RHEASGARD® PLGF V-Modbus

Pendulum airflow sensor or measuring transducer for flow velocity and volume flow, on-wall housing with external duct probe, incl. mounting flange, calibratable with Modbus connection

Calibratable pendulum airflow sensor **RHE**ASGARD® **PLGF - Modbus** with Modbus connector, housing made of impact-resistant plastic with quick-locking screws, with cable gland (optional M12 connector as per DIN EN 61076-2-101) optionally with / without display, with external duct probe incl. mounting flange, to determine the flow velocity (0.1…20 m/s).

Calibratable pendulum airflow sensor **RHE**ASGARD® **PLGFV - Modbus** with Modbus connection, housing made of impact-resistant plastic with quick-locking screws, with cable gland (optional M12 connector as per DIN EN 61076-2-101) optionally with/ without display, with external duct probe incl. mounting flange, to determine the flow velocity (0.1...20 m/s). The following parameters can be queried by the Modbus: flow velocity and volume flow (calculated) .

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.

Innovative Modbus sensor with galvanically separated RS485 Modbus interface, selectable bus termination resistance, DIP switch for setting the bus parameters and bus address in the current-free state, internal LEDs for telegram status indication, two separate push-in terminals and large three-line display (illuminated).
The sensor is factory-calibrated.

TECHNICAL DATA

Power supply:	24 V AC / DC (± 10 %)
Current consumption:	approx. 4 VA
Data points:	flow velocity [m/s], volume flow [m³/h]
AIRFLOW	
Sensor:	calorimetric, temperature compensated, sensor breakage protection, with manual zero-point calibration (via push-button)
Measuring range:	0.1…20 m/s
Accuracy:	0.5 m/s + 3 % measured value
Long-term stability:	± 0.5 % of final value per year
Reproducibility:	± 1.0 % of final value
Warm-up time:	< 2 min
Response time:	< 5 s
Start-up override:	0…120 s (can be set via potentiometer)
Communication:	**Modbus** (RTU cable)
Bus interface:	RS 485, **galvanically isolated**
Baud rate:	9600, 19200, 38400 Baud
Bus protocol:	Modbus (RTU mode), address range 0...**247** selectable
Signal filtering:	0…30 values
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), enclosure cover for display is transparent!
Housing dimensions:	126 x 90 x 50 mm (Tyr 2)
Cable connection:	**cable gland** made of plastic (M 16 x 1.5; with strain relief, replaceable, max. inner diameter 10.4 mm), optionally with **M12 connector** as per DIN EN 61076-2-101
Electrical connection:	0.2 - 1.5 mm², via push-in terminal
Probe/sensor:	polyamide (PA6) material, white colour (blue sensor holder), with torsion protection, Ø 12 mm, EL = approx. 20 - 155 mm, v_{max} = 30 m/s (air)
Sensor cable:	PVC LiYY, 5-wire, KL = approx. 2.4 m
Process connection:	by means of mounting flange with seal (included in the scope of delivery)
Mounting:	on-wall housing with external duct probe – observe flow direction!
Ambient temperature:	storage –20…+50 °C; operation 0…+50 °C
Medium temperature:	0…+70 °C
Permitted humidity:	< 98 % RH, non-precipitating air free of harmful substances
Protection class:	III (according to EN 60 730)
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 indicate the flow velocity and volume flow (cyclical) or a selectable parameter (static)

S+S REGELTECHNIK

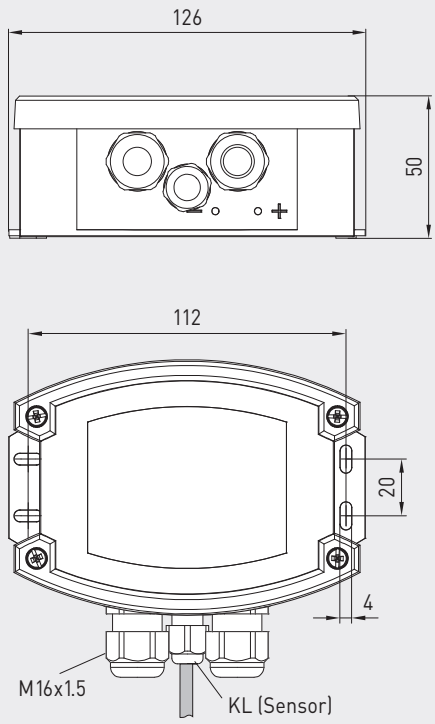
NEW

RHEASGARD® PLGFV-Modbus

Pendulum airflow sensor or measuring transducer for flow velocity and volume flow, on-wall housing with external duct probe, incl. mounting flange, calibratable with Modbus connection

Dimensional drawing
[mm]

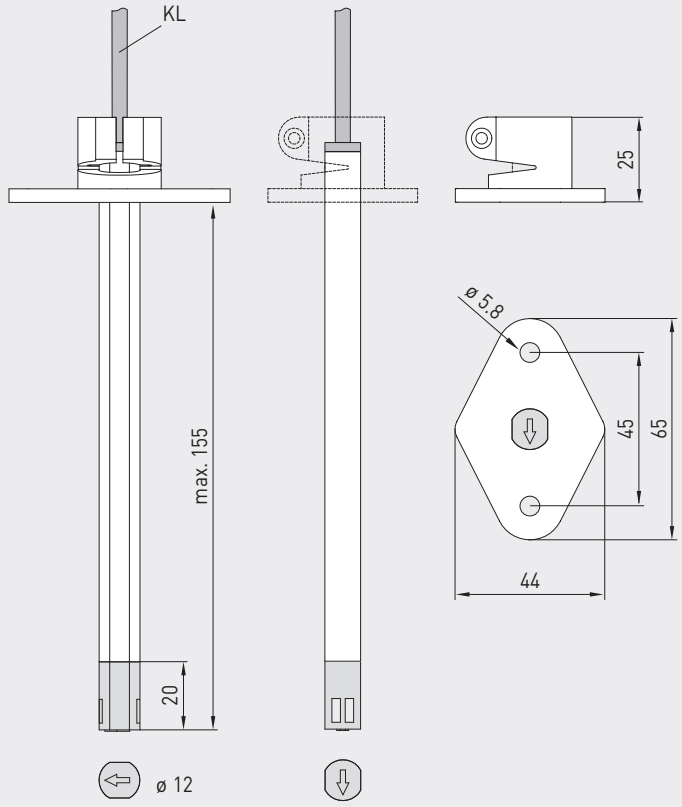
PLGF-Modbus
PLGFV-Modbus
Housing



PLGF-Modbus
PLGFV-Modbus
Housing with
external probe

Dimensional drawing
[mm]

PLGF-Modbus
PLGFV-Modbus
Probe



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

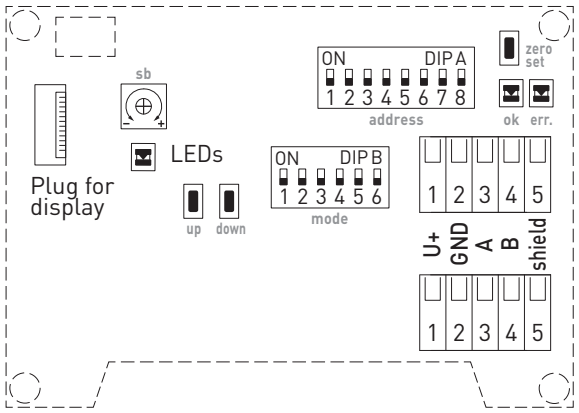
AOS-PATENTED
AUTOMATIC OUTPUT SWITCHING

RHEASGARD® PLGF V-Modbus

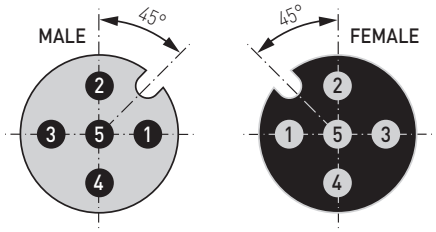
Pendulum airflow sensor or measuring transducer for flow velocity and volume flow, on-wall housing with external duct probe, incl. mounting flange, calibratable with Modbus connection

S+S REGELTECHNIK

Schematic diagram **PLGF - Modbus**

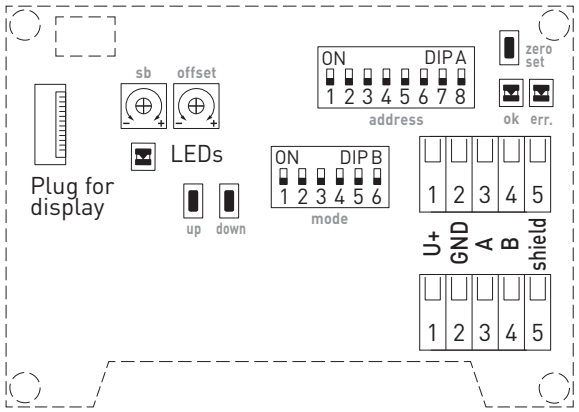


Pin assignment (M12) **xx - Modbus**



1. +UB
2. Modbus A
3. –UB GND
4. Modbus B
5. Shield

Schematic diagram **PLGFV - Modbus**



Connecting diagram **PLGF - Modbus** **PLGFV - Modbus**

1	+UB 24V AC/DC
2	–UB GND
3	A
4	B
5	Shield

S+S REGELTECHNIK

NEW

RHEASGARD® PLGFV-Modbus

Pendulum airflow sensor or measuring transducer for flow velocity and volume flow, on-wall housing with external duct probe, incl. mounting flange, calibratable with Modbus connection

PLGF - PLGFV - Modbus

PLGF - Modbus
with display

RHEASGARD®
PLGF - Modbus Duct air flow sensor or measuring transducer, *Deluxe*
PLGFV - Modbus Duct air flow sensor or measuring transducer for flow velocity and volume flow, *Deluxe*

Type / WG01	Measuring ranges Flow velocity	Volume flow	Output	Display	Item no.	Price
PLGF-Modbus						
PLGF-Modbus	0,1...20 m/s	–	Modbus		1701-6216-0101-000	**312,79 €**
PLGF-Modbus LCD	0,1...20 m/s	–	Modbus	■	1701-6216-1101-000	**379,20 €**
PLGFV-Modbus						
PLGFV-Modbus	0.1...20 m/s	0...200.000 m³/h	Modbus		1701-6216-0301-000	**340,93 €**
PLGFV-Modbus LCD	0.1...20 m/s	0...200.000 m³/h	Modbus	■	1701-6216-1301-000	**404,91 €**
Optional:	Cable connection with **M12 connector** as per DIN EN 61076-2-101				on request	
ACCESSORIES						
KA2-Modbus	**Communication adapter** (USB/RS485) for system connection				1906-1200-0000-100	**229,23 €**
LA-Modbus	**Line termination device** (with terminating resistor) as an active bus termination				1906-1300-0000-100	**85,49 €**
MFT-20-K	**Mounting flange**, plastic (included in the scope of delivery)				7000-0031-0000-000	**10,24 €**
	For further information see last chapter!					