HYGRASREG® KW
HYGRASREG® KW - SD

Condensation control switches including strap / with detached sensor head, with switching output

S+S REGELTECHNIK

Patented quality product
(pro-dynamic cross convection patent no. DE 10 2012 015 726.6)

The condensation control switch **HYGR**ASREG® **KW** with housing made from impact-resistant plastic with quick-locking screws or the cost-effective **HYGR**ASREG® **KW - SD** with snap-on lid is installed on cooling ceilings, on cooling /cold-water piping or on cooled surfaces and is designed to prevent the formation of condensation.

It reliably detects formation of dew by means of its humidity and temperature sensor (no conductivity measurement) and, thanks to its measuring method, **pro-dynamic cross convection**, yields an exact measurement result (with LED status indicator).

Dew point temperature is that temperature at which air reaches the state of saturation and water vapour starts to condensate. The KW condensation control switch can be operated as a monitor on cooling ceilings or pipes so that the switching output is activated when dew builds up on the cooling ceilings of the property to be monitored and e.g. a heating system is started, or other actuators are initiated.

KW-SD
with snap-on lid
(IP 54)



TECHNICAL DATA

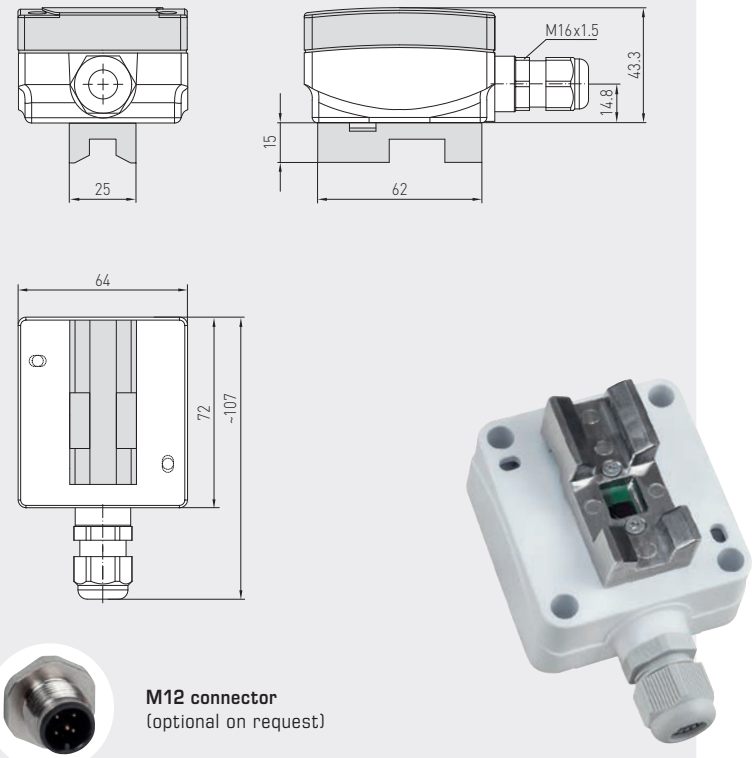
Power supply:	24 V AC (± 20 %) and 15...36 V DC
Power consumption:	< 1.1 VA / 24 V DC ; < 2.2 VA / 24 V AC
Switchpoint:	approx. 93 % RH (permanently set)
Output:	potential-free changeover contact (24 V), 1 A ohmic load
Sensor protection:	membrane filter
Medium:	clean air and non-aggressive, non-combustible gases
Housing:	plastic, UV-resistant, material polyamide, 30 % glass-globe reinforced, colour traffic white (similar to RAL 9016), housing cover is transparent! **KW-xx** **with quick-locking screws** (slotted / Phillips head combination), **KW-xx-SD** **with snap-on lid,**
Housing dimensions:	72 x 64 x 43.3 mm (Tyr 1 / Tyr 01)
Cable connection:	**cable gland**, plastic (M 16 x 1.5; with strain relief, exchangeable, inner diameter 10.4 mm) **or** **M12 connector** according to DIN EN 61076-2-101 (optional on request)
Electrical connection:	0.14 - 1.5 mm², via terminal screws
Process connection:	**KW / KW-SD** endless strap with metal tightener, 300 mm, for pipes up to 3 " diameter (included in the scope of delivery) **KW / KW-SD -external** cable tie, 200 mm (included in the scope of delivery)
Mounting:	The mounting position should be selected so that no condensate can enter the sensor system in the event that condensation forms! **KW / KW-SD** with strap for direct mounting on pipes or for direct mounting on flat surfaces (e.g. walls, ceilings) **KW-external / KW-SD-external** with detached sensor head (cable length KL = 2 m) for mounting on pipes
Protection class:	III (according to EN 60 730)
Protection type:	**KW-xx** **IP 65** (according to EN 60 529) Housing tested, TÜV SÜD, Report No. 713139052 (Tyr 1) **KW-SD-xx** **IP 54** (according to EN 60 529) Housing tested, TÜV SÜD, Report No. 713160960A (Tyr 01)
Standards:	CE-conformity, electromagnetic compatibility according to EN 61 326, EMC Directive 2014 / 30 / EU
FUNCTION	The relay output is triggered (contact 13 -11 closed) if the **switchpoint (93 % RH)** is not reached and opens (contact 12 -11 closed) in the event of a fault (power failure, condensation).
	**LED short pulses =** relay active → switchpoint not reached ACTUAL humidity **< 93 % RH (no condensation)**
	**LED long pulses =** relay inactive → switchpoint exceeded ACTUAL humidity **> 93 % RH (condensation)**

KW-SD-extern
with snap-on lid
(IP 54)



Dimensional drawing

KW
KW-SD



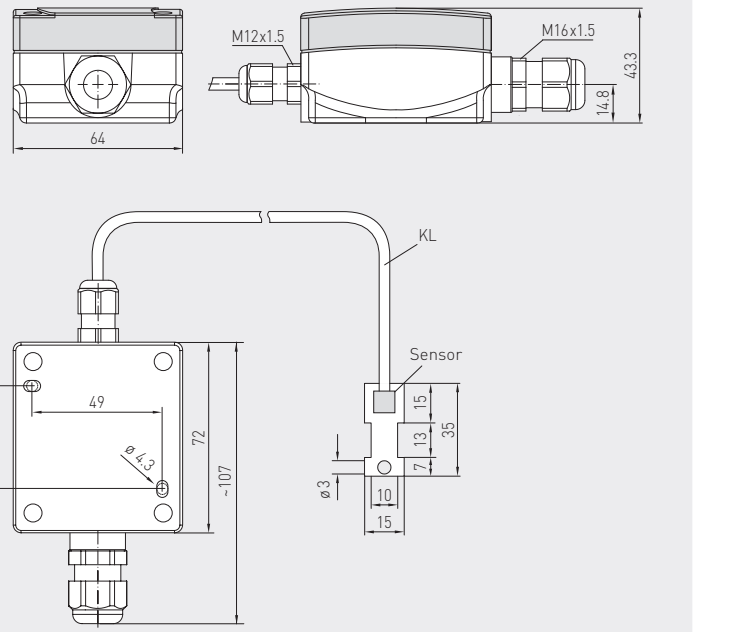
M12 connector
(optional on request)

KW
with quick-locking screws
(IP65)



Dimensional drawing

KW-external
KW-SD-external





M12 connector
(optional on request)

KW-extern
with quick-locking screws
(IP65)

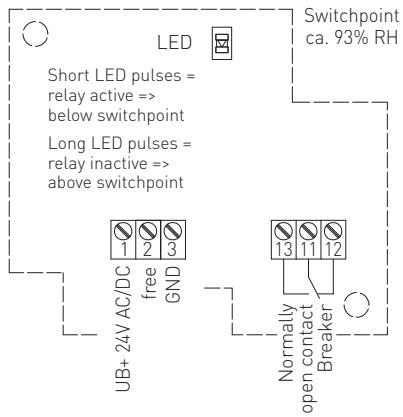


HYGRASREG® KW
HYGRASREG® KW - SD

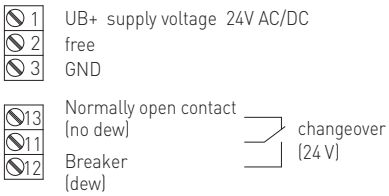
Condensation control switches including strap / with detached sensor head, with switching output

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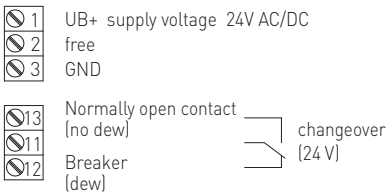
Schematic diagram **KW-W-xx**



Connecting diagram (no condensation) **RH < 93 %** **KW-W-xx**



Connecting diagram (condensation) **RH > 93 %** **KW-W-xx**



KW
pro-dynamic
cross convection



PATENTED



HYGRASREG® KW-SD	Condensation control switches including strap,, *Standard*
HYGRASREG® KW-SD-external	Condensation control switches with detached sensor head, *Standard*

Type / WG01B	**Switchpoint** Humidity	**Output** Humidity	**Mounting**	**Item No.**	**Price**
KW-SD			**Sensor internal**	**IP 54**	
KW-W-SD	ca. 93 % RH	Changeover contact	for direct mounting on pipes, for direct mounting on flat surfaces	1202-1075-0001-020	**108,78 €**
KW-SD-external			**Sensor external**	**IP 54**	
KW-W-SD extern	ca. 93 % RH	Changeover contact	for mounting on pipes	1202-1075-0001-040	**119,10 €**
Optional:	Cable connection with **M12 connector** according to DIN EN 61076-2-101			on request	

KW
KW-external
with quick-locking screws
(IP65)



KW-SD
KW-SD-external
with snap-on lid
(IP54)



HYGRASREG® KW Condensation control switches including strap, *Premium*
HYGRASREG® KW-external Condensation control switches with detached sensor head, *Premium*

Type / WG01	Switchpoint Humidity	Output Humidity	Mounting	Item No.	Price
KW			**Sensor internal**	**IP65**	
KW-W	ca. 93% RH	Changeover contact	for direct mounting on pipes, for direct mounting on flat surfaces	1202-1025-0001-020	**116,31 €**
KW-external			**Sensor external**	**IP65**	
KW-W-extern	ca. 93% RH	Changeover contact	for mounting on pipes	1202-1025-0001-040	**141,26 €**
Optional:	Cable connection with **M12 connector** according to DIN EN 61076-2-101			on request	