OMNIPLUS-RRH

Product information

Flow transmitter OMNIPLUS-RRH



- **IO**-Link
- Long life due to high-quality ceramic axle and special plastic bearings
- No inlet and outlet sections required
- Modular design with different connection systems
- Connections can be plugged in and rotated

Characteristics

The flow transmitters of the OMNIPLUS-RRH series work with a paddle wheel that is set in rotation by the flowing medium. The speed of rotation of the rotor depends linearly on the flow rate. The rotor made of PVDF is equipped with magnets, which are detected by a Hall sensor located outside the flow chamber and thus enable the measurement of the speed.

The rotor has a shatterproof ceramic axle that runs in durable special plastic bearings.

The housing is made of brass (nickel-plated) or alternatively stainless steel.

The integrated electronics have an LCD display as well as an analog output and two switching outputs and can be easily configured by the user. In addition, it has an IO-Link interface that allows digital communication with the sensor.

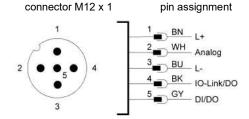
In addition to the version presented here, other versions are available:

LABO-RRH without display, adjustable analog or

frequency output

RRH direct frequency output, not adjustable

Connection diagram



Specifications

Measuring principle	Magnet-equipped	•			
Nominal size	Detection with Hall sensor DN 10 (OMNIPLUS-RRH-010)				
Nominal Size	DN 25 (OMNIPLUS-RRH-025)				
Connection type	Female thread G ³ / ₈ , G 1				
	Male thread G ³ / ₈ A, G 1 A Hose nozzle Ø11, Ø30				
	(other threads, crimp and plug-in connec-				
	tions, connections with constants or limi-				
	ters on request)				
Ranges	0.1100 l/min				
Measurement	(see table "Ranges") ±3 % of reading				
uncertainty	15 % of reading				
Media	Water or other low-viscosity liquids				
Pressure loss	max. 0.5 bar				
Compressive strength	PN 100				
Media temperature	0+70 °C				
Storage temperature	-20+80 °C				
Materials wetted with media	Housing	CW614N nickel-plated or 1.4305			
wetted with media	Rotor	PVDF with magnets,			
	1300	epoxy resin			
	Bearings	Iglidur X			
	Axle	ceramics Zr0 ₂ -TZP			
	Gaskets	FKM			
0	4000 \/ DO	optional: NBR, EPDM			
Supply voltage Current	1830 V DC				
consumption	(SIO mode, unloa	ded outputs)			
IO-Link	IO-Link revision	V1.1			
specification	Bit rate	COM2 (38400 bit/s)			
	Minimum cycle time	20 ms yes			
	SIO mode	A compatible			
	Port class yes				
	Block para- meterization	yes			
	Data storage	yes			
Analog output	Current:	420 mA			
	Voltage:	020 mA 0 10 V			
	Voltage:	U 1U V			
		210 V			
	3	05 V			
	J	05 V 15 V			
Switching outputs	Ü	05 V 15 V 0.54.5 V			
Switching outputs	2 transistor output	05 V 15 V 0.54.5 V is push-pull,			
Switching outputs	2 transistor output parameterizable a Short-circuit and r	05 V 15 V 0.54.5 V ts push-pull, as NPN o.C. everse polarity resistant			
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Switching outputs	2 transistor output parameterizable a Short-circuit and r lout = 100 mA ma Configurable on the Limit switch	05 V 15 V 0.54.5 V ts push-pull, s NPN o.C. everse polarity resistant x per output ne device as			
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	2 transistor output parameterizable a Short-circuit and r lout = 100 mA ma Configurable on the Limit switch Frequency output Pulse output Signal output fo 1.2" graphic LCD 128 x 64 pixels	05 V 15 V 0.54.5 V is push-pull, is NPN o.C. everse polarity resistant x per output the device as the device as the counter of the c			
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Display	2 transistor output parameterizable a Short-circuit and r lout = 100 mA ma Configurable on the Limit switch Frequency output Pulse output Signal output fo 1.2" graphic LCD 128 x 64 pixels backlight white,	05 V 15 V 0.54.5 V Is push-pull, Is NPN o.C. everse polarity resistant x per output the device as ut r preset counter (transflective)			

1

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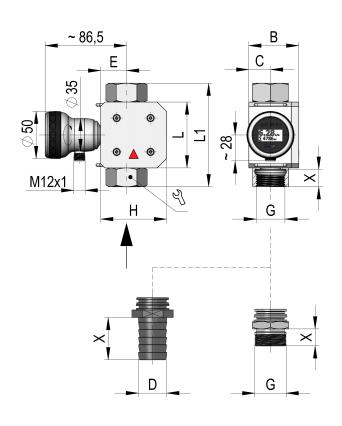
OMNIPLUS-RRH

Product information

Dimensions and weights

Туре		H/L	В	С	E	G	D	SW	Х	L1	Weight
OMNIPLUS-RRH-010G	•					G 3/8	-		12	84	
OMNIPLUS-RRH-010A	0	50	29	12.5	16.5	G 3/8 A	-	22	14	04	appr. 0.69 kg
OMNIPLUS-RRH-010T	0					-	Ø11		21	96	
OMNIPLUS-RRH-025G	•					G 1	-		18	110	
OMNIPLUS-RRH-025A	O	70	53	23	27.5	G1A	-	38	10	122	appr. 1.95 kg
OMNIPLUS-RRH-025T	0					-	Ø30		45	176	

● = standard ○ = option



Order codes

	1.	2. 3. 4.	5.	6.	7.
OMNIPLUS-RRH -					05M

● = standard ○ = option

1.	Nominal size				
	010	•	DN 10		
	025	•	DN 25		
2.	Mecha	anio	cal connection		
	G	•	Female thread		
	Α	0	Male thread		
	Т	0	Hose nozzle		
3.	Conne	ecti	on material		
	М	•	CW614N nickel-plated		
	K	•	1.4305		
4.	Housi	ng	material		
	M	•	CW614N		
	K	•	1.4305		
5.	Inlet d	Irill	ing		
	020		Ø 2.0 mm		•
	050		Ø 5.0 mm		•
	070		Ø 7.0 mm		•
	080		Ø 8.0 mm	•	
	120		Ø12.0 mm	•	
	160		Ø16.0 mm	•	
6.	Gasket material				
	V	•	FKM		
	E	O	EPDM		
	N	O	NBR		
7.	Rotor				
	05M	•	with 5 magnets		

Ranges

2

Туре	Measurement range	\mathbf{Q}_{max}		
	I/min (H₂O)	l/min (H₂O)		
OMNIPLUS-RRH-010020	0.1 1.5	1.8		
OMNIPLUS-RRH-010050	0.2 10.0	12.0		
OMNIPLUS-RRH-010070	0.4 12.0	14.4		
OMNIPLUS-RRH-025080	2.0 30.0	36.0		
OMNIPLUS-RRH-025120	3.0 60.0	72.0		
OMNIPLUS-RRH-025160	4.0100.0	120.0		

Accessories

Cable with circular connector M12x1 (not included)