

Flow meter and thermometer OMNIPLUS-F



IO-Link

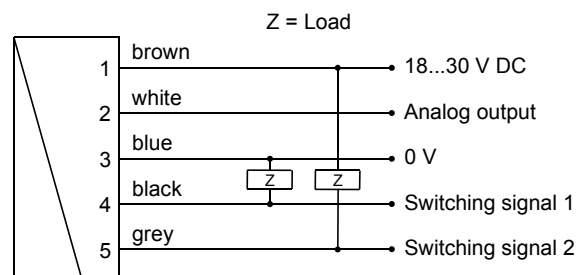
- Flow transmitter for water and other liquids with integrated temperature measurement
- Fast response time
- Integrated volume meter with preset
- Measuring method without moving parts, no wear
- Stainless steel material coming into contact with medium
- 1 analog output (20 mA / 10 V)
- 2 versatile 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

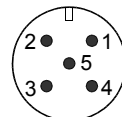
Measuring principle	calorimetric / thermal	
Measurement media	Liquids Media configurable on the device	
Measuring range	Flow: 2..300 cm/s Temperature: -20..+120 °C	
Measurement uncertainty	Flow: ±(7 % measurement + 2 % FS) Temperature: ±2 °C (Flow speed > 2 cm/s)	
Response time	in water (25 °C) at an 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 <ul style="list-style-type: none"> • 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



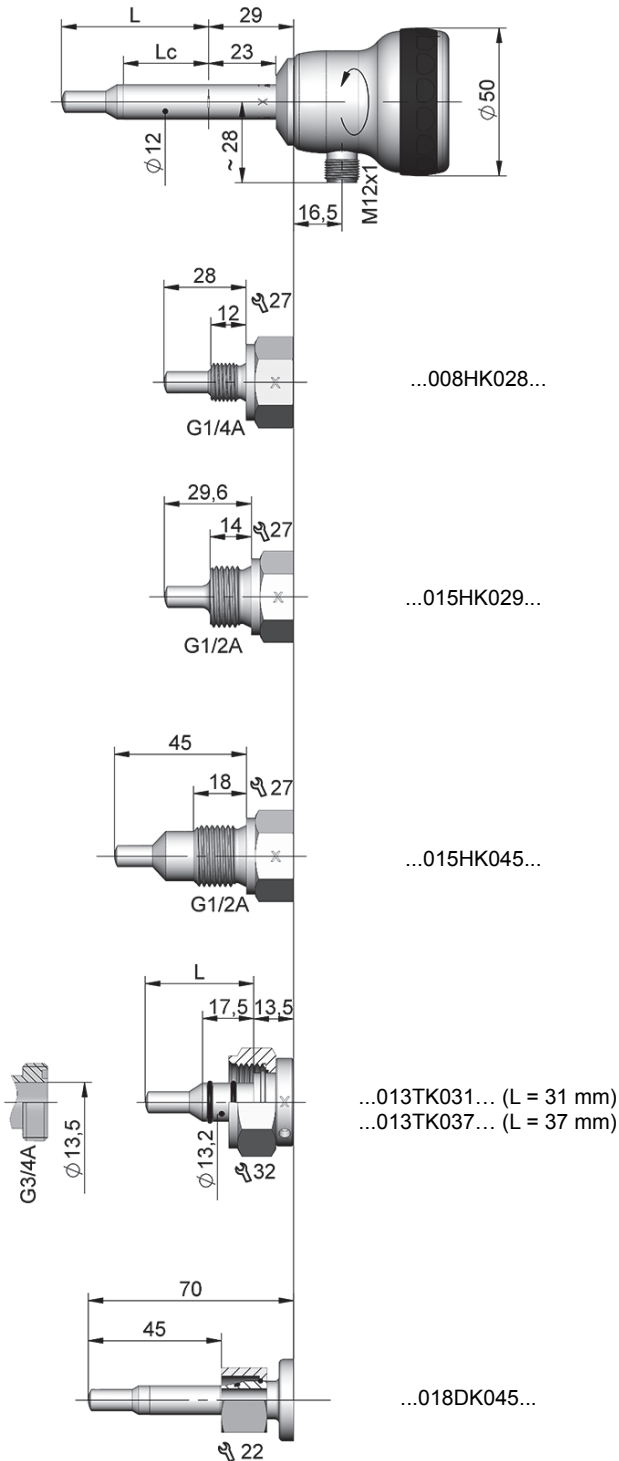
Connection example: PNP NPN



Plug connector M12x1

Dimensions

OMNIPLUS-F-012VK100.. (L = 100)
 ...012VK150.. (L = 150)
 ...012VK200.. (L = 200)



Ordering Code

OMNIPLUS-F- 1. - 2.

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