



RHEASGARD® KLGF xx

RHEASREG® KLSWxx

Duct air flow sensors / air flow monitors,
incl. mounting flange, electronic,
with active / switching output

NEW



S+S REGELTECHNIK

Electronic duct air flow sensor **RHEASGARD® KLGF** with active output, housing made of impact-resistant plastic with quick-locking screws, with cable gland, with/without display, to determine the flow velocity (0.1...20 m/s). The measuring transducer converts the measurement signal into a standard signal of 0 - 10 V.

Electronic duct air flow sensor/monitor **RHEASGARD® KLGF** (without display) and **KLGFVT** (with display) with active and switching output, housing made of impact-resistant plastic with quick-locking screws, with cable gland, to determine the flow velocity (0.1...20 m/s) and temperature (0...+50 °C). For device type **KLGFVT**, the calculated volume flow parameter can be retrieved as an alternative to the flow (configurable on the display). The measuring transducer automatically detects the required output type and converts the measurands into the required standard signal of 0 - 10 V or 4...20 mA (**Automatic Output Switching**).

Electronic duct airflow monitor **RHEASREG® KLSW** with switching output, housing made of impact-resistant plastic with quick-locking screws, with cable gland, with/without display, to determine the flow velocity (0.1...20 m/s). The flow sensors are suitable for monitoring or controlling airflows in ducts, at fans and dampers, for flow-dependent monitoring of humidifiers and electric heating registers according to DIN 57100, Sect. 420, or for use in connection with DDC systems.

TECHNICAL DATA

Power supply:	24 V AC / DC (± 10 %) (KLSW-W24, KLGF xx) 230 V AC, 50 Hz (KLSW-W230)
Current consumption:	approx. 3 VA (KLGF, KLSW-W24, KLSW-W230) approx. 4 VA (KLGFVT, KLGFVT)
Data points:	flow velocity [m/s], volume flow [m³/h], temperature [°C]
Outputs:	KLGF 1x 0 - 10 V (U variant) KLGF(V)T 2x 0 - 10 V / 4...20 mA (via Automatic Output Switching – the unit recognises the required output type and automatically switches to U or I output); changeover contact 24 V (max. 5 A, cos φ = 1.0) KLSW-W24 changeover contact 24 V (max. 5 A, cos φ = 1.0) KLSW-W230 changeover contact 230 V AC (max. 5 A, cos φ = 1.0)

AIR FLOW

Sensor:	calorimetric, temperature compensated, sensor breakage protection, with manual zero-point calibration (via button)
Measuring range:	0.1...20 m/s
Accuracy:	± 0.5 m/s + max. ± 3% of final value (22°C, 50% RH, 1013 mbar)
Long-term stability:	± 0.5 % final value per year
Reproducibility:	± 1.0 % final value
Switching point:	1...20 m/s, threshold can be adjusted via potentiometer
Switching hysteresis:	2.0 % of final value
Warm-up time:	< 2 min
Response time:	< 5 s
Start-up override:	0 / 60 s (KLGF/KLSW without display), can be activated via DIP switch 0...120 s (KLGF/KLSW with display, KLGFVT/KLGFVT), can be adjusted via potentiometer
Medium:	non-precipitating air free of harmful substances, without below- and/or above-pressure
Medium temperature:	0...+70 °C

TEMPERATURE

Sensor:	NTC 10k
Measuring range:	0...+50 °C
Accuracy:	typical ± 0.5 K at +25 °C
Protective tube:	PLEUROFORM™ , material polyamide (PA6), with torsion protection, Ø 20 mm, NL = 120 mm / 220 mm, $v_{max} = 30$ m/s (air), optional on request made of stainless steel V2A (1.4301), Ø 16 mm
Housing:	plastic, UV-resistant, polyamide material, 30 % glass-globe reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016), housing cover for display is transparent!
Housing dimensions:	126 x 90 x 50 mm (Tyr 2)
Cable connection:	cable gland , plastic (M 16 x 1.5; with strain relief, exchangeable, max. inner diameter 10.4 mm)
Electrical connection:	0.2 - 1.5 mm², via push-in terminal
Process connection:	by means of plastic mounting flange (included in the scope of delivery)
Ambient temperature:	storage -20...+50 °C; operation 0...+50 °C
Permitted humidity:	< 98 % RH, non-precipitating air
Protection class:	II (according to EN 60 730) with UB = 230 V (KLSW-W230) III (according to EN 60 730) with UB = 24 V (KLSW-W24, KLGF xx)
Protection type:	IP 65 (according to EN 60 529) housing; IP 20 sensor technology
Standards:	CE conformity according to EMC Directive 2014 / 30 / EU
Optional:	display with illumination , three-line, cutout approx. 70 x 40 mm (W x H), to display the flow velocity, volume flow and temperature

Protective tube
(NL) 120 mm



Protective tube
(NL) 220 mm





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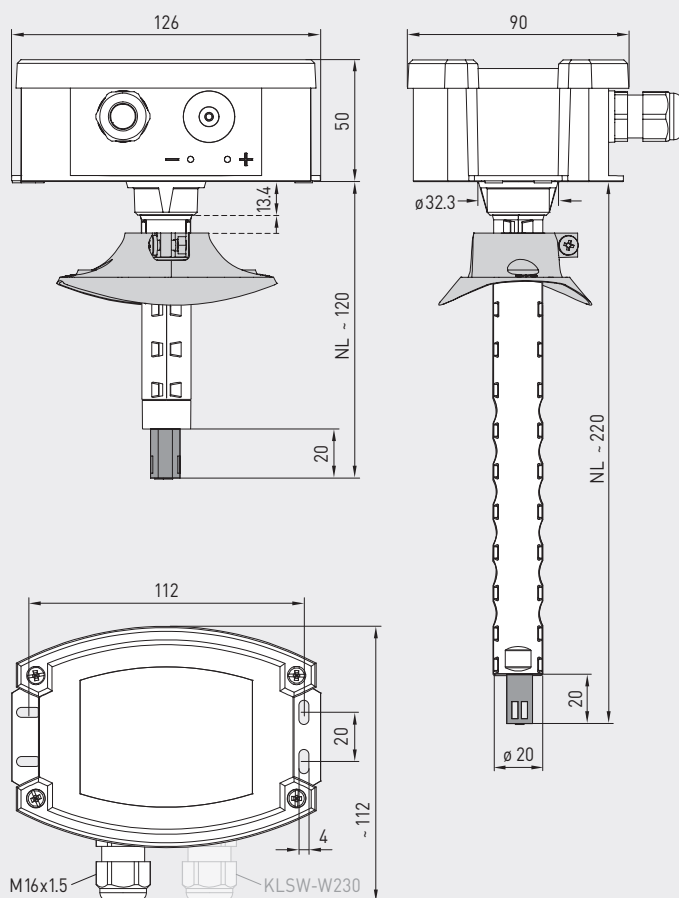
RHEASGARD® KLGF xx
RHEASREG® KLSW xx

Duct air flow sensors / air flow monitors,
incl. mounting flange, electronic,
with active / switching output



Dimensional drawing
[mm]

KLGF xx
KLSW xx



KLGF xx
KLSW xx
without display



KLSW-W230
without display



KLSW / KLGF
with display

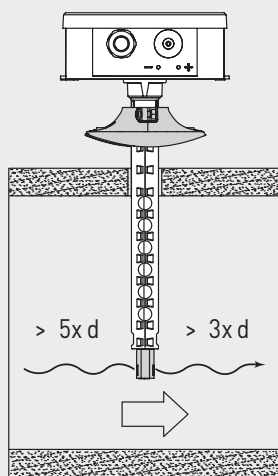


KLGFVT
with display



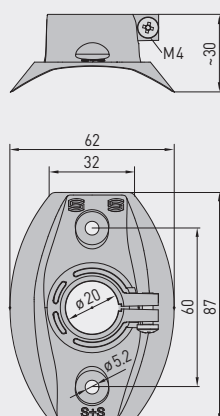
Installation diagram

KLGF xx
KLSW xx



Dimensional drawing
[mm]

MFT-20-K



MFT-20-K
Mounting flange
made of plastic



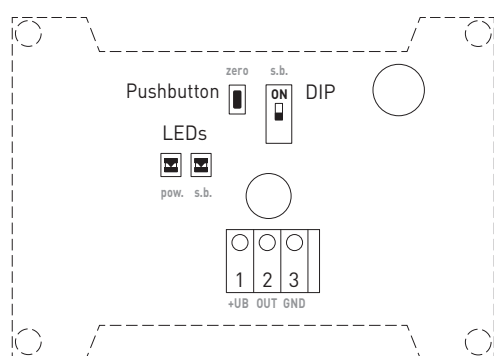
Automatic detection and switching
to standard signal 0...10V or 4...20 mA



AOS-PATENTED
AUTOMATIC OUTPUT SWITCHING

Schematic diagram

KLGF-U



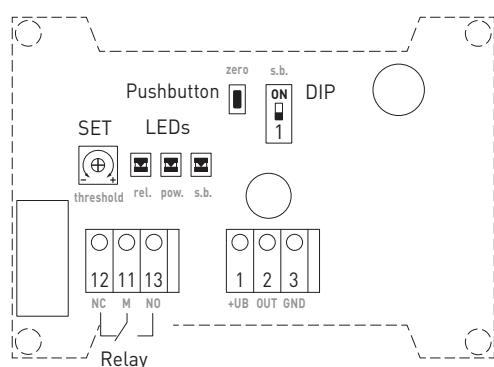
Connecting diagram

KLGF-U
without display



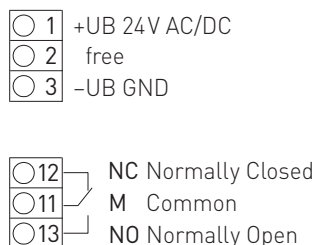
Schematic diagram

KLSW-W24



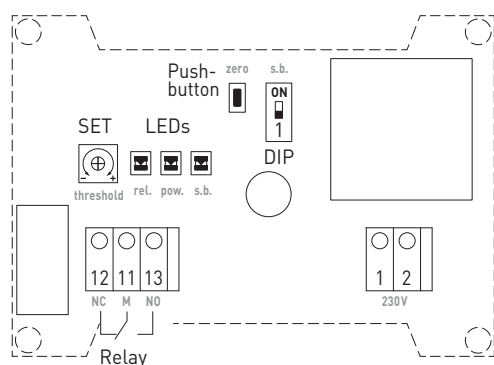
Connecting diagram

KLSW-W24
without display



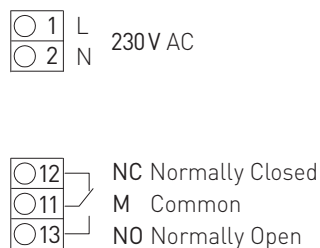
Schematic diagram

KLSW-W230



Connecting diagram

KLSW-W230
without display



KLGF-U

with output 0-10V,
 UB = 24V

KLSW-W24

with changeover contact,
 UB = 24V

KLSW-W230

with changeover contact,
 UB = 230V

**KLGF/KLSW-xx LCD
 KLGF-T-W**

with display on/ad temperatur,
 UB = 24V



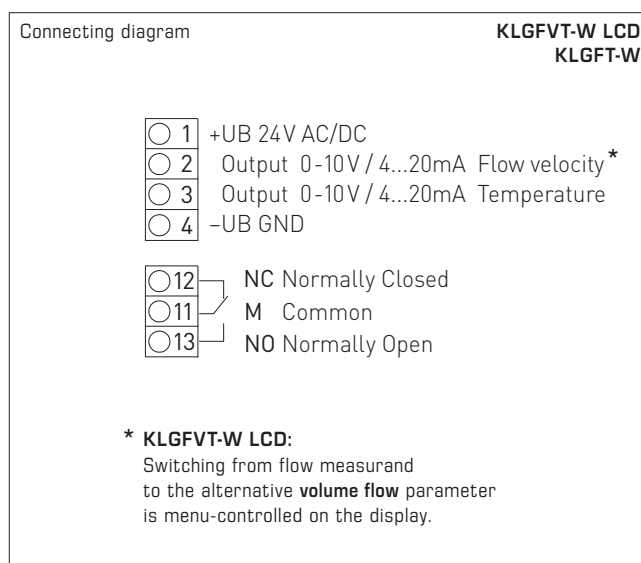
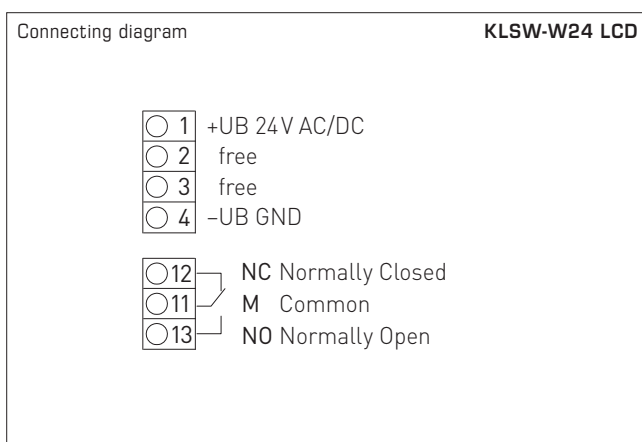
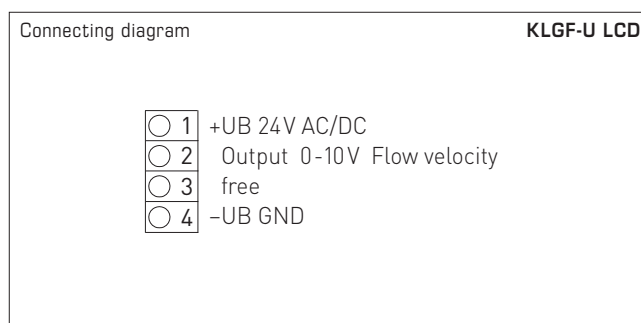
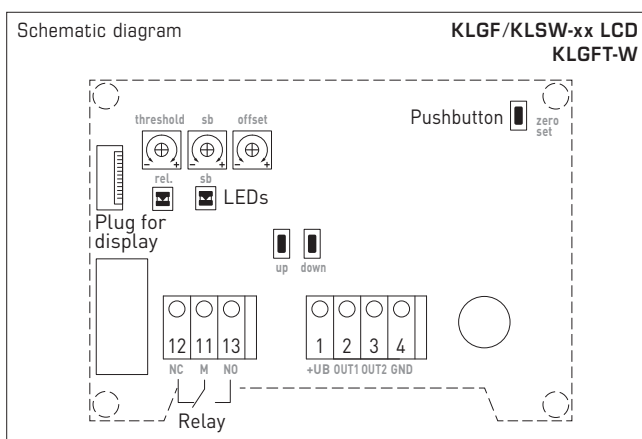


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RHEASGARD® **KLGF xx**
RHEASREG® **KLSWxx**

Duct air flow sensors / air flow monitors,
incl. mounting flange, electronic,
with active / switching output



RHEASGARD® KLGF	Duct air flow sensor, electronic, with active output				
RHEASGARD® KLGF(V)T	Duct air flow sensor, electronic, with active and switching output				
RHEASREG® KLSW	Duct air flow monitor, electronic, with switching output				
Type / WG01	Power supply	Output active	Output switching	Display (NL)	Item no.
KLGF		U variant			
KLGF-U 120mm	24 V AC / DC	1x 0-10 V	–	120 mm	1701-4111-0102-000
KLGF-U	24 V AC / DC	1x 0-10 V	–	220 mm	1701-4111-0101-000
KLGF-U LCD	24 V AC / DC	1x 0-10 V	–	220 mm 	1701-4111-1101-000
Optional:	Cable connection with M12 connector according to DIN EN 61076-2-101 on request				
KLGF(V)T		AOS			
KLGF-T-W	24 V AC / DC	2x 0-10 V / 4...20 mA	1 changeover contact	220 mm	1701-4118-0201-001
KLGFVT-W LCD	24 V AC / DC	2x 0-10 V / 4...20 mA	1 changeover contact	220 mm 	1701-4118-1401-001
KLSW-W24					
KLSW-W24 120mm	24 V AC / DC	–	1 changeover contact	120 mm	1701-4113-0102-001
KLSW-W24	24 V AC / DC	–	1 changeover contact	220 mm	1701-4113-0101-001
KLSW-W24 LCD	24 V AC / DC	–	1 changeover contact	220 mm 	1701-4113-1101-001
KLSW-W230					
KLSW-W230 120mm	230 V AC	–	1 changeover contact	120 mm	1701-4133-0102-001
KLSW-W230	230 V AC	–	1 changeover contact	220 mm	1701-4133-0101-001
Note:	Changeover contact with automatic reset (relay opens automatically when value falls below the threshold again)				
	AOS (Automatic Output Switching) = patented analogue interface (patent no. DE 10 2015 015 941 B4), the unit automatically detects the required output type 0 - 10 V or 4...20 mA				
KLGF-T, KLGFVT	T = temperature (0...+50 °C) – additional measurand V = volume flow (0...200,000 m³/h) – alternative parameter, can be configured via display!				