally approved within the scope of a certification process according to IEC standards by an ExCB (Ex Certification Body).



PRODUCT CATALOGUE - STEGO

COMPANY STEGO

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We offer calculation modules on our website (www.stego-gorup.com) helping you to determine the required heating or cooling performance for an application. You will also find there latest news, as well as further information about STEGO.

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Indication of measurements in mm. Errors and omissions excepted. Specifications are subject to change without notice. Suitability of the products for their intended use and any associated risks must be determined by the end customer/buyer in their final application. Up-to-date versions of all technical data sheets in pdf-format can be found in the Internet on www.stego-group.com for download.

PROTECTION AGAINST FROST AND CONDENSATION

Optimised temperatures are of utmost importance in switch cabinets: STEGO heaters and fan heaters prevent dangerously low temperatures and ensure equal distribution of warm air.

HEATING

PROTECTION AGAINST OVERHEATING

To protect installations from excessively high temperatures STEGO filter fans ensure efficient cooling by ambient air.

COOLING

CONSTANT REGULATING

STEGO's temperature and humidity control systems perfect operating conditions for electric and electronic installations and therefore safeguard their performance.

REGULATING

MEASURE SMART

STEGO sensors detect environmental conditions inside and beyond enclosures. Smart sensors provide both digital and analogue signals.

MEASURING

IDEAL LIGHTING SOLUTIONS

Our lighting solutions ensure that maintenance on electronic installations can be carried out night and day.

LIGHTING

COMPLEMENTARY ELECTRONICS PROTECTION

STEGO accessories help to discharge condensate and pressure. Country-specific sockets ensure safe connection of external devices. **ACCESSORIES**

NOTES



HEATING

PROTECTION AGAINST FROST AND CONDENSATION

Optimised temperatures are of utmost importance in switch cabinets: STEGO heaters and fan heaters prevent dangerously low temperatures and ensure equal distribution of warm air.

CARTRIDGE HEATER

RCE 016 | 5 W, 9 W



> Wide voltage range > Energy saving > Dynamic heating up > Compact

Small heaters designed to prevent condensation and to ensure a minimum operating temperature in small enclosures. The heaters are designed for permanent operation.





PRODUCT CATALOGUE - STEGO

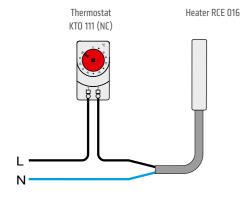


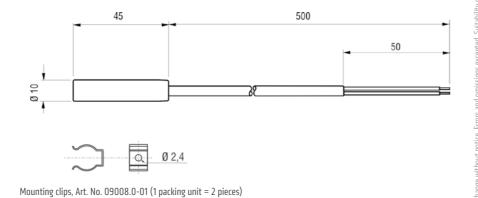
TECHNICAL DATA

Operating voltage	AC/DC 120 – 240 V ¹ (min. 110 V, max. 265 V)
Heating element	PTC resistor, temperature limiting
Heater body	aluminium
Mounting	see Accessories
Fitting position	variable
Dimensions	length 45 mm, Ø 10 mm
Operating/Storage temperature	-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP54 / II (double insulated)
Approvals	VDE, UL File No. E234324, EAC
Accessories	mounting clips (see illustration), Art. No. 09008.0-01
Note	other voltages on request

¹ Operating with voltages below AC/DC 140 V reduces heating performance by approx. 10 %.

Example of connection





Art. No.	Heating capacity ²	Inrush current max.	Surface temperature (approx.)	Connection	Weight (approx.)
01622.0-00	5 W	2.0 A	+165 °C	2 x AWG 22 cable (silicone)	20 g
01623.0-00	9 W	2.5 A	+175 °C	2 x AWG 22 cable (silicone)	20 g

² at +20 °C (+68 °F) ambient temperature

FLAT ENCLOSURE HEATER

RC 016 | 8 W, 10 W, 13 W



- > Wide voltage range
- > PTC resistor heats up dynamically
- > High heating output per volume
- > Compact dimensions

Small enclosure heaters as the RC 016 are used to evenly distribute heat within compact enclosures thereby protecting electronic components from harmful condensation. Used as a convection heater, the RC 016 heats up the immediate ambient air. When used as a contact heater, a surface connection with the component to be heated or the enclosure housing is necessary. This compact heater is designed for continuous operation. The unique design of its clamping increases its longevity due to the minimisation of load through thermal cycles.

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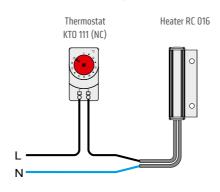


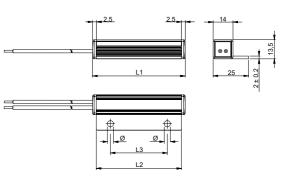
TECHNICAL DATA

Operating voltage	AC/DC 120 – 240 V ¹ (min. 110 V, max. 265 V)
Heating element	PTC resistor – temperature limiting
Heater body	aluminium, anodised
Surface temperature	< +180 °C (+356 °F)
Connection	2 x AWG 20 stranded wire, 300 mm (±8)
Mounting	screw fixing
Fitting position	variable
Operating temperature	VDE: -45 to +70 °C (-49 to +158 °F) UL: -45 to +40 °C (-49 to +104 °F)
Storage temperature	-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP40 / II (double insulated)
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

¹ Operating with voltages below AC/DC 140 V reduces heating performance by approx. 10 %.

Example of connection





Art. No.	Heating capacity ²	Inrush current max.		Dimen	sions		Weight (approx.)
			L1	L2	L3	Ø	
01651.0-00	8 W	2,0 A	35 mm	30 mm	18 mm	3,2 mm	20 g
01662.0-00	10 W	2,5 A	55 mm	50 mm	30 mm	4,5 mm	30 g
01673.0-00	13 W	3,0 A	65 mm	60 mm	40 mm	4,5 mm	40 g

² at +20 °C (+68 °F) ambient temperature

LTS 064 | 20 W to 40 W



- > Clip fixing and pressure clamp for quick
- mounting
 > Low surface temperature
- > Touch-safe casing

- > Wide voltage range
- > Heater body in loop design for optimal temperature distribution
 > Shock and vibration proof

Compact heater for the protection of electrical and electronic components in enclosures. Its design ensures great convection resulting in excellent heat dissipation. A touch-safe plastic cover provides for low surface temperatures on the side of the device. The practical push-in clamping terminal enables quick and easy electrical connection. The heaters are designed for continuous operation.

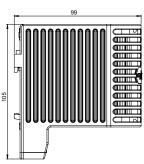
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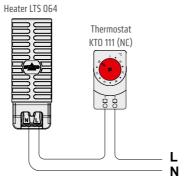




TECHNICAL DATA

Operating voltage	AC/DC 120 –240 V (min. 110 V, max. 265 V)
Heating element	PTC resistor – temperature limiting
Surface temperature	< +80 °C (+176 °F), except upper protective grille
Connection	2 x pressure clamps for stranded wire 0.5 - 1.5 mm^2 (with wire end ferule) and rigid wire 0.5 – 2.5 mm^2
Casing	plastic according to UL94 V-O, black and white
Dimensions	105 x 38 x 99 mm
Mounting	clip for 35 mm DIN rail, EN 60715
Fitting position	vertical airflow (air outlet up, connection on bottom)
Operating/Storage temperature	-45 °C to +70 °C (-49 °F to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)
Approvals	VDE UL File No. E234324 EAC DIN EN 60068-2-27:2010-02 DIN EN 60068-2:64:2009-04 in connection with DIN EN IEC 61373:2011-04, Cat. 1 B
Note	other voltages on request

Example of connection



Art. No.	Heating capacity ¹	Inrush current max.	Weight (approx.)
06401.0-00	20 W	2.0 A	0.2 kg
06402.0-00	30 W	2.0 A	0.2 kg
06403.0-00	40 W	4.0 A	0.2 kg

¹ at +20 °C (+68 °F) ambient temperature

ENCLOSURE HEATER

CSK 060 | 10 W, 20 W, 30 W



- > Low surface temperature
- > Double insulated (plastic housing)
- > Wide voltage range

- > Dynamic heating up
- > Clip fixing

The heaters are used in enclosures where condensation is to be prevented or the temperature may not fall below a minimum value. In this way corrosion is avoided and an even temperature is ensured. The heaters are designed for permanent operation.

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Operating voltage	AC/DC 120 -240 V ¹ (min. 110 V, max. 265 V)
Heating element	PTC resistor – temperature limiting
Surface temperature	< +85 °C (+185 °F) (according to VDE 0100), except upper protective grille
Connection	2-pole terminal 2.5 mm ² , torque 0.8 Nm max.
Casing	plastic according to UL94 V-O, black
Dimensions	98 x 38 x 75 mm
Mounting	clip for 35mm DIN rail, EN 60715
Fitting position	vertical airflow (air outlet up, connection on bottom)
Operating/Storage temperature	-45 °C to +70 °C (-49 °F to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)
Approvals	VDE, UL File No. E150057, EAC
Note	other voltages on request

¹ Operating with voltages below AC/DC 140 V reduces heating performance by approx 10 %.

Example of connection

Heater CSK 060 Thermostat FTO 011 (NC)

Art. No.	Heating capacity ²	Inrush current max.	Weight (approx.)
06040.0-00	10 W	1.0 A	0.2 kg
06030.0-00	20 W	2.5 A	0.3 kg
06050.0-00	30 W	2.5 A	0.3 kg

² at +20 °C (+68 °F) ambient temperature

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LPS 164 | 10 W to 50 W



- > Clip fixing for quick mounting
- > Dynamic heating up through PTC
- > Heater body in loop design for optimal temperature distribution
- > Wide voltage range
- > Additional approvals

Compact heater with PTC heating elements for heating enclosures with electrical or electronic components. The heater prevents too low temperatures and thus condensation harming the components. The design of the aluminium profile creates a chimney effect, which ensures even temperature distribution within the enclosure. The heaters are designed for continuous operation.

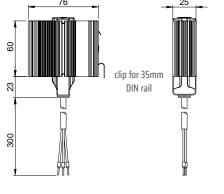








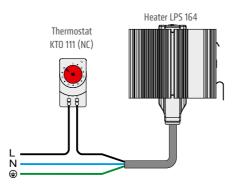




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Operating voltage	AC/DC 120-240 V (min. 110 V, max. 265 V)
Heating element	PTC resistor - temperature limiting
Heater body	aluminium profile, anodised
Connection	3 x 0.5 mm ² x 300 mm cable
Dimensions	83 x 25 x 76 mm
Mounting	clip for 35 mm DIN rail, EN 60715
Fitting position	vertical airflow (air outlet up, connection on bottom)
Weight	~ 0.2 kg
Operating/Storage temperature	-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / I (earthed)
Note	other voltages on request

Example of connection



Art. No.	Heating capacity ¹	Inrush current max.	Approvals	
16400.0-00	10 W	2.0 A	VDE	EAC
16401.0-00	20 W	2.0 A	VDE	EAC
16402.0-00	30 W	2.0 A	VDE	EAC
16403.0-00	40 W	4.0 A	VDE	EAC
16404.0-00	50 W	4.0 A	VDE	EAC
16400.9-00	10 W	2.0 A	UL ²	EAC
16401.9-00	20 W	2.0 A	UL ²	EAC
16402.9-00	30 W	2.0 A	UL ²	EAC
16403.9-00	40 W	4.0 A	UL ²	EAC
16404.9-00	50 W	4.0 A	UL ²	EAC

 $^{^{1}}$ measured at +20 °C (+68 °F) ambient temperature; 2 according to UL 508 A, File No. E234324

ENCLOSURE HEATER

STEGO - PRODUCT CATALOGUE

HGK 047 | 10 W to 30 W



clip for 35mm

DIN rail

- > Dynamic heating up through PTC technology
- > Energy saving

- > Wide voltage range
- > Clip fixing

The heaters are used in enclosures where condensation is to be prevented or the temperature may not fall below a minimum value. In this way corrosion is avoided and an even temperature is ensured. The heaters are designed for permanent operation.

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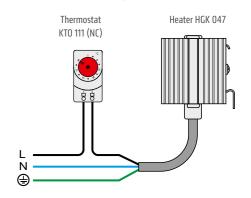


TECHNICAL DATA

Heating element	PTC resistor – temperature limiting
Heater body	extruded aluminium profile, anodised
Mounting	clip for 35mm DIN rail, EN 60715
Fitting position	vertical airflow (air outlet up, connection on bottom)
Operating/Storage temperature	-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP44 / I (earthed)
Accessoires	screw fixing, Art. No. 09024.0-00 (1 packing unit = 2 pieces)
Note	other voltages on request



Example of connection



Art. No.	Operating voltage	Heating capacity ¹	Inrush current max.	Length (L)	Weight (approx.)	Connection	Approvals	
04700.0-00	AC/DC 120 - 240 V ²	10 W	1.0 A	52 mm	0.1 kg	3 x 0,5 mm ² x 300 mm cable (silicone)	VDE	EAC
04701.0-00	AC/DC 120 - 240 V ²	20 W	2.5 A	60 mm	0.2 kg	3 x 0,5 mm ² x 300 mm cable (silicone)	VDE	EAC
04702.0-00	AC/DC 120 - 240 V ²	30 W	3.0 A	70 mm	0.2 kg	3 x 0,5 mm ² x 300 mm cable (silicone)	VDE	EAC
04700.9-00	AC/DC 120 - 230 V	10 W	1.0 A	52 mm	0.1 kg	3 x AWG 20 x 300 mm cable	UL File No. E150057	EAC
04701.9-00	AC/DC 120 - 230 V	20 W	1.5 A	70 mm	0.2 kg	3 x AWG 20 x 300 mm cable	UL File No. E150057	EAC
04702.9-00	AC/DC 120 - 230 V	30 W	1.5 A	100 mm	0.2 kg	3 x AWG 20 x 300 mm cable	UL File No. E150057	EAC

¹ at +20 °C (+68 °F) ambient temperature, 2 (min. 110 V, max 265 V) Operating with voltages below AC/D 140 V reduces heating performance by approx. 10 %.

LT 065 | 50 W to 150 W



- > Clip fixing and pressure clamp for quick
- > Low surface temperature
- > Touch-safe casing

- > Wide voltage range
- > Heater body in loop design for optimal temperature distribution

 > Shock and vibration proof

PRODUCT CATALOGUE - STEGO

Compact heater for the protection of electrical and electronic components in enclosures. Its design ensures great convection resulting in excellent heat dissipation. A touch-safe plastic cover provides for low surface temperatures on the side of the device. The practical push-in clamping terminal enables quick and easy electrical connection. The heaters are designed for continuous operation. The heater is also available in a version with thermostat (LTF 065 series).

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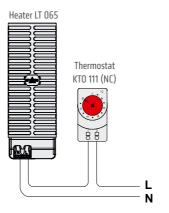




TECHNICAL DATA

Operating voltage	AC/DC 120 –240 V (min. 110 V, max. 265 V)
Heating element	PTC resistor – temperature limiting
Surface temperature	< +80 °C (+176 °F), except upper protective grille
Connection	2x pressure clamps for stranded wire 0.5 - 1.5 mm²(with wire end ferule) and rigid wire 0.5 – 2.5 mm²
Casing	plastic according to UL94 V-O, black and white
Mounting	clip for 35mm DIN rail, EN 60715
Fitting position	vertical airflow (air outlet up, connection on bottom)
Operating/Storage temperature	-45 °C to +70 °C (-49 °F to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)
Approvals	VDE UL File No. E234324 EAC DIN EN 60068-2-27:2010-02 DIN EN 60068-2:64:2009-04 in connection with DIN EN IEC 61373:2011-04, Cat. 1 B
Note	other voltages on request

Example of connection



Art. No.	Heating capacity ¹	Inrush current max.	Length (L)	Weight (approx.)
06500.0-00	50 W	4.0 A	101 mm	0.4 kg
06503.0-00	100 W	6.0 A	161 mm	0.75 kg
06504.0-00	150 W	8.0 A	161 mm	0.75 kg

¹ measured at +20 °C (+68 °F) ambient temperature

ENCLOSURE HEATER

CS 060 | 50 W to 150 W



- > Low surface temperature
- > Quick mounting due to clip fixing > Double insulated (plastic)
- > Wide voltage range
- > Small size

Touch-safe heater for the use in enclosures with electrical/electronical components. The design of the heater supports the natural convection which results in a high air-current of warm air. The surface temperatures on the accessible side surfaces of the housing are kept down as a result of the heater design. Our complete range of thermostats and hygrostats can directly be connected to the heater CS 060. This heater is also available in a version with plug-in thermostat requiring no additional wiring (CSF 060). The heaters are designed for permanent

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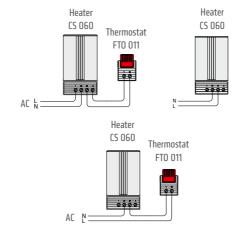
TECHNICAL DATA

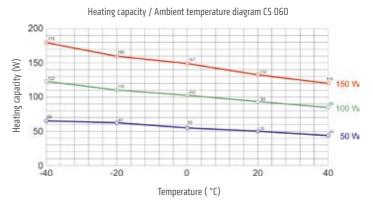
Operating voltage	AC/DC 120 – 240 V ¹ (min. 110 V, max. 265 V)
Heating element	PTC resistor – temperature limiting
Surface temperature	< +80 °C (+176 °F), except upper protective grille
Connection	4-pole terminal 2.5 mm², torque 0.8 Nm max.
Casing	plastic according to UL94 V-O, black
Mounting	clip for 35 mm DIN rail, EN 60715
Fitting position	vertical airflow (air outlet up, connection on bottom)
Operating/Storage temperature	-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)
Approvals	VDE, UL File No. E150057, EAC
Note	other voltages on request

¹ Operating with voltages below AC/DC 140 V reduces heating performance by approx. 10 %.

Examples of connection

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Art. No.	Heating capacity ²	Inrush current (max.)	Air outlet temperature ³	Dimensions	Weight (approx.)
06000.0-00	50 W	2.5 A	+86 °C (+186.8 °F)	110 x 60 x 90 mm	0.3 kg
06010.0-00	100 W	4.5 A	+120 °C (+248 °F)	110 x 60 x 90 mm	0.3 kg
06020.0-00	150 W	8.0 A	+145 °C (+293 °F)	150 x 60 x 90 mm	0.5 kg

² ambient temperature – see Heating capacity / ambient temperature diagram

³ measured 50 mm above protective grille

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ENCLOSURE HEATER

LTF 065 | 50 W to 150 W



- > Clip fixing and pressure clamp for quick
- > Low surface temperature
- > Touch-safe casing
- > Wide voltage range

- > Integrated thermostat
- > Heater body in loop design for optimal temperature distribution

 > Shock and vibration proof

Compact heater with PTC heating elements for heating enclosures. The heater prevents low temperature and thus condensation. Its aluminium profile is designed to achieve an optimised chimney effect, which ensures great convection resulting in excellent heat dissipation in the enclosure. The practical push-in clamping terminal enables quick and easy electrical connection. The heaters are designed for continuous operation.

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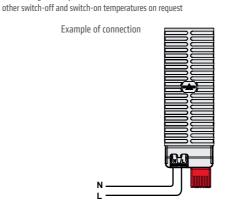






TECHNICAL DATA

Operating voltage	AC 120-240 V (min. 110 V, max. 265 V)
Heating element	PTC resistor - temperature limiting
Surface temperature	< +80 °C (+176 °F), except upper protective grille
Connection	2 x pressure clamps for stranded wire 0.5 - 1.5 mm 2 (with wire end ferule) and rigid wire 0.5 – 2.5 mm 2
Casing	plastic according to UL94 V-O, black and white
Mounting	clip for 35mm DIN rail, EN 60715
Fitting position	vertical airflow (air outlet up, connection on bottom)
Operation/Storage temperature	-45 °C to +70 °C (-49 °F to +158 °F)
Operation/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)
Approvals	VDE UL File No. 234324 EAC DIN EN 60068-2-27:2010-02 DIN EN 60068-2:64:2009-04 in connection with DIN EN IEC 61373:2011-04, Cat. 1 B
Note	other voltages on request



Art. No.	Heating capacity ¹	Inrush current max.	Switch-off temperature ²	Switch-on temperature ²	Lenght (L)	Weight (approx.)
06510.0-00	50 W	4.0 A	+15 °C (+59 °F)	+5 °C (+41 °F)	124 mm	0.4 kg
06513.0-00	100 W	6.0 A	+15 °C (+59 °F)	+5 °C (+41 °F)	184 mm	0.75 kg
06514.0-00	150 W	8.0 A	+15 °C (+59 °F)	+5 °C (+41 °F)	184 mm	0.75 kg
06520.0-00	50 W	4.0 A	+25 °C (+77 °F)	+15 °C (+59 °F)	124 mm	0.4 kg
06523.0-00	100 W	6.0 A	+25 °C (+77 °F)	+15 °C (+59 °F)	184 mm	0.75 kg
06524.0-00	150 W	A 0.8	+25 °C (+77 °F)	+15 °C (+59 °F)	184 mm	0.75 kg

¹ measured at +20 °C (+68 °F) ambient temperature

ENCLOSURE HEATER

STEGO - PRODUCT CATALOGUE

CSF 060 | 50 W to 150 W



- > Low surface temperature
- > Integrated thermostat
- > Quick mounting due to clip fixing
- > Double insulated (plastic)
- > Wide voltage range
- > Small size

Touch-safe heater for the use in enclosures with electrical/electronical components. The design of the heater supports the natural convection which results in a high air-current of warm air. The surface temperatures on the accessible side surfaces of the housing are kept down as a result of the heater design. This model with plug-in thermostat does not require additional wiring. The heaters are designed for permanent operation. This heater is also available in a version without thermostat (CS 060).

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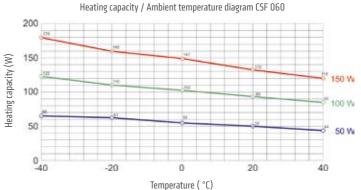
TECHNICAL DATA

Operating voltage	AC 120 – 240 V ¹ (min. 110 V, max. 265 V)
Heating element	PTC resistor – temperature limiting
Surface temperature	< +80 °C (+176 °F), except upper protective grille
Connection	2-pole terminal 2.5 mm², torque 0.8 Nm max.
Casing	plastic according to UL94 V-O, black
Mounting	clip for 35 mm DIN rail, EN 60715
Fitting position	vertical airflow (air outlet up, connection on bottom)
Operating/Storage temperature	-40 to +70 °C (-40 to +158 °F) / -45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)
Approvals	VDE, UL File No. E150057, EAC

¹ Operating with voltages below AC 140 V reduces heating performance by approx. 10 %.



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Art. No.	Heating capacity ²	Inrush current (max.)	Air outlet temperature ³	Switch-off temperature ⁴	Switch-on temperature ⁴	Dimensions	Weight (approx.)
06001.0-00	50 W	2.5 A	+86 °C (+186.8 °F)	+15 °C (+59 °F)	+5 °C (+41 °F)	110 x 60 x 90 mm	0.3 kg
06002.0-00	50 W	2.5 A	+86 °C (+186.8 °F)	+25 °C (+77 °F)	+15 °C (+59 °F)	110 x 60 x 90 mm	0.3 kg
06011.0-00	100 W	4.5 A	+120 °C (+248 °F)	+15 °C (+59 °F)	+5 °C (+41 °F)	110 x 60 x 90 mm	0.3 kg
06012.0-00	100 W	4.5 A	+120 °C (+248 °F)	+25 °C (+77 °F)	+15 °C (+59 °F)	110 x 60 x 90 mm	0.3 kg
06021.0-00	150 W	8.0 A	+145 °C (+293 °F)	+15 °C (+59 °F)	+5 °C (+41 °F)	150 x 60 x 90 mm	0.5 kg
06022.0-00	150 W	8 N A	+145 °C (+293 °F)	+25 °C (+77 °F)	+15 °C (+59 °F)	150 x 60 x 90 mm	0.5 kσ

ambient temperature – see Heating capacity /ambient temperature diagram

³ measured 50 mm above protective grille; ⁴ tolerance of ±5 K Note: Other switch-off and switch-on temperatures on request

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ENCLOSURE HEATER

LP 165 | 60 W to 150 W



- > Clip fixing and pressure clamp for
- quick mounting

 > Dynamic heating up through

 PTC technology
- > Heater body in loop design for

PRODUCT CATALOGUE - STEGO

- optimal temperature distribution > Wide voltage range
- > Additional approvals

Compact heater with PTC heating elements for heating enclosures with electrical or electronic components. The heater prevents too low temperatures and thus condensation harming the components. The design of the aluminium profile creates a chimney effect, which ensures great convection resulting in excellent heat dissipation within the enclosure. The practical push-in clamping terminal ensures quick and easy electrical connection. The heaters are designed for continuous operation.







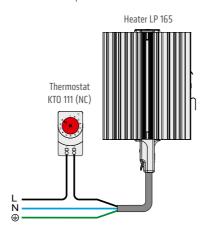




TECHNICAL DATA

Operating voltage	AC/DC 120-240 V (min. 110 V, max. 265 V)
Heating element	PTC resistor - temperature limiting
Heater body	extruded aluminium profile, anodised
Connection	3x pressure clamps for stranded wire 0.5 - 1.5 mm²(with wire end ferule) and rigid wire 0.5 – 2.5 mm²
Connection casing	plastic according to UL94 V-O, black
Mounting	clip for 35 mm DIN rail, EN 60715
Fitting position	vertical airflow (air outlet up, connection on bottom)
Operating/Storage temperature	-45 °C to +70 °C (-49 °F to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / I (earthed)
Approvals	VDE UL File No. 234324 EAC
Note	other voltages on request

Example of connection



Art. No.	Heating capacity ¹	Inrush current max.	Length (L)	Weight (approx.)
16501.0-00	60 W	4.0 A	107 mm	0.3 kg
16502.0-00	75 W	4.0 A	107 mm	0.3 kg
16503.0-00	100 W	6.0 A	167 mm	0.5 kg
16504.0-00	150 W	8.0 A	167 mm	0.5 kg

¹ measured at +20 °C (+68 °F) ambient temperature

ENCLOSURE HEATER

HG 140 | 15 W to 150 W



- > Pressure clamp connectors
- > Dynamic heating up > Wide voltage range
- > Energy saving
- > Clip fixing
 > Quick installation

These heaters are used in enclosures where damage from condensation must be prevented, or where the temperature may not fall below a minimum value. The aluminium profile heater body design has a chimney effect and distributes the heat evenly. The heaters are designed for permanent operation. Pressure clamb connectors save time and simplify installation.







TECHNICAL DATA

Operating voltage	AC/DC 120 – 240 V ¹ (min. 110 V, max. 265 V)
Heating element	PTC resistor – temperature limiting
Heater body	extruded aluminium profile, anodised
Connection	3 pressure clamps for stranded wire 0.5 – 1.5 mm 2 (with wire end ferrule) and rigid wire 0.5 – 2.5 mm 2
Connection casing	plastic according to UL94 V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715
Fitting position	vertical airflow (air outlet up, connection on bottom)
Operating/Storage temperature	-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / I (earthed)
Approvals	VDE, UL File No. E150057, EAC
Accessoires	screw fixing, Art. No. 09024.0-00 (1 packing unit = 2 pieces)
Note	other voltages on request

¹ Operating with voltages below AC/DC 140 V reduces heating performance by approx. 10 %.

Art. No.	Heating capacity ²	Inrush current max.	Length (L)	Weight (approx.)
14000.0-00	15 W	1.5 A	65 mm	0.3 kg
14001.0-00	30 W	3.0 A	65 mm	0.3 kg
14003.0-00	45 W	3.5 A	65 mm	0.3 kg
14005.0-00	60 W	2.5 A	140 mm	0.4 kg
14006.0-00	75 W	4.0 A	140 mm	0.5 kg
14007.0-00	100 W	4.5 A	140 mm	0.5 kg
14008.0-00	150 W	9.0 A	220 mm	0.7 kg

² at +20 °C (+68 °F) ambient temperature

FLAT ENCLOSURE HEATER

CP 061 | 50 W, 100 W



- > Contact/Convection heater
- > Ultra flat design
- > Compact
- > Easy, firm installation
- > Screw fixing
- > Linear expansion compensation

PRODUCT CATALOGUE - STEGO

> Ready-to-use with strain relief

The Flat Heater CP 061 is used to provide an evenly distributed temperature within enclosures and cabinets with electric/electronic components. Its ultra-thin design makes it particularly suitable for high-density applications for which standard enclosure heaters are often too big in size. Depending on the application, the Flat Heater can be used as a convection heater or as a contact heater. When used as a contact heater it offers thermoconductive contact to a component or a cabinet wall in need to be heated. The CP 061 is designed for continuous operation.





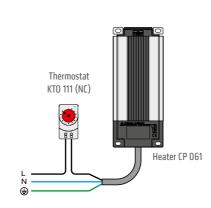




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TECHNICAL DATA

Heating element	resistance heater
Temperature safety cut-out	to protect against overheating, automatic reset
Heater body	aluminium profile
Surface temperature	< +150 °C at +25 °C (+77 °F)
Connection	silicone cable (halogen-free) 3 x 0.75 mm² (3 x AWG 19), length 1 m
Connection casing	plastic according to UL94 V-O, black
M (1	n : /
Mounting	screw fixing (M6)
Mounting Fitting position	screw fixing (M6) horizontal, variable connection or vertical, connection on bottom
3	horizontal, variable connection or
Fitting position	horizontal, variable connection or vertical, connection on bottom
Fitting position Dimensions	horizontal, variable connection or vertical, connection on bottom L x 100 x 8 mm



Example of connection

Art. No.	Operating voltage	Heating capacity	Length (L)	Hole spacing (X)	Weight (approx.)	Operating humidity	Appro	ovals
06100.0-00	AC 230 V, 50/60 Hz	50 W	239 mm	225 mm	0.4 kg	-40 to +60 °C (-40 to +140 °F)	VDE	EAC
06101.0-00	AC 230 V, 50/60 Hz	100 W	414 mm	400 mm	0.7 kg	-40 to +60 °C (-40 to +140 °F)	VDE	EAC
06100.9-00	AC 120 V, 50/60 Hz	50 W	239 mm	225 mm	0.4 kg	-40 to +40 °C (-40 to +104 °F)	UL	EAC
06101.9-00	AC 120 V, 50/60 Hz	100 W	414 mm	400 mm	0.7 kg	-40 to +40 °C (-40 to +104 °F)	UL	EAC

ENCLOSURE HEATER WITH FAN

HV 031 / HVL 031 | 100 W to 400 W



Airflow direction: upwards through heater

- > Flat design
- > High air through-flow
- > Temperature safety cut-out
- > Clip fixing

Compact high-performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. This fan heater may only be operated together with a fan but is also available without fan for self-assembly (HV 031) and with pre-configured fan (HVL 031).







TECHNICAL DATA

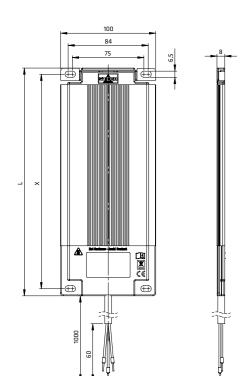
HV 031	Heater without fan (fan mounting kit included)
HVL 031	Heater with fan
Heating element	high performance cartridge
Temperature safety cut-out	to protect against overheating in case of fan failure, automatic reset
Heater body	die-cast aluminium (glass bead blasted)
Connection	3-pole screw connector 2.5 mm², clamping torque 0.8 Nm max.
Connection casing	plastic according to UL94 V-O, black
Mounting	clip for 35 mm DIN rail, EN 60715
Fitting position	vertical airflow (air outlet up)
Operating/Storage temperature	-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / I (earthed)
Approvals	UL File No. E234324, EAC VDE only: 230 V
HVL 031 only:	
Axial fan, ball bearing	airflow see table service life 50,000 h at +25 °C (+77 °F)
Connection (axial fan)	2-pole screw connector 2.5 mm ² (L2/N2)



Important note: Heater may only be operated together with fan. Danger of overheating!

Art. No. HV 031 AC 230 V, 50/60 Hz	Art. No. HV 031 AC 120 V, 50/60 Hz	Heating capacity	Dimensions	Weight (approx.)
03100.0-00	03100.9-00	100 W	80 x 112 x 22 mm	0.4 kg
03101.0-00	03101.9-00	150 W	80 x 112 x 22 mm	0.4 kg
03110.0-00	03110.9-00	200 W	119 x 151 x 22 mm	0.5 kg
03111.0-00	03111.9-00	300 W	119 x 151 x 22 mm	0.5 kg
03112.0-00	03112.9-00	400 W	119 x 151 x 22 mm	0.5 kg

Art. No. HVL 031 AC 230 V, 50/60 Hz	Art. No. HVL 031 AC 120 V, 50/60 Hz	Heating capacity	Airflow min., free flow	Dimensions	Weight (approx.)
03102.0-00	03102.9-00	100 W	35 m ³ /h	80 x 112 x 53 mm	0.6 kg
03103.0-00	03103.9-00	150 W	35 m ³ /h	80 x 112 x 53 mm	0.6 kg
03113.0-00	03113.9-00	200 W	108 m³/h	119 x 151 x 57 mm	0.9 kg
03114.0-00	03114.9-00	300 W	108 m³/h	119 x 151 x 57 mm	0.9 kg
03115.0-00	03115.9-00	400 W	108 m ³ /h	119 x 151 x 57 mm	0.9 kg



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ENCLOSURE HEATER WITH FAN

View from below

HGL 046 | 250 W, 400 W



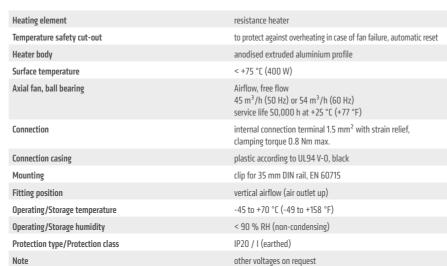
> Compact Design	> Long service life
> Clip fixing	> Temperature safety cut-out

PRODUCT CATALOGUE - STEGO

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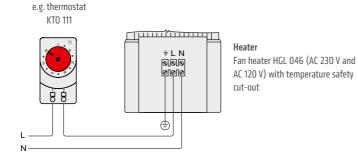
Compact fan heater prevents formation of condensation and frost. The integrated high-performance axial fan provides an evenly distributed interior air temperature in enclosures with electric/electronic components.

TECHNICAL DATA



Example of connection

Control contact



Art. No.	Operating voltage	Heating capacity	Length (L)	Weight (approx.)			
04640.0-00	AC 230 V, 50/60 Hz	250 W	182 mm	1.1 kg	VDE	UL File No. E234324 ¹	EAC
04641.0-00	AC 230 V, 50/60 Hz	400 W	222 mm	1.4 kg	VDE	UL File No. E234324 ¹	EAC
04640.9-00	AC 120 V, 50/60 Hz	250 W	182 mm	1.1 kg	VDE	UL File No. E234324 ¹	EAC
04641.9-00	AC 120 V, 50/60 Hz	400 W	222 mm	1.4 kg	VDE	UL File No. E234324 ¹	EAC

¹ according to UL 508A, NITW File on request

ENCLOSURE HEATER WITH FAN

CR 027 | up to 650 W



- > Compact heater
- > Integrated thermostat
- > Clip fixing

- > Optical indicator
- > Temperature safety cut-out

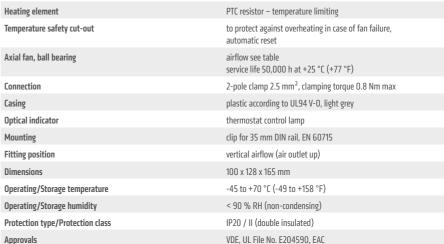
Semiconductor fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The integrated thermostat is used to set the desired temperature.

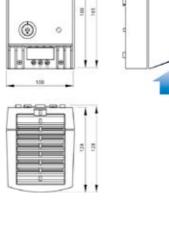


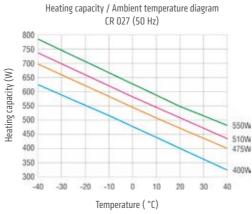




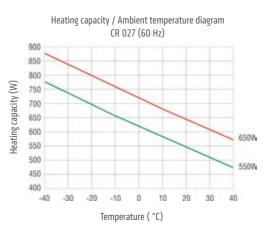
TECHNICAL DATA







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Art. No.	Operating voltage	Heating capacity ¹ (50 Hz)	Heatig capacity ¹ (60 Hz)	Inrush current max.	Airflow, free flow	Setting range thermostat ²	Weight (approx.)
02700.0-00	AC 220 - 240 V, 50/60 Hz	475 W	550 W	11.0 A	35 m ³ /h	0 to +60 °C	0.9 kg
02701.0-00	AC 220 - 240 V, 50/60 Hz	550 W	650 W	13.0 A	45 m ³ /h	0 to +60 °C	1.1 kg
02700.9-00	AC 100 - 120 V, 50/60 Hz	400 W	550 W	14.0 A	35 m ³ /h	+32 to +140 °F	0.9 kg
02701.9-00	AC 100 - 120 V, 50/60 Hz	510 W	650 W	15.0 A	45 m ³ /h	+32 to +140 °F	1.1 kg

¹ at +20 °C (+68 °F) ambient temperature

² Switch temperature difference 7 K (±4 K tolerance)

View: back side

ENCLOSURE HEATER WITH FAN

CS 028 / CSL 028 | 150 W to 400 W



Fan Heaters CSL 028/CS 028 with clip fixing

> Small, compact design > Dynamic heating up > Quiet in operation > Clip or screw fixing

PRODUCT CATALOGUE - STEGO

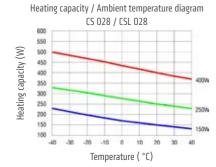
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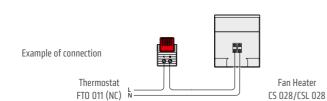
These fan heaters prevent formation of condensation and provide an evenly distributed interior air temperature in enclosures with electric/electronic components. The heaters are connected using the internal terminal connectors. The small size of the CS / CSL 028 heaters make them ideal for use in enclosures where space is at a premium.



Fan Heaters CSL 028/CS 028 with screw fixing

Heating element PTC resistor – temperature limiting Axial fan, ball bearing air flow, free flow CS 028: 13.8 m³/h CSL 028: 45 m³/h (AC 230 V), 54 m³/h (AC 120 V) service life 40,000 h at +40 °C (+104 °F) Connection 2-pole clamp max. 2.5 mm² (CSL 028 with strain relief), clamping screw torque 0.8 Nm max. Casing plastic according to UL94 V-0, black clip for 35 mm DIN rail, EN 60715 or screw fixing (Ø 5.3 mm) Mounting vertical airflow (air outlet up) Fitting position see drawings -45 to +70 °C (-49 to +158 °F) Operating/Storage temperature Operating/Storage humidity < 90 % RH (non-condensing) IP20 / II (double insulated) Protection type/Protection class other voltages on request





FAN HEATER CS 028

Art. No. clip fixing	Art. No. screw fixing	Operating voltage	Heating capacity ¹	Inrush current max.	Weight (approx.)		Approvals	
02800.0-00	02800.0-01	AC 230 V, 50/60 Hz	150 W	12.0 A	0.3 kg	VDE	UL File No. E234324	EAC
02800.9-00	02800.9-01	AC 120 V, 50/60 Hz	150 W	6.0 A	0.3 kg	-	UL File No. E234324	EAC

TECHNICAL DATA

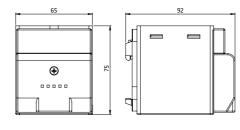
FAN HEATER CSL 028

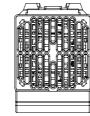
Art. No. clip fixing	Art. No. screw fixing	Operating voltage	Heating capacity ¹	Inrush current max.	Weight (approx.)		Approvals	
02811.0-00	02811.0-01	AC 230 V, 50/60 Hz	250 W	9.0 A	0.5 kg	VDE	UL File No. E234324	EAC
02810.0-00	02810.0-01	AC 230 V, 50/60 Hz	400 W	15.0 A	0.5 kg	VDE	UL File No. E234324	EAC
02811.9-00	02811.9-01	AC 120 V, 50/60 Hz	250 W	6.0 A	0.5 kg	-	UL File No. E234324	EAC
02810.9-00	02810.9-01	AC 120 V, 50/60 Hz	400 W	9.0 A	0.5 kg	-	UL File No. E234324	EAC

¹ at +20 °C (+68 °F) ambient temperature

TECHNICAL DRAWINGS

CLIP FIXING



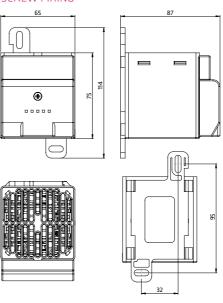




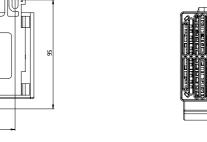
Fan Heater CS 028

View: back side

SCREW FIXING



Fan Heater CS 028



View: back side

Fan Heater CSL 028 View: back side

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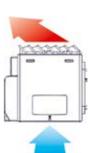
Fan Heater CSL 028

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ACCESSORY PART FOR FAN HEATER CSL 028

Air duct for improved heat distribution

The air duct is an accessory part for use with the fan heater CSL 028. It can easily be clipped onto the protective grille of the fan heater without use of any tools, and diverts the exiting warm air by 45°. This results in an overall improved heat distribution within an enclosure or cabinet. The temperature above the protective grille is reduced by up to 20 °C (measured 100 mm above protective grille) and may make the use of a heat conduction plate obsolete.







Fan heater with air duct

Art. No.	Dimensions ²	Plastic	1 Packing unit	Weight (approx.)
252017	85 x 85 x 12 mm	according to UL94 V-0, black	1 piece	35 g

² Dimensions when mounted on fan heater.

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ENCLOSURE HEATER

CSF 028 | 250 W, 400 W



CSF 028 with clip fixing



CSF 028 with screw flange fixing

- > Small, compact design
- > Integrated pre-set thermostat
- > Dynamic heating up
- > Quick connection
- > Clip or screw flange fixing

PRODUCT CATALOGUE - STEGO

The compact fan heater prevents formation of condensation and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The touch-safe plastic housing and the small dimensions makes it ideal for use in enclosures with high packing density. The CSF 028 is equipped with a preset thermostat. It is connected via external clamps. The fan heater is available with two different mounting systems – either mounting by screw flange or by clip. The robust screw flange fixing is particularly suitable for applications with high vibration.



TECHNICAL DATA

Heating element	PTC resistor – temperature limiting
Temperature safety cut-out	to protect against overheating in case of fan failure, automatic reset
Axial fan, ball bearing	air flow, free flow CSF 028: 45 m³/h (AC 230 V), 54 m³/h (AC 120 V) service life 40,000 h at +40 °C (+104 °F)
Connection	2-pole dual pressure clamp for rigid wire 2.5 mm ² , stranded wire (with wire end ferrule) 1.5 mm ²
Casing	plastic according to UL94 V-O, black
Mounting	clip for 35 mm DIN rail, EN 60715 or screw fixing (Ø 5.5 mm), clamping torque 2 Nm max., washers have to be used
Fitting position	vertical airflow (air outlet up)
Dimensions	models with clip fixing: 105 x 85 x 118 mm, models with screw flange fixing: 105 x 115 x 108 mm
Weight	0.5 kg
Operating/Storage temperature	-40 to +70 °C (-40 to +158 °F)/-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)

Art. No. clip fixing	Art. No. screw flange fixing	Operating voltage	Heating capacity ¹	Inrush current max.	Switch-off temperature ²	Switch-on temperature ²		Approvals	
02821.0-06	02821.0-08	AC 230 V, 50/60 Hz	250 W	9,0 A	+15 °C (+59 °F)	+5 °C (+41 °F)	VDE	UL File No. E234324	EAC
02821.0-09	02821.0-11	AC 230 V, 50/60 Hz	250 W	9,0 A	+25 °C (+77 °F)	+15 °C (+59 °F)	VDE	UL File No. E234324	EAC
02820.0-06	02820.0-08	AC 230 V, 50/60 Hz	400 W	15,0 A	+15 °C (+59 °F)	+5 °C (+41 °F)	VDE	UL File No. E234324	EAC
02820.0-09	02820.0-11	AC 230 V, 50/60 Hz	400 W	15,0 A	+25 °C (+77 °F)	+15 °C (+59 °F)	VDE	UL File No. E234324	EAC
02821.9-06	02821.9-08	AC 120 V, 50/60 Hz	250 W	6,0 A	+15 °C (+59 °F)	+5 °C (+41 °F)	-	UL File No. E234324	EAC
02821.9-09	02821.9-11	AC 120 V, 50/60 Hz	250 W	6,0 A	+25 °C (+77 °F)	+15 °C (+59 °F)	-	UL File No. E234324	EAC
02820.9-06	02820.9-08	AC 120 V, 50/60 Hz	400 W	9,0 A	+15 °C (+59 °F)	+5 °C (+41 °F)	-	UL File No. E234324	EAC
02820.9-09	02820.9-11	AC 120 V, 50/60 Hz	400 W	9,0 A	+25 °C (+77 °F)	+15 °C (+59 °F)	-	UL File No. E234324	EAC

¹ at +20 °C (+68 °F) ambient temperature

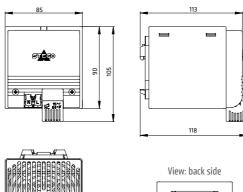
² tolerance of +5

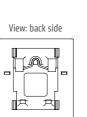
Note: Other switch-off and switch-on temperatures on request.

TECHNICAL DRAWINGS

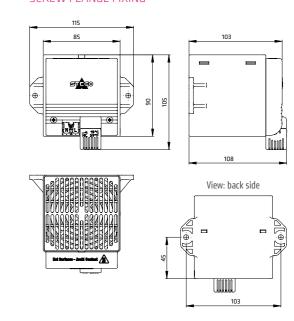
STEGO - PRODUCT CATALOGUE

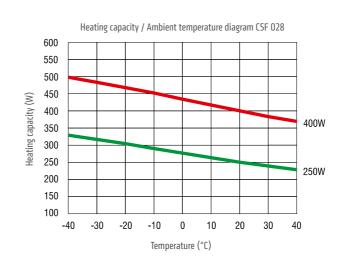
CLIP FIXING

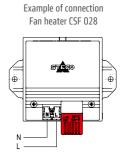




SCREW FLANGE FIXING







ACCESSORIES

Air duct for improved heat distribution

The air duct is an accessory part for use with the fan heater CSF 028. It can easily be clipped onto the protective grille of the fan heater without use of any tools, and diverts the exiting warm air by 45°. This results in an overall improved heat distribution within an enclosure or cabinet. The temperature above the protective grille is reduced by up to 20 °C (measured 100 mm above protective grille) and may make the use of a heat conduction plate obsolete.







Fan heater with air duct

Art. No.	Dimensions ²	Plastic	1 Packing unit	Weight (approx.)
252017	85 x 85 x 12 mm	according to UL94 V-0, black	1 piece	35 g

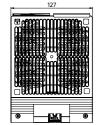
² Dimensions when mounted on fan heater

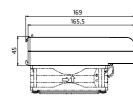
HVI 030 | 500 W to 700 W





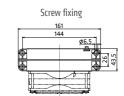






Twist clip fixing







- > Temperature safety cut-out
- > Twist clip or screw fixing

The compact high-performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The heater may only be operated together with fan, but is also available without axial fan (for self-installation). The fan heaters are available with two different mounting systems – either mounting by screw fixing or with a new and unique twist clip mounting system. These options allow for a quick and easy installation of the fan heater.

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PRODUCT CATALOGUE - STEGO

TECHNICAL DATA

Heating element	high performance cartridge
Temperature safety cut-out	with automatic reset and second-tier one shot fuse to protect against overheating in case of fan failure
Axial fan	not included in delivery, for self-assembly
Connection	2-pole dual pressure clamp for rigid wire 2.5 mm^2 , stranded wire (with wire end ferrule) 1.5 mm^2
Casing	plastic according to UL94 V-O, black
Mounting	twist clip for 35 mm DIN rail, EN 60715 or screw fixing (M6), torque 2 Nm max., washers have to be used
Fitting position	vertical airflow (air outlet up)
Dimensions	169 x 127 x 45 mm
Weight	~ 0.7 kg
Operating temperature	VDE: -10 to +50 °C (+14 to +122 °F) UL: -10 to +40 °C (+14 to +104 °F)
Storage temperature	-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)
Approvals	VDE, UL File No. E234324, EAC
Note	other heating capacities and voltages available on request



mportant note: Heater may only be operated together with fan min. 150 m³/h). Danger of overheating!

Art. No. twist clip fixing	Art. No. screw fixing	Operating voltage	Heating capacity
03074.0-00	-	AC 230 V, 50/60 Hz	500 W
03073.0-00	03073.0-01	AC 230 V, 50/60 Hz	600 W
03072.0-00	03072.0-01	AC 230 V, 50/60 Hz	700 W
03073.9-00	-	AC 120 V, 50/60 Hz	600 W

ENCLOSURE HEATER WITH FAN

HVI 030 | 500 W to 700 W



- > Compact > Flat design > High air through-flow
- > Temperature safety cut-out
- > Twist clip or screw fixing

The compact high-performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The heater may only be operated together with fan, but is also available without axial fan (for self-installation). The fan heaters are available with two different mounting systems – either mounting by screw fixing or with a new and unique twist clip mounting system. These options allow for a quick and easy installation of the fan heater.

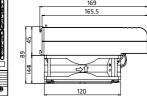


TECHNICAL DATA

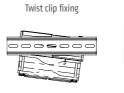


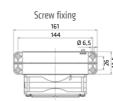


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View: back side





Heating element	high performance cartridge
Temperature safety cut-out	with automatic reset and second-tier one shot fuse to protect against overheating in case of fan failure
Axial fan, ball bearing	airflow 150 m 3 /h, free flow service life 50,000 h at +25 °C (+77 °F)
Connection	3-pole dual pressure clamp for rigid wire 2.5 $\rm mm^2$, stranded wire (with wire end ferrule) 1.5 $\rm mm^2$
Casing	plastic according to UL94 V-O, black
Mounting	twist clip for 35 mm DIN rail, EN 60715 or screw fixing (M6), torque 2 Nm max., washers have to be used
Fitting position	vertical airflow (air outlet up)
Dimensions	169 x 127 x 89 mm
Weight	~ 1.3 kg
Operating temperature	VDE: -10 to +50 °C (+14 to +122 °F) UL: -10 to +40 °C (+14 to +104 °F)
Storage temperature	-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / heater: II (double insulated); fan: I (earthed)
Approvals	VDE, UL File No. E234324, EAC
Note	other heating capacities and voltages available on request



Important note: Heater may only be operated together with fan (min. 150 m³/h). Danger of overheating!

Art. No. twist clip fixing	Art. No. screw fixing	Operating voltage	Heating capacity
03084.0-00	03084.0-01	AC 230 V, 50/60 Hz	500 W
03083.0-00	03083.0-01	AC 230 V, 50/60 Hz	600 W
03082.0-00	03082.0-01	AC 230 V, 50/60 Hz	700 W
03084.9-00	03084.9-01	AC 120 V, 50/60 Hz	500 W
03083.9-00	03083.9-01	AC 120 V, 50/60 Hz	600 W
03082.9-00	03082.9-01	AC 120 V, 50/60 Hz	700 W

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ENCLOSURE HEATER WITH FAN

CR 030 | 950 W

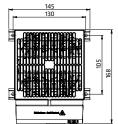


> Compact design > Integrated thermostat or hygrostat > Double insulated

PRODUCT CATALOGUE - STEGO

The compact high performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The plastic housing provides double insulation and acts as protection against contact. The fan heater is available with integrated thermostat or pre-set hygrostat for temperature or humidity control. The CR 030 was designed as a stationary unit for the bottom of the enclosure. For wall fixing the fan heater CR 130 is recommended.

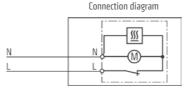




TECHNICAL DATA

Heating element	high performance cartridge
Temperature safety cut-out	with automatic reset and second-tier one shot fuse to protect against overheating in case of fan failure
Heater body	extruded aluminium profile
Axial fan, ball bearing	airflow 160 m³/h, free flow service life 50,000 h at +25 °C (+77 °F)
Connection	2-pole max. 2.5 mm², clamping screw with strain relief, torque 0.8 Nm max.
Casing	plastic according to UL94 V-O, black
Mounting	screw fixing (M5)
Fitting position	vertical airflow (air outlet up)
Dimensions	168 x 145 x 100 mm
Weight	~ 1.4 kg
Operating ¹ /Storage temperature	-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)
Note	other heating capacities from 200 W up available on request

¹ Operating temperature of heater with integrated hygrostat: 0 to +60 °C (+32 to +140 °F).



Art. No.	Model	Operating voltage	Heating capacity	Setting range ²		Approvals	
03051.0-00	Fan Heater with thermostat	AC 230 V, 50/60 Hz	950 W	0 to +60 °C	VDE	UL File No. E234324	EAC
03059.9-00	Fan Heater with thermostat	AC 120 V, 50/60 Hz	950 W	+32 to +140 °F	-	UL File No. E234324	EAC

² Switch temperature difference 7 K (±4 K tolerance)

ENCLOSURE HEATER WITH FAN

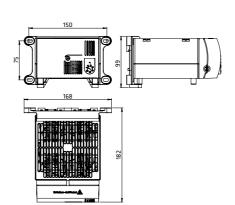
CR 130 | 950 W



> Compact design	> Integrated thermostat or hygrostat
> Double insulated	> Optional clip or screw fixing

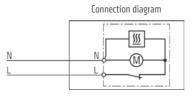
The compact high performance fan heater prevents formation of condensation and frost and provides an evenly $distributed\ interior\ air\ temperature\ in\ enclosures\ with\ electric/electronic\ components.\ The\ plastic\ housing\ provides$ double insulation and acts as protection against contact. The fan heater is available with integrated thermostat or pre-set hygrostat for temperature or humidity control. The CR 130 was designed as a stationary unit for wall fixing. For fixing on the bottom of the enclosure the fan heater CR 030 is recommended.

TECHNICAL DATA



TECHNICAL DATA	
Heating element	high performance cartridge
Temperature safety cut-out	with automatic reset and second-tier one shot fuse to protect against overheating in case of fan failure
Heater body	extruded aluminium profile
Axial fan, ball bearing	airflow 160 m 3 /h, free flow, service life 50,000 h at +25 °C (+77 °F)
Connection	2-pole max. 2.5 mm ² , clamping screw with strain relief, torque 0.8 Nm max.
Casing	plastic according to UL94 V-0, black
Mounting	clip for 35 mm DIN rail, EN 60715 or screw fixing (M6)
Fitting position	vertical airflow (air outlet up)
Dimensions	182 x 168 x 99 mm
Weight	~ 1.5 kg
Operating ¹ /Storage temperature	-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)
Note	other heating canacities from 200 W un available on request

¹ Operating temperature of heater with integrated hygrostat: 0 to +60 °C (+32 to +140 °F)



Art. No.	Model	Operating voltage	Heating capacity	Recommended pre-fuse T (time-delay)	Setting range ²		Approvals	
13051.0-00	Fan Heater with thermostat	AC 230 V, 50/60 Hz	950 W	6.3 A	0 to +60 °C	VDE	UL File No. E234324	EAC
13051.0-02	Fan Heater with hygrostat	AC 230 V, 50/60 Hz	950 W	6.3 A	65 % RH, factory-set	VDE	UL File No. E234324	EAC
13059.9-00	Fan Heater with thermostat	AC 120 V, 50/60 Hz	950 W	10.0 A	+32 to +140 °F	-	UL File No. E234324	EAC

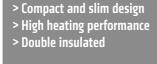
² Switch temperature difference 7 K (±4 K tolerance)

ENCLOSURE HEATER WITH FAN

CS 032 / CSF 032 | 1,000 w



Fan heater CS 032



> With or without thermostat

PRODUCT CATALOGUE - STEGO

> Quick connection

The compact high performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The plastic housing providesdouble insulation and acts as protection against contact. Two screw connectors at the front of CS 032 allow comfortable wiring of an external thermostat. The CSF 032 is equipped with a pre-set thermostat. Both models were designed for wall fixing. A fan heater for fixing on the bottom of the enclosure is available on request.



Fan heater CSF 032

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TECHNICAL DATA

Heating element	PTC resistor – temperature limiting
Surface temperature	max. +80 °C (+176 °F), except upper protective grille at +20 °C (+68 °F) ambient temperature
Temperature safety cut-out	to protect against overheating in case of fan failure, automatic reset
Axial fan, ball bearing	air flow 63 m 3 /h, free flow service life 50,000 h (L10) at 25 °C (77 °F)
Connection	male power insert connector according to IEC320 C18
Casing	plastic according to UL94 V-O, black
Mounting	clip for 35 mm DIN rail, EN 60715 or screw fixing (M5), tightening torque 2 Nm max.
Fitting position	airflow direction up
Dimensions	152.5 x 88 x 66 mm
Weight	~ 0.5 kg
Operation/Storage temperature	-40 to +60 °C (-40 to +140 °F) / -40 to +70 °C (-40 to +158 °F)
Operation/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)
Approvals	VDE, UL File No. E234324, EAC

Important note: Connectors and cables for electrical connection are not included in the delivery. Connection cables can be ordered separately, see Accessories.

FAN HEATER CS 032 (WITHOUT THERMOSTAT)

Art. No. Clip fixing	Art. No. Screw fixing	Operating voltage	Heating capacity ¹	Inrush current max.
03209.0-00	03209.0-01	AC 220 - 240 V, 50/60 Hz	1,000 W	12.0 A
03209.9-00	03209.9-01	AC 100 - 120 V, 50/60 Hz	1,000 W	18.0 A

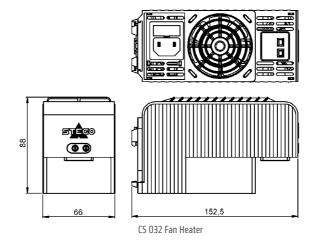
FAN HEATER CSF 032 (WITH THERMOSTAT)

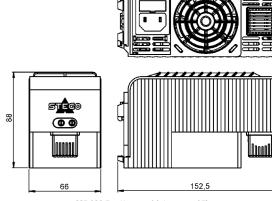
Art. No. Clip fixing	Art. No. Screw fixing	Operating voltage	Heating capacity ¹	Inrush current max.	Switch-off temperature ²	Switch-on temperature ²
03201.0-00	03201.0-01	AC 220 - 240 V, 50/60 Hz	1,000 W	12.0 A	+25 °C (+77 °F)	+15 °C (+59 °F)
03202.0-00	-	AC 220 - 240 V, 50/60 Hz	1,000 W	12.0 A	+15 °C (+59 °F)	+5 °C (+41 °F)
03201.9-00	-	AC 100 - 120 V, 50/60 Hz	1,000 W	18.0 A	+25 °C (+77 °F)	+15 °C (+59 °F)
03202.9-00	03202.9-01	AC 100 - 120 V, 50/60 Hz	1,000 W	18.0 A	+15 °C (+59 °F)	+5 °C (+41 °F)

at +25 °C (+77 °F) ambient temperature

Note: Other switch-off and switch-on temperatures on request

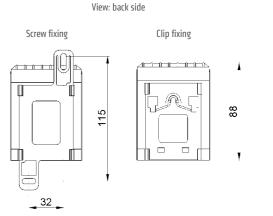
TECHNICAL DRAWING





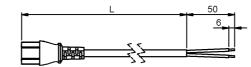
CSF 032 Fan Heater with Integrated Thermostat

Heating capacity / Ambient temperature diagram 1400 1350 1300 1250 8 1200 1150 1100 1050 1000 950 900 10 -20 -10 -40 -30 0 Temperature (°C)



ACCESSORIES

Connection cable with female power insert connector according IEC320 C17



Art. No.	Length (L)
244379	1.0 m
244380	2.0 m

Retaining Clip



Photo: Retaining Clip art. no. 237009 in built-in state

Art. No.	Note
237009	Suitable for female power insert connector on connection cable 244379 and 244380

ENCLOSURE HEATER WITH FAN

CS 030 | 1,200 W



- > Compact design > High heating performance
- > Double insulated
- > Integrated thermostat (optional)

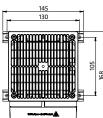
PRODUCT CATALOGUE - STEGO

The compact high performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The plastic housing provides double insulation and acts as protection against contact. The fan heater is available with optional integrated thermostat for temperature control. The CS 030 was designed as a stationary unit for the bottom of the enclosure. For wall fixing the fan heater CS 130 is recommended.





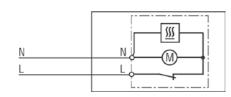


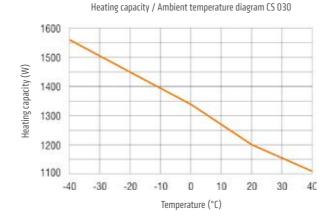


TECHNICAL DATA

Heating element	PTC resistor – temperature limiting
Temperature safety cut-out	to protect against overheating in case of fan failure, automatic reset
Axial fan, ball bearing	airflow 160 m 3 /h, free flow service life 50,000 h at +25 °C (+77 °F)
Connection	2-pole max. $2.5~\text{mm}^2$, clamping screw with strain relief, torque $0.8~\text{Nm}$ max.
Casing	plastic according to UL94 V-O, black
Mounting	screw fixing (M5)
Fitting position	vertical airflow (air outet up)
Dimensions	168 x 145 x 120 mm
Weight	~ 1.2 kg
Operating/Storage temperature	-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)







Art. No.	Model	Operating voltage	Heating capacity ¹	Inrush current max.	Setting range ²		Approvals	
03060.0-00	Fan Heater with thermostat	AC 230 V, 50/60 Hz	1,200 W	13.0 A	0 to +60 °C	VDE	UL File No. E150057 ³	EAC
03060.0-01	Fan Heater without thermostat	AC 230 V, 50/60 Hz	1,200 W	13.0 A	-	VDE	UL File No. E150057 ³	EAC
03060.9-00	Fan Heater with thermostat	AC 120 V, 50/60 Hz	1,200 W	16.0 A	+32 to +140 °F	-	UL File No. E150057 ³	EAC
03060.9-01	Fan Heater without thermostat	AC 120 V, 50/60 Hz	1,200 W	16.0 A	-	-	UL File No. E150057 ³	EAC

³ according to UL 508A, NITW File on request

ENCLOSURE HEATER WITH FAN

CS 130 | 1,200 W



- > Compact design
- > High heating performance
- > Double insulated

- > Integrated thermostat (optional)
- > Optional clip or screw fixing

The compact high performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The plastic housing provides double insulation and acts as protection against contact. The fan heater is available with optional integrated thermostat for temperature control. The CS 130 was designed as a stationary unit for wall fixing. For fixing on the bottom of the enclosure the fan heater CS 030 is recommended.

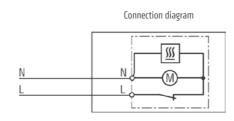
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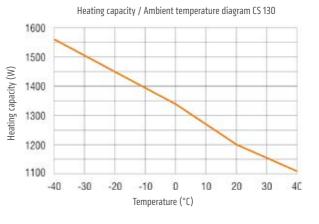




TECHNICAL DATA

Heating element	PTC resistor – temperature limiting
Temperature safety cut-out	to protect against overheating in case of fan failure, automatic reset
Axial fan, ball bearing	airflow 160 m³/h, free flow service life 50,000 h at +25 °C (+77 °F)
Connection	2-pole max. 2.5 mm², clamping screw with strain relief, torque 0.8 Nm max.
Casing	plastic according to UL94 V-O, black
Mounting	clip for 35 mm DIN rail, EN 60715 or screw fixing (M6)
Fitting position	vertical airflow (air outlet up)
Dimensions	182 x 168 x 120 mm
Weight	~ 1.3 kg
Operating/Storage temperature	-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)





Art. No.	Model	Operating voltage	Heating capacity ¹	Inrush current max.	Setting range ²		Approvals	
13060.0-00	Fan Heater with thermostat	AC 230 V, 50/60 Hz	1,200 W	13.0 A	0 to +60 °C	VDE	UL File No. E150057 ³	EAC
13060.0-01	Fan Heater without thermostat	AC 230 V, 50/60 Hz	1,200 W	13.0 A	-	VDE	UL File No. E150057 ³	EAC
13060.9-00	Fan Heater with thermostat	AC 120 V, 50/60 Hz	1,200 W	16.0 A	+32 to +140 °F	-	UL File No. E150057 ³	EAC
13060.9-01	Fan Heater without thermostat	AC 120 V, 50/60 Hz	1,200 W	16.0 A	-	-	UL File No. E150057 ³	EAC

¹ at +20 °C (+68 °F) ambient temperature

 $^{^1}$ at +20 °C (+68 °F) ambient temperature 2 Switch temperature difference 7 K (\pm 4 K tolerance)

² Switch temperature difference 7 K (±4 K tolerance) ³ according to UL 508A, NITW File on request

PRODUCT CATALOGUE - STEGO **HEATING**

ENCLOSURE HEATER WITH FAN

DCR 030 | DC 24 V, DC 56 V - 200 W to 800 W



- > High DC heating performance
- > Integrated thermostat or hygrostat
- > Small hysteresis

- > Integrated switch module
- > Screw fixing
- > Optical indicator (LED)

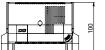
The compact high performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The fan heater is available $with an integrated \ electronic \ thermostat \ or \ integrated \ electronic \ hygrostat. \ The \ model \ with \ thermostat \ is \ available$ with internal or external sensor. The fan heater with integrated hygrostat is equipped with an external sensor. The external sensor can be positioned freely anywhere in the enclosure for precise measurements of temperature and humidity. The DCR 030 was designed as a stationary unit for the bottom of the enclosure. For wall fixing the fan heater DCR 130 is recommended.

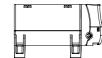


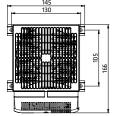








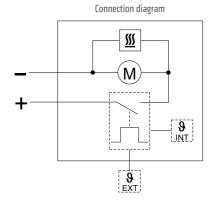




TECHNICAL DATA

TECHNICAL DATA	
Heating element	high performance cartridge
Temperature safety cut-out	with automatic reset and second-tier one shot fuse to protect against overheating in case of fan failure
Heater body	extruded aluminium profile
Axial fan, ball bearing	airflow 160 m 3 /h, free flow service life 50,000 h at +25 °C (+77 °F)
Connection	2-pole "Push-In" connection clamp stranded wire¹ 1.5 mm² (AWG 16) with strain relief; max. 2.5 mm² (AWG 12)
Casing	plastic according to UL94 V-O, black
Mounting	screw fixing (M5), torque 2 Nm max., washers have to be used
Fitting position	vertical airflow (air outlet up)
Dimensions	166 x 145 x 100 mm
Weight	~ 1.3 kg
Operating temperature	-20 to +75 °C (-4 to +167 °F)
Storage temperature	-40 to +80 °C (-40 to +176 °F)
Operating / Storage humidity	max. 90 % RH (non-condensing)
Protection type / Protection class	IP20 / II (double insulated)
Approvals	UL File No. E234324, VDE, EAC
Note	other versions (heating capacities, setting ranges) as well as operating voltage DC 48 V on request

¹ When connecting with stranded wires, wire end ferrules must be used.



STEGO - PRODUCT CATALOGUE HEATING

Art. No.	Model	Operating voltage	Heating capacity	Setting range ³ temperature / humidity
03092.1-12	Fan heater with integrated thermostat with internal temperature sensor	DC 24 V	200 W	-20 to +40 °C
03092.1-13	Fan heater with integrated thermostat with connector for external temperature sensor ²	DC 24 V	200 W	-20 to +40 °C
03097.3-12	Fan heater with integrated thermostat with internal temperature sensor	DC 56 V	800 W	-20 to +40 °C
03097.3-13	Fan heater with integrated thermostat with connector for external temperature sensor ²	DC 56 V	800 W	-20 to +40 °C
03092.1-03	Fan heater with integrated hygrostat with connector for external humidity sensor ²	DC 24 V	200 W	40 to 90 % RH
03095.3-03	Fan heater with integrated hygrostat with connector for external humidity sensor ²	DC 56 V	600 W	40 to 90 % RH

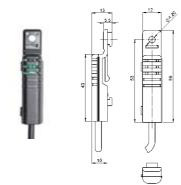
² The external sensor needs to be ordered separately.

ACCESSORIES

The external sensor is not included in the delivery of the DCR 030. It can be ordered separately.

EXTERNAL SENSOR

The external sensor can be positioned freely anywhere in the enclosure for precise measurements of temperature and humidity.



Art. No.	Length
267071	1 m
267072	2 m
267126	3 m

³ Switch difference temperature: 3 K (±1 K tolerance) at +25 °C (+77 °F), 50 % RH; switch difference humidity: 4 % RH (±1 % tolerance) at +25 °C (+77 °F), 50 % RH.

PRODUCT CATALOGUE - STEGO **HEATING**

ENCLOSURE HEATER WITH FAN

DCR 130 | DC 24 V, DC 56 V - 200 W to 800 W



- > High DC heating performance
- > Integrated thermostat or hygrostat
- > Small hysteresis

- > Integrated switch module
- > Optional clip or screw fixing
- > Optical indicator (LED)

The compact high performance fan heater prevents formation of condensation and frost and provides an evenly distributed interior air temperature in enclosures with electric/electronic components. The fan heater is available with an integrated electronic thermostat or electronic hygrostat. The model with thermostat is available with internal or external sensor. The fan heater with integrated hygrostat is equipped with an external sensor. The external sensor can be positioned freely anywhere in the enclosure for precise measurements of temperature and humidity. The DCR 130 was designed for wall fixing. For fixing on the bottom of the enclosure the fan heater DCR 030 is recommended.





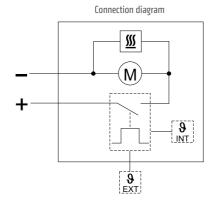






TECHNICAL DATA	
Heating element	high performance cartridge
Temperature safety cut-out	with automatic reset and second-tier one shot fuse to protect against overheating in case of fan failure
Heater body	extruded aluminium profile
Axial fan, ball bearing	airflow 160 m³/h, free flow service life 50,000 h at +25 °C (+77 °F)
Connection	2-pole "Push-In" connection clamp stranded wire¹ 1.5 mm² (AWG 12) with strain relief; max. 2.5 mm² (AWG 12)
Casing	plastic according to UL94 V-O, black
Mounting	clip for 35 mm DIN rail, EN 60715 or screw fixing (M6), torque 2 Nm max., washers have to be used
Fitting position	vertical airflow (air outlet up)
Dimensions	179 x 168 x 99 mm
Weight	~ 1.3 kg
Operating temperature	-20 to +75 °C (-4 to +167 °F)
Storage temperature	-40 to +80 °C (-40 to +176 °F)
Operating / Storage humidity	< 90 % RH (non-condensing)
Protection type / Protection class	IP20 / II (double insulated)
Approvals	UL File No. E234324, VDE, EAC
Note	other versions (heating capacities, setting ranges) as well as operating voltage DC 48 V on request

¹ When connecting with stranded wires, wire end ferrules must be used.



STEGO - PRODUCT CATALOGUE HEATING

Art. No.	Model	Operating voltage	Heating capacity	Setting range³ temperature / humidity
13092.1-12	Fan heater with integrated thermostat with internal temperature sensor	DC 24 V	200 W	-20 to +40 °C
13092.1-13	Fan heater with integrated thermostat with connector for external temperature sensor ²	DC 24 V	200 W	-20 to +40 °C
13097.3-12	Fan heater with integrated thermostat with internal temperature sensor	DC 56 V	800 W	-20 to +40 °C
13097.3-13	Fan heater with integrated thermostat with connector for external temperature sensor ²	DC 56 V	800 W	-20 to +40 °C
13092.1-03	Fan heater with integrated hygrostat with connector for external humidity sensor ²	DC 24 V	200 W	40 to 90 % RH
13095.3-03	Fan heater with integrated hygrostat with connector for external humidity sensor ²	DC 56 V	600 W	40 to 90 % RH

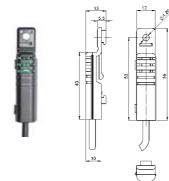
² The external sensor needs to be ordered separately.

ACCESSORIES

The external sensor is not included in the delivery of the DCR 130. It can be ordered separately.

EXTERNAL SENSOR

The external sensor can be positioned freely anywhere in the enclosure for precise measurements of temperature and humidity.



Art. No.	Length
267071	1 m
267072	2 m
267126	3 m

³ Switch difference temperature: 3 K (±1 K tolerance) at +25 °C (+77 °F), 50 % RH; switch difference humidity: 4 % RH (±1 % tolerance) at +25 °C (+77 °F), 50 % RH.

EXPLOSION-PROOF ENCLOSURE HEATER

CREx 020 | 50 W to 250 W (T3)



- > For areas with explosion and firedamp hazard
- > Large convection surface > Clip and screw flange fixing
- > Ready-to-use with strain relief

PRODUCT CATALOGUE - STEGO

- > Maintenance free
- > Temperature class T3

Compact convection heater of temperature class T3 (Surface temperature 200 °C max.) for the prevention of formation of condensation, temperature fluctuations, and for protection against frost within control and switch cabinets, as well as measuring equipment located in areas with explosion hazard, underground mines or mines susceptible to firedamp.



TECHNICAL DATA

Ex Protection type & II 2 GD Gases Dusts Mine applications	Ex db IICT3 Gb Ex tb IIICT200°C Db IP66 I M2 Ex db I Mb
Surface temperature	< +200 °C (+392 °F)
Heating element	high performance cartridge
Heating body	aluminium profile, silver anodised
Connection	1 m silicone cable (halogen-free) 3 x 0.75 mm²
Connection PE	0.75 to 2.5 mm ²
Mounting	clip for 35 mm DIN rail, EN 60715 for heating body sizes 80 x 48 mm and 120 x 60 mm and screw fixing with 2 plug-on flanges for all heating body sizes, optional widthwise mounting
Fitting position	vertical airflow (connection on bottom)
Operating/Storage temperature	-60 to +85 °C (-76 to +185 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP66 / I (earthed)
Approvals	EPS 16 ATEX 1 109 X IECEX EPS 16.0048X IN METRO DNV 18.0010 X EAC TC RU C-FR. 1 508.B.02639

Art. No.	Hole spacing for screw flange fixing	Operating voltage	Heating capacity	Dimensions (D x W x H)	Weight (approx.)
02031.0-00	150 mm	AC 230 V	50 W	80 x 48 x 110 mm	0.7 kg
02032.0-00	225 mm	AC 230 V	100 W	80 x 48 x 180 mm	1.0 kg
02033.0-00	225 mm	AC 230 V	150 W	120 x 60 x 180 mm	1.4 kg
02034.0-00	300 mm	AC 230 V	200 W	120 x 60 x 240 mm	1.7 kg
02035.0-10 ¹	275 mm	AC 230 V	250 W	160 x 80 x 220 mm	2.3 kg
02031.9-00	150 mm	AC 120 V	50 W	80 x 48 x 110 mm	0.7 kg
02032.9-00	225 mm	AC 120 V	100 W	80 x 48 x 180 mm	1.0 kg
02033.9-00	225 mm	AC 120 V	150 W	120 x 60 x 180 mm	1.4 kg
02034.9-00	300 mm	AC 120 V	200 W	120 x 60 x 240 mm	1.7 kg
02035.9-10 ¹	275 mm	AC 120 V	250 W	160 x 80 x 220 mm	2.3 kg

¹ only screw flange fixing

CREx 020 with

clip fixing

CREx 020 with

screw flange fixing

EXPLOSION-PROOF ENCLOSURE HEATER

CREx 020 | 50 W to 200 W (T4)



- (Ex)
- > For areas with explosion and firedamp hazard
- > Large convection surface > Clip and screw flange fixing
- > Ready-to-use with strain relief
- > Maintenance free
- > Temperature class T4

Compact convection heater of temperature class T4 (Surface temperature 135 °C max.) for the prevention of formation of condensation, temperature fluctuations, and for protection against frost within control and switch cabinets, as well as measuring equipment located in areas with explosion hazard, underground mines or mines susceptible to firedamp.



TECHNICAL DATA

Ex Protection type (I 2 GD Gases Dusts Mine applications	Ex db IIC T4 Gb Ex tb IIIC T135°C Db IP66 I M2 Ex db I Mb
Surface temperature	< +135 °C (+275 °F)
Heating element	high performance cartridge
Heating body	aluminium profile, silver anodised
Connection	1 m silicone cable (halogen-free) 3 x 0.75 mm²
Connection PE	0.75 to 2.5 mm ²
Mounting	clip for 35 mm DIN rail, EN 60715 for heating body sizes 80 x 48 mm and 120 x 60 mm and screw fixing with 2 plug-on flanges for all heating body sizes, optional widthwise mounting
Fitting position	vertical airflow (connection on bottom)
Operating/Storage temperature	-60 to +50 °C (-76 to +122 °F) / -60 to +85 °C (-76 to +185 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP66 / I (earthed)
Approvals	EPS 16 ATEX 1 109 X IECEX EPS 16.0048X IN METRO DNV 18.0010 X EAC TC RU C-FR.ΓБ08.В.02639

Art. No.	Hole spacing for screw flange fixing	Operating voltage	Heating capacity	Dimensions (D x W x H)	Weight (approx.)
02041.0-00	150 mm	AC 230 V	50 W	80 x 48 x 110 mm	0.7 kg
02042.0-00	225 mm	AC 230 V	100 W	120 x 60 x 180 mm	1.4 kg
02043.0-10 ¹	275 mm	AC 230 V	150 W	160 x 80 x 220 mm	2.3 kg
02044.0-10 ¹	350 mm	AC 230 V	200 W	160 x 80 x 300 mm	2.8 kg
02041.9-00	150 mm	AC 120 V	50 W	80 x 48 x 110 mm	0.7 kg
02042.9-00	225 mm	AC 120 V	100 W	120 x 60 x 180 mm	1.4 kg
02043.9-10 ¹	275 mm	AC 120 V	150 W	160 x 80 x 220 mm	2.3 kg
02044.9-10 ¹	350 mm	AC 120 V	200 W	160 x 80 x 300 mm	2.8 kg

CREx 020 with

clip fixing

CREx 020 with

screw flange fixing

48 **HEATING** PRODUCT CATALOGUE - STEGO

EXPLOSION-PROOF ENCLOSURE HEATER

CREx 020 | 50 W, 100 W (T5)



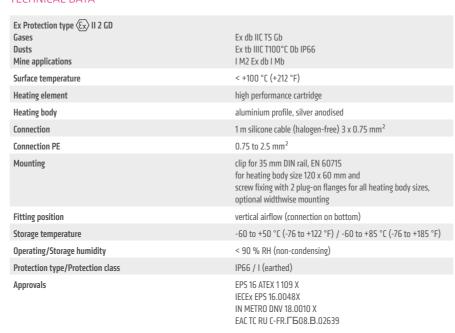


- > For areas with explosion and firedamp hazard
- > Large convection surface > Clip and screw flange fixing
- > Ready-to-use with strain relief
- > Maintenance free
- > Temperature class T5

Compact convection heater of temperature class T5 (Surface temperature 100 °C max.) for the prevention of formation of condensation, temperature fluctuations, and for protection against frost within control and switch cabinets, as well as measuring equipment located in areas with explosion hazard, underground mines or mines susceptible to firedamp.



TECHNICAL DATA



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# H		× \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	x 020 with lip fixing	CREx 020 with screw flange fixing

Art. No.	Hole spacing for screw flange fixing	Operating voltage	Heating capacity	Dimensions (D x W x H)	Weight (approx.)
02051.0-00	225 mm	AC 230 V	50 W	120 x 60 x 180 mm	1.4 kg
02052.0-10 ¹	350 mm	AC 230 V	100 W	160 x 80 x 300 mm	2.8 kg
02051.9-00	225 mm	AC 120 V	50 W	120 x 60 x 180 mm	1.4 kg
02052.9-10 ¹	350 mm	AC 120 V	100 W	160 x 80 x 300 mm	2.8 kg

¹ only screw flange fixing





COOLING

PROTECTION AGAINST OVERHEATING

To protect installations from excessively high temperatures STEGO filter fans ensure efficient cooling by ambient air.

INNOVATIVE VENTU ATING TECHNOLOGY FOR ENCLOSURES:

FILTER FAN PLUS COOLS WITH A 'PLUS' OF AIR

Optimum usage of space is always important in systems with electric or electronic components. Sophisticated enclosure applications often come with a high density of components. High temperatures within the enclosure may cause malfunctions if not addressed. With STEGO's new Filter Fan Plus and its innovative air-flap outlet technology you are safe in the knowledge that sensitive components, in all kinds of applications, are safeguarded against overheating and malfunction.

▼ NEW AIR-FLAP OUTLET TECHNOLOGY FOR **ENHANCED AIRFLOW**



The new air-flap outlet technology eliminates the need for the filter mat for the air outlet, enhancing in turn the exiting airflow. So, using the same cut-out in an enclosure wall more air can be exchanged. Leading to more efficient cooling of the application. Another advantage: The flaps stay closed and dirt stays out when the fan is not in operation.

ONLY ONE FILTER MAT **SAVES COSTS**

Flaps instead of mats: In contrast to conventional systems the Filter Fan Plus only requires one filter mat. This reduces maintenance work and costs.



▼ SECURE AND STABLE: TOOL-FREE **RATCHET MOUNT MECHANISM**



PRODUCT CATALOGUE - STEGO

The Filter Fan Plus is placed in the enclosure cut-out from the outside of the enclosure and mounted tool-free. By pressing the built-in ratchet braces the filter fan is pulled into the cabinet wall. The ratchet braces snap into place, giving the installer audible feedback that the filter fan is now installed securely. The ratchet mount is suitable for a wall thickness from 1 to 4 mm.

▶ IP54 | UL TYPE 12 | NEMA 12 **DUST AND SPLASH WATER PROTECTION**

The new Filter Fan Plus protects against dust and splash water. Proven by successfully completed protection type tests carriedout by independent testing and certification agencies, like VDE and Underwriters Laboratories (UL).

IN OR OUT?

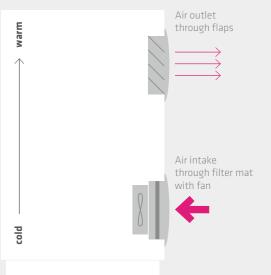
MORE AIRFLOW IN ANY CASE.

With its unique technology, the Filter Fan Plus achieves a more effective air circulation and offers a considerable plus in airflow. The result: A noticeable increase in cool air gets into the enclosure. At the same time, warm air is expelled faster and more effectively to the outside.

The Filter Fan Plus is available in two high performance systems, ensuring the right combination to suit every application.

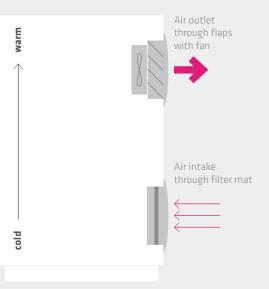
SYSTEM FPI AIRFLOW DIRECTION "IN"

This is the more common approach: a filter fan with filter mat is located in the lower part of the enclosure and draws air from the outside. The air rises to the top of the enclosure, cooling the internal space and pushing the warm interior air through the air outlet. Whereas this air outlet now pulls more effectively, thanks to our new air-flap outlet technology.



SYSTEM FPO AIRFLOW DIRECTION "OUT"

In this alternative approach, where it may be necessary to expel heat build-up more directly from the upper part of the enclosure, we recommend a more active evacuation of the hot air. For this purpose the fan in combination with the effective flap technology is placed in the upper part of the cabinet. The heat can be diverted quicker from the critical area. An intake filter with mat is needed in the lower part of the enclosure to allow the colder air from the outside to enter.



FILTER FAN PLUS

FPI/FPO 018 | up to 32 m³/h (92 x 92 mm)



SYSTEM FPI

- > New air-flap outlet technology for high airflow
- > Easy mounting
 > Protection type test/Environmental rating by independent testing institutes
- > Two systems for optimal airflow (FPI/FPO)

PRODUCT CATALOGUE - STEGO

- > Standard enclosure cut-out sizes (5 sizes)
- > One filter mat

Filter fans are used to provide an optimum climate in enclosures and cabinets with electrical/electronic components. The interior temperature of an enclosure can be reduced by channelling cooler filtered outside air into the enclosure thus expelling heated internal air. The resulting airflow prevents formation of localised hot pockets in installations and protects electronic components from overheating. The benefits of our Filter Fan Plus series are described in detail in the catalogue on page 50/51.

The Filter Fan Plus series may also be used outdoors with appropriate protective measures or when equipped with weather proof accessories, e.g. Hose-proof Hood FFH 086.









TECHNICAL DATA

Axial fan, ball bearing	service life L10 at +40 °C (+104 °F): min. 50,000 h fan body aluminium, rotor metal
Connection	2 stranded wires, 300 mm
Casing, hood, flaps	plastic according to UL94 V-O, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	92 x 92*1mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed ¹ .
Filter mat	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 $^{\circ}$ C, self-extinguishing class F1, moisture resistant to 100 $^{\circ}$ RH, reusable
Operating/Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class with Hose-proof Hood FFH 086	IP54 / I (earthed) IP56 / I (earthed)
Environmental rating UL/NEMA with Hose-proof Hood FFH 086	UL TYPE 12 / NEMA 12 UL TYPE 3, 3R, 4, 4X
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

¹ Drilling marks for screw mounting are indicated on mounting frame.

AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

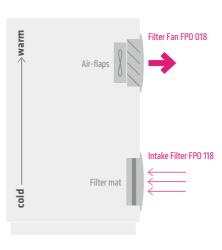
Art.	No.	Operating voltage ²	Air volume, free flow	Air volume with exit filter	Current consumption (50/60 Hz)	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01870	.0-30	AC 230 V, 50 Hz	19 m³/h	13 m³/h	70 mA	12 W	39 db (A)	66 mm	0.6 kg	G3
01870	1.9-30	AC 115 V, 60 Hz	23 m ³ /h	16 m³/h	115 mA	11 W	43 db (A)	66 mm	0.6 kg	G3

 $^{^{\}rm 2}$ Data for alternative operating voltages and frequency in consultation

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11870.0-00	29 mm	0.2 kg	air-flap outlet technology

SYSTEM FPO



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage ²	Air volume, free flow	Air volume with intake filter	Current consumption (50/60 Hz)	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01880.0-00	AC 230 V, 50 Hz	24 m³/h	15 m³/h	70 mA	12 W	38 db (A)	72 mm	0.6 kg	air-flaps
01880.9-00	AC 115 V, 60 Hz	32 m ³ /h	19 m³/h	115 mA	12 W	41 db (A)	72 mm	0.6 kg	air-flaps

² Data for alternative operating voltages and frequency in consultation

AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11880.0-30	22 mm	0.2 kg	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 $\%$

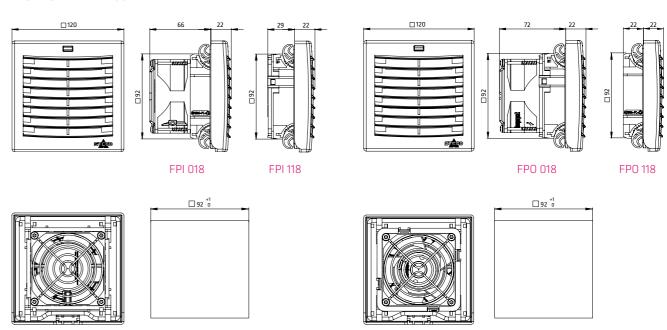
HOSE-PROOF HOOD FFH 086

Art. No.	Cutout usable for FPI/FPO 018	Dimensions D x B x H	Max. covered area (X x Y)	Weight (approx)
08670.0-00	92 x 92 mm	214 x 195 x 48 mm	143 x 130 mm	0.8 kg

FILTER MAT FM 086

Filter class 84 x 84 mm		Initial gravimetric arrestance	1 packing unit
ISO coarse 55 % acc. to ISO 16890 (G3)	Art. No. 08633.0-00	57 %	5 pieces

TECHNICAL DRAWINGS



COOLING

FILTER FAN PLUS

FPI/FPO 018 | up to 117 m³/h (124 x 124 mm)



SYSTEM FPI

- > New air-flap outlet technology for high airflow
- > Easy mounting
- > Protection type test/Environmental rating by independent testing institutes
- > Two systems for optimal airflow (FPI/FPO)
- > Standard enclosure cut-out sizes (5 sizes)
- > One filter mat

Filter fans are used to provide an optimum climate in enclosures and cabinets with electrical/electronic components. The interior temperature of an enclosure can be reduced by channelling cooler filtered outside air into the enclosure thus expelling heated internal air. The resulting airflow prevents formation of localised hot pockets in installations and protects electronic components from overheating. The benefits of our Filter Fan Plus series are described in detail in the catalogue on page 50/51.

The Filter Fan Plus series may also be used outdoors with appropriate protective measures or when equipped with weather proof accessories, e.g. Hose-proof Hood FFH 086.









TECHNICAL DATA

Axial fan, ball bearing	service life L10 at +40 °C (+104 °F): min. 37,000 h fan body aluminium, rotor metal
Connection	2 stranded wires, 300 mm
Casing, hood, flaps	plastic according to UL94 V-O, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	124 x 124 ⁺¹ mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed ¹ .
Filter mat	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 °C, self-extinguishing class F1, moisture resistant to 100 % RH, reusable
Operating/Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class with Hose-proof Hood FFH 086	IP54 / I (earthed) IP56 / I (earthed
Environmental rating UL/NEMA with Hose-proof Hood FFH 086	UL TYPE 12 / NEMA 12 UL TYPE 3, 3R, 4, 4X
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

¹ Drilling marks for screw mounting are indicated on mounting frame.

AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

Art. No.	Operating voltage ²	Air volume, free flow	Air volume with exit filter	Current consumption (50/60 Hz)	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01871.0-30	AC 230 V, 50 Hz	52 m ³ /h	42 m³/h	120 mA	19 W	49 db (A)	66 mm	0.8 kg	G3
01871.9-30	AC 115 V, 60 Hz	$62 \text{m}^3/\text{h}$	51 m ³ /h	230 mA	18 W	53 db (A)	66 mm	0.8 kg	G3

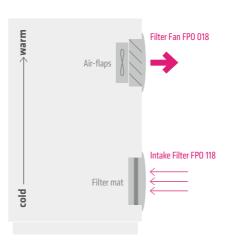
 $^{^{\}rm 2}$ Data for alternative operating voltages and frequency in consultation

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11871.0-00	35 mm	0.3 kg	air-flap outlet technology

SYSTEM FPO

STEGO - PRODUCT CATALOGUE



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No	. Operating voltage ²	Air volume, free flow	Air volume with intake filter	Current consumption (50/60 Hz)	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01881.0-	00 AC 230 V, 50 Hz	97 m ³ /h	47m³/h	120 mA	19 W	49 db (A)	79 mm	0.9 kg	air-flaps
01881.9-	00 AC 115 V, 60 Hz	117 m³/h	58 m³/h	230 mA	18 W	52 db (A)	79 mm	0.9 kg	air-flaps

² Data for alternative operating voltages and frequency in consultation

AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11881.0-30	22 mm	0.2 kg	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %

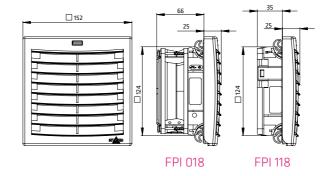
HOSE-PROOF HOOD FFH 086

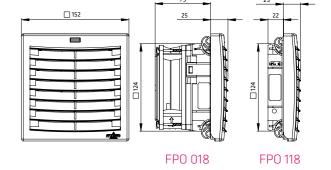
Art. No.	Cutout usable for FPI/FPO 018	Dimensions D x B x H	Max. covered area (X x Y)	Weight (approx)
08671.0-00	124 x 124 mm	279 x 225 x 58 mm	173 x 160 mm	1.2 kg

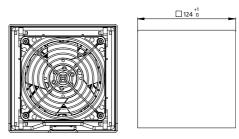
FILTER MAT FM 086

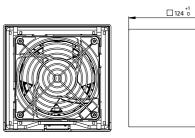
Filter class	118 x 118 mm	Initial gravimetric arrestance	1 packing unit
ISO coarse 55 % acc. to ISO 16890 (G3)	Art. No. 08634.0-00	57 %	5 pieces

TECHNICAL DRAWINGS









ENCLOSURE CUT-OUT

ENCLOSURE CUT-OUT

FILTER FAN PLUS

FPI/FPO 018 | up to 313 m³/h (176 x 176 mm)



SYSTEM FPI

- > New air-flap outlet technology for high airflow
- > Easy mounting > Protection type test/Environmental rating by independent testing institutes
- > Two systems for optimal airflow (FPI/FPO)
- > Standard enclosure cut-out sizes (5 sizes)
- > One filter mat

Filter fans are used to provide an optimum climate in enclosures and cabinets with electrical/electronic components. The interior temperature of an enclosure can be reduced by channelling cooler filtered outside air into the enclosure thus expelling heated internal air. The resulting airflow prevents formation of localised hot pockets in installations and protects electronic components from overheating. The benefits of our Filter Fan Plus series are described in detail in the catalogue on page 50/51.

The Filter Fan Plus series may also be used outdoors with appropriate protective measures or when equipped with weather proof accessories, e.g. Hose-proof Hood FFH 086.









TECHNICAL DATA

Axial fan, ball bearing	service life L10 at +40 $^{\circ}\text{C}$ (+104 $^{\circ}\text{F}$): min. 65,000 h fan body aluminium, rotor metal
Connection	3-pole clamp for 2.5 mm², clamping torque 0.8 Nm max.
Casing, hood, flaps	plastic according to UL94 V-O, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	176 x 176*1 mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed¹.
Filter mat	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 $^{\circ}$ C, self-extinguishing class F1, moisture resistant to 100 $\%$ RH, reusable
Operating temperature	50 Hz: -25 to +50 °C (-13 to +122 °F) 60 Hz: -25 to +70 °C (-13 to +158 °F)
Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection clas with Hose-proof Hood FFH 086	IP54 / I (earthed) IP56 / I (earthed)
Environmental rating UL/NEMA with Hose-proof Hood FFH 086	UL TYPE 12 / NEMA 12 UL TYPE 3, 3R, 4, 4X
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

¹ Drilling marks for screw mounting are indicated on mounting frame.

AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

Art. No.	Operating voltage ²	Air volume, free flow	Air volume with exit filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01872.0-30	AC 230 V, 50 Hz	170 m ³ /h	139 m³/h	310 mA	45 W	55 db (A)	117 mm	1.6 kg	G3
01872.9-30	AC 115 V, 60 Hz	204 m ³ /h	187 m ³ /h	470 mA	38 W	58 db (A)	117 mm	1.6 kg	G3

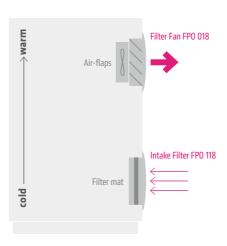
 $^{^{\}rm 2}$ Data for alternative operating voltages and frequency in consultation

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11872.0-00	43 mm	0.4 kg	air-flap outlet technology

SYSTEM FPO

STEGO - PRODUCT CATALOGUE



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage ²	Air volume, free flow	Air volume with intake filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01882.0-00	AC 230 V, 50 Hz	263 m ³ /h	137m³/h	310 mA	45 W	56 db (A)	117 mm	1.6 kg	air-flaps
01882.9-00	AC 115 V, 60 Hz	313 m³/h	166 m³/h	470 mA	38 W	60 db (A)	117 mm	1.6 kg	air-flaps

² Data for alternative operating voltages and frequency in consultation

AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11882.0-30	25 mm	0.4 kg	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %

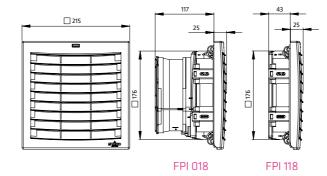
HOSE-PROOF HOOD FFH 086

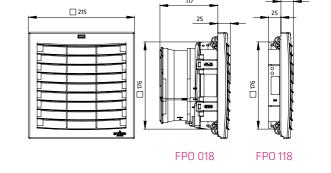
Art. No.	Cutout usable for FPI/FPO 018	Dimensions D x B x H	Max. covered area (X x Y)	Weight (approx)
08672.0-0	176 x 176 mm	359 x 294 x 68 mm	235 x 218 mm	2.0 kg

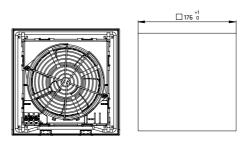
FILTER MAT FM 086

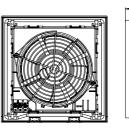
Filter class	168 x 168 mm	Initial gravimetric arrestance	1 packing unit
ISO coarse 55 % acc. to ISO 16890 (G3)	Art. No. 08635.0-00	57 %	5 pieces

TECHNICAL DRAWINGS











ENCLOSURE CUT-OUT

ENCLOSURE CUT-OUT

FILTER FAN PLUS

FPI/FPO 018 | up to 581 m³/h (223 x 223 mm)



SYSTEM FPI

- > New air-flap outlet technology for high airflow
- > Easy mounting > Protection type test/Environmental rating by independent testing institutes
- > Two systems for optimal airflow (FPI/FPO)
- > Standard enclosure cut-out sizes (5 sizes)
- > One filter mat

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The Filter Fan Plus series may also be used outdoors with appropriate protective measures or when equipped with weather proof accessories, e.g. Hose-proof Hood FFH 086.









TECHNICAL DATA

Axial fan, ball bearing	service life L10 at +40 $^{\circ}\text{C}$ (+104 $^{\circ}\text{F}$): min. 56,000 h rotor metal
Connection	3-pole clamp for 2.5 mm ² , clamping torque 0.8 Nm max.
Casing, hood, flaps	plastic according to UL94 V-O, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	223 x 223*1 mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed ¹ .
Filter mat	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 °C, self-extinguishing class F1, moisture resistant to 100 % RH, reusable
Operating temperature	-25 to +65 °C (-13 to +149 °F)
Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class with Hose-proof Hood FFH 086	IP54 / I (earthed) IP56 / I (earthed)
Environmental rating UL/NEMA with Hose-proof Hood FFH 086	UL TYPE 12 / NEMA 12 UL TYPE 3, 3R, 4, 4X
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

 $^{^{\}rm 1}\,{\rm Drilling}$ marks for screw mounting are indicated on mounting frame.

AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

Art. No.	Operating voltage ²	Air volume, free flow	Air volume with exit filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01873.0-30	AC 230 V, 50 Hz	305 m ³ /h	271 m ³ /h	300 mA	64 W	64 db (A)	147 mm	2.4 kg	G3
01873.9-30	AC 115 V, 60 Hz	332 m ³ /h	293 m ³ /h	700 mA	81 W	67 db (A)	147 mm	2.4 kg	G3

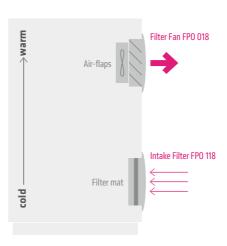
 $^{^{\}rm 2}$ Data for alternative operating voltages and frequency in consultation

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11873.0-00	46 mm	0.6 kg	air-flap outlet technology

SYSTEM FPO

STEGO - PRODUCT CATALOGUE



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage ²	Air volume, free flow	Air volume with intake filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01883.0-00	AC 230 V, 50 Hz	536 m³/h	281 m³/h	300 mA	64 W	65 db (A)	147 mm	2.4 kg	air-flaps
01883.9-00	AC 115 V, 60 Hz	581 m ³ /h	310 m ³ /h	700 mA	81 W	68 db (A)	147 mm	2.4 kg	air-flaps

² Data for alternative operating voltages and frequency in consultation

AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11883.0-30	25 mm	0.5 kg	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %

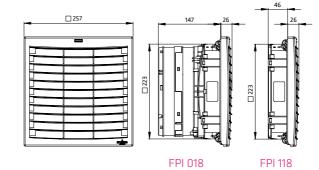
HOSE-PROOF HOOD FFH 086

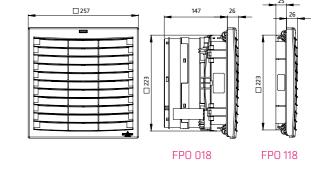
Art. No	. Cutout usable for FPI/FPO 018	Dimensions D x B x H	Max. covered area (X x Y)	Weight (approx)
08673.0-	00 223 x 223 mm	415 x 369 x 78 mm	290 x 286 mm	2.8 kg

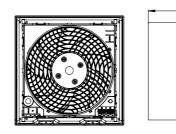
FILTER MAT FM 086

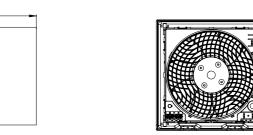
Filter class 215 x 215 mm		Initial gravimetric arrestance	1 packing unit
ISO coarse 55 % acc. to ISO 16890 (G3)	Art. No. 08636.0-00	57 %	5 pieces

TECHNICAL DRAWINGS











ENCLOSURE CUT-OUT ENCLOSURE CUT-OUT

FPI/FPO 018 | up to 1031 m³/h (291 x 291 mm)



- > New air-flap outlet technology for high airflow
- > Easy mounting
- > Protection type test/Environmental rating by independent testing institutes
- > Two systems for optimal airflow (FPI/FPO)
- > Standard enclosure cut-out sizes (5 sizes)
- > One filter mat
- > Two fan speeds

Filter fans are used to provide an optimum climate in enclosures and cabinets with electrical/electronic components. The interior temperature of an enclosure can be reduced by channelling cooler filtered outside air into the enclosure thus expelling heated internal air. The resulting airflow prevents formation of localised hot pockets in installations and protects electronic components from overheating. The benefits of our Filter Fan Plus series are described in detail in the catalogue on page 50/51.

The Filter Fan Plus series may also be used outdoors with appropriate protective measures or when equipped with weather proof accessories, e.g. Hose-proof Hood FFH 086.

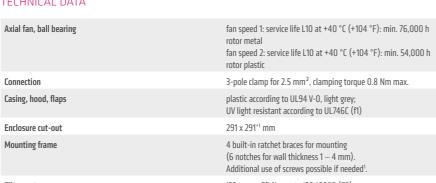




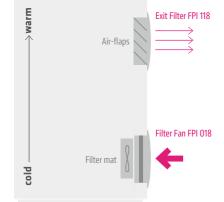












Enclosure cut-out

SYSTEM FPI

	rotor plastic
Connection	3-pole clamp for 2.5 mm ² , clamping torque 0.8 Nm max.
Casing, hood, flaps	plastic according to UL94 V-O, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	291 x 291*1 mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed!
Filter mat	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 °C, self-extinguishing class F1, moisture resistant to 100 % RH, reusable
Operating temperature	fan speed 1 6 2, 50 Hz: -25 to +55 °C (-13 to +131 °F) fan speed 1, 60 Hz: -25 to +35 °C (-13 to +95 °F) fan speed 2, 60 Hz: -25 to +50 °C (-13 to +122 °F)
Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class with Hose-proof Hood FFH 086	IP54 / I (earthed) IP56 / I (earthed)
Environmental rating UL/NEMA	UL TYPE 12 / NEMA 12

UL TYPE 3, 3R, 4, 4X VDE, UL File No. E234324, EAC other voltages on request

with Hose-proof Hood FFH 086

AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

Art. No.	Operating voltage ²	Fan speed	Air volume, free flow	Air volume with exit filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01874.0-30	AC 230 V, 50 Hz	1	433 m ³ /h	373 m ³ /h	400 mA	95 W	62 db (A)	160 mm	3.1 kg	G3
01874.0-31	AC 230 V, 50 Hz	2	624 m³/h	560 m ³ /h	550 mA	140 W	70 dB (A)	160 mm	3.3 kg	G3
01874.9-30	AC 115 V, 60 Hz	1	394 m³/h	339 m³/h	800 mA	90 W	61 dB (A)	160 mm	3.1 kg	G3
01874.9-31	AC 115 V, 60 Hz	2	665 m ³ /h	593 m ³ /h	1450 mA	165 W	72 dB (A)	160 mm	3.3 kg	G3

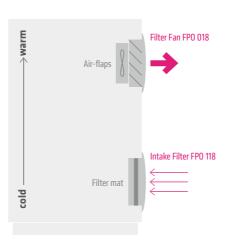
² Data for alternative operating voltages and frequency in consultation

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11874.0-00	50 mm	1.0 kg	air-flap outlet technology

SYSTEM FPO

STEGO - PRODUCT CATALOGUE



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage ²	Fan speed	Air volume, free flow	Air volume with intake filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01884.0-00	AC 230 V, 50 Hz	1	727 m³/h	413 m ³ /h	400 mA	95 W	63 db (A)	160 mm	3.2 kg	air-flaps
01884.0-01	AC 230 V, 50 Hz	2	1010 m ³ /h	599 m³/h	550 mA	140 W	70 db (A)	160 mm	3.4 kg	air-flaps
01884.9-00	AC 115 V, 60 Hz	1	703 m ³ /h	391 m³/h	800 mA	90 W	62 dB (A)	160 mm	3.2 kg	air-flaps
01884.9-01	AC 115 V, 60 Hz	2	$1031 \text{m}^3/\text{h}$	$609 \text{m}^3/\text{h}$	1450 mA	165 W	71 dB (A)	160 mm	3.4 kg	air-flaps

² Data for alternative operating voltages and frequency in consultation

HOSE-PROOF HOOD FFH 086

Art. No.	Cutout usable for FPI/FPO 018	Dimensions D x B x H	Max. covered area (X x Y)	Weight (approx)
08674.0-00	291 x 291 mm	485 x 409 x 103 mm	340 x 326 mm	3.7 kg

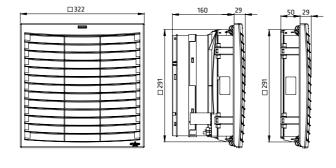
AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11884.0-30	25 mm	0.8 kg	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 $\%$

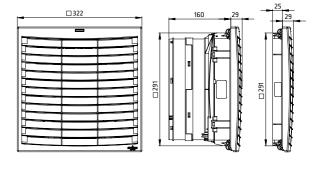
FILTER MAT FM 086

Filter class	283 x 283 mm	Initial gravimetric arrestance	1 packing unit
ISO coarse 55 % acc. to ISO 16890 (G3)	Art. No. 08637.0-00	57 %	5 pieces

TECHNICAL DRAWINGS



FPI 018



FPI 118 FPO 018 FPO 118

¹ Drilling marks for screw mounting are indicated on mounting frame.

FILTER FAN PLUS - DC LINE

FPI/FPO 018 | up to 33 m³/h (92 x 92 mm)



SYSTEM FPI

- > New air-flap outlet technology for high airflow
- > Protection type test/Environmental rating by independent testing institutes
- > Easy mounting
- > Two systems for optimal airflow
- (FPI/FPO)
- > Standard enclosure cut-out sizes
- > One filter mat

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The Filter Fan Plus series may also be used outdoors with appropriate protective measures or when equipped with weather proof accessories, e.g. Hose-proof Hood FFH 086.









TECHNICAL DATA

Axial fan, ball bearing	service life L10 at +40 °C (+104 °F): min. 70,000 h plastic
Connection	2 stranded wires, 300 mm
Casing, hood, flaps	plastic according to UL94 V-0, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	92 x 92*1 mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed ¹ .
Filter mat	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 °C, self-extinguishing class F1, moisture resistant to 100 % RH, reusable
Operating temperature	-20 to +70 °C (-4 to +158 °F)
Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class with Hose-proof Hood FFH 086	IP54 / II (double insulated) IP56 / II (double insulated)
Environmental rating UL/NEMA with Hose-proof Hood FFH 086	UL TYPE 12 / NEMA 12 UL TYPE 3, 3R, 4, 4X
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

 $^{^{\}rm 1}\,{\rm Drilling}$ marks for screw mounting are indicated on mounting frame.

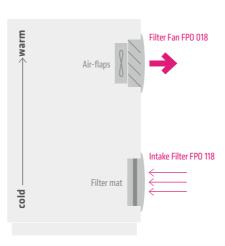
AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with exit filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01870.2-30	DC 24 V	22 m³/h	16 m³/h	113 mA	2.7 W	49 dB (A)	59 mm	0.3 kg	G3
01870.1-30	DC 48 V	23 m ³ /h	17 m³/h	63 mA	3.0 W	51 dB (A)	59 mm	0.3 kg	G3

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11870.0-00	29 mm	0.2 kg	air-flap outlet technology

SYSTEM FPO



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with intake filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01880.2-00	DC 24 V	31 m ³ /h	17 m³/h	113 mA	2.7 W	48 dB (A)	66 mm	0.3 kg	air-flaps
01880.1-00	DC 48 V	$33 \text{ m}^3/\text{h}$	18 m³/h	63 mA	3.0 W	49 dB (A)	66 mm	0.3 kg	air-flaps

AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11880.0-30	22 mm	0.2 kg	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %

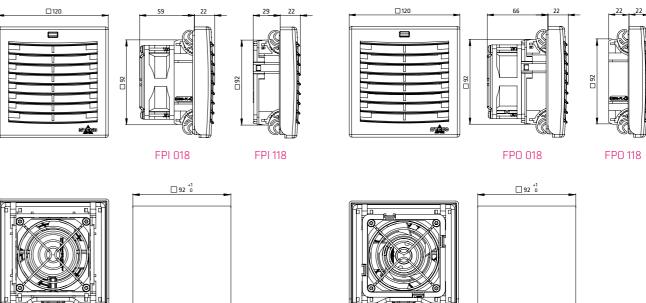
HOSE-PROOF HOOD FFH 086

Art. No.	Cutout usable for FPI/FPO 018	Dimensions D x B x H	Max. covered area (X x Y)	Weight (approx)
08670.0-00	92 x 92 mm	214 x 195 x 48 mm	143 x 130 mm	0.8 kg

FILTER MAT FM 086

Filter class	84 x 84 mm	Initial gravimetric arrestance	1 packing unit
ISO coarse 55 % acc. to ISO 16890 (G3)	Art. No. 08633.0-00	57 %	5 pieces

TECHNICAL DRAWINGS







ENCLOSURE CUT-OUT

FPI/FPO 018 | up to 125 m³/h (124 x 124 mm)



SYSTEM FPI

- > New air-flap outlet technology for high airflow
- > Protection type test/Environmental rating by independent testing institutes
- > Easy mounting
- > Two systems for optimal airflow
- (FPI/FPO)
- > Standard enclosure cut-out sizes > One filter mat

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The Filter Fan Plus series may also be used outdoors with appropriate protective measures or when equipped with weather proof accessories, e.g. Hose-proof Hood FFH 086.









TECHNICAL DATA

Axial fan, ball bearing	service life L10 at +40 °C (+104 °F): min. 65,000 h plastic
Connection	2 stranded wires, 300 mm
Casing, hood, flaps	plastic according to UL94 V-O, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	124 x 124 ⁺¹ mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed ¹ .
Filter mat	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 $^{\circ}$ C, self-extinguishing class F1, moisture resistant to 100 $^{\circ}$ RH, reusable
Operating temperature	-20 to +70 °C (-4 to +158 °F)
Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class with Hose-proof Hood FFH 086	IP54 / II (double insulated) IP56 / II (double insulated)
Environmental rating UL/NEMA with Hose-proof Hood FFH 086	UL TYPE 12 / NEMA 12 UL TYPE 3, 3R, 4, 4X
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

 $^{^{\}rm 1}\,{\rm Drilling}$ marks for screw mounting are indicated on mounting frame.

AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

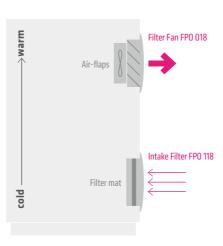
Art. No.	Operating voltage	Air volume, free flow	Air volume with exit filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01871.2-30	DC 24 V	66 m³/h	56 m³/h	171 mA	4.1 W	58 dB (A)	66 mm	0.5 kg	G3
01871.1-30	DC 48 V	67 m ³ /h	56 m ³ /h	88 mA	4.2 W	52 dB (A)	66 mm	0.5 kg	G3

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11871.0-00	35 mm	0.3 kg	air-flap outlet technology

SYSTEM FPO

STEGO - PRODUCT CATALOGUE



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with intake filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01881.2-00	DC 24 V	118 m³/h	63 m ³ /h	171 mA	4.1 W	56 dB (A)	79 mm	0.5 kg	air-flaps
01881.1-00	DC 48 V	125 m ³ /h	63 m ³ /h	88 mA	4.2 W	50 dB (A)	79 mm	0.5 kg	air-flaps

AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11881.0-30	22 mm	0.2 kg	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %

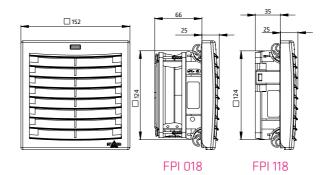
HOSE-PROOF HOOD FFH 086

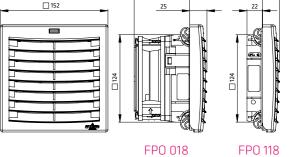
Art. No.	Cutout usable for FPI/FPO 018	Dimensions D x B x H	Max. covered area (X x Y)	Weight (approx)
08671.0-00	124 x 124 mm	279 x 225 x 58 mm	173 x 160 mm	1.2 kg

FILTER MAT FM 086

- 1	Filter class	118 x 118 mm	Initial gravimetric arrestance	1 packing unit
	ISO coarse 55 % acc. to ISO 16890 (G3)	Art. No. 08634.0-00	57 %	5 pieces

TECHNICAL DRAWINGS





124 D

ENCLOSURE CUT-OUT





FILTER FAN PLUS - DC LINE

FPI/FPO 018 | up to 277 m³/h (176 x 176 mm)



SYSTEM FPI

- > New air-flap outlet technology for high airflow
- > Protection type test/Environmental rating by independent testing institutes
- > Easy mounting
- > Two systems for optimal airflow
- (FPI/FPO)
- > Standard enclosure cut-out sizes > One filter mat

Filter fans are used to provide an optimum climate in enclosures and cabinets with electrical/electronic components. The interior temperature of an enclosure can be reduced by channelling cooler filtered outside air into the enclosure thus expelling heated internal air. The resulting airflow prevents formation of localised hot pockets in installations and protects electronic components from overheating. The benefits of our Filter Fan Plus series are described in detail in the catalogue on page 50/51.

The Filter Fan Plus series may also be used outdoors with appropriate protective measures or when equipped with weather proof accessories, e.g. Hose-proof Hood FFH 086.









TECHNICAL DATA

Axial fan, ball bearing	service life L10 at +40 °C (+104 °F): min. 80,000 h fan body aluminium, rotor plastic
Connection	3-pole clamp for 2.5 mm², clamping torque 0.8 Nm max.
Casing, hood, flaps	plastic according to UL94 V-O, light grey; UV light resistant according to UL746C (f1)
Enclosure cut-out	176 x 176*1 mm
Mounting frame	4 built-in ratchet braces for mounting (6 notches for wall thickness 1 – 4 mm). Additional use of screws possible if needed ¹ .
Filter mat	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 $^{\circ}$ C, self-extinguishing class F1, moisture resistant to 100 $^{\circ}$ RH, reusable
Operating temperature	-25 to +70 °C (-13 to +158 °F)
Storage temperature	-40 to +70 °C (-40 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class with Hose-proof Hood FFH 086	IP54 / I (earthed) IP56 / I (earthed)
Environmental rating UL/NEMA with Hose-proof Hood FFH 086	UL TYPE 12 / NEMA 12 L TYPE 3, 3R, 4, 4X
Approvals	VDE, UL File No. E234324, EAC
Note	other voltages on request

 $^{^{\}rm 1}\,{\rm Drilling}$ marks for screw mounting are indicated on mounting frame.

AIRFLOW DIRECTION "IN": FILTER FAN FPI 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with exit filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Filter mat
01872.2-30	DC 24 V	178 m³/h	156 m³/h	500 mA	12.0 W	63 dB (A)	117 mm	1.5 kg	G3
01872.1-30	DC 48 V	170 m ³ /h	147 m ³ /h	250 mA	12.0 W	63 dB (A)	117 mm	1.5 kg	G3

AIRFLOW DIRECTION "IN": EXIT FILTER FPI 118

Art. No.	Depth in enclosure	Weight (approx.)	Air outlet
11872.0-00	43 mm	0.4 kg	air-flap outlet technology

SYSTEM FPO

STEGO - PRODUCT CATALOGUE



AIRFLOW DIRECTION "OUT": FILTER FAN FPO 018

Art. No.	Operating voltage	Air volume, free flow	Air volume with intake filter	Current consumption	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Weight (approx.)	Air outlet
01882.2-00	DC 24 V	269 m³/h	141 m³/h	500 mA	12.0 W	63 dB (A)	117 mm	1.5 kg	air-flaps
01882.1-00	DC 48 V	277 m ³ /h	146 m³/h	250 mA	12.0 W	63 dB (A)	117 mm	1.5 kg	air-flaps

AIRFLOW DIRECTION "OUT": INTAKE FILTER FPO 118

Art. No.	Depth in enclosure	Weight (approx.)	Filter mat
11882.0-30	25 mm	0.4 kg	ISO coarse 55 $\%$ acc. to ISO 16890 (G3), initial gravimetric arrestance 57 $\%$

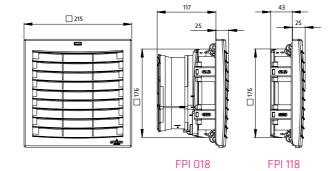
HOSE-PROOF HOOD FFH 086

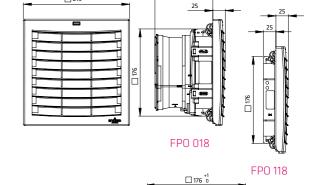
Art. No.	Cutout usable for FPI/FPO 018	Dimensions D x B x H	Max. covered area (X x Y)	Weight (approx)
08672.0-00	176 x 176 mm	359 x 294 x 68 mm	235 x 218 mm	2.0 kg

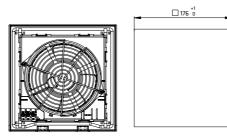
FILTER MAT FM 086

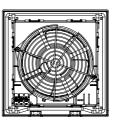
Filter class	168 x 168 mm	Initial gravimetric arrestance	1 packing unit
ISO coarse 55 % acc. to ISO 16890 (G3)	Art. No. 08635.0-00	57 %	5 pieces

TECHNICAL DRAWINGS











ENCLOSURE CUT-OUT

ENCLOSURE CUT-OUT

HOSE-PROOF HOOD

FFH 086 | IP56



- > Increase of protection class
- > Easy to clean
- > Filter mat change from outside
- > Impact-resistant, robust
- > Safe against unauthorized removal

PRODUCT CATALOGUE - STEGO

- > Weather resistant
- > Versatile
- > Protective grid

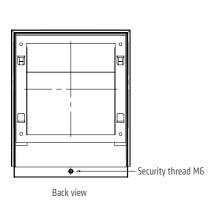
The hose-proof hood for increasing the protection class is a protective cover for filter fans, intake and exit filters, e.g. for the series FPI 018, FPO 018 and FF 018. It is used for protection against water projected by a hose and extreme climatic influences if located outdoors or in industrial applications with harsh environmental conditions. In order to clean the filter fans or to change the filter mat, the hood can easily be removed, the cabinet does not need to be opened (safety risk).

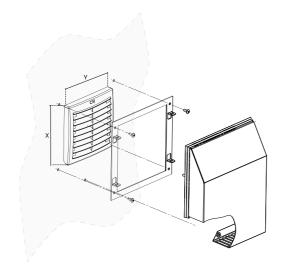


TECHNICAL DATA

Material hood	VA, polished
Material sealing	Silicone, food safe
Protection type	IP561
Protection type UL/NEMA	UL Type 4/4x1 / Nema Type 4/4x1
Approval	UL File No. E234324, EAC

¹ When used with STEGO filter fans FPI/FPO 018 and FF 018 and when seal is tightly fitted.





Art. No.	Cutout usable for FF 018	Cutout usable for FPI/FPO 018	Dimensions D x B x H	Max. covered area (X x Y)	Weight (approx.)
08670.0-00	97 x 97 mm	92 x 92 mm	214 x 195 x 48 mm	143 x 130 mm	0.8 kg
08671.0-00	125 x 125 mm	124 x 124 mm	279 x 225 x 58 mm	173 x 160 mm	1.2 kg
08672.0-00	176 x 176 mm	176 x 176 mm	359 x 294 x 68 mm	235 x 218 mm	2.0 kg
08673.0-00	250 x 250 mm	223 x 223 mm	415 x 369 x 78 mm	290 x 286 mm	2.8 kg
08674.0-00	-	291 x 291 mm	485 x 409 x 103 mm	340 x 326 mm	3.7 kg

ROOF FILTER FAN

RFP 018 | 345 m³/h, 575 m³/h

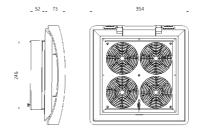


Photo: Art. No. 01860.0-00

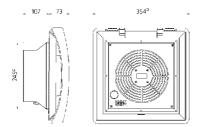


Photo: Art. No. 01861.0-00

Roof Filter Fan (01860.0-XX)



Roof Filter Fan (01861.0-XX)



> Very low noise

- > Minimal depth in enclosure
- > High through-flow air volume
- > High reliability
- > Time-saving installation and mat

Roof filter fans find use in enclosures and housings, from which warm air has to be diverted to lower the internal temperature. These low-noise roof filter fans are used to expel warm air from within the enclosure which has been generated by the stray power of the components and so protects the internal devices from overheating. To exchange the filter mat the hood can be easily opened without tools. The roof exit filter provides passive

TECHNICAL DATA



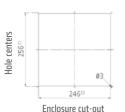






Axial fans, ball bearing	service life 50,000 h at +25 °C (+77 °F), 65 % RH fan body aluminium, rotor plastic
Connection	3-pole clamp for 2.5 mm ² , clamping torque 0.8 Nm max.
Casing	plastic according to UL94 V-O, light grey; weather proof and UV light resistant according UL746C (f1)
Filter mat	ISO coarse 55 % acc. to ISO 16890 (G3), initial gravimetric arrestance 57 %
Filter material	synthetic fibre with progressive construction, temperature resistant to +100 °C, self-extinguishing class F1, moisture resistant to 100 % RH, reusable – cleaning by washing or vacuuming
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP32 / I (earthed)
Approvals	EAC, VDE (AC 230 V only)

Important note: For reasons of pressure compensation the roof filter fan must always be operated in combination with a passive intake filter (e.g. Art. No. 11803.0-00) or another filter fan (e.g. Art. No. 01803.0-00).



ROOF FILTER FAN RFP 018

Art. No.	Operating voltage	Air volume, free flow	Power consumption	Average noise level (DIN EN ISO 4871)	Depth in enclosure	Enclosure cut-out	Weight (approx.)	Operating / Storage temperature
01860.0-00	AC 230 V, 50 Hz	300 m ³ /h	68 W	55 dB (A)	52 mm	246 x 246 mm + 0.4	3.3 kg	-10 to +70 °C (+14 to +158 °F) / -40 to +70 °C (-40 to +158 °F)
01861.0-00	AC 230 V, 50 Hz	500 m ³ /h	64 W	67 dB (A)	107 mm	246 x 246 mm + 0.4	2.6 kg	-25 to +70 °C (-13 to +158 °F)
01860.0-02	AC 120 V, 60 Hz	345 m ³ /h	60 W	55 dB (A)	52 mm	246 x 246 mm + 0.4	3.3 kg	-10 to +70 °C (+14 to +158 °F) / -40 to +70 °C (-40 to +158 °F)
01861.0-02	AC 120 V, 60 Hz	575 m ³ /h	85 W	67 dB (A)	107 mm	246 x 246 mm + 0.4	2.6 kg	-25 to +70 °C (-13 to +158 °F)

ROOF EXIT FILTER REP 118

Art. No.	Depth in enclosure	Enclosure cut-out	Weight (approx.)	Filter mat	Protection type
11860.0-00	11 mm	246 x 246 mm + 0.4	1.0 kg	ISO coarse 55 $\%$ acc. to ISO 16890 (G3), initial gravimetric arrestance 57 $\%$	IP32

FILTER MAT FM 086

Filter mat	282 x 282 mm			
G3 (1 packing unit = 3 pcs.)	Art. No. 08613.0-01			

70 COOLING PRODUCT CATALOGUE - STEGO

FAN TRAY

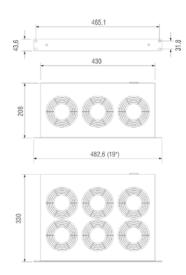
LE 019

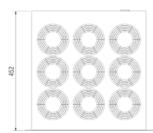


> High air output > Long service life > Ball bearing fans

- > Ready for connection
- > Optical function indicator

Compact high performance fan tray for enforced circulation of air in switch and server enclosures and for concerted cooling of 19" component groups. Natural convection is improved and the formation of localised hot pockets is avoided. Also available with integrated thermostat (see photo).





C€ CA cAL'us [A[

TECHNICAL DATA

Axial fans, ball bearing	service life 50,000 h at +25 °C (+77 °F), 65 % RH				
Material	front panel aluminium, bright anodised casing steel sheet, electrogalvanized				
Optical indicator	integrated in front panel				
Connection	appliance power inlet on rear of casing, plug included				
Fitting position	vertical airflow (air outlet up)				
Operating/Storage temperature	-10 to +60 °C (+14 to +140 °F) / -40 to +70 °C (-40 to +158 °F)				
Operating/Storage humidity	< 90 % RH (non-condensing)				
Protection type/Protection class	IP20 / I (earthed)				

Use in 19" enclosures: We recommend using the fan tray without integrated thermostat in combination with our dual thermostat (ZR 011 Art. No. 01176.0-00) for regulating temperature in electronic enclosures and for protection against over-heating due to possible fan failure. The dual thermostat regulates the operation of the fan tray and – when connected to a signal device – also triggers an early warning if the enclosure interior temperature rises above a set limit. When using a fan tray with integrated thermostat, the use of an additional thermostat (KTS 111 Art. No. 11101.0-00) provides the extra safety of activating a signal device.

Art. No.	Thermostat	No. of fans	Operating voltage	Air volume, free flow	Power consumption	Average noise level (DIN EN ISO 4871)	Speed (rpm)	Weight (approx.)	Approvals	
01930.0-00	without	3	AC 230 V, 50 Hz	486 m³/h	45 W	55 db (A)	2,600 rpm (50 Hz)	3.0 kg	UL File No. E234324	EAC
01930.1-00	0 to +60 °C	3	AC 230 V, 50 Hz	486 m³/h	45 W	55 db (A)	2,600 rpm (50 Hz)	3.4 kg	UL File No. E234324	EAC
01940.0-00	without	6	AC 230 V, 50 Hz	972 m ³ /h	90 W	57 db (A)	2,600 rpm (50 Hz)	5.3 kg	UL File No. E234324	EAC
01940.1-00	0 to +60 °C	6	AC 230 V, 50 Hz	972 m³/h	90 W	57 db (A)	2,600 rpm (50 Hz)	5.7 kg	UL File No. E234324	EAC
01950.0-00	without	9	AC 230 V, 50 Hz	1,458 m³/h	135 W	58 db (A)	2,600 rpm (50 Hz)	7.8 kg	UL File No. E234324	EAC
01950.1-00	0 to +60 °C	9	AC 230 V, 50 Hz	1,458 m³/h	135 W	58 db (A)	2,600 rpm (50 Hz)	7.9 kg	-	EAC
01931.0-00	without	3	AC 120 V, 60 Hz	576 m³/h	45 W	55 db (A)	2,900 rpm (60 Hz)	3.0 kg	UL File No. E234324	EAC
01931.1-00	0 to +60 °C	3	AC 120 V, 60 Hz	576 m³/h	45 W	55 db (A)	2,900 rpm (60 Hz)	3.4 kg	UL File No. E234324	EAC
01941.0-00	without	6	AC 120 V, 60 Hz	1,152 m ³ /h	90 W	57 db (A)	2,900 rpm (60 Hz)	5.3 kg	UL File No. E234324	EAC
01941.1-00	0 to +60 °C	6	AC 120 V, 60 Hz	1,152 m ³ /h	90 W	57 db (A)	2,900 rpm (60 Hz)	5.7 kg	-	EAC
01951.0-00	without	9	AC 120 V, 60 Hz	1,728 m ³ /h	135 W	58 db (A)	2,900 rpm (60 Hz)	7.8 kg	UL File No. E234324	EAC
01951.1-00	0 to +60 °C	9	AC 120 V, 60 Hz	1,728 m ³ /h	135 W	58 db (A)	2,900 rpm (60 Hz)	7.9 kg	-	EAC



REGULATING

CONSTANT REGULATING

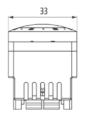
STEGO's temperature and humidity control systems perfect operating conditions for electric and electronic installations and therefore safeguard their performance.

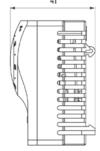
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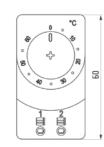
THERMOSTAT SWITCH

KTO 111 / KTS 111

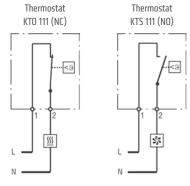








Connection diagrams





Filter fan, Cooling equipment, Signal device

> Safe wiring with Push-In connection terminal

> Improved air intakes for ventilation

- temperature setting > Faster and tool-free wiring
 - > for use in up to 5,000 m altitude

> Easy adjustability of switch

PRODUCT CATALOGUE - STEGO

The mechanical thermostats KTO 111 and KTS 111 are two state regulators for use up to 5,000 meters in altitude, thanks to optimised air gap and increased creepage distance. By use of Push-In terminals the thermostat is wired tool-free. The Push-In terminals provide constant pressure on the wires to prevent them from coming loose (e.g. during transport).

KTO 111: Thermostat (NC); normally closed for regulating heaters. The contact opens when temperature is rising.

KTS 111: Thermostat (NO); normally open for regulating of filter fans and heat exchangers or for switching signal devises when temperature limit has been exceeded. The contact closes when temperature is rising.

TECHNICAL DATA







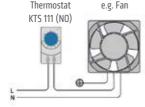


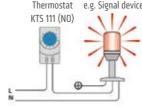
	-
Switch temperature difference	7 K (±4 K tolerance)
Sensor element	thermostatic bimetal
Contact type	snap-action contact
Service life	100,000 cycles verified
Max. operating voltage, frequency range	AC 250 V, 50-60 Hz
Max. inrush current	AC 16 A for 10 s
Connection ¹	2 Push-In clamps rigid wire 2.5 mm² (AWG 14) stranded wire 1.5 mm² (AWG 16)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic according to UL94 V-O, light grey
Dimensions	60 x 33 x 41 mm
Weight	~ 40 g
Fitting position	variable
Operating/Storage temperature	-45 to +80 °C (-49 to +176 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II
Overvoltage category/Altitude	II: up to 5,000 m; III: up to 2,000 m

¹ Stripped length of rigid wire: 8 to 12 mm. When connecting with wires, wire end ferrules must be used (square or trapezoid

Important note: The contact system of the regulator is subjected to environmental influences, thus the contact resistance may change. This can lead to a voltage drop and/or self-heating of the contacts.

	memostat	ricater
	KTO 111 (NC)	(TITETH)
Examples of		
connection		
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	N	





Setting range	Art. No.	Art. No.	Switching current²/capacity max		Approvals			
	Normally closed (NC)	Normally open (NO)	AC 250 V	AC 120 V	DC 24-72 V			
0 to +60 °C	11100.0-00	11101.0-00	10 (2) A	15 (2) A	30 W	VDE	UL File No. E164102	EAC
-10 to +50 °C	11100.0-01	11101.0-01	10 (2) A	15 (2) A	30 W	VDE	UL File No. E164102	EAC
+20 to +80 °C	11100.0-02	11101.0-02	3 (2) A	3 (2) A	30 W	VDE	UL File No. E164102	EAC
+32 to +140 °F	11100.9-00	11101.9-00	10 (2) A	15 (2) A	30 W	VDE	UL File No. E164102	EAC
+14 to +122 °F	11100.9-01	11101.9-01	10 (2) A	15 (2) A	30 W	VDE	UL File No. E164102	EAC

² The level of switching current has an influence on the tolerance accuracy. Switching of resistive load (switching of inductive load).

THERMOSTAT SWITCH

STO 011 / STS 011



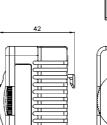
- > Thumbwheel setting dial > Small hysteresis > High switching capacity
- > Anti frost assurance
- > Optimized housing for better air flow

The mechanical thermostat is a two state regulator with small hysteresis. The setting wheel has an anti frost assurance. The housing ensures an optimized air circulation around the bimetal.

STO 011: Thermostat (NC); normally closed for regulating heaters. The contact opens when temperature is rising.

STS 011: Thermostat (NO); normally open for regulating of filter fans and heat exchangers or for switching signal devices when temperature limit has been exceeded. The contact closes when temperature is rising.



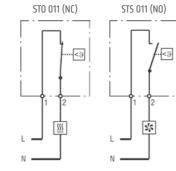






The anti frost assurance is a symbol on the setting scale of the NC thermostat (STO 011) at +11 °C. This setting assures closing of the switching contact before

Connection diagrams



Filter fan, Cooling equipment, Signal device

TECHNICAL DATA

Switch temperature difference	4 K (±3 K tolerance)
Sensor element	thermostatic bimetal
Contact type	snap-action contact
Service life	> 100,000 cycles
Max. switching capacity	AC 250 V, 10 (2) A¹ / AC 120 V, 15 (2) A¹ DC 30 W at DC 24 V to DC 72 V
Max. inrush current	AC 16 A for 10 s
Connection	2-pole terminal, clamping torque 0,5 Nm max.: rigid wire 2.5 mm² (AWG 14)/ stranded wire 1.5 mm² (AWG 16)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic according to UL94V-0, light grey
Dimensions	70 x 33 x 42 mm
Weight	~ 50 g
Fitting position	variable
Operating/Storage temperature	-45 to +80 °C (-49 to +176 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
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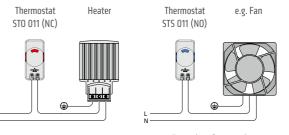
¹ Switching of resistive load (switching of inductive load)

Approvals

 $^{\rm 2}$ When connecting with stranded wires, wire end ferrules must be used.

Important note: The contact system of the regulator is subjected to environmental influences, thus the contact resistance may change. This can lead to a voltage drop and/or self-heating of the contacts.

VDE, UL File No. E164102, EAC





Thermostat

Signal device

Examples of connection

Setting range	Art. No. Normally closed (NC)	Art. No. Normally open (NO)
0 to +60 °C	01115.0-00	01116.0-00
+32 to +140 °F	01115.9-00	01116.9-00

TAMPER-PROOF THERMOSTAT (PRE-SET)

FTO 011 / FTS 011



> Small size > Default temperature settings

Sensor element

> Easy to install > High switching accuracy

CE CH PU's & EN

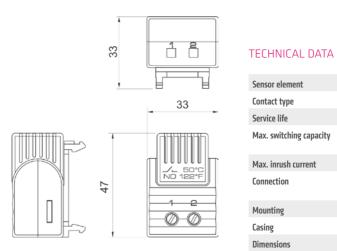
PRODUCT CATALOGUE - STEGO

Tamper-proof (Pre-set) Thermostat FTO 011: Normally closed/NC (red casing) for regulating heaters or for switching signal devices when temperature has fallen below the minimum value. The contact opens when temperature is rising.

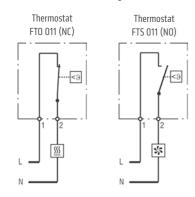
Tamper-proof (Pre-set) Thermostat FTS 011: Normally open/NO (blue casing) for regulating filter fans, heat $exchangers, cooling \ devices \ or \ for \ switching \ signal \ devices \ when \ temperature \ limit \ has \ been \ exceeded. \ The \ contact$ closes when temperaure is rising.

thermostatic bimetal

VDE, UL File No. E164102, EAC



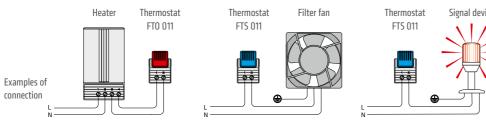
Connection diagrams



SSS Heater Filter fan, Cooling equipment, Signal device

Contact type	snap-action contact
Service life	> 100,000 cycles
Max. switching capacity	AC 250 V, 5 (1.6) A 1 / AC 120 V, 10 (2) A 1 DC 30 W
Max. inrush current	AC 16 A for 10 s
Connection	2-pole terminal, clamping torque 0.8 Nm max.: rigid/stranded² wire 2.5 mm² (AWG 14)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic according to UL94 V-O, light grey
Dimensions	47 x 33 x 33 mm
Weight	~ 30 g
Fitting position	variable
Operating/Storage temperature	-40 to +80 °C (-40 to +176 °F) / -45 to +80 °C (-49 to +176 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type	IP20

- ¹ Switching of resistive load (switching of inductive load)
- ² When connecting with stranded wires, wire end ferrules must be used.



Art. No.	Contact	Switch-off temperature	Switch-on temperature
01160.0-00	Normally closed (NC)	+15 °C / +59 °F (±5 K tolerance)	+5 °C / +41 °F (±5 K tolerance)
01160.0-01	Normally closed (NC)	+25 °C / +77 °F (±5 K tolerance)	+15 °C / +59 °F (±5 K tolerance)
01160.0-05	Normally closed (NC)	+10 °C / +50 °F (±5 K tolerance)	0 °C / +32 °F (±5 K tolerance)
Art. No.	Contact	Switch-on temperature	Switch-off temperature
Art. No. 01161.0-00	Contact Normally open (NO)	Switch-on temperature +50 °C / +122 °F (±7 K tolerance)	Switch-off temperature +40 °C / +104 °F (±6 K tolerance)
		· · · · · · · · · · · · · · · · · · ·	

DUAL THERMOSTAT

ZR 011



Connection diagram Thermostat ZR 011 (NC/NO)

Filter fan, Cooling equipment, Signal device

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- > NO and NC in one casing
- > Separate adjustable temperatures > High switching capacity

> Clip fixing

> Terminals easily accessible

Two thermostats in one casing:

Thermostat (normally closed) for regulating heaters. The contact opens when temperature is rising. **Thermostat (normally open)** for regulating filter fans and heat exchangers or switching signal devices when temperature limit has been exceeded. The contact closes when temperature is rising.

Heaters and cooling equipment can be switched independently from each other with a temperature offset as opposed to the usual change-over contacts.









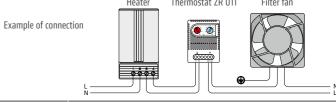


TECHNICAL DATA

Switch temperature difference	7 K (±4 K tolerance)
Sensor element	thermostatic bimetal
Contact type	snap-action contact
Service life	> 100,000 cycles
Max. switching capacity	AC 250 V, 10 (2) A¹ AC 120 V, 15 (2) A¹ DC 30 W at DC 24 V to DC 72 V
Max. inrush current	AC 16 A for 10 s
Connection	4-pole terminal, clamping torque 0.5 Nm max.: rigid wire 2.5 mm² (AWG 14) stranded wire² 1.5 mm² (AWG 16)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic according to UL94 V-O. light grey
Dimensions	67 x 50 x 46 mm
Weight	~ 90 g
Fitting position	variable
Operating/Storage temperature	-45 to +80 °C (-49 to +176 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type	IP20
Approvals	VDE, UL File No. E164102, CSA, EAC, CQC

- ¹ Switching of resistive load (switching of inductive load)
- ² When connecting with wires, wire end ferrules must be used.

Important note: The contact system of the regulator is subjected to environmental influences, thus the contact resistance may change. This can lead to a voltage drop and/or self-heating of the contacts.



Art. No.	Setting range		Setting	g range
01172.0-00	Normally closed (NC)	0 to +60 °C	Normally open (NO)	0 to +60 °C
01172.0-01	Normally closed (NC)	+32 to +140 °F	Normally open (NO)	+32 to +140 °F
01175.0-00	Normally closed (NC)	-10 to +50 °C	Normally open (NO)	+20 to +80 °C
01175.0-01	Normally closed (NC)	+14 to +122 °F	Normally open (NO)	+68 to +176 °F
01176.0-00 ²	Normally open (NO)	0 to +60 °C	Normally open (NO)	0 to +60 °C
01176.0-01 ²	Normally open (NO)	+32 to +140 °F	Normally open (NO)	+32 to +140 °F

² For regulating heat exchangers and fans (e. g. LE 019) and as an alarm contact for monitoring the interior temperature of electronic enclosures

Note: Other switch-off and switch-on temperatures on request

TAMPER-PROOF DUAL THERMOSTAT (PRE-SET)

FTD 011



> NO and NC in one casing > Default temperature settings > High switching accuracy

> Clip fixing

Two thermostats in one casing:

Tamper-proof (Pre-set) Thermostat/Normally closed (NC) for regulating heaters or for switching signal devices when temperature has fallen below the minimum value. The contact opens when temperature is rising. Tamper-proof (Pre-set) Thermostat/Normally open (NO) for regulating filter fans, heat exchangers or for switching signal devices when temperature limit has been exceeded. The contact closes when temperature is rising.

Heaters and cooling equipment can be switched independently from each other with a temperature offset as opposed to the usual change-over contacts.

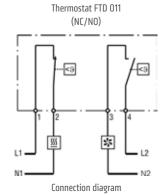








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Meater

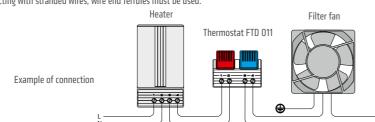
Filter fan, Cooling equipment, Signal device

TECHNICAL DATA

Sensor element	thermostatic bimetal
Contact type	snap-action contact
Service life	> 100,000 cycles
Max. switching capacity	AC 250 V, 5 (1.6) A¹ / AC 120 V, 10 (2) A¹ DC 30 W
Max. inrush current	AC 16 A for 10 s
Connection	4-pole terminal, clamping torque 0.8 Nm max.: rigid wire 2.5 mm² (AWG 14) stranded wire² 1.5 mm² (AWG 16)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic according to UL94 V-O, light grey
Dimensions	47 x 63 x 33 mm
Weight	~ 40 g
Fitting position	variable
Operating/Storage temperaure	-40 to + 80 °C (-40 to +176 °F) / -45 to + 80 °C (-49 to +176 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type	IP20
Approvals	VDE, UL File No. E164102, EAC

¹ Switching of resistive load (switching of inductive load)

² When connecting with stranded wires, wire end ferrules must be used.



	Normally closed (NC)		Normally open (NO)	
Art. No.	Switch-off temperature	Switch-on temperature	Switch-on temperature	Switch-off temperature
01163.0-00	+15 °C / +59 °F (±5 K tolerance)	+5 °C / +41 °F (±5 K tolerance)	+50 °C / +122 °F (±7 K tolerance)	+40 °C / +104 °F (±6 K tolerance)
01163.0-01	+25 °C / +77 °F (±5 K tolerance)	+15 °C / +59 °F (±5 K tolerance)	+60 °C / +140 °F (±7 K tolerance)	+50 °C / +122 °F (±7 K tolerance)
01163.0-02	+15 °C / +59 °F (±5 K tolerance)	+5 °C / +41 °F (±5 K tolerance)	+35 °C / +95 °F (±7 K tolerance)	+25 °C / +77 °F (±6 K tolerance)
01163.0-03	+25 °C / +77 °F (±5 K tolerance)	+15 °C / +59 °F (±5 K tolerance)	+50 °C / +122 °F (±7 K tolerance)	+40 °C / +104 °F (±6 K tolerance)

	Normally open (NO)		Normally o	open (NO)
Art. No.	Switch-on temperature Switch-off temperature		Switch-on temperature	Switch-off temperature
01164.0-00	+50 °C / +122 °F (±7 K tolerance)	+40 °C / +104 °F (±6 K tolerance)	+60 °C / +140 °F (±7 K tolerance)	+50 °C / +122 °F (±7 K tolerance)

Note: Other switch-off and switch-on temperatures on request.

MECHANICAL THERMOSTAT

FZK 011

STEGO - PRODUCT CATALOGUE



> Adjustable temperature
> High switching capacity
> Small hysteresis

> Change-over contact

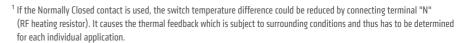
> Clip fixing

The mechanical thermostat is used for controlling heating and cooling equipment, filter fans or signal devices. The thermostat registers the surrounding air and can switch both inductive and resistive loads via snap-action contact. Functionality: The temperature setting on the scale equals to the upper switch point, which means that the NC contact opens. The temperature setting minus switch temperature difference (and tolerances) equals to the lower switch point, which means that the NC contact closes.

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TECHNICAL DATA

Switch temperature difference	5 K (-3/+2 K tolerance) ¹
Sensor element	thermostatic bimetal
Contact type	change-over snap-action contact
Service life	> 100,000 cycles
Min. switching capacity	10 mA
Max. switching capacity, NC	AC 250 V / AC 120 V, 10 (4) A ² DC 30 W
Max. switching capacity, NO	AC 250 V / AC 120 V, 5 (2) A ² DC 30 W
Max. inrush current	AC 16 A for 10 s
Connection	4-pole terminal, clamping torque 0.5 Nm max.: rigid/stranded³ wire 2.5 mm² (AWG 14)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic according to UL94 V-O, light grey
Dimensions	67 x 50 x 38 mm
Weight	~ 0.1 kg
Fitting position	variable
Operating/Storage temperature	-45 to +65 °C (-49 to +149 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type	IP20
Approvals	UL File No. E164104, EAC



² Switching of resistive load (switching of inductive load)

³ When connecting with wires, wire end ferrules must be used.

Important note: The contact system of the regulator is subjected to environmental influences, thus the contact resistance may change. This can lead to a voltage drop and/or self-heating of the contacts.



Meater Filter fan,

Connection diagram

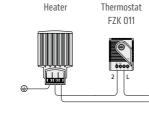
01170.0-00

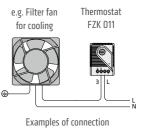
01170.0-01

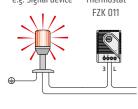
01170.0-02

01170.9-00

Cooling equipment, Signal device







ELECTRONIC THERMOSTAT

ETR 011



- > Large setting range
- > Small hysteresis
- > Status indicator (LED)
- > Change-over contact
- > Clip fixing

The electronic thermostat is used for controlling heating and cooling equipment, filter fans or signal devices. The thermostat registers the surrounding air and can switch both and inductive and resistive loads via relay with change-over contact. The LED integrated in the adjustment knob is lit when the NC is closed. (e.g. when a connected heater is operating).

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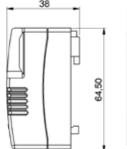


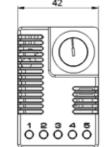
PRODUCT CATALOGUE - STEGO



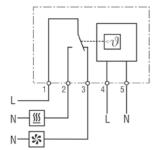


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Connection diagram



- Filter fan, Cooling equipment, Signal device

TECHNICAL DATA

Switch temperature difference	4 K (± 1K tolerance) at +20 °C (+68 °F)
Sensor element	NTC
Reaction time	~ 5 s
Contact type	change-over contact (relay)
Service life	> 50,000 cycles
Max. switching capacity (relay output)	AC 240 V / AC 120 V, 8 (1.6) A ¹ DC 100 W at DC 24 V
Max. inrush current	AC 16 A for 10 s
Optical indicator	LED
Connection	5-pole terminal, clamping torque 0.5 Nm max.: rigid/stranded² wire 2.5 mm² (AWG 14)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic according to UL 94V-O, light grey
Dimensions	64.5 x 42 x 38 mm
Weight	~ 70 g
Fitting position	vertical
Operating/Storage temperature	-40 to +85 °C (-40 to +185 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type	IP20

- ¹ Switching of resistive load (switching of inductive load)
- ² When connecting with stranded wires, wire end ferrules must be used.

Thermostat ETR 011	Heater	Thermostat ETR 011	e.g. Filter fan for cooling	Thermostat ETR 011	e.g. Signal device
55555 17 1 1 N N		300000 N L N L N L		3 1 1 N L	•

Examples of connection

Art. No.	Operating voltage	Setting range	Approvals		
01131.0-00	AC 230 V, 50/60 Hz	-20 to +60 °C	VDE	UL File No. E164102	EAC
01131.9-00	AC 120 V, 50/60 Hz	-4 to +140 °F	-	UL File No. E164102	EAC

MECHANICAL HYGROSTAT

MFR 012



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- > Adjustable relative humidity
- > Change-over contact > High switching capacity
- > Easily accessible terminals
- > Clip fixing

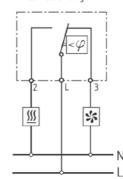
The electromechanical hygrostat is designed to control enclosure heaters so that the dew point is raised when a critical relative humidity of 65 % is exceeded. In this way condensation and corrosion in enclosures with electric/ electronic components is effectively prevented.

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TECHNICAL DATA

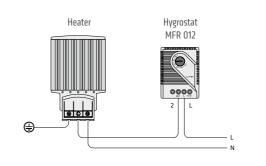
Switch difference ¹	4 % RH (±3 % tolerance)
Permissible air velocity	15 m/s
Contact type	change-over contact
Service life	> 50,000 cycles
Min. switching capacity	AC 20 V / DC 100 mA
Max. switching capacity	AC 250 V, 5 A DC 20 W
Connection	3-pole terminal for 2.5 mm², clamping torque 0.5 Nm max.: rigid wire 2.5 mm² (AWG 14) stranded wire² 1.5 mm² (AWG 16)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic according to UL94 V-O, light grey
Dimensions	67 x 50 x 38 mm
Weight	~ 60 g
Fitting position	variable
Operating/Storage temperature	0 to +60 °C (+32 to +140 °F) / -40 to +60 °C (-40 to +140 °F)
Operating/Storage humidity	< 95 % RH (non-condensing)
Protection type	IP20
Approvals	UL File No. E164102, EAC, CQC

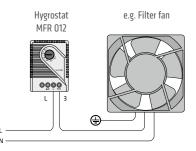
Connection diagram



- Meater
- Filter fan, Cooling equipment, Signal device

- ² When connecting with stranded wires, wire end ferrules must be used.





Examples of connection

Art. No.	Setting range
01220.0-00	35 to 95 % RH

ELECTRONIC HYGROSTAT

EFR 012



Connection diagram

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- > Adjustable and pre-set relative humidity
- > Status indicator (LED) > High switching capacity
- > Clip fixing

> Temperature-compensated

The electronic hygrostat senses the relative humidity in an enclosure with electric/electronic components and turns on a heater at the set point, helping prevent the formation of condensation in the enclosure. The LED integrated in the adjustment knob is lit when the connected heater is in operation.



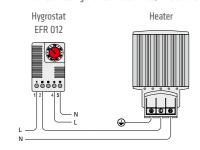
PRODUCT CATALOGUE - STEGO



TECHNICAL DATA

Switch difference	5 % RH (±3 % RH tolerance) at +25 °C (+77 °F), 50 % RH		
Reaction time	5 s		
Contact type	change-over contact (relay)		
Service life	> 50,000 cycles		
Max. switching capacity (relay output)	AC 240 V / AC 120 V 8 (1.6) A ¹ DC 100 W at DC 24 V		
Max. inrush current	AC 16 A for 10 s		
Optical indicator	LED		
Connection	5-pole terminal, clamping torque 0.5 Nm max.: rigid/stranded² wire 2.5 mm² (AWG 14)		
Mounting	clip for 35 mm DIN rail, EN 60715		
Casing	plastic according to UL94 V-O, light grey		
Dimensions	64.5 x 42 x 38 mm		
Weight	~ 70 g		
Fitting position	vertical		
Operating/Storage temperature	0 to +60 °C (+32 to +140 °F) / -20 to +70 °C (-4 to +158 °F)		
Operating/Storage humidity	< 90 % RH (non-condensing)		
Protection type	IP20		

- ¹ Switching of resistive load (switching of inductive load)
- ² When connecting with stranded wires, wire end ferrules must be used.



Example of connection

Art. No.	Operating voltage	Setting range	Approvals			
01245.0-00	AC 230 V, 50/60 Hz	40 to 90 % RH	VDE	UL File No. E164102	EAC	
01246.0-00	AC 230 V, 50/60 Hz	65 % RH pre-set	VDE	UL File No. E164102	EAC	
01246.0-01	AC 230 V, 50/60 Hz	50 % RH pre-set	VDE	UL File No. E164102	EAC	
01245.9-00	AC 120 V, 50/60 Hz	40 to 90 % RH	-	UL File No. E164102	EAC	
01246.9-00	AC 120 V, 50/60 Hz	65 % RH pre-set	-	UL File No. E164102	EAC	

ELECTRONIC HYGROTHERM

ETF 012



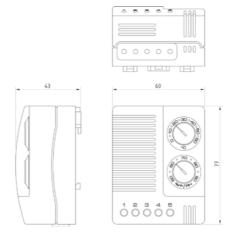
- > Temperature and humidity adjustable
- > Wide voltage range
- > High switching capacity
- > Status indicator (LED)

CECH PULS & EN

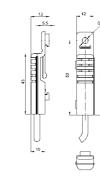
> Operating temperature down to -40 °C

The electronic hygrotherm senses the ambient temperature and relative humidity in an enclosure with electric/ electronic components and turns on a heater (or alternatively a fan) at either set point, helping prevent the formation of condensation in the enclosure. Due to its wide voltage range the hygrotherm can be utilised anywhere in the world. The LED integrated in the adjustment knob on the active controller is lit when the connected device is in operation. The version with an external sensor can be installed anywhere in the control cabinet and enables precise measurement.

Dimensions ETF 012



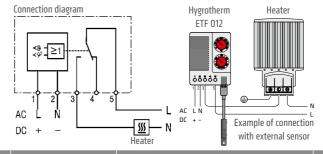
Dimensions external sensor



TECHNICAL DATA

Switch difference (temperature)	2 K (±1 K tolerance) at +25 °C (+77 °F), 50 % RH	
Switch difference (humidity)	4 % RH (±1 % tolerance) at +25 °C (+77 °F), 50 % RH	
Reaction time (humidity)	~5s	
Contact type	change-over contact (relay)	
Service life	VDE: NO/NC > 15,000 cycles UL: NO/NC > 30,000 cycles	
Max. switching capacity (relay output)	AC 240 V, 10 (1.6) A ¹ , DC 30 W, DC 60 V	
Max. inrush current	AC 30 A for 10 s	
Optical indicator	LED	
Connection	5-pole terminal, clamping torque 0.5 Nm max.: rigid/stranded² wire 2.5 mm² (AWG 14)	
Mounting	clip for 35mm DIN rail, EN 60715	
Casing	plastic according to UL94 V-O, light grey	
Dimensions	77 x 60 x 43 mm	
Weight	~ 0.2 kg	
Fitting position	vertical	
Operating/Storage temperature	-40 to +60 °C (-40 to +140 °F)	
Operating/Storage humidity	< 90 % RH (non-condensing)	
Protection type	IP20	
Approvals	VDE, UL File No. E164102, EAC	

- ¹ Switching of resistive load (switching of inductive load)
- ² When connecting with stranded wires, wire end ferrules must be used.



Heater
e of connection
tegrated sensor

Art. No. (integrated sensor)	Art. No. (external sensor, 1 m cable)	Art. No. (external sensor, 2 m cable)	Operating voltage	Setting range temperature	Setting range humidity
01230.0-00	01231.0-00	01231.0-01	AC 100 – 240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	0 to +60 °C	50 to 90 % RH
01230.9-00	01231.9-00	01231.9-01	AC 100 – 240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	+32 to +140 °F	50 to 90 % RH
01230.1-00	01231.1-00	01231.1-01	DC 24 - 48 V (min. DC 20 V, max. DC 60 V)	0 to +60 °C	50 to 90 % RH

ELECTRONIC THERMOSTAT - DC LINE

DCT 010 | DC 20 to 56 V

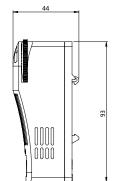


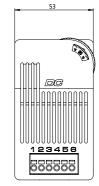
- > High DC switching capacity
- > Adjustable temperature
- > Small hysteresis
- > Optical operating display (LED)
- > Integrated switch module
- > Precise measurement via an external

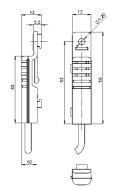
PRODUCT CATALOGUE - STEGO

The electronic thermostat with integrated switch module is used to control DC powered devices with high capacities in control and switch cabinets. Heaters, coolers, filter fans or signal devices can directly be controlled via an internal electronic circuit. The external sensor can be positioned freely anywhere in the control cabinet for precise temperature measurements. Additionally, this thermostat is available in versions that not only measure temperature via the external sensor, but also the relative humidity.





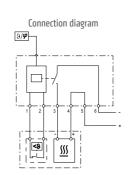


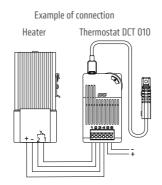


TECHNICAL DATA

Switch difference (temperature)	3 K (±1 K tolerance) at +25 °C (+77 °F), 50 % RH
Reaction time	~5s
External sensor	cable 2 m with snap in connector (included in the delivery)
Contact type	normally open NO (MOSFET) or normally closed NC (MOSFET)
Service life	> 100,000 cycles
Operating voltage	DC 20 to 56 V
Optical indicator	LED
Connection	6-pole terminal: stranded wire ¹ 1.5 mm ² (AWG 16); max. 2.5 mm ² (AWG 12)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic according to UL94 V-O, grey/black
Dimensions	93 x 53 x 44 mm
Weight	~ 120 g (incl. sensor)
Fitting position	vertical
Storage temperature	-40 to +80 °C (-40 to +176 °F)
Operating / Storage humidity	< 90 % RH (non-condensing)
Protection type	IP20
Approvals	UL File No. E164102, VDE, EAC
Note	other versions (e.g. setting ranges and °F) on request

¹When connecting with stranded wires, wire end ferrules must be used.





Art. No.	Max. switching capacity	Operating temperature	Primary switching function setting range temperature	Secondary switching function ² humidity setting	Contact (primary)
01011.0-21	DC 13 A	-40 to +50 °C (-40 to +122 °F)	-10 to +50 °C	-	Normally open (NO)
01011.0-22	DC 11 A	-40 to +60 °C (-40 to +140 °F)	0 to +60 °C	-	Normally open (NO)
01011.0-41	DC 13 A	-40 to +50 °C (-40 to +122 °F)	-10 to +50 °C	65 % RH pre-set	Normally closed (NC)
01011.0-42	DC 11 A	-40 to +60 °C (-40 to +140 °F)	0 to +60 °C	65 % RH pre-set	Normally closed (NC)

² Versions with secondary switching function can also register the humidity and therefore offer an additional protection for electronics. Switch difference: 4 % RH (±1 % tolerance) at +25 °C (+77 °F), 50 % RH.

ELECTRONIC HYGROSTAT - DC LINE

DC

123458 888888

DCF 010 | DC 20 to 56 V



- > High DC switching capacity
- > Adjustable humidity
- > Small hysteresis
- > Optical operating display (LED)
- > Integrated switch module
- > Precise measurement via an external

The electronic hygrostat with integrated switch module is used to control DC powered devices with high capacities in control and switch cabinets. Heaters, coolers, filter fans or signal devices can directly be controlled via an internal electronic circuit. The external sensor can be positioned freely anywhere in the control cabinet for precise measurement of the atmospheric humidity. Additionally, this hygrostat is available in versions that not only measure the relative humidity via the external sensor, but also the temperature.







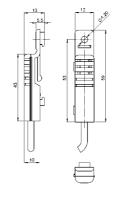


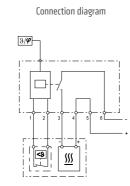


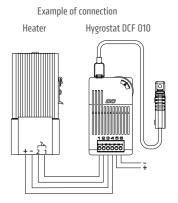
TECHNICAL DATA

Switch difference (humidity)	4 % RH (±1 % tolerance) at +25 °C (+77 °F), 50 % RH
Reaction time	~5s
External sensor	cable 2 m with snap in connector (included in the delivery)
Contact type	normally open NO (MOSFET) or normally closed NC (MOSFET)
Service life	> 100,000 cycles
Operating voltage	DC 20 to 56 V
Optical indicator	LED
Connection	6-pole terminal: stranded wire¹ 1.5 mm² (AWG 16); max. 2.5 mm² (AWG 12)
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic according to UL94 V-O, grey/black
Dimensions	93 x 53 x 44 mm
Weight	~ 120 g (incl. sensor)
Fitting position	vertical
Storage temperature	-40 to +80 °C (-40 to +176 °F)
Operating / Storage humidity	< 90 % RH (non-condensing)
Protection type	IP20
Approvals	UL File No. E164102, VDE, EAC
Note	other versions on request

¹When connecting with stranded wires, wire end ferrules must be used.







Art. No.	Max. switching capacity	Operating temperature	Primary switching function setting range humidity	Secondary switching function ² Switch-on temperature	Contact (primary)
01012.0-20	DC 15 A	-40 to +40 °C (-40 to +104 °F)	40 to 90 % RH	+5 °C (+41 °F) pre-set	Normally open (NO)
01012.0-21	DC 13 A	-40 to +50 °C (-40 to +122 °F)	40 to 90 % RH	+5 °C (+41 °F) pre-set	Normally open (NO)
01012.0-22	DC 11 A	-40 to +60 °C (-40 to +140 °F)	40 to 90 % RH	+5 °C (+41 °F) pre-set	Normally open (NO)

² Versions with secondary switching function can also register the temperature and therefore offer an additional protection for electronics. Switch difference: 3 K (±1 K tolerance) at +25 °C (+77 °F), 50 % RH.

SWITCH MODULE - DC LINE

DC

=========

123456

DCM 010 DC 20 to 56 V



> High DC switching capacity > Variety of applications

- > Wide DC voltage range
- > Simple connection

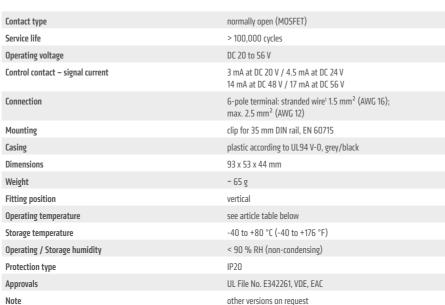
The switch module is used to control DC powered devices with high capacities in control and switch cabinets. It is controlled via an external potential-free contact (thermostat or hygrostat), which is connected between terminal 3 and 4. It must be ensured that the external contact is suitable to switch the required signal current without any problems.







TECHNICAL DATA



¹When connecting with stranded wires, wire end ferrules must be used.

Connection diagram

Example of	f connection	
Heater	Switch module DCM 010	
<u>\$\$\$</u>	123458	

Art. No.	Max. switching capacity	Operating temperature
01010.0-00	DC 15 A	-40 to +40 °C (-40 to +104 °F)
01010.0-10	DC 13 A	-40 to +50 °C (-40 to +122 °F)
01010.0-20	DC 11 A	-40 to +60 °C (-40 to +140 °F)

EXPLOSION-PROOF THERMOSTAT

REX 011 | 15 °C, 25 °C (T6)

STEGO - PRODUCT CATALOGUE





- > For areas with explosion and firedamp hazard > High switching capacity
- > Compact Design

- > Set temperature
- > Ready-to-use with strain relief
- > Temperature class T6

Compact, small mechanical thermostat offering a high response accuracy/time, small switch temperature difference, and a very long service life (switching cycles). This thermostat of temperature class T6 (85 ° max.) is utilised for the regulation of heaters within control and switch cabinets, as well as measuring equipment located in areas with explosion hazard, underground mines and mines susceptible to firedamp. The high switching performance allows for direct control of heaters.



TECHNICAL DATA

Temperature class	T6
Ex Protection type (I) 2 GD Gases Dusts Mine applications	Ex db IIC TG Gb Ex tb IIIC T85°C Db IPG6 I M2 Ex db I Mb
Ambient temperature	-60 to +60 °C (-76 to +140 °F)
Sensor element	thermostatic bimetall
Service life	> 100,000 cycles
Max. switching capacity	AC 250 V 10 A ¹ DC 24 V 1 A
Min. switching capacity	DC 1.5 V 5 mA
Max. inrush current	AC 16 A for 12 s
Connection	silicone cable (halogen-free) 3 x 1 mm²
Connection PE	1.0 to 2.5 mm ²
Mounting	clip for 35 mm DIN rail, EN 60715 screw fixing M5, optional widthwise mounting
Casing	aluminium, silver anodised
Dimensions	95 x 45 x 30 mm
Weight	~ 0.3 kg
Fitting position	variable
Storage temperature	-60 to +85 °C (-76 to +185 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP66 / I (earthed)
Approvals	EPS 16 ATEX 1 118 X IECEX EPS 16.0054X IN METRO DNV 18.0011 X EAC TC RU C-FR.I'ID 08.B.02639

¹ currents above 4 A affect the switch temperature difference

Art. No.	Cable Length	Contact type (1-pole)	Switch temperature	Switch temperature difference
01185.0-00	1 m	Normally closed (NC)	+15 °C (±3 K tolerance)	5 K (±3 K tolerance)
01185.1-00	1 m	Normally closed (NC)	+25 °C (±3 K tolerance)	5 K (±3 K tolerance)
01185.0-01	2 m	Normally closed (NC)	+15 °C (±3 K tolerance)	5 K (±3 K tolerance)
01185.1-01	2 m	Normally closed (NC)	+25 °C (±3 K tolerance)	5 K (±3 K tolerance)



NOTES



MEASURING

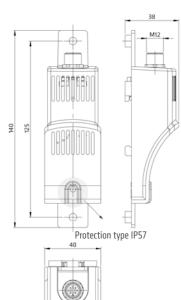
MEASURE SMART

STEGO sensors detect environmental conditions inside and beyond enclosures. Smart sensors provide both digital and analogue signals.

SMART SENSOR CLIMATE DIGITAL

CSS 014 | 10-LINK, DC 24 V





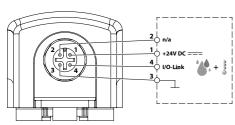
- > Digital interface
- > Small size
- > Easy clip and/or screw fixing > Quick connection (M12 plug-in

- > High accuracy
- > Large temperature and humidity range
- (IEC 61010-1/DIN EN 61010-1)

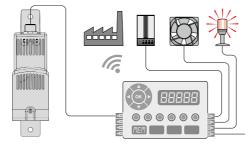
The compact Smart Sensor CSS 014 electronically records temperature and humidity and converts the measured data into a standardized digital IO-Link signal. The converted value signals can be utilized or further processed by a control or monitoring unit, e.g. a PLC control. The Smart Sensor CSS 014 is suitable for use in control cabinets and enclosures, but can also be installed in many new areas of application and can even be used in harsh environmental conditions, e.g. in the wind power industry. It is characterised by its combined perception and diagnostic capabilities, which significa-ntly contribute to the optimisation of digitalisation processes

Measuring signals digital (IO-Link)	temperature, humidity events, diagnosis, device data
Connection	M12 round plug connector, IEC 61076-2-101, 4-pin, A-coded, shielded
Electrical protection	Reverse-polarity, short circuit, overvoltage protection
Mounting	clip for 35 mm DIN rail, EN 60715 and screw fixing M5
Casing	plastic according to UL94 V-O, light grey
Dimensions	140 x 40 x 38 mm
Weight	~ 50 g
Fitting position	vertical, connection on top
Storage temperature	-40 to +85 °C (-40 to +185 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type¹/Protection class	IP20 (sensor only IP57) / III (SELV)
Approvals	VDE, UL File No. E500143 (acc. to IEC 61010-1/DIN EN 61010-1), EAC
Note	other measuring ranges on request

1The PCB (printed circuit board) is coated on both sides with a certified protective lacquer to protect against corrosion and for improvement of the tracking resistance.



Pin assignment for 4-pin M12 round plug connector



Example of connection

Art. No.	Interface	Operating voltage	Power consumption max.	Temperature measuring range	Humidity measuring range	Operating temperature
01411.2-01	10-Link (digital, specified acc. to version 1.1)	DC 24 V (DC 18-30 V)	0.3 W	-40 to +80 °C (-40 to +176 °F) \pm 0.3 K² (Max. reaction time t_{60} 195 s)	0 to 100% RH $\pm 3\%^3$ (Max. reaction time t_{60} 14 s)	-40 to +80 °C (-40 to +176 °F)

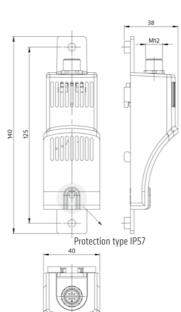
² Tolerance data measured at nominal voltage DC 24 V between +5 to +60°C

SMART SENSOR CLIMATE ANALOG

CSS 014 DC 24 V

STEGO - PRODUCT CATALOGUE





- > Analog interface
- > Small size
- > Easy clip and/or screw fixing
- > Quick connection (M12 plug-in connector)
- > High accuracy
- > Large temperature and humidity range
- (IEC 61010-1/DIN EN 61010-1)

The compact Smart Sensor CSS 014 electronically records temperature and humidity and converts the measured data into a standardized analog 4-20 mA signal. The converted value signals can be utilized or further processed by a control or monitoring unit, e.g. a PLC control. The Smart Sensor is suitable for installation inside and outside the enclosure, even in harsh environmental conditions as can be found in the wind power industry: in shielded outdoor areas and exposed to vibrations.

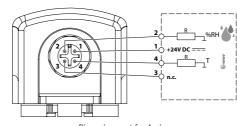
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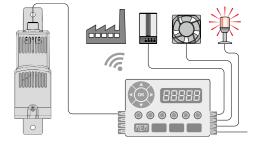
TECHNICAL DATA

Measuring signals analog (4-20 mA)	temperature, humidity
Load resistance (external)	≤ 500 Ω
Connection	M12 round plug connector, IEC 61076-2-101, 4-pin, A-coded, shielded
Electrical protection	Reverse-polarity, short circuit, overvoltage protection
Mounting	clip for 35 mm DIN rail, EN 60715 and screw fixing M5
Casing	plastic according to UL94 V-O, light grey
Dimensions	140 x 40 x 38 mm
Weight	~ 50 g
Fitting position	vertical, connection on top
Storage temperature	-40 to +85 °C (-40 to +185 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type¹/Protection class	IP20 (sensor only IP57) / III (SELV)
Approvals	VDE, UL File No. E500143 (acc. to IEC 61010-1/DIN EN 61010-1), EAC
Note	other measuring ranges on request

¹The PCB (printed circuit board) is coated on both sides with a certified protective lacquer to protect against corrosion and for improvement of the tracking resistance.



Pin assignment for 4-pin M12 round plug connector



Example of connection

Art. No.	Interface	Operating voltage	Power consumption max.	Temperature measuring range	Humidity measuring range	Operating temperature
01420.2-00	4-20 mA (analog)	DC 24 V (DC 12-30 V): 0 \(\text{O} \text{C} \) < R < 160 \(\text{D} \): \(\text{DC 12-30 V} \) 160 \(\text{O} \) < R < 500 \(\text{O} \): \(\text{DC 20-30 V} \)	1.8 W (typically 0.4 W)	-40 to +60 °C (-40 to +140 °F) \pm 1 K² (Max. reaction time t_{60} 195 s)	0 to 100 % RH \pm 4% ³ (Max. reaction time t_{60} 8 s)	-40 to +70 °C (-40 to +158 °F)

 $^{^2}$ Tolerance data measured at nominal voltage DC 24 V and 500 Ω load resistance between +5 to +60 $^{\circ}$ C

³ Tolerance data measured at nominal voltage DC 24 V between 20 to 80 % RH

 $^{^3}$ Tolerance data measured at nominal voltage DC 24 V and 500 Ω load resistance between 20 to 80 % RH

SMART SENSOR CURRENT

ESS 076 DC 24 V, 10-LINK, 4-20 mA



- > Measures AC current up to 100 A contactless > Cable diameter up to 11.4 mm
- > Internal processing of measured values
- > Analog & digital interface in one device

PRODUCT CATALOGUE - STEGO

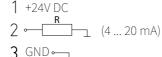
The Smart Sensor Current ESS 076 measures the AC current of the conducted lines without contact. Acquired measurement data is output analog (4-20 mA signal) or digital (IO-Link). Measured and processed data- such as power and energy - are provided via the IO-Link interface to higher-level systems such as machine controllers or edge computers for condition monitoring. The ESS 076 is ideal for the permanent collection of load profiles from plants and machines. These help in applications such as peak load detection to achieve savings in energy costs.

② IO-Link C € CA

TECHNISCHE DATEN

Measuring signal 4 - 20 mA	Current
Measuring signal 10-Link	Current, event data, diagnostic data, device data, calculated energy and power
Loop resistor (external)	≤ 500 Ω (only for 4-20 mA)
Connection	Round plug connector M12, IEC 61076-2-101, 4-pin, A-coded
Electrical protection	Reverse-polarity, short circuit, overvoltage protection
Mounting	Clip for 35 mm DIN rail, EN 60715
Casing	plastic according to UL94 V-O, light grey
Dimensions	87 x 35 x 46,5 mm
Weight	~ 100 g
Fitting position	any
Storage temperature	-40 to +85 °C (-40 to +185 °F)
Operating/Storage humidity	< 90 % rF (non-condensing)
Protection type/Protection class	IP30 / III (extra-low voltage)
Approvals	IEC 61010-1/DIN EN 61010-1 DIN IEC 60381-2
Note	Conductor diameter < 11,4 mm, VDE and UL certification prepeared
Accessories	Screw mounting STEGOFIX PLUS SFP 095 Art. No. 09550.0-05 Adhesive mounting STEGOFIX PLUS SFP 095 Art. No. 09550.1-05 Magnetic fixing STEGOFIX PLUS SFP 095 Art. No. 09550.2-05





4 IO-Link / SIO-Mode

Art. No.	Interface	Operating voltage	Power consumtion max.	Current measuring range	Operating temperature
07600.2-00	10-Link (Version 1.1) and 4 - 20 mA	DC 24 V (DC 18-30 V)	1 W	AC 0 - 100 A (50/60 Hz) ±0,5 A ¹	-40 to +80 °C (-40 to +176 °F)

¹Tolerance data measured at nominal voltage DC 24 V.

SMART SENSOR DISTANCE

DSS 015 | 10-LINK, DC 24 V





> Digital IO-Link interface > Quick connection (M12 plug-in > Compact dimensions connector) > Versatile screw fixing > Large distance measuring range > High accuracy

The compact distance smart sensor determines the distance to objects using ultrasonic waves and the principle of time-of-flight measurement (ToF). It is suitable for numerous applications in the areas of distance and level monitoring. In contrast to other distance measuring methods (e.g., measuring with laser), the DSS 015 detects even transparent objects such as glass, foil and liquids and is insensitive to changing light conditions. The IO-Link interface makes it very easy to connect to higher-level control systems (e.g., PLC).







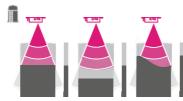
TECHNICAL DATA

Detection range	0,3 m to 4 m
Sensor field of vision	45° cone-shaped
Interface	IO-Link (version 1.1)
Connection	Plug-in connector M12, IEC 61076-2-101, 4-pin, A-coded, shielded, max. cable lenght: 20 m
Electrical protection	Reverse-polarity, short circuit, overvoltage protection
Mounting	Mounting M4 or M3
Casing	Plastic according to UL94 V-0
Dimensions	98 x 35 x 27 mm
Weight	~ 40 g
Fitting position	variable, aligned perpendicular to the measured object
Operating temperature	-25 to +70 °C (-13 to +158 °F)
Storage temperature	-40 to 85 °C (-40 to 185 °F)
Operating/Storage humidity	< 90 % rF (non-condensing)
Proctection type/Protection class	IP40 / III (SELV)
Approvals	VDE and UL up-comming DIN EN 61010-1 DIN EN 61000-4-2 ESD DIN EN 61000-4-3 HF-radiation DIN EN 61000-4-4 Transient DIN EN 61000-4-6 HF-current input

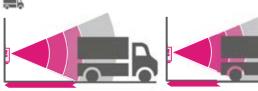


1 +24V DC ---2 n/a 3 GND⊶

EXAMPLES OF APPLICATION











Distance control

Art. No.	Interface	Measuring resolution	Measuring tolerance	Measuring frequency	Power consumption max.	Operating voltage
01500.2-00	IO-Link (version 1.1)	1 mm	±2 %	10 Hz	0,6 W	DC 24 V (DC 18 - 30V)

SENSOR HUB & SENSORS

SHC 071 | 10-Link, DC 24 V, 4 Sensor Ports



- > Digital IO-Link Interface
- > Small dimensions
- > Easy DIN rail and screw mounting
- > M12 plug-in connector
- > For 1 to 4 digital STEGO sensors

PRODUCT CATALOGUE - STEGO

- > Quick connection of sensors via
- > 4 sensor types

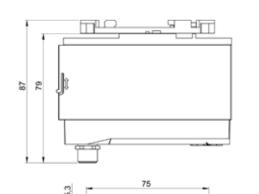
The SHC 071 sensor hub enables up to four digital STEGO SEN 073 sensors to be integrated into IO-Link. Thus, up to eight measured values can be made available on one IO-Link port. Conventional IO-Link-capable sensors, on the other hand, will occupy one IO-Link port each on the IO-Link master. The slot assignment of the sensors on the SHC 071 sensor hub is freely selectable. The sensors SEN 073 can only be operated with the sensor hub SHC 071. Detailed information on the STEGO sensors SEN 073 for the sensor hub SHC 071 is provided on the following



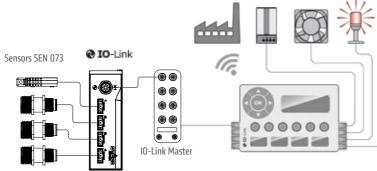
TECHNICAL DATA

Sensor connection	4 ports with strain relief for up to 4 STEGO sensors ¹
IO-Link connection	M12 round plug connector, IEC 61076-2-101, 4-pin, A-coded
Electrical protection	Reverse-polarity, short circuit, overvoltage protection
Mounting	clip for 35 mm DIN rail, EN 60715 and screw mounting (M5)
Casing	plastic according to UL94 V-O, light grey
Dimensions	107 x 35 x 79 mm (87 mm with universal mounting bracket)
Weight	approx. 110 g
Fitting position	variable
Operating temperature	-40 to +80 °C (-40 to +176 °F)
Storage temperature	-40 to +85 °C (-40 to +185 °F)
Operating/Storage humidity	max. 90 % RH (non-condensing)
Operating altitude	≤ 4,000 m above sea level
Protection type/Protection class	IP40 / III (SELV)
Certificates	EC 61010-1 UL and VDE up-comming

¹ STEGO sensors SEN 073 must be ordered separately.



Universal mounting bracket for DIN rail and screw mounting



Example of connection

Art. No.	Interface	Operating voltage	Power consumption max.
07100.2-00	IO-Link (digital, specified acc. to version 1.1)	DC 24 V (DC 18-30 V)	0.5 W

DIGITAL PLUG & CONNECT SENSORS SEN 073 FOR SENSOR HUB SHC 071

The sensors for the SHC 071 Sensor Hub must be ordered separately. The digital sensors listed below are the current range of Plug & Connect compatible components for the Sensor Hub. All these sensors are pre-calibrated and thus immediately ready for use; individual calibration effort is not required. Due to their small dimensions and customizable cable lengths, they can be flexibly positioned and easily mounted. A mounting clip is included in the scope of delivery for each sensor.

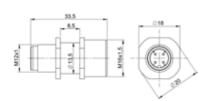


TECHNICAL DATA

Mounting	clip for 35 mm DIN rail, EN 60715 and screw mounting (M4)
Casing	plastic according to UL94 V-O, black
Dimensions/Weight	59 x 12 x 13 mm
Fitting position	variable
Response time T ₆₃	temperature: < 1,5 min, humidity: < 7 s
Operating/Storage temperature	-40 to +85 °C (-40 to +185 °F)
Operating/Storage humidity	100 % RH / max. 90 % RH (non-condensing)
Operating altitude	≤ 4,000 m above sea level
Protection type	IP20

Art. No.	Sensor	Connection	Measuring range 1	Measuring range 2	Weight (approx.)
07300.1-00	Temperature + rel. Humidity	cable with connector, shielded, 1.0 m	-40 to +80 °C (-40 to +176 °F) ±0.2 K	0 to 100 % RH ±2 %	40 g
07300.1-01	Temperature + rel. Humidity	cable with connector, shielded, 2.0 m	-40 to +80 °C (-40 to +176 °F) ±0.2 K	0 to 100 % RH ±2 %	70 g





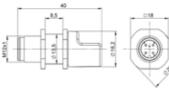
TECHNICAL DATA

Mounting	incl. mounting clip for screw mounting, \emptyset 3 mm, see photo
Casing	stainless steel
Dimensions/Weight	33.5 x Ø 20 mm / approx. 25 g
Fitting position	variable
Connection	M12 plug IEC 61076-2-101, 4-pin, A-coded
Operating/Storage humidity	100 % RH / max. 90 % RH (non-condensing)
Operating altitude	≤ 4,000 m above sea level
Protection type	IP64
Note	Max. two of the four ports can be assigned with VOC sensors

Art. No.	Sensor	Operating/Storage temperature	Measuring range 1	Measuring range 2	Response time T ₆₃
07300.0-00	Temperature + relative Humidity	-40 to +70 °C (-40 to +158 °F) / -40 to +85 °C (-40 to +185 °F)	0 to 100 % RH ±2 %	-40 to +70 °C (-40 to +158 °F) ± 0,2 K	temperature: < 2 min, humidity: < 20 s
07301.0-00	Absolute atmospheric pressure + temperature	-40 to +70 °C (-40 to +158 °F) / -40 to +85 °C (-40 to +185 °F)	300 to 1100 hPa	-40 to +70 °C (-40 to +158 °F)	absolute atmospheric pressure: < 5 s, temperature: < 2,5 min
07303.0-00	Air quality + temperature	-10 to +50 °C (-10 to +122 °F) / -5 to +30 °C (-41 to +86 °F)	VOC-Index: 0 - 500	-10 to +50 °C	air quality: < 10 s temperature: < 2.5 min



Photo: Mounting clip for screw mounting, Ø 3 mm (included)



TECHNICAL DATA

Mounting	incl. mounting clip for screw mounting, Ø 3 mm, see photo
Casing	stainless steel
Dimensions/Weight	40 x Ø 20 mm / approx. 25 g
Fitting position	variable
Operating/Storage temperature	-40 to +85 °C (-40 to +185 °F)
Operating/Storage humidity	100 % RH / max. 90 % RH (non-condensing)
Operating altitude	≤ 4,000 m above sea level
Note	IP65

Art. No.	Sensor	Connection	Measuring range	Relative accuracy	Response time T ₆₃
07302.0-00	Visible light	M12 plug IEC 61076-2-101, 4-pin, A-coded	0,01 to 83.865 lx	0,2 %	< 7 s

CABLE

These cables are required to connect the IO-Link sensor hub SHC 071 and its digital plug & connect sensors of the series SEN 073. The cables are not included in the scope of delivery of the sensors. The sensor cable with plug connection is locking and shielded.

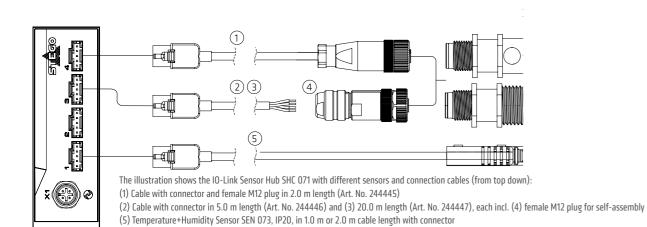


Image: standard cable - Art. No. 244445

Image: customizable lenghts - Art. No. 244446 and Art. No. 244447

Art. No.	Length	Connection
244445	2,0 m	fully assembled with female M12 plug IEC 61076-2-101, 4-pin, A-coded, shielded
244446	5,0 m	for self-assembly, incl. female M12 plug IEC 61076-2-101, 4-pin, A-coded, shielded
244447	20,0 m	for self-assembly, incl. female M12 plug IEC 61076-2-101, 4-pin, A-coded, shielded

CONNECTION EXAMPLE



STEGO - PRODUCT CATALOGUE MEASURING 95

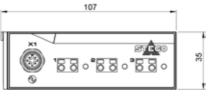
ACTUATOR HUB

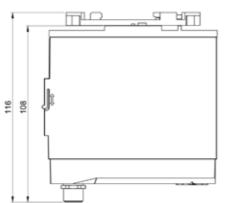
AHC 072 | IO-Link, DC 24 V, 3 Relais Outputs

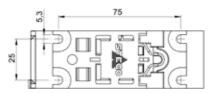


- > Digital IO-Link interface
- > Small size
- > Easy DIN rail or screw mounting
- > M12 plug-in connector
- > for 1 to 3 actuators
- > Quick connection for actuators via Push-In terminals
- > Optical indicators (LEDs)

The IO-Link Actuator Hub AHC 072 can switch up to three actuators or loads on process level via relays. Switching commands for the loads are received via the IO-Link interface from a higher-level control unit: edge computer, cloud, PLC control, etc. The actuator hub supports both AC and DC loads, independent of their function or whether they have a communication interface.







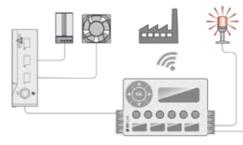
Universal mounting bracket for DIN rail and screw mounting

TECHNICAL DATA

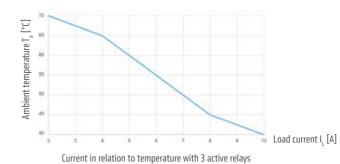
② IO -Link C€	CA
1 to 3 normally opens (NO), with 3 optical indicators	

Number of relay outputs	1 to 3 normally opens (NO), with 3 optical indicators
Max. switching capacity	AC 240 V, 10 A DC 30 V, 10 A
Max. inrush current	AC 16 A for 10 s
Actuator connection	2-pole Push-In terminals (3 x)
IO-Link connection	M12 round plug connector, IEC 61076-2-101, 4-pin, A-coded
Electrical protection	Reverse-polarity, short circuit, overvoltage protection
Mounting	clip for 35 mm DIN rail, EN 60715 and screw mounting (M5)
Casing	plastic according to UL94 V-O, light grey
Dimensions	107 x 35 x 108 mm (116 mm with universal mounting bracket)
Weight	арргох. 160 g
Fitting position	variable
Operating temperature ¹	-40 to +70 °C (-40 to +158 °F) with 3 outputs with 2 A load each 1 -40 to +40 °C (-40 to +104 °F) with 3 outputs with 10 A load each 1
Storage temperature	-40 to +85 °C (-40 to +185 °F)
Operating/Storage humidity	max. 90 % RH (non-condensing)
Operating altitude	≤ 4,000 m above sea leavel
Protection type/Protection class	IP40 / III (SELV)
Certificates	CB No. DE1-63389 in conformity with IEC 61010-1 evaluated according to UL and CSA standards

¹The max. operating temperature depends on the current (see diagram) and the number of loads.



Example of connection



Art. No.	Interface	Operating voltage	Power consumption max. Push-In terminals v		wire cross sections ²	
07200.2-00	IO-Link (digital, specified acc. to version 1.1)	DC 24 V (DC 18-30 V)	1.4 W	1.5 mm ² (VDE)	AWG 18 (UL)	

² stranded wire with wire end ferrule

NOTES



LIGHTING

IDEAL LIGHTING SOLUTIONS

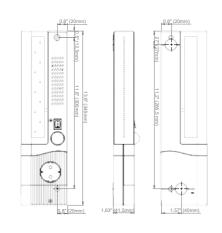
Our lighting solutions ensure that maintenance on electronic installations can be carried out night and day.

LED ENCLOSURE LAMP

SL 025 ON/OFF SWITCH AND MOVEMENT SENSOR



Illustration shows the SL 025 LED with integrated socket (Germany) Art. No. 02530.1-00





- > Slim casing
- > Wide voltage range > Light with electrical socket
- > Screw and magnet fixing
- > LED technology
- > Switch and motion detector in one
- > Certified for use worldwide

The slim LED light SL 025 with on/off switch and motion detector is ideal for use in cabinets and enclosures with electrical/electronic installations with a high component density. It can be fastened on the narrow or wide side with screws, or with magnetic fastening at any desired position in steel cabinets without installation effort. Thanks to its integrated socket, the SL 025 enables the operation of additional electrical devices. The integrated motion detector also replaces a door contact switch.



TECHNICAL DATA

Power consumption	4 W
Luminous flux	560 Lm
Light colour	Daylight white, color temperature: 6,000 to 7,000 K
Light source	LED
Service Life	>60.000 h
Switch	Motion detector, on/off switch
Connection	3-pole terminal, tightening torque 0.8 Nm max: Rigid/stranded wire 0.75 - 2.5 mm² (AWG 18 - 14)
Mounting	Screw fastening, magnetic fastening
Casing	Plastic according to UL94 V-O, light gray
Dimensions	345 x 91 x 40 mm
Fitting position	any
Operating temperature	-40 to +60 °C (-40 to +140 °F)
Storage temperature	-40 to +85 °C (-40 to +185 °F)
Operating/storage humidity	< 90 % rF (non-condensing)
Protection type	IP20
Approbation	VDE, UL E234324, EAC
Weight	385g
Protection class	1

Note: The socket is operated with the mains voltage connected.

(1)		









(5)



(6)



(7)

Art. No.	Socket	Max. Operation socket	Operating voltage
02530.1-00	DE/RU(1)	250 V 16 A	AC 100-240 V, 50/60 Hz
02531.1-00	F (2)	250 V 16 A	AC 100-240 V, 50/60 Hz
02532.1-00	CH (3)	250 V 10 A	AC 100-240 V, 50/60 Hz
02533.1-00	GB/IRE (4)	250 V 13 A	AC 100-240 V, 50/60 Hz
02534.1-00	USA (5)	125 V 15 A	AC 100-120 V, 50/60 Hz
02535.1-00	IT (6)	250 V 16 A	AC 100-240 V, 50/60 Hz
02536.1-00	AUS (7)	240 V 10 A	AC 100-240 V, 50/60 Hz

LED ENCLOSURE LAMP

LED 025 | ECOLINE

STEGO - PRODUCT CATALOGUE



LED 025 with

Ecoline Lamp

LED 025

top view THE

LED 025 with

magnet or

screw fixing

- > Wide voltage range
- > Integrated power unit
- > Dual pressure connection clamp > Daisy chain
- > Magnet, screw or clip fixing
- > Long-lived and maintenance-free by LED technology

The lamp series LED 025 is suitable for all types of panels and enclosures, especially where space is at a premium. The lamps have a very long service life thanks to the use of LED technology. Three different fixing options provide more flexibility for installation. The Ecoline series is a simplified version of the standard LED 025 lamp and has a dual pressure clamp for connection instead of connectors. Nonetheless it is suitable for daisy-chaining and allows for up to 10 lamps to be connected to each other.











TECHNICAL DATA

Power consumption	< 4 W
Luminous flux	400 Lm at 120°
Lamp type	LED, angle of radiation 120° light color: daylight, color temperature: 6,000 K to 7,000 K
Service life	60,000 h at +20 °C (+68 °F)
Connection	2-pole dual pressure clamp for rigid wire 2.5 mm², stranded wire (with wire end ferrule) 1.5 mm²
Mounting	magnet fixing or screw fixing (M5), clip fixing (M6), torque 2 Nm max.
Casing	plastic, transparent
Dimensions	see drawings
Weight	0.2 kg
Operating/Storage temperature	-40 to +60 °C (-40 to +140 °F) / -40 to +85 °C (-40 to +185 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)
Energy efficiency class	F

Mounting options: The lamps are available with magnet fixing for easy positioning in any steel cabinet or enclosure. A classic is the LED 025 with screw fixing. The clip holders exclusively designed for clip fixing of the LED 025 can be positioned anywhere in the cabinet by simply screwing the holders to the cabinet wall. The lamp is snapped into the clip holders and can be turned in both directions. With a total rotation angle of 180° it provides perfect illumination within the cabinet or enclosure.

Side view magnet fixing	Side view screw fixing	Side view clip fixing
Ø 32	9,75	ψ32 ψ32 Ψ 40 40 40

Art. No. Magnet fixing	Art. No. Screw fixing	Art. No. Clip fixing	Operating voltage	Switch		Approvals		
02540.3-10	02540.3-11	02540.3-13	AC 100 – 240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V) DC 90 – 110 V (min. DC 80 V, max. DC 125 V)	on/off light switch	VDE (REGNr. E788) ¹	UL File No. E234324	CCC	EAC
02541.3-10	02541.3-11	02541.3-13	AC 100 – 240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V) DC 90 – 110 V (min. DC 80 V, max. DC 125 V)	PIR movement sensor ²	VDE (REGNr. E788) ¹	UL File No. E234324	CCC	EAC
02542.3-10	02542.3-11	02542.3-13	AC 100 – 240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V) DC 90 – 110 V (min. DC 80 V, max. DC 125 V)	N/A	VDE (REGNr. E788) ¹	UL File No. E234324	CCC	EAC
02540.1-10	02540.1-11	02540.1-13	DC 24 - 48 V (min. DC 20 V, max. DC 60 V)	on/off light switch	VDE (REGNr. E788) ¹	UL File No. E234324	CCC	EAC
02541.1-10	02541.1-11	02541.1-13	DC 24 - 48 V (min. DC 20 V, max. DC 60 V)	PIR movement sensor ²	VDE (REGNr. E788) ¹	UL File No. E234324	CCC	EAC
02542.1-10	02542.1-11	02542.1-13	DC 24 - 48 V (min. DC 20 V, max. DC 60 V)	N/A	VDE (REGNr. E788) ¹	UL File No. E234324	CCC	EAC

¹ VDE Certificate of Conformity (REG.-Nr. E788)

Note: the lamp must not be used for household lighting

² ~ 5 min fixed switch-on duration

LED ENCLOSURE LAMP

LED 025 Multi Wide Voltage



- > Multi wide voltage (AC, DC)
- > Internal power supply unit for easy
- > Durable and maintenance-free thanks to LED technology
- > Daisy chain (up to 10 lamps)
- > On/off switch or motion detector
- > Mounting set for magnetic, screw and clip fixing

PRODUCT CATALOGUE - STEGO

LED lights with multi wide voltage are ideal for flexible use in control cabinets and enclosures of different sizes. The multi wide voltage supports both AC and DC voltages, ensuring maximum flexibility in the application. Fewer variants mean optimised processes in procurement and materials management. The supplied mounting kit also enables simple and versatile installation.

TECHNICAL DATA











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351	-	_	250	351		325
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LED 025 multi wide voltage LED 025 multi wide with magnet or screw fixing voltage with clip fixing

Power consumption	< 4,5 W
Operating voltage	AC/DC 24 V - 240 V, 0/50/60 Hz (min.20 V, max.265 V)
Liminous flux	560 Lm at 120°
Lamp type	LED, angle of radiation 120 $^\circ$ light color: daylight, color temperature: 6.000 to 7.000 K
Service life	60.000 h at +20 °C (+68 °F)
Casing	plastic, transparent
Dimemsions	see drawings
Weight	0,2 kg
Operating temperature	-40 to +60 °C (-40 to +140 °F)
Storage temperature	-40 to +85 °C (-40 to +185 °F)
Operating/storage humidity	< 90 % RH (non-condesing)
Protection type / protection class	IP20 / II (double insulated)
Energy efficiency class	E
Approvals	EAC, UL E234324, VDE, CCC
Note	The lamp must not be used for household lighting.

Mounting options: All LED 025 lights with multi wide voltage are supplied with a fixing kit. This contains a magnetic, screw and clip fixing for customised installation. The clip holders allows the light to be mounted flexibly. It is snapped into the bracket and can be rotated in both directions by a total of 180°, which enables optimum illumination.

Side view magnet fixing	Side view so	crew fixing	Side view c	lip fixing
9,75 gg	9.	75 Ø 32 F	Ø 32 P	Ø 32

Art. No.	Connection	Mounting	Width ²	Height ²	Switch
02550.0-00	2-pole connector with snap lock	magnet, clip	40	42	on/off switch
02550.0-01	2-pole connector with snap lock	screw, clip	52	36	on/off switch
02551.0-00	2-pole connector with snap lock	magnet, clip	40	47.3	motion detector
02551.0-01	2-pole connector with snap lock	screw, clip	52	41	motion detector
02550.0-10	2-pole dual pressure clamp ¹	magnet, clip	40	42	on/off switch
02550.0-11	2-pole dual pressure clamp ¹	screw, clip	52	36	on/off switch
02551.0-10	2-pole dual pressure clamp ¹	magnet, clip	40	47.3	motion detector
02551.0-11	2-pole dual pressure clamp ¹	screw, clip	52	41	motion detector
02552.0-10	2-pole dual pressure clamp ¹	magnet, clip	40	42	without
02552.0-11	2-pole dual pressure clamp ¹	screw. clip	52	36	without

¹²⁻pole dual pressure clamp for daisy chain 2,5 mm², Stranded wire with wire end ferrule 1,5 mm² | 2 Maximum width and height depend on the fixing kit used..

ACCESSORIES FOR LAMPS WITH CONNECTOR

STEGO - PRODUCT CATALOGUE

Connectirs and cables for electrical connection are not included in tje delivery of the LED 025. These parts can be ordered separately. Sets consisting of lamps and accessories are avaiable on request.

CONNECTION CABLE WITH FEMALE CONNECTOR AND OPEN END



Art. No.	Model	Lenght	Voltage type	Color	Use for	Approvals ³
244356	connection cable 2 x 1,5 mm ² with female connector	2,0 m	AC	connector: white; cable: white	power input	VDE
244357	connection cable 2 x AWG 15 with female connector	2,0 m	AC	connector: white; cable: white	power input	VDE + UL

³ applies only to the individual components (cable and connectors)

EXTENSION CABLE WITH 2 CONNECTORS FOR DAISY CHAIN CONNECTION



Ar	t. No.	Model	Lenght	Voltage type	Color	Use for	Approvals ³
24	14358	extension cable 2 x 1,5 mm ² with 2 connectors	1,0 m	AC	connectors: white; cable: white	daisy chain	VDE
24	14359	extension cable 2 x AWG 15 with 2 connectors	1,0 m	AC	connectors: white; cable: white	daisy chain	VDE + UL

³ applies only to the individual components (cable and connectors)

FEMALE / MALE CONNECTORS



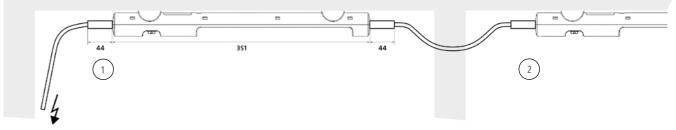


Photo: Female connector, Art. No. 264057

Art. No.	Model	Color	Use for	Wire cross-section 4	Approvals	
264057	female connector	white	power input	0,5-2,5 mm ² (AWG 14-20)	VDE + UL	
264058	male connector	white	power output	0,5-2,5 mm ² (AWG 14-20)	VDE + UL	

⁴ applies to rigid and stranded wire. Wire end ferrules must be used when connecting with stranded wires.

CONNEXION EXAMPLE



This illustration shows the LED 025 multi wide voltage lamp with connector in a daisy chain application. The lamps are conveniently connected via quick connection plugs – up to 10 lamps max. can be daisy-chained this way. The snap lock connectors ensure a stable electrical connection even if subjected to heavy vibration. The connection example shows a AC 230 V application, using the following cables: connection cable with female connector, Art. No. 244356 (1); daisy chain extension cable with 2 connectors, Art. No. 244358 (2).

Female/male connectors are also available to assemble cables in non-standard lengths.

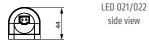
LED 021/022

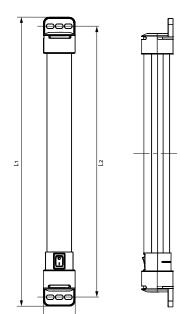
LED 021 Movement sensor and screw fixing

LED 022 On/off switch and magnet fixing



LED 021/022 magnet or screw fixing





- > High luminous flux
- > Integrated power unit > Durable and maintenance-free
- LED technology
- > Daisy chain
- > On/off switch or movement sensor
- > Magnet or screw fixing

The LED 021/022 Varioline is a powerful and compact LED lamp for use in enclosures. Its LED tube emits more than 1,000/1,700 Lm at only 10 W/15 W power consumption, thereby illuminating even very large enclosures in their full depth and height. The glare-free, 360° rotatable LED tube uses Mid-power LEDs with a service life of 60,000 h. The emitted daylight color of 6,500 K provides safety for the user by a natural and non-fading color reproduction.









TECHNICAL DATA

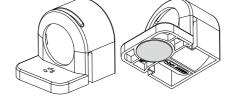
Power consumption	< 10 W/15 W
Operating voltage	AC 100 – 240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)
Luminous flux	1,080 Lm/1,730 Lm
Lamp type	LED, angle of radiation 120° light color: daylight, color temperature: 6,500 K
Service life	60,000 h at +20 °C (+68 °F)
Connection	2-pole connector with snap lock AC: max. 2.5 A / AC 240 V, color: white
Mounting	magnet fixing or screw fixing (M5), torque 2 Nm max.
Casing	plastic, translucent
Dimensions	see drawings
Weight	~ 0.2 kg/0.3 kg
Operating/Storage temperature	-40 to +40 °C (-40 to +104 °F) / -40 to +85 °C (-40 to +185 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated)
Energy efficiency class	F

Mounting options: The lamps are available with magnet fixing for easy positioning in any steel cabinet or enclosure. A classic is the LED 021/022 with screw fixing. With a total rotation angle of 360° it provides perfect illumination.

Note: The lamp must not be used for household lighting.

View of magnet fixing

View of screw fixing







Size 1: L1 =	Size 1: L1 = 400 mm		Size 2: L1 = 600 mm				
Art. No. Magnet fixing	Art. No. Screw fixing	Art. No. Magnet fixing	Art. No. Screw fixing	Switch		Approvals	
02100.0-30	02100.0-00	02200.0-30 ²	02200.0-00	On/off switch	VDE	UL File No. E234324	EAC
02110.0-30	02110.0-00	02210.0-30	02210.0-00 ²	PIR movement sensor ¹	VDE	UL File No. E234324	EAC
02120.0-30 ²	02120.0-00	02220.0-30 ²	02220.0-00	without switching option	VDE	UL File No. E234324	EAC

¹ ~ 5 min fixed switch-on duration

LED 021 (Size 1)

L1 = 400 mm

L2 = 375 mm

LED 022 (Size 2)

L1 = 600 mm

L2 = 575 mm

ACCESSORIES LED 021/022

Connectors and cables for electrical connection are not included in the delivery of the LED 021/022. These parts can be ordered separately. Sets, consisting of lamp and accessories, are available on request. Likewise, custom cables are available on request.

FEMALE / MALE CONNECTORS





Photo: Female connector, Art. No. 264057

Photo: Male connector, Art. No. 264058

Art. No.	Model	Voltage type	Color	Use for	Wire cross-section ¹	Approvals
264057	female connector	AC	white	power input	0,5-2,5 mm ² (AWG 14-20)	VDE + UL
264058	male connector	AC	white	power output	0,5-2,5 mm ² (AWG 14-20)	VDE + UL

¹ applies to rigid and stranded wire. Wire end ferrules must be used when connecting with stranded wires

CONNECTION CABLE WITH FEMALE CONNECTOR AND OPEN END



Photo: Connection cable, Art. No. 244356

Art. No.	Model	Length	Voltage type	Color	Use for	Approvals ²
244356	connection cable 2 x 1.5 mm² with female connector	2.0 m	AC	connector: white; cable: white	power input	VDE
244357	connection cable 2 x AWG 15 with female connector	2.0 m	AC	connector: white; cable: white	power input	VDE + UL

² applies only to the individual components (cable and connectors)

EXTENSION CABLE WITH 2 CONNECTORS FOR DAISY CHAIN CONNECTION

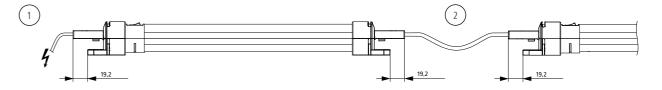


Photo: Extension cable, Art. No. 244358

Art. No.	. Model	Length	Voltage type	Color	Use for	Approvals ²
244358	extension cable 2 x 1.5 mm ² with 2 connectors	1.0 m	AC	connectors: white; cable: white	daisy chain	VDE
244359	extension cable 2 x AWG 15 with 2 connectors	1.0 m	AC	connectors: white; cable: white	daisy chain	VDE + UL

² applies only to the individual components (cable and connectors)

CONNECTION EXAMPLE



This illustration shows the LED 021/022 lamp in a daisy chain application. The lamps are conveniently connected via connection plugs - up to 8 lamps max. can be daisy-chained this way. The snap lock connectors ensure a stable electrical connection even if subjected to heavy vibration. The connection example shows a AC 230 V application, using the following cables: connection cable with female connector, Art. No. 244356 (1); daisy chain extension cable with 2 connectors, Art. No. 244358 (2).

Female/male connectors are also available to assemble cables in non-standard lengths.

105

LED ENCLOSURE LAMP

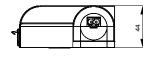
LED 121/122

LED 121 On/off switch and screw fixing

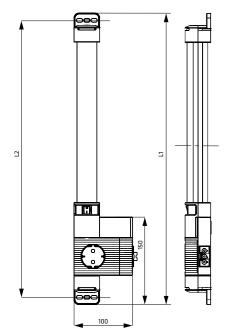
LED 122 Movement sensor and magnet fixing



LED 121/122 magnet/screw



LED 121/122 side view



LED 121 (Size 1) LED 122 (Size 2) L1 = 500 mm L1 = 700 mm L2 = 475 mm L2 = 675 mm

- > High luminous flux
- > Integrated socket > Durable and maintenance free
- LED technology

- > Integrated power unit
- > Daisy chain
- > On/off switch, movement sensor or connection for external door switch

The LED 121/122 Varioline is a powerful and compact LED lamp with integrated socket for use in enclosures. Featuring socket standards of many European countries as well as the US and Australia, it allows for the power $connection \ of \ laptops \ and \ diagnostic \ devices. \ Its \ LED \ tube \ emits \ more \ than \ 1,000/1,700 \ Lm \ thereby \ illuminating$ even very large enclosures in their full depth and height. The glare-free, 120° rotatable light tube uses Mid-power LEDs with a service life of 60,000 h.



TECHNICAL DATA

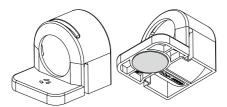
Power consumption	< 10 W/15 W
Operating voltage	AC 220 - 240 V, 50/60 Hz (min. AC 200 V, max. AC 265 V) AC 120 V, 50/60 Hz (min. AC 110 V, max. AC 130 V)
Luminous flux	1,080 Lm/1,730 Lm
Lamp type	LED, angle of radiation 120° light color: daylight, color temperature: 6,500 K
Service life	60,000 h at +20 °C (+68 °F)
Connection	3-pole connector with snap lock AC: max. 16 A / AC 240 V, color: white
Mounting	magnet fixing or screw fixing (M5), torque 2 Nm max.
Casing	plastic, translucent
Dimensions	see drawings
Weight	~ 0.3 kg/0.4 kg
Operating/Storage temperature	-40 to +40 °C (-40 to +104 °F) / -40 to +85 °C (-40 to +185 °F)
Operation/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / I (earthed)
Energy efficiency class	F

Mounting options: The lamps are available with magnet fixing for easy positioning in any steel cabinet or enclosure. A classic is the LED 121/122 with screw fixing. With a total rotation angle of 120° it provides perfect illumination.

Note: The lamp must not be used for household lighting.

View of magnet fixing









VARIOLINE LED 121/122 ON/OFF SWITCH

STEGO - PRODUCT CATALOGUE

Size 1: L1 =	Size 1: L1 = 500 mm Size 2: L1 = 700 mm								
Art. No. Magnet fixing	Art. No. Screw fixing	Art. No. Magnet fixing	Art. No. Screw fixing	Operating voltage	Socket	Nominal current of socket		Approvals	
12100.0-30 ²	12100.0-00 ²	12200.0-30 ¹	12200.0-00 ¹	AC 220 - 240 V, 50/60 Hz	Germany/Russia (1)	16.0 A	VDE	-	EAC
12101.0-30 ²	12101.0-00 ²	-	-	AC 220 - 240 V, 50/60 Hz	FR/PL/CZ/SK (2)	16.0 A	VDE	-	EAC
12102.0-30 ¹	12102.0-00 ¹	-	-	AC 220 - 240 V, 50/60 Hz	Switzerland (3)	10.0 A	-	-	EAC
12103.0-30 ¹	12103.0-00 ¹	-	-	AC 220 - 240 V, 50/60 Hz	UK/Ireland (4)	13.0 A	VDE	-	EAC
12104.0-30 ¹	12104.0-00 ¹	-	-	AC 120 V, 50/60 Hz	USA/Canada (5)	15.0 A	-	UL File No. E234324	EAC
12105.0-30 ¹	12105.0-00 ¹	-	-	AC 220 - 240 V, 50/60 Hz	Italy (6)	16.0 A	VDE	-	EAC
12107.0-30 ¹	12107.0-00 ¹	12207.0-30 ¹	-	AC 220 - 240 V, 50/60 Hz	Australia (7)	10.0 A	VDE	-	EAC

¹ Last-Buy-Option until 30.09.2023. ² Last-Buy-Option until 30.12.2023.

VARIOLINE LED 121/122 PIR MOVEMENT SENSOR¹

Size 1: L1 = 500 mm		Size 2: L1 = 700 mm							
Art. No. Magnet fixing	Art. No. Screw fixing	Art. No. Magnet fixing	Art. No. Screw fixing	Operating voltage	Socket	Nominal current of socket		Approvals	
12110.0-30	12110.0-00	12210.0-30 ³	12210.0-00 ²	AC 220 - 240 V, 50/60 Hz	Germany/Russia (1)	16.0 A	VDE	-	EAC
12111.0-30 ²	12111.0-00 ³	-	-	AC 220 - 240 V, 50/60 Hz	FR/PL/CZ/SK (2)	16.0 A	VDE	-	EAC
-	12112.0-00 ²	-	12212.0-00 ²	AC 220 - 240 V, 50/60 Hz	Switzerland (3)	10.0 A	-	-	EAC
-	-	-	12213.0-00 ²	AC 220 - 240 V, 50/60 Hz	UK/Ireland (4)	13.0 A	VDE	-	EAC
12114.0-30 ²	12114.0-00 ²	12214.0-30 ²	12214.0-00	AC 120 V, 50/60 Hz	USA/Canada (5)	15.0 A	-	UL File No. E234324	EAC

^{1 ~ 5} min fixed switch-on duration

VARIOLINE LED 121/122 WITH CONNECTION FOR EXTERNAL DOOR SWITCH

Size 1: L1 = 500 mm		Size 2: L1 = 700 mm								
Art. No. Magnet fixing	Art. No. Screw fixing	Art. No. Magnet fixing	Art. No. Screw fixing	Operating voltage	Socket	Nominal current of socket		Approvals		
12120.0-30 ¹	12120.0-00 ²	12220.0-30 ¹	12220.0-00 ¹	AC 220 - 240 V, 50/60 Hz	Germany/Russia (1)	16.0 A	VDE	-	EAC	
12121.0-30 ¹	-	-	-	AC 220 - 240 V, 50/60 Hz	FR/PL/CZ/SK (2)	16.0 A	VDE	-	EAC	
-	12122.0-00 ¹	-	12222.0-00 ¹	AC 220 - 240 V, 50/60 Hz	Switzerland (3)	10.0 A	-	-	EAC	
-	-	-	12223.0-00 ¹	AC 220 - 240 V, 50/60 Hz	UK/Ireland (4)	13.0 A	VDE	-	EAC	
12124.0-30 ¹	-	12224.0-30 ¹	-	AC 120 V, 50/60 Hz	USA/Canada (5)	15.0 A	-	UL File No. E234324	EAC	

¹ Last-Buy-Option until 30.09.2023

VARIOLINE LED 121/122 WITHOUT SWITCHING OPTION

Size 1: L1 = 500 mm Size 2: L1 = 700 mm		Size 2: L1 = 700 mm					
Art. No. Magnet fixing	Art. No. Screw fixing	Art. No. Screw fixing	Operating voltage	Socket	Nominal current of socket	Approvals	
12130.0-30 ¹	-	-	AC 220 - 240 V, 50/60 Hz	Germany/Russia (1)	16.0 A	VDE	EAC
-	12131.0-00 ¹	-	AC 220 - 240 V, 50/60 Hz	FR/PL/CZ/SK (2)	16.0 A	VDE	EAC
-	-	-	AC 220 - 240 V, 50/60 Hz	Switzerland (3)	10.0 A	-	EAC
-	12133.0-00 ¹	12233.0-00	AC 220 - 240 V, 50/60 Hz	UK/Ireland (4)	13.0 A	VDE	EAC

¹ Last-Buy-Option until 30.09.2023















² Last-Buy-Option until 30.09.2023 ³ Last-Buy-Option until 30.12.2023

ACCESSORIES LED 121/122







Art. No.	Model	Voltage type	Color	Use for	Wire cross-section ¹	Approvals
264093	female connector	AC	white	power input and daisy chain	0,75-2,5 mm² (AWG 14-18)	VDE + UL
264091	female connector	AC	white	power input	0,75-2,5 mm ² (AWG 14-18)	VDE + UL
264090	male connector	AC	grey	door switch	0,5-2,5 mm ² (AWG 14-20)	VDE + UL

¹ applies to rigid and stranded wire. Wire end ferrules must be used when connecting with stranded wires

CONNECTION CABLE WITH FEMALE CONNECTOR AND OPEN END



ı	Art. No.	Model	Length	Color	Use for	Approvals ²
	244422	connection cable 3 x 1.5 mm ² with female connector	4.0 m	connector: white; cable: white	power input	VDE
	244423	connection cable 3 x AWG 16 with female connector	4.0 m	connector: white; cable: white	power input	VDE + UL

² applies only to the individual components (cable and connectors)

EXTENSION CABLE WITH 2 CONNECTORS FOR DAISY CHAIN CONNECTION



Photo: Extension cable, Art. No. 244358

Art. No.	Model	Length	Color	Use for	Approvals ²
244358	extension cable 2 x 1.5 mm ² with 2 connectors	1.0 m	connectors: white; cable: white	daisy chain	VDE
244359	extension cable 2 x AWG 15 with 2 connectors	1 N m	connectors: white: cable: white	daisy chain	VDE + III

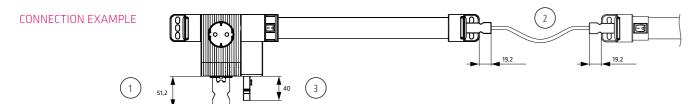
² applies only to the individual components (cable and connectors)

CONNECTION CABLE WITH MALE CONNECTOR AND OPEN END



Art. No.	Model	Length	Color	Use for	Approvals ²
244424	connection cable 2 x 1.5 mm ² with male connector	0.6 m	male connector: grey; cable: white	power output	VDE
244425	connection cable 2 x AWG 15 with male connector	0.6 m	male connector: grev: cable: white	nower outnut	VDF + III

² applies only to the individual components (cable and connectors)



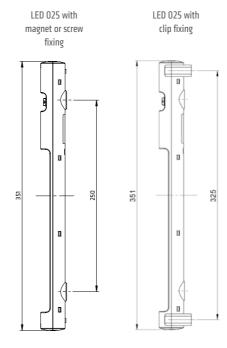
The lamps are conveniently connected via connection plugs - up to 8 lamps max. can be daisy-chained this way. Female/male connectors are also available to assemble cables in non-standard lengths.

STEGO - PRODUCT CATALOGUE LIGHTING

LED ENCLOSURE LAMP

LED 025





- > Wide voltage range
- > Integrated power unit
- > Long-lived and maintenance-free by LED technology
- > Daisy chain
- > On/off switch or movement sensor
- > Magnet, screw or clip fixing

The lamp series LED 025 is suitable for all types of panels and enclosures, especially where space is at a premium. The lamps have a very long service life thanks to the use of LED technology. Three different fixing options provide more flexibility for installation. The power output allows up to 10 lamps to be connected to each other. Both the power input and output connectors snap lock into their sockets. With the integrated power unit and the plugs the lamp can quickly be connected.











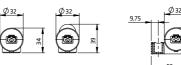
TECHNICAL DATA

Power consumption	< 4 W
Luminous flux	400 Lm at 120°
Lamp type	LED, angle of radiation 120° light color: daylight, color temperature: 6,000 K to 7,000 K
Service life	60,000 h at +20 °C (+68 °F)
Connection	2-pole connector with snap lock AC: max. 2.5 A / AC 240 V, color: white DC: max. 2.5 A / DC 60 V, color: blue
Mounting	magnet fixing or screw fixing (M5), clip fixing (M6), torque 2 Nm max.
Casing	plastic, transparent
Dimensions	see drawings
Weight	0.2 kg
Operating/Storage temperature	-40 to +60 °C (-40 to +140 °F) / -40 to +85 °C (-40 to +185 °F)
Operating/Storage humidty	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / II (double insulated), DC 12 V: IP20 / III (extra-low voltage)
Energy efficiency class	F

Mounting options: The lamps are available with magnet fixing for easy positioning in any steel cabinet or enclosure. A classic is the LED 025 with screw fixing. The clip holders exclusively designed for clip fixing of the LED 025 can be positioned anywhere in the cabinet by simply screwing the holders to the cabinet wall. The lamp is snapped into the clip holders and can be turned in both directions. With a total rotation angle of 180° it provides perfect illumination within the cabinet or enclosure.

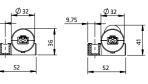
Side view screw fixing

Note: The lamp must not be used for household lighting.



Side view magnet fixing







Side view clip fixing



Art. No. Magnet fixing	Art. No. Screw fixing	Art. No. Clip fixing	Operating voltage	Switch		Appovals		
02540.0-00	02540.0-01	02540.0-03	AC 100 – 240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	on/off light switch	VDE	UL File No. E234324	CCC	EAC
02540.1-00	02540.1-01	02540.1-03	DC 24 - 48 V (min. DC 20 V, max. DC 60 V)	on/off light switch	VDE	UL File No. E234324	CCC	EAC
02541.0-00	02541.0-01	02541.0-03	AC 100 – 240 V, 50/60 Hz (min. AC 90 V, max. AC 265 V)	PIR movement sensor ¹	VDE	UL File No. E234324	CCC	EAC
02541.1-00	02541.1-01	02541.1-03	DC 24 - 48 V (min. DC 20 V, max. DC 60 V)	PIR movement sensor ¹	VDE	UL File No. E234324	CCC	EAC

¹ ~ 5 min fixed switch-on duration

Connectors and cables for electrical connection are not included in the delivery of the LED 025. These parts can be ordered separately. Sets, consisting of lamp and accessories, are available on request.

CONNECTION CABLE WITH FEMALE CONNECTOR AND OPEN END



Photo: Connection cable, Art. No. 244356

Art. No.	Model	Length	Voltage type	Color	Use for	Approvals ²
244356	connection cable 2 x 1.5 mm ² with female connector	2.0 m	AC	connector: white; cable: white	power input	VDE
244357	connection cable 2 x AWG 15 with female connector	2.0 m	AC	connector: white; cable: white	power input	VDE + UL
244360	connection cable 2 x 0.75 mm ² with female connector	2.0 m	DC 24 - 48 V	connector: blue; cable: white	power input	VDE
244361	connection cable 2 x AWG 15 with female connector	2.0 m	DC 24 - 48 V	connector: blue; cable: white	power input	VDE + UL

² applies only to the individual components (cable and connectors)

EXTENSION CABLE WITH 2 CONNECTORS FOR DAISY CHAIN CONNECTION



Photo: Extension cable, Art. No. 244358

Art. No.	Model	Length	Voltage type	Color	Use for	Approvals ²
244358	extension cable 2 x 1.5 mm ² with 2 connectors	1.0 m	AC	connectors: white; cable: white	daisy chain	VDE
244359	extension cable 2 x AWG 15 with 2 connectors	1.0 m	AC	connectors: white; cable: white	daisy chain	VDE + UL
244362	extension cable 2 x 1.5 mm ² with 2 connectors	1.0 m	DC 24 - 48 V	connectors: blue; cable: white	daisy chain	VDE
244363	extension cable 2 x AWG 15 with 2 connectors	1.0 m	DC 24 - 48 V	connectors: blue; cable: white	daisy chain	VDE + UL

² applies only to the individual components (cable and connectors)

FEMALE / MALE CONNECTORS





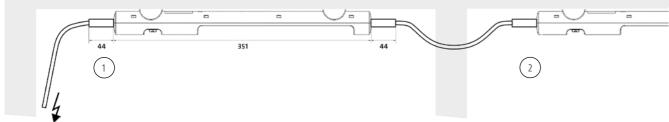
Photo: Female connector, Art. No. 264057

Photo: Male connector, Art. No. 264058

Art. No.	Model	Voltage type	Color	Use for	Wire cross-section ³	Approvals
264057	female connector	AC	white	power input	0.5-2.5 mm ² (AWG 14-20)	VDE + UL
264058	male connector	AC	white	power output	0.5-2.5 mm ² (AWG 14-20)	VDE + UL
264059	female connector	DC 24 - 48 V	blue	power input	0.5-2.5 mm ² (AWG 14-20)	VDE + UL
264060	male connector	DC 24 - 48 V	blue	power output	0.5-2.5 mm ² (AWG 14-20)	VDE + UL

³ applies to rigid and stranded wire. Wire end ferrules must be used when connecting with stranded wires.

CONNECTION EXAMPLE



This illustration shows the LED 025 lamp in a daisy chain application. The lamps are conveniently connected via quick connection plugs - up to 10 lamps max. can be daisy-chained this way. The snap lock connectors ensure a stable electrical connection even if subjected to heavy vibration. The connection example shows a AC 230 V application, using the following cables: connection cable with female connector, Art. No. 244356 (1); daisy chain extension cable with 2 connectors, Art. No. 244358 (2).

Female/male connectors are also available to assemble cables in non-standard lengths.

STEGO - PRODUCT CATALOGUE LIGHTING

ENCLOSURE LAMP WITH ENERGY-SAVING BULB

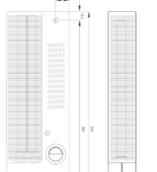
SL 025 ON/OFF SWITCH



- > Slim casing
- > Electronic ballast
- > Lamp without/with electrical socket (choice of sockets)
- > Magnet fixing (option)
- > Energy saving lamp > On/Off switch

The flat slimline lamp SL 025 is suitable for all types of panels and enclosures, especially where space is at a premium. The lamp can be mounted on its narrow or broad surface using screws. It is also available with a magnet which allows it to be fitted quickly in any position in a steel enclosure. Both versions are available with an integrated electrical socket enabling the use of additional appliances.

Photo: Slimline lamp with on/off switch, with integrated electric socket (Germany), Art. No. 02520.0-00







Power consumption	9 W
Luminosity	510 Lm (equals 45 W light bulb)
Lamp type	energy saving lamp, 2G7 socket
Service life	10,000 h
Switch	on/off light switch
Connection	terminal 2.5 mm² with cable clamp, torque 0.8 Nm max.
Mounting	screw fixing, M5, 300 mm centers magnet fixing (optional)
Casing	plastic according to UL94 V-O, light grey
Dimensions	345 x 91 x 40 mm
Fitting position	narrow surface/broad surface
Operating/Storage temperature	-20 to +50 °C (-4 to +122 °F) / -45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type	IP20
Energy efficiency class	G











Art. No.	Model	Operating voltage	Socket	Nominal current	Weight (approx.)	Protection class		Approvals	
02520.0-00	without magnet	AC 230 V, 50/60 Hz	Germany/Russia (1)	16.0 A	0.4 kg	I (earthed)	VDE	-	EAC
02520.1-01	with magnet	AC 230 V, 50/60 Hz	Germany/Russia (1)	16.0 A	0.5 kg	I (earthed)	VDE	-	EAC
02521.1-04	with magnet	AC 230 V, 50/60 Hz	F/PL/CZ/SK (2)	16.0 A	0.5 kg	I (earthed)	VDE	-	EAC
02523.1-05	with magnet	AC 230 V, 50/60 Hz	UK/Ireland (4)	13.0 A	0.5 kg	I (earthed)	VDE	-	EAC
02527.0-00	without magnet	AC 230 V, 50/60 Hz	none	-	0.4 kg	II (double insulated)	VDE	UL File No. E234324	EAC
02527.1-14	with magnet	AC 230 V, 50/60 Hz	none	-	0.5 kg	II (double insulated)	VDE	-	EAC

Note: The slimline lamp SL 025 is also available with a 19" front panel

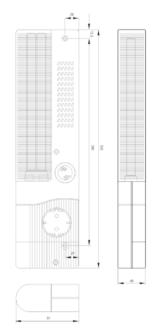
PRODUCT CATALOGUE - STEGO LIGHTING

ENCLOSURE LAMP WITH ENERGY-SAVING BULB

SL 025 | MOVEMENT SENSOR



Photo: Slimline lamp with movement sensor and with integrated electric socket (Germany), Art. No. 02520.0-03



- > Electronic ballast
- > Lamp without/with electrical socket
- > Magnet fixing (option)
- > Energy saving lamp > Automatic switching

The flat slimline lamp SL 025 with movement sensor is suitable for all types of panels and enclosures, especially where space is at a premium. The lamp can be mounted on its narrow or broad surface using screws. It is also available with a magnet which allows it to be fitted quickly in any position in a steel enclosure. Both versions are available with an integrated electrical socket enabling the use of additional appliances. The movement sensor substitutes a door contact switch.







TECHNICAL DATA

Power consumption	9 W
Luminosity	510 Lm (equals 45 W light bulb)
Lamp type	energy saving lamp, 2G7 socket
Service life	10,000 h
Switch	PIR movement sensor, approx. 6 min fixed switch-on duration
Connection	terminal 2.5 mm ² with cable clamp, torque 0.8 Nm max.
Mounting	screw fixing, M5, 300 mm centers, magnet fixing (optional)
Casing	plastic according to UL94 V-O, light grey
Dimensions	345 x 91 x 40 mm
Fitting position	narrow surface/broad surface
Operating/Storage temperature	-20 to +50 °C (-4 to +122 °F) / -45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type	IP20
Energy efficiency class	G

The PIR movement sensor switches the lighting on when the enclosure door is opened. The switch-on time is reset with every further registered movement. The movement sensor does not react to movement on the other side of glass and so can be used in enclosures with glass doors.











Art. No.	Model	Operating voltage	Socket	Nominal current	Weight (approx.)	Protection class		Approvals	
02520.0-03	without magnet	AC 230 V, 50/60 Hz	Germany/Russia (1)	16.0 A	0.4 kg	I (earthed)	VDE	-	EAC
02520.1-04	with magnet	AC 230 V, 50/60 Hz	Germany/Russia (1)	16.0 A	0.5 kg	I (earthed)	VDE	-	EAC
02521.0-03	without magnet	AC 230 V, 50/60 Hz	F/PL/CZ/SK (2)	16.0 A	0.4 kg	I (earthed)	VDE	-	EAC
02527.0-04	without magnet	AC 230 V, 50/60 Hz	none	-	0.4 kg	II (double insulated)	VDE	UL File No. E234324	EAC
02527.1-15	with magnet	AC 230 V, 50/60 Hz	none	-	0.5 kg	II (double insulated)	VDE	-	EAC

Note: The slimline lamp SL 025 is also available with a 19" front panel



ACCESSORIES

COMPLEMENTARY ELECTRONICS PROTECTION

STEGO accessories help to discharge condensate and pressure. Country-specific sockets ensure safe connection of external devices.

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ELECTRICAL SOCKET

SD 035



> Quickly connected > Available with or without fuse > Clip fixing

The DIN rail mounted electrical socket can be quickly fitted and connected in enclosures allowing the use of auxiliary products such as hand lamps, measuring devices, soldering irons etc. The unit is available with and without fuse and in many world socket standards.

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PRODUCT CATALOGUE - STEGO

TECHNICAL DATA

Connection	3 x pressure clamps for stranded and rigid wire 0.5 – 2.5 mm ²
Mounting	clip for 35 mm DIN rail, EN 60715
Casing	plastic according to UL94 V-O, light grey
Dimensions	92 x 62 x 48 mm
Weight	~ 0.2 kg
Fitting position	variable
Operating/Storage temperature	-45 to +70 °C (-49 to +158 °F)
Operating/Storage humidity	< 90 % RH (non-condensing)
Protection type/Protection class	IP20 / I (earthed)

















Art. No.	Operating voltage max.	Socket	Model	Nominal current	Approvals
03500.0-00	AC 250 V	Germany/Russia (1)	with fuse ¹	6.3 A	EAC
03500.0-01	AC 250 V	Germany/Russia (1)	without fuse	16.0 A	EAC
03501.0-00	AC 250 V	F/PL/CZ/SK (2)	with fuse ¹	6.3 A	-
03501.0-01	AC 250 V	F/PL/CZ/SK (2)	without fuse	16.0 A	-
03502.0-00	AC 250 V	Switzerland (3)	with fuse ¹	6.3 A	-
03502.0-01	AC 250 V	Switzerland (3)	without fuse	10.0 A	-
03503.0-00	AC 250 V	UK/Irland (4)	with fuse ¹	6.3 A	-
03503.0-01	AC 250 V	UK/Irland (4)	without fuse	13.0 A	-
03504.0-00	AC 125 V	USA/Canada (5)	with fuse ¹	6.3 A	UL File No. E222026
03504.0-01	AC 125 V	USA/Canada (5)	without fuse	15.0 A	UL File No. E222026
03505.0-00	AC 250 V	Italy (6)	with fuse ¹	6.3 A	-
03505.0-01	AC 250 V	Italy (6)	without fuse	16.0 A	-
03507.0-01	AC 240 V	Australia (7)	without fuse	10.0 A	-
03508.0-01	AC 250 V	Brazil (8)	without fuse	10.0 A	-
03509.0-01	AC 250 V	Old British - BS 546 (9)	without fuse	5.0 A	-

¹ fuse Ø 5 x 20 mm

Connections from mains

PRESSURE COMPENSATION DEVICE

DA 084 IP55

STEGO - PRODUCT CATALOGUE





Photo: Inside view

> High degree of protection

> Easy to install

It has become more and more important to provide a protected enclosure environment for valuable and crucial electrical and electronic components. In a tightly closed enclosure, pressure differentials can occur during extreme temperature variations. The specially designed pressure compensation device DA 084 permits a controlled change in pressure and avoids the enterring of dust and water. The pressure compensation device is suitable for the use in enclosures and housings in accordance with DIN EN 62208.

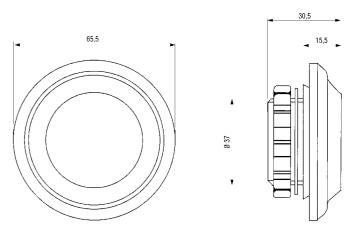


TECHNICAL DATA

Mounting	PG 29 thread with union nut
Torque	5 Nm
Material	plastic according to UL94 V-O, light grey weather proof and UV light resistant according to UL746C (f1)
Sealing	sealing gasket NBR
Air interface	~ 1.5 cm ²
Dimensions	Ø 65.5 x 30.5 mm
Fitting position	vertical ¹
Operating/Storage temperature	-45 to +70 °C (-49 to +158 °F)
Approvals	EAC

¹ Protection type is restricted to IP54 if fitting position of DA 084 is not vertical.

Installation: Make cut-out Ø 37*1 mm in enclosure wall and mount pressure compensation device with nut. Please make sure that the sealing gasket is put in place on the outer side panel of the enclosure. For optimal pressure compensation we recommend to use two devices on opposite sides towards the top of the enclosure.



Art. No.	Protection type	1 packing unit	Weight (approx.)
08400.0-02-9002	IP55	2 pieces	62 g (31 g / piece)

PRESSURE COMPENSATION DEVICE

DA 284 | IP66 / IP67





Photo: DA 284, M40

> High degree of protection > Waterproof membrane

> Easy to install

In enclosures and housings with a high protection class, differential pressure happens due to internal and external temperature changes. In the event of negative pressure, dust and humidity can be drawn into the enclosure through the seals on the doors. This can cause condensation when the air in the enclosure cool down. The easy-tofit DA 284 pressure compensation device enables pressure compensation with protection class IP66 (M12: IP66/ IP68). Additionally, the watertight membrane inside the pressure compensation device allows humidity to escape from the cabinet at overpressure, while preventing water, humidity or dirt intrusion at under pressure.



PRODUCT CATALOGUE - STEGO

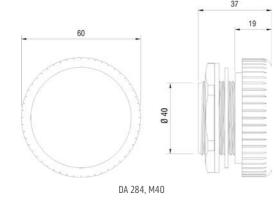


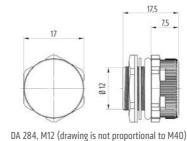
Photo: DA 284, M12

TECHNICAL DATA

Mounting	thread M40 x 1.5 or M12 x 1.5 with nut
Torque	M40: 5 Nm, M12: 0.5 Nm
Depth in enclosure	M40: approx. 16mm, M12: approx. 8 mm
Sealing	sealing gasket NBR
Filter	waterproof membrane
Dimensions	M40: Ø 60 x 37 mm, M12: Ø 17 x 17.5 mm
Fitting position	variable
Operating/Storage temperature	-35 to +70 °C (-31 to +158 °F)

Installation: Make cut-out Ø 40.5^{-0.5} mm in enclosure wall for size M40 or Ø 12^{+0.2} mm for size M12, and mount pressure compensation device with nut. Please make sure that the sealing gasket is put in place on the outer side panel of the enclosure.





Art. No.	Thread	Material Material	Protection type	Air permeability ¹	1 packing unit	Weight (approx.)	Approva	ıls
28400.0-00	M40 x 1.5	plastic, light grey	IP66 (EN 60529) / IPX9K (EN 40050-9)	1,200 l/h	2 pieces	90 g (45 g / piece)	-	EAC
28400.0-01	M40 x 1.5	plastic, light grey	IP66 (EN 60529) / IPX9K (EN 40050-9)	1,200 l/h	1 piece	45 g	-	EAC
28400.0-04	M40 x 1,5	plastic, light grey	IP66 (EN 60529) / IPX9K (EN 40050-9)	1,200 l/h	100 pieces	4.5 kg (45 g / piece)	-	EAC
28405.0-00	M40 x 1.5	plastic according to UL94 V-O, light grey; weather proof and UV light resistant according to UL746C (f1)	IP66 (EN 60529) / IPX9K (EN 40050-9)	1,200 l/h	2 pieces	120 g (60 g / piece)	UL File No. E234324	EAC
28406.0-00	M12 x 1.5	plastic according to UL94 V-O, light grey; weather proof and UV light resistant according to UL746C (f1)	IP66/IP68 (EN 60529) / IPX9K (EN 40050-9)	120 l/h	2 pieces	4 g (2 g / piece)	UL File No. E234324	EAC

¹ at a pressure difference of min. 70 mbar

PRESSURE COMPENSATION DEVICE (STAINLESS STEEL/ALUMINIUM)

DA 284 | IP66 / IP67

STEGO - PRODUCT CATALOGUE





Photo: M40 in stainless steel

- > High degree of protection
- > Corrosion resistant
- > Waterproof membrane > Food safe

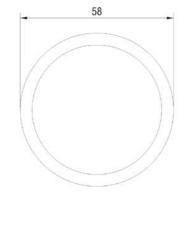
In enclosures and housings with a high protection class, differential pressure happens due to internal and external temperature changes. In the event of negative pressure, dust and humidity can be drawn into the enclosure through the seals on the doors. This can cause condensation when the air in the enclosure cool down. The easy-tofit DA 284 pressure compensation device enables pressure compensation with protection class IP66 (M12: IP66/ IP68). Additionally, the watertight membrane inside the pressure compensation device allows humidity to escape from the cabinet at overpressure, while preventing water, humidity or dirt intrusion at under pressure.

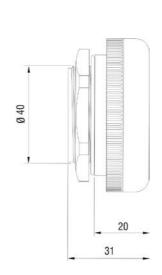


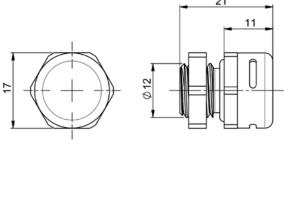
TECHNICAL DATA

Torque	5 Nm
Depth in enclosure	~ 9 mm
Sealing	sealing gasket NBR
Filter	waterproof membrane
Dimensions	M40: Ø 58 x 31 mm, M12: Ø 17 x 21 mm
Fitting position	variable
Operating/Storage temperature	-35 to +80 °C (-31 to +176 °F)
Approvals	EAC

Installation: Make cut-out Ø 40.5^{-0.5} mm for size M40/ Ø 12+ 0,2 mm for size M12 in enclosure wall and mount pressure compensation device with nut. Please make sure that the sealing gasket is put in place on the outer side panel of the enclosure.







Art. No.	Thread	Material	Protection type	Air permeability ¹	1 packaging unit	Weight (approx.)
28401.0-00	M40 x 1,5	V2A (DIN 1.4305 / AISI 303) ²	IP66 (EN 60529) / IPX9K (EN 40050-9)	1.200 l/h	1 piece	0,2 kg
28401.0-02	M40 x 1,5	V4A (DIN 1.4404 / AISI 316L)	IP66 (EN 60529) / IPX9K (EN 40050-9)	1.200 l/h	1 piece	0,2 kg
28404.0-00	M12 x 1,5	Nickel-plated aluminum ³	IP66/67	220 l/h	1 piece	0,009 kg

¹ at a pressure difference of min. 70 mbar

² V2A is not sea waterproof ³ Corrosion test according to ISO 9227:2017

DRAINAGE DEVICE

DD 084 | IP66 / IP67 / IP69K





Photo: Inside view

- > High degree of protection
- Good drainage performanceEasy to install
- > Robust, weather and UV-light protected housing

Condensate occurs in enclosures and housings with high protection type by variations in temperature. The use of a drainage device allows the conveying of the condensate without loosing the maximum protection type of IP66. The water permeable membrane makes sure the drainage of the enclosure by the capillary attraction. The construction prevents the infiltration of splash water into the enclosure.

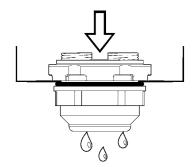


PRODUCT CATALOGUE - STEGO

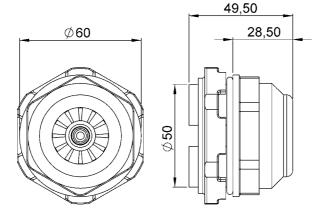
TECHNICAL DATA

Mounting	thread M50 x 1.5 with nut (wrench size 60 mm, housing 50 mm)
Torque	6 Nm max.
Depth in enclosure	< 17.5 mm
Material	plastic according to UL94 V-O, black, weather proof and UV light resistant according UL746C (f1)
Water entry height	0 mm (at 0.5 mm wall thickness)
Sealing	sealing gasket NBR
Water flow-through	~ 200 ml/h at a water column of 5 mm
Dimensions	Ø 60 x 49.5 mm
Fitting position	horizontal, lowest point
Operating/Storage temperature	-45 to +70 °C (-49 to +158 °F)
Approvals	EAC

Installation: Make cut-out Ø 50.5*0.5 mm in enclosure bottom and mount drainage device with nut. Please make sure that the sealing gasket is put in place on the outer side panel of the enclosure and the hole is free of burrs.



Fitting position



Art. No.	Protection type	Enclosure wall thickness	1 package unit	Weight (approx.)
08410.0-00	IP66 / IP67 (EN 60529) / IP69K (EN 40050-9)	0.5 – 5.5 mm	1 piece	60 g

VENTILATION CABLE GLAND

DAK 284 | IP66 / IP67



- > Cable gland with integrated ventilation
- > High degree of protection
- > Easy to install
- > Integrated strain relief

> Waterproof filter

> Large clamping range

Pressure differentials in enclosures with a high degree of protection are a result of internal and external temperature changes. In the case of negative pressure or partial vacuum, dust and humidity can enter the enclosure through the door seal. When the air inside the enclosure cools down, condensation may occur because the humidity cannot escape the enclosure. The innovative and easy-to-install ventilation cable gland DAK 284 enables secure cable entry into an enclosure with simultaneous pressure compensation (protection type IP66 / IP67). Even with a slight overpressure, a waterproof filter inside the gland allows the humidity to escape whilst blocking water and dirt from entering the enclosure.



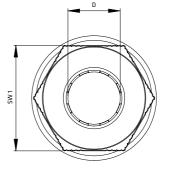


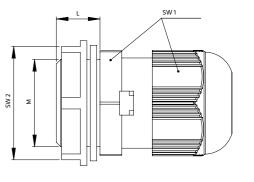


TECHNICAL DATA

Mounting	thread M12 x 1.5 / M16 x 1.5 / M20 x 1.5
Enclosure wall thickness	0.02 – 0.12" (0.5 – 3 mm) with lock nut
Material	plastic, light grey
Protection type	IP66 / IP67 (EN 60529)
Sealing	sealing gasket NBR
Filter	PTFE
Fitting position	variable
Operating/Storage temperature	-4 to +176 °F (-20 to +80 °C)
Approvals	VDE, UL File No. E471430, EAC

Installation: Make hole cut-out in enclosure and secure ventilation cable gland with lock nut. Please make sure that the sealing gasket is put in place on the exterior side panel of the enclosure and the hole is free of burrs.





Part No.	Th	read	External thread diameter	Cable dia. clamping range D	Hex nut dia.		D Hex nut dia.		Torque		Air permeability ¹	Weight
	Size M [mm]	Length L			SW 1	SW 2	Lock nut	Dome nut				
28410.0-00	M12 x 1.5	0.31" (8 mm)	0.48" (12.3 mm)	0.16 - 0.28" (4 - 7 mm)	0.74" (19 mm)	0.71" (18 mm)	2 Nm	2 Nm	25 l/h	0.25 oz. (7 g)		
28411.0-00	M16 x 1.5	0.39" (10 mm)	0.64" (16.3 mm)	0.16 - 0.28" (4 - 7 mm)	0.74" (19 mm)	0.86" (22 mm)	2 Nm	2 Nm	25 l/h	0.28 oz. (8 g)		
28412.0-00	M20 x 1.5	0.39" (10 mm)	0.8" (20.3 mm)	0.24 - 0.44" (6 - 11 mm)	0.94" (24 mm)	1.02" (26 mm)	5 Nm	5 Nm	40 l/h	0.46 oz. (13 g)		

¹ at a pressure differential of 70 mbar (1 psi)

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DOOR SWITCH

DS 013



- > Tool-free adjustable switch positioning
- > Strain relief, suitable for range of cable
- > High switching capacity
- > Suitable for lamp LED 025 and other devices

The door contact switch monitors the position of control cabinet doors and is available in three versions. Depending on requirements, it can, for example, switch on a light (NC) when the cabinet door is opened or activate a vent (NO) when the door is closed. The version with changeover contact (CO) enables use as an NC and/or NO contact. Due to its large mechanical adjustment range, the DS 013 door contact switch is versatile. The switch housing can be adjusted by 35 mm, and the slotted hole in the screw flange provides an additional 21 mm of clearance. The switching stroke of the switch itself is a further 8 mm.





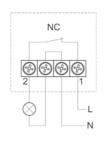
PRODUCT CATALOGUE - STEGO



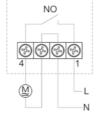
TECHNICAL DATA

Max. switching capacity	AC 250V; 8 (1,5) A
Service life	VDE: > 10,000 cycles UL: > 6,000 cycles
Connection	4-pole clamp, clamping torque 0.5 Nm max.
Housing	plastic according to UL 94V-0, black
Mounting	M5 screws (not included)
Mounting position	variable
Operating / Storage temperature	-4 to +185 °F (-20 to +85 °C)
Operating / Storage humidity	< 90 % RH (non-condensing)
Dimensions	3.4 x 2.5 x 1.2" (87 x 64 x 30 mm)
Weight	approx. 1.8 oz. (50 g)
Protection type	IP20
Approvals	VDE, EAC; UL intended

CO



Connection diagrams



01350.0-00 Round cable, stranded wire (with wire end ferrule) AWG 18 to 17 (0.75 mm² to 1 mm²) change-over (CO) Round cable, stranded wire (with wire end ferrule) AWG 18 to 17 (0.75 mm² to 1.5 mm²) 01351.0-00 normally closed (NC) 01352.0-00 Round cable, stranded wire (with wire end ferrule) AWG 18 to 17 (0.75 mm² to 1.5 mm²) normally open (NO)

APPLIANCE HOLDER STEGOFIX PLUS

SFP 095



Screw mounting



Self-adhesive tape mounting



Magnet mounting



Application example

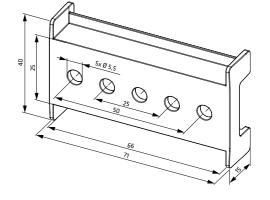
- > Alternative to 35 mm DIN rail
- > Easy/flexible installation
- > For devices and sockets with DIN rail mounting clip
- > Screw mounting
- > Self-adhesive tape mounting
- > Magnet mounting

The applicance holder STEGOFIX PLUS is the flexible alternative to a 35 mm DIN rail. It allows for a quick and easy installation of small devices or accessory equipment intended for DIN rail mounting. STEGOFIX PLUS is suitable for devices with a clip width of max. 66 mm, offering a convenient mounting method for almost any application: screw mounting with 25 mm pitch, high-performance adhesive tape or rubberized neodymium magnets.



TECHNICAL DATA

Areas of application	devices with DIN rail mounting clip suitable for a 35 mm DIN rail according to EN 60715, max. clip width 66 mm
Mounting	
> Screw mounting	e.g. tapping screws DIN 7981 (ISO 7049), Ø 5.5 mm; thread-forming screws DIN 7500, M5; (not included in delivery)
> Self-adhesive tape mounting	adhesive surface 65 x 25 mm
> Magnet mounting	2 neodymium magnets, rubberized
Material	plastic according to UL94 V-O, black
Dimensions	71 x 40 x 15 mm
Operating temperature	-35 to +75 °C (-31 to +167 °F)
Storage conditions (self-adhesive tape)	optimal storage conditions for self-adhesive tape approx. +20 $^{\circ}\text{C}$ (+68 $^{\circ}\text{F}$) at 50 $^{\circ}\text{RH}$
Approvals	EAC



Art. No.	Model	Max. Holding force ¹	1 packing unit	Weight (approx.)
09550.0-05	Screw mounting	-	5 pieces	65 g (13 g / piece)
09550.1-05	Self-adhesive tape mounting	75 N	5 pieces	70 g (14 g / piece)
09550.2-05	Magnet mounting	30 N	5 pieces	145 g (29 g / piece)

NOTES

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LOCATIONS

THE FAST TRACK TO STEGO



STEGO is represented globally and proud to offer its customers maximum availability, personal visits and consultations. With 9 locations, one sales office in China and more than 1500 sales partners worldwide, customer service is our top priority. Whenever you need support in matters of enclosure climatisation and thermal management – your STEGO contact is not far away.

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