senseca

LABOPLUS-RT

FLOW TRANSMITTER

CHARACTERISTICS

The flow transmitters of the LABOPLUS-RT series work with a turbine that is driven by the flowing medium. The speed of the rotor depends linearly on the flow rate and is detected by a biased Hall sensor located outside the flow chamber. The integrated electronics have an analog output and a switching output, which can alternatively be used as a frequency output. It also has an IO-Link interface that allows digital communication with the sensor for configuration and reading out measured values.

In addition to the version presented here, other versions are available:

OMNIPLUS-RT	with display and two switching outputs
RT	direct frequency output, not adjustable

SMART TECHNOLOGY
- IO-Link-Interface

EASY TO SET UP & QUICK TO INSTALL
- No magnetic components in the flow chamber

ACCURATE & RELIABLE
- High pressure resistance PN 250
- Measurement uncertainty 1 % of full scale value

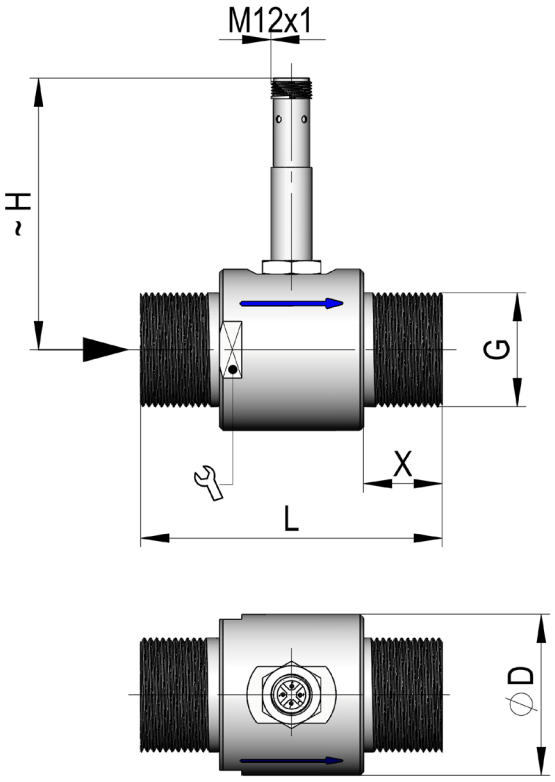
GREAT FLEXIBILITY
- Turbine flow measurement for low-viscosity media

Specifications

Meas. principle	Turbine with biased Hall sensor	
Nominal size	DN 15...DN 50	
Metering ranges	1.8..1133 l/min for details, see table "Ranges"	
Measurement accuracy	±1 % of full scale value in the specified metering range, including linearity and repeatability	
Medium	Water or other low-viscosity liquids	
Max. particle size	0.5 mm	
Pressure loss	0.9 bar at Q_{max}	
Pressure resistance	PN 250 bar	
Media temperature	-20...+85 °C	
Ambient temperature	-20...+70 °C	
Storage temperature	-20...+80 °C	
Materials medium-contact	Housing Turbine Bearing	stainless steel 315 stainless steel 430 tungsten carbide
Supply voltage	18...30 V DC	
Max. load current	200 mA	
IO-Link-specification	IO-Link Revision Bit rate Minimum cycle time SIO mode Port class Block parameterisation Data storage	V1.1.3 COM2 (38400 Bit/s) 20 ms yes A yes yes
Analog output	Current: Voltage: 	4...20 mA 0...20 mA 0...10 V 2...10 V 0...5 V 1...5 V 0.5...4.5 V
Switching outputs	Transistor outputs push-pull, parameterizable as NPN o.C. Short-circuit and reverse polarity resistant I_{out} = 100 mA max. Configurable on the device as • Limit switch • Frequency output • Pulse output • Signal output for preset counter	
Electr. connection	M12x1 circular connector, 4-pin	
Protection class	IP65 / IP67	
Conformity	CE	

Dimensions

Type LABOPLUS-RT-	DN	G	ØD mm	SW mm	H mm	L mm	X mm
-015AK001	15	G ½ B	38	35	73	64	19
-020AK002	20	G ¾ B					
-020AK004							
-020AK008			41	38	76	83	22
-025AK016	25	G 1 B	47	44	79	88	23
-040AK034	40	G 1 ½B	60	52	85	114	28
-050AK068	50	G 2 B	70	64	90	134	29



senseca

Order codes

	1.	2.	3.	4.
LABOPLUS-RT -		**A**	**K**	

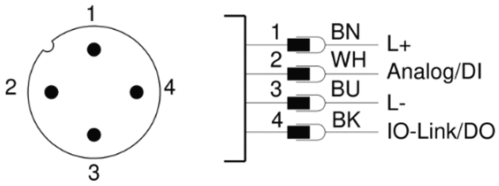
● = Standard ❍ = Option

1.	**Nominal width**							
	015	DN 15						●
	020	DN 20					●	
	025	DN 25					●	
	040	DN 40					●	
	050	DN 50				●		
2.	**Mechanical connection**							
	A	male thread						
3.	**Housing material**							
	K	stainless steel						
4.	**Metering range**							
	001	0.11.. 1.1 m³/h						
	002	0.22.. 2.2 m³/h						
	004	0.40.. 4.0 m³/h						
	008	0.80.. 8.0 m³/h						
	016	1.60..16.0 m³/h				●		
	034	3.40..34.0 m³/h			●			
	068	6.80..68.0 m³/h		●				

Accessories

Cable with circular connector M12x1, 4-pin (not included)

Connection diagram



connector
M12 x 1

Senseca Germany GmbH
Tenter Weg 2-8 | 42897 Remscheid | GERMANY
www.senseca.com | info@senseca.com