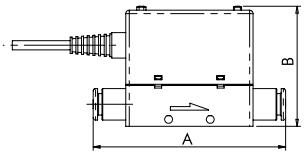
Flowmeter

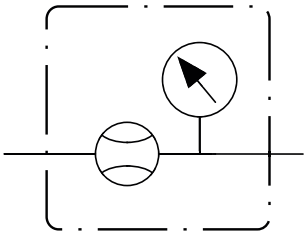
»FLUX 0« series

MAX

Art. No. 148227

Type No. 9000958A2





Exemplary illustration

Thermal flowmeters of the »FLUX 0« series are miniaturized devices used for monitoring changes in flow and consumption, as well as for measuring leaks and energy efficiency. They come complete with push-in fittings. For the best results, the input pipe must have a straight section of at least 80 mm in length or more, otherwise the measurement will be inaccurate. They have two digital outputs and one analogue output, each of which can be freely set to measure the instantaneous flow rate, the accumulated flow rate or the pressure, therefore they can perform the function of flowmeter, flow switch, pressure gauge or pressure switch.

Technical data

Series	FLUX 0
Size	0
Max. input pressure	10 bar
Operating pressure	-0.9 - 8 bar
Temperature range	0 to 50 °C
Connection	plug connector Ø8 mm
Measuring range	0 Nl/min to 50 Nl/min
Analogue output	4 - 20 mA
Digital output	2 PNP
Display	with
Pressure sensor	with
IO-Link	without
Function	flowmeter/switch, pressure gauge, pressure switch
Measured values output	via cable and display
WiFi	without
Compatible with app	no
Medium	filtered, unlubricated compressed air and neutral gases
Housing	technopolymer
Supply voltage range	12 to 24 +/-10 % V DC
Operating voltage	10.8 - 26.4 V DC

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Technical data

Hysteresis	adjustable
Flow direction	unidirectional
Measuring system	thermal
Protection IP	IP40
Scope of delivery	connector with 2 m cable
A	83.0 mm
B	52.0 mm

Keep at least 80 mm straight section before appliance.
A 5 µm filter and a 0.01 µm oil purifier are recommended.

Commercial data

Customs tariff number	90261021
Country of origin	TW
eCl@ss 5.1.4	27200490
eCl@ss 9.0	27200490
UNSPSC_Code_v190501	20121904
UNSPSC_CodeDesc_v190501	Flow measurement equipment

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FLOWMETER SERIES FLUX 0

The flowmeters FLUX 0 series are miniaturized devices used to measure air flow rate. They come complete with push-in pipe fittings.
Numerous functions can be viewed and set on a three-colour display.
They have 2 digital and one analogue outputs, each of which can be freely set to measure the instantaneous flow rate, the accumulated flow rate or the pressure, therefore they can perform the function of flowmeter, flow switch, pressure gauge or pressure switch.
They feature reduced dimensions, with a width of only 17 mm.
The FLUX 0 flowmeters comes in two models: one for flow rates up to 50 Nl/min, the other up to 200 Nl/min, and are can be powered at 12 and 24 VDC.

TECHNICAL DATA		FLUX 0 50 L	FLUX 0 200 L
Measured flow range	Nl/min	0 - 50	0 - 200
Direction of flow		Unidirectional	
Working pressure range	bar	-0.9 to 8	
	MPa	-0.09 to 0.8	
	psi	-13 to 116	
Maximum admissible pressure	bar	10	
Pipe diameter for push-in fitting	mm	8	
Connecting cable	VDC	12 to 24 ± 10%, ripple max 10%	
Current consumption	mA	≤ 50	
Power cable		Cable Ø 4 length 2 m, oil resistant, 26 AGW (6 x 0.15 mm²)	
Weight	g	100 (including cable)	
DISPLAY			
Instant flow rate			
Display range	Nl/min	0 - 50	0 - 200
Minimum setting scale	Nl/min	0.1	1
	ft³/min	1	1
Cumulative flow rate			
Display range		9999999.9	99999999
Minimum setting scale	Nl	0.1	1
	ft³	1	1
Pressure			
Display range	kPa	-100 to 1000	
Minimum setting scale	kPa	1	
	bar	0.01	
	psi	0.1	
PRECISION			
Flow rate			
Guaranteed measuring range		2 to 100 % FS	
Display accuracy		± 3 % FS ± 1 digit ▲	
Analogue output accuracy		± 5 % FS ▲	
Repeatability		± 1 % FS ± 1 digit ■	
Linearity		± 3 % FS ■	
Temperature characteristic		± 2 % FS for a temperature range of 15-35°C; ± 5 % FS for a temperature range of 0-15°C or 35-50°C ■	
Pressure characteristic		± 5 % FS ± 1 digit ✱	
Pressure			
Guaranteed measuring range		0 to 100 % FS	
Display accuracy		± 2 % FS ± 1 digit ●	
Analogue output accuracy		± 2.5 % FS ●	
Repeatability		± 0.2 % FS ± 1 digit ●	
Linearity		± 1 % FS ●	
Temperature characteristic		± 2 % FS ●	

▲ Data valid under these conditions: input pressure 3 bar, output pressure 1 bar, temperature 25°C
■ Data valid under these conditions: output pressure 1 bar, temperature 25°C
✱ Data valid under these conditions: -90 to 800 kPa, output pressure 1 bar, temperature 25°C
● Data valid under these conditions: flow rate 0 Nl/min, temperature 25°C

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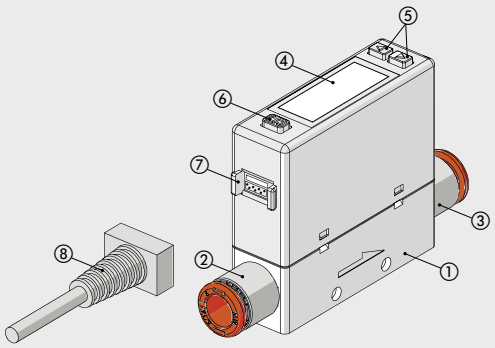
TECHNICAL DATA		FLUX 0 50 L	FLUX 0 200 L
DIGITAL OUTPUTS			
N ° outputs		2 PNP	
Max current	mA	125	
Max voltage	VDC	24	
Residual voltage	V	≤ 1.5 V	
Response time, with flow rate setting	ms	50, 80, 120, 200, 400, 800, 1500 (default 800)	
Response time, with pressure setting	ms	2.5, 25, 100, 250, 500, 1000, 1500 (default 2.5)	
Response mode, with flow rate setting		Hysteresis mode, window comparison mode, cumulative mode, cumulative pulse mode ◆	
		Normally open or normally closed	
Response mode, with pressure mode setting		One-point setting mode, hysteresis mode, window comparison mode. Normally open or normally closed ◆	
Hysteresis		Adjustable	
Short-circuit protection at output		Yes	
Cumulative pulse output	Nl/impulse	0.5	2
	ft^3/impulse	2	7
ANALOGUE OUTPUT			
Version with voltage	V	1 to 5, 1 kΩ impedance	
Version with current	mA	4 to 20, with ≤ 300 Ω impedance	
Response time, with flow rate setting	ms	≤ 100	
Response time, with pressure setting	ms	≤ 50	
AMBIENT CONDITIONS			
Fluid		Filtered, dried and unlubricated air, inert non-corrosive and non-explosive gas.	
		A 5 µm filter and a 0.01 µm oil purifier are recommended	
Degree of protection		IP 40	
Temperature range	°C	0 to 50	
Storage temperature	°C	0 to 60 , but without condensate or ice	
Ambient humidity		35 to 85% relative humidity; no condensate	
Insulation voltage		1000 VAC for one minute between casing and cable	
Resistance of Insulation		Min. 50 MΩ (at 500VDC between casing and cable)	
Vibration admitted		1.5 mm amplitude or 10 g with scanning every minute from 10 to 55 Hz at 10 Hz, for 2 hours in each direction x, y and z	
Impact		100 m/s^2 (10 g), 3 times in each direction x, y and z	
Electromagnetic compatibility (EMC)		IEC 61000-6-2, IEC 61000-6-4	

◆ Refer to the user manual for further details

COMPONENTS



① BODY: technopolymer
② INPUT AUTOMATIC FITTING: nickel-plated brass and technopolymer
③ OUTPUT AUTOMATIC FITTING: nickel-plated brass and technopolymer
④ DISPLAY LCD
⑤ BUTTON: silicone.
Used to select the operating mode, ON/FF switching and value setting
⑥ BUTTON: silicone.
Used to select the operating mode and confirm the set values
⑦ CONNECTOR
⑧ CONNECTOR WITH CABLE: length 2 meters

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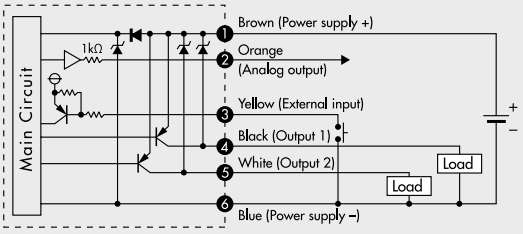
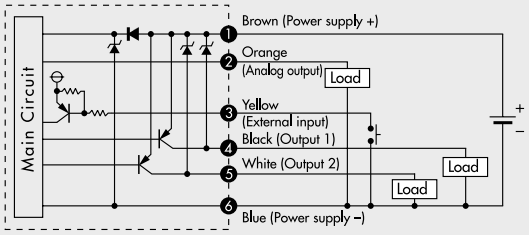
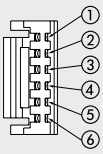
WIRING DIAGRAMS

Analog voltage output /external input



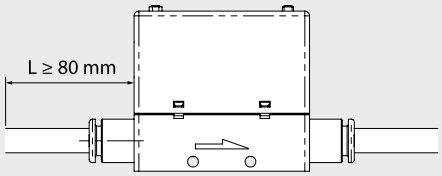
Analog current output /external input





PIN	Cable color	Function
1	Brown	Power supply (12 to 24 VDC)
2	Orange	Analog voltage output: 1 to 5 V Analog current output: 4 to 20 mA
3	Yellow	External input
4	Black	Output 1 (Max. load current: 125 mA)
5	White	Output 2 (Max. load current: 125 mA)
6	Blue	0V (GND)

PNEUMATIC CONNECTION



The input pipe must have a straight section of at least 80 mm in length or more, otherwise the measurement will be inaccurate.

NOTES

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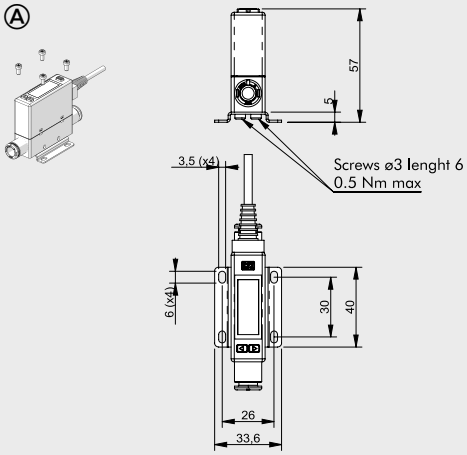
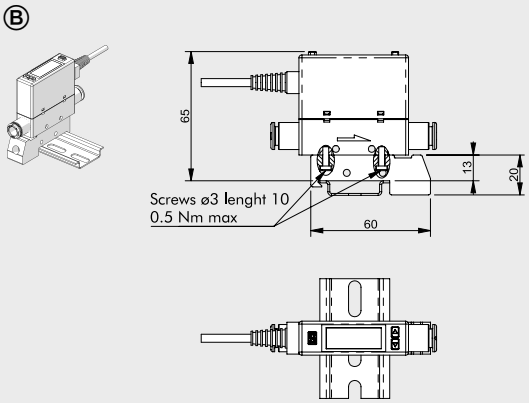
FIXING OPTIONS

Ⓐ



Fixing with bracket code 90009A001 using the included Ø3 self-tapping screws and M3 screws

Ⓑ



Single fixing on DIN bar with code bracket 90009A002 using the included Ø3 self-tapping screws

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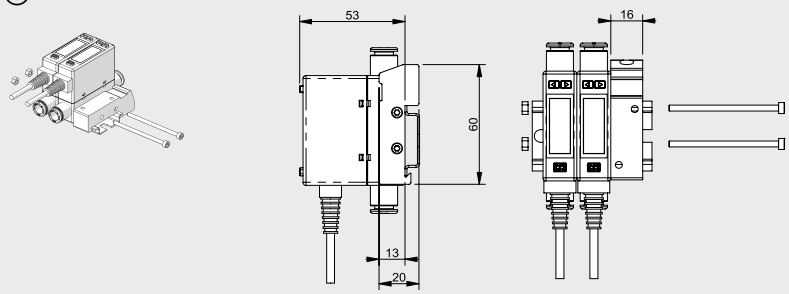
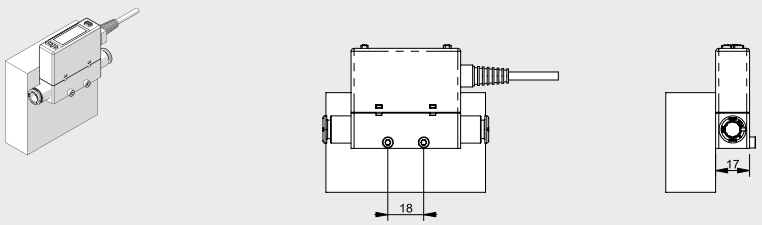


Multiple fixing on DIN bar with code bracket 90009A002 using the lateral holes Ø3.4 with M3 screws and nuts

Ⓓ



Side fixing using M3 screws, minimum length 23 mm

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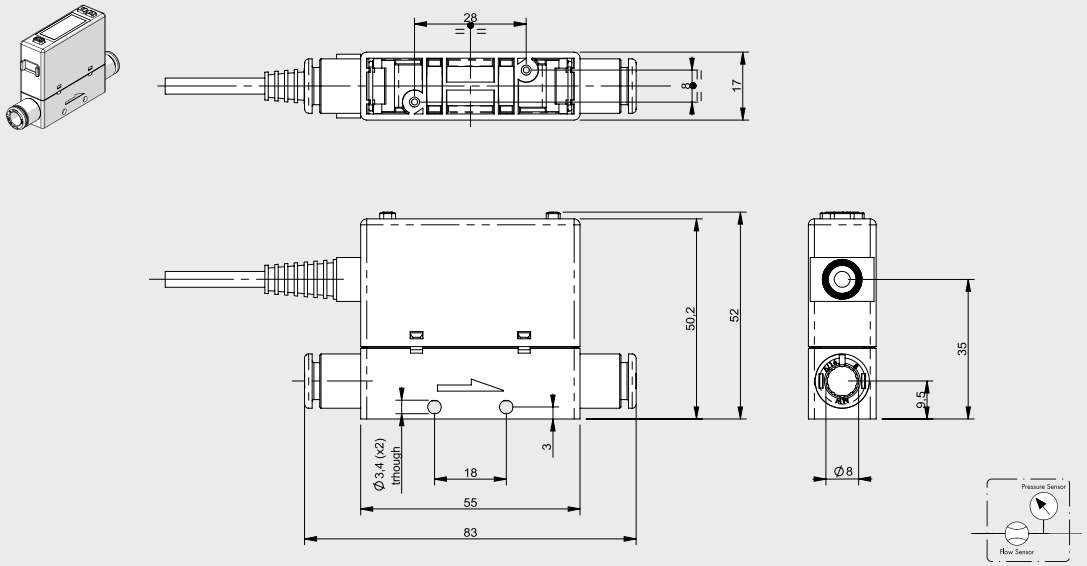
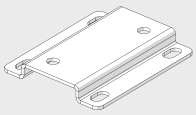
DIMENSIONS AND ORDERING CODES



Code	Description
9000958A2	Flowmeter FLUX 0 50L Ø8 PNP 4-20 mA 2 m
9000958V2	Flowmeter FLUX 0 50L Ø8 PNP 1-5V 2 m
9000978A2	Flowmeter FLUX 0 200L Ø8 PNP 4-20 mA 2 m
9000978V2	Flowmeter FLUX 0 200L Ø8 PNP 1-5V 2 m

ACCESSORIES

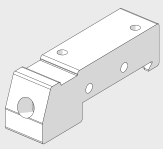
FIXING BRACKET



Code	Description
90009A001	Fixing bracket FLUX 0

Note: Comes complete with two 3x6 screws for plastic (max. torque 0.5 Nm)

CONNECTION BRACKETS ON BAR OMEGA (DIN EN 50022)



Code	Description
90009A002	Connection brackets on DIN bar FLUX 0

Note: Comes complete with two 3x10 screws for plastic (max. torque 0.5 Nm)

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Accessories

	Art. No.	Type No.
Fixing bracket for series »FLUX 0«	148186	90009A001
Adapter for DIN rail for series »FLUX 0«	148187	90009A002

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