

Product Information

OMNIPLUS-F

Flow meter and thermometer OMNIPLUS-F



 **IO-Link**

- Flow transmitter for water and other liquids with integrated temperature measurement
- Fast response time
- Integrated volume meter with preset
- Measuring method without moving parts, no wear
- Stainless steel material coming into contact with medium
- 1 analog output (20 mA / 10 V)
- 2 versatile configurable switching outputs
- IO-Link interface
- High-resolution graphic LCD
- Parameters programmable with multifunction ring
- Waterproof all-metal housing (IP67)
- Mineral glass front, scratch-proof and chemically resistant

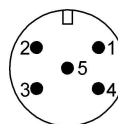
Technical data

Measuring principle	calorimetric / thermal	
Measurement media	Liquids Media configurable on the device	
Measuring range	Flow: 2..300 cm/s Temperature: -20..+120 °C	
Measurement uncertainty	Flow: $\pm(7\% \text{ measurement} + 2\% \text{ FS})$ Temperature: $\pm 2\text{ °C}$ (Flow speed > 2 cm/s)	
Response time	in water (25 °C) at an average flow speed of approx. 1-2 sec.	
Operating pressure	Connection type	PN
	008, 015	PN100 (PN200 on request)
	013, 018	up to PN100 (depending on T-piece)
	012	up to PN40 (depending on assembly material)
Media temperature	-20..+120 °C	
Ambient temperature	-20..+70 °C	
Storage temperature	-30..+80 °C	
Wetted materials	Stainless steel 1.4571 Fluororubber (O-ring for connection type 013)	
Other materials	Housing	Stainless steel 1.4305
	Glass	Mineral glass, hardened
	Magnet	NeFeB
	Ring	POM

Supply voltage	18..30 V DC
Current consumption	< 130 mA (SIO mode, outputs not under load)
IO-Link Specification	IO-Link correction V1.1 Bit rate COM2 (38400 Bit/s) Minimum cycle time 4 ms SIO mode yes Port class A compatible Block parameterisation yes Data storage yes
Analog output	Applicable for flow or temperature output type configurable on the device: Current: 4..20 mA / 0..20 mA Voltage: 0..10 V / 2..10 V / 0..5 V / 1..5 V / 0.5..4.5 V
Switching outputs	2 Push-pull transistor outputs, parameterisable as NPN o.C. resistant to short circuits and polarity reversal $I_{out} = 100 \text{ mA max. per output}$ Configurable on the device as • Limit switch • Frequency output • Pulse output • Signal output for preset counter
Signal input	Reset input for volume meter (alternative to switch output at Pin 5)
Display	graphic 1.2 inch LCD (transflective) 128 x 64 pixel White backlight, red on alarm notification
Electrical connection	Round plug connector M12x1 / 5-pin
Protection rating	IP 67
Weight	approx. 0.30 kg
Conformity	CE

Connection diagram

round plug connector M12 x 1 Pin assignment



- 1 - auxiliary voltage
- 2 - analog output
- 3 - 0 V
- 4 - switch signal 1 and IO Link
- 5 - switch signal 2

Product Information

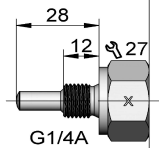
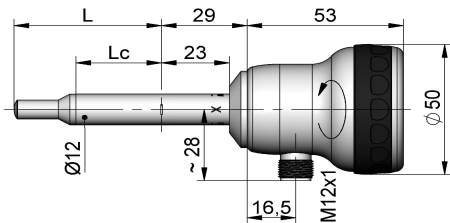
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Dimensions

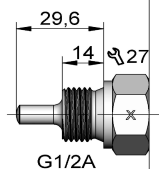
Ordering Code

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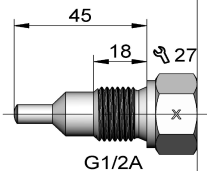
...012VK100.. (L = 100 mm)
...012VK150.. (L = 150 mm)



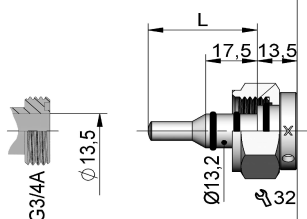
...008HK028...



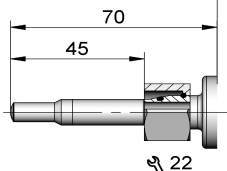
...015HK029...



...015HK045...



...013TK031... (L=31 mm)
...013TK037... (L=37 mm)



...018DK045...

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1. Sensor	
012VK100	Push-in sensor Ø 12, L = 100 mm
012VK150	Push-in sensor Ø 12, L = 150 mm
012VKxxx	Push-in sensor Ø 12, length = xxx on request
008HK028	Thread G ¼ A, L = 28.0 mm
015HK029	Thread G ½ A, L = 29.6 mm
015HK045	Thread G ½ A, L = 45.0 mm
013TK031	System fastening Ø 13.2 for T-piece with connection G ¾ and G ½
013TK037	System fastening Ø 13.2 for T-piece with connection G ¾ G 2
018DK045	Sealing cone 24°, M18 x 1,5, L = 45 mm
2. Oil-filled	
T	Oil-filled version for applications with high air humidity and heavily fluctuating temperatures

Accessories

T-piece for system fastening Ø 13,2 mm	brass / s.s.
order code: TS-2-M / K010.. 050 DN 10 to DN 50	
T-piece for push-in sensor Ø 12 mm	brass / s.s.
order code: TS-3M / K015 .. 050 DN15 to DN 50	
Alignment tool for system fastening Ø 13,2 mm	
Art. No. 482656	
welding-/brazing socket	brass / s.s.
Order code: SL2-M/K for system fastening Ø 13,2 mm	
Order code: SL3-M/K for system fastening Ø 12 mm	
cutting screw- /compression fitting for push-in sensors Ø 12 mm	
order code: ADQ-012G015A...	metal G1/2 A
order code: ADQ-012M020AP1	plastic M20x1,5
compression fitting with welding socket for push-in sensors Ø 12 mm	
order code: ADQ-012S021A...	metal / s.s.
welding adapter for compression screw connection ADQ-012G015A	
order code: ADG-015GS026K	s.s.
mounting flange for compression fitting ADQ-012M20A	
order code: ADM-020F054P2	plastic
cable with round plug connector M12 x 1, 5-pole	
order code: K05PU-02/05/10...	2 m / 5 m / 10 m

Product informations for accessories for download
<https://www.ghm-group.de/produkte/>