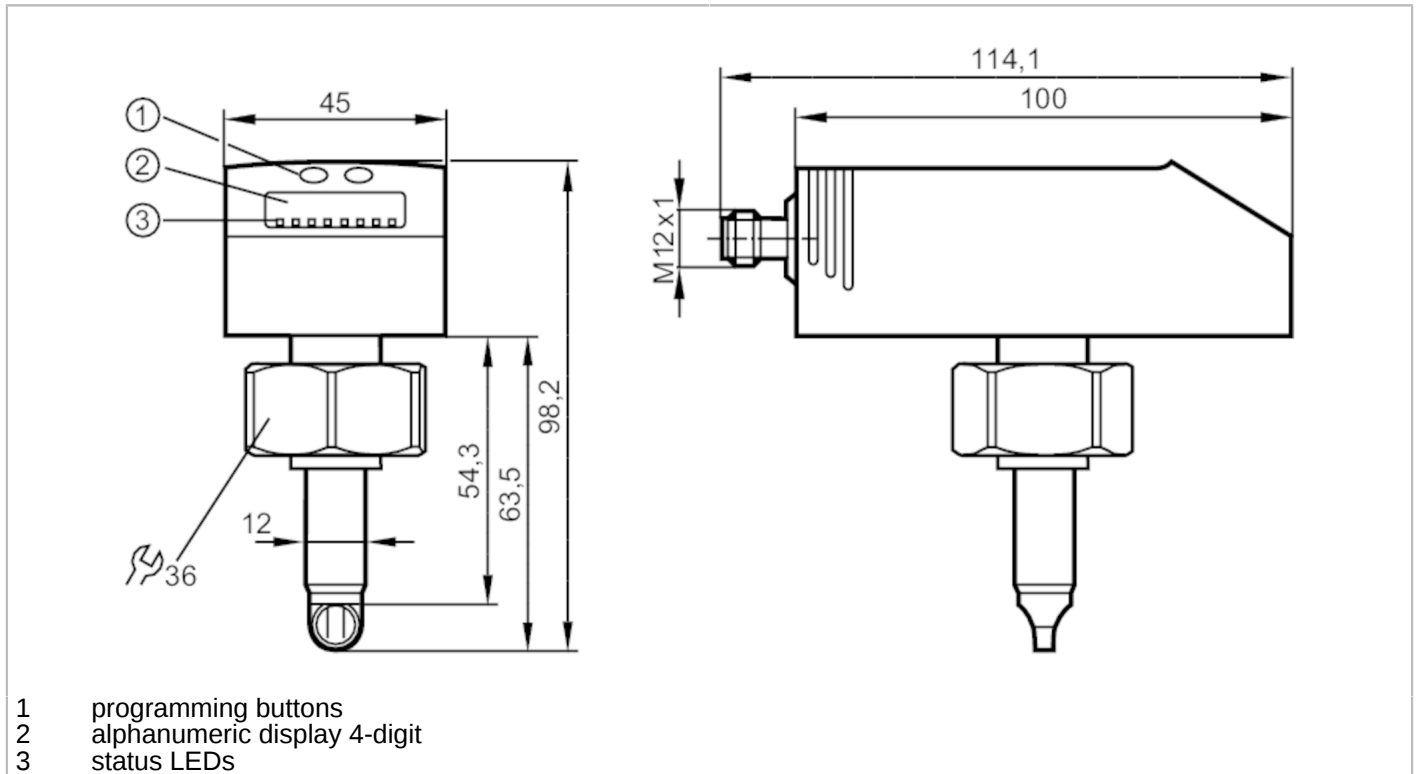


SD0523



Compressed air meter

SDD11DGXFPKG/US-100



- 1 programming buttons
- 2 alphanumeric display 4-digit
- 3 status LEDs



Product characteristics	
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1
Measuring range	0.5...143.9 m/s 8...2110 m ³ /h 0.12...35.18 m ³ /min
Process connection	threaded connection G 1 internal thread
Application	
Installation	Adjustable to inside pipe diameters; (38...254 mm)
Media	compressed air
Medium temperature [°C]	0...60
Pressure rating [bar]	16
Pressure rating [psi]	232
MAWP (for applications according to CRN) [bar]	16
Electrical data	
Operating voltage [V]	18...30 DC; (according to EN 50178 SELV/PELV)
Current consumption [mA]	< 110
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	1
Inputs / outputs	
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1



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Outputs			
Total number of outputs	2		
Output signal	switching signal; analogue signal; pulse signal; IO-Link; (configurable)		
Electrical design	PNP		
Number of digital outputs	2		
Output function	normally open / normally closed; (parameterisable)		
Max. voltage drop switching output DC [V]	2		
Permanent current rating of switching output DC [mA]	250; (per output)		
Number of analogue outputs	1		
Analogue current output [mA]	4...20; (scalable)		
Max. load [Ω]	500		
Pulse output	consumed quantity meter		
Short-circuit protection	yes		
Type of short-circuit protection	pulsed		
Overload protection	yes		
Measuring/setting range			
Measuring range	Measuring/setting range; Flow monitoring; The values apply at: Ø 72 mm		
Measuring range	0.5...143.9 m/s	8...2110 m ³ /h	0.12...35.18 m ³ /min
Display range	0...172.7 m/s	0...2532 m ³ /h	0...42.22 m ³ /min
Resolution	0.1 m/s	2 m ³ /h	0.02 m ³ /min
Set point SP	1.2...143.9 m/s	18...2110 m ³ /h	0.28...35.18 m ³ /min
Reset point rP	0.5...143.2 m/s	6...2100 m ³ /h	0.12...35 m ³ /min
Analogue start point ASP	0...107.9 m/s	0...1582 m ³ /h	0...26.38 m ³ /min
Analogue end point AEP	36...143.9 m/s	528...2110 m ³ /h	8.8...35.18 m ³ /min
In steps of	0.1 m/s	2 m ³ /h	0.02 m ³ /min
Volumetric flow quantity monitoring			
Pulse value	1...1000 x 10 ³		
In steps of	1 Nm ³		
Pulse length [s]	0,7 ... 2 (D = 72 mm)		
Temperature monitoring			
Measuring range [°C]	0...60		
Display range [°C]	-12...72		
Resolution [°C]	0.2		
Set point SP [°C]	0.4...60		
Reset point rP [°C]	0.2...59.8		
Analogue start point [°C]	0...45		
Analogue end point [°C]	15...60		
In steps of [°C]	0.2		
Accuracy / deviations			
Flow monitoring			
Repeatability	± 1,5		

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	[% of the measured value]	
Accuracy (in the measuring range)		$\pm (6 \% MW + 0,6 \% MEW)$; (D = 72mm, T = 22°C; standard volume flow: 50...850 Nm ³ /h)
Temperature monitoring		
Accuracy	[K]	$\pm 2,5$ (Q > 2 Nm ³ /h)
Response times		
Flow monitoring		
Response time	[s]	0.1; (dAP = 0)
Damping for the switching output dAP in steps	[s]	0 - 0,2 - 0,4 - 0,6 - 0,8 - 1
Temperature monitoring		
Dynamic response T05 / T09	[s]	30 (Q > 2 Nm ³ /h)
Software / programming		
Parameter setting options		Flow monitoring; quantity meter; Preset counter; Temperature monitoring; hysteresis / window; normally open / normally closed; current/pulse output; display can be rotated and switched off; Display unit; totaliser
Interfaces		
Communication interface		IO-Link
Transmission type		COM 2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
IO-Link device ID		381d / 00 01 7D h
Profiles		Smart Sensor: Process Data Variable; Device Identification
SIO mode		yes
Required master port type		A
Process data analogue		3
Process data binary		2
Min. process cycle time	[ms]	5
Operating conditions		
Ambient temperature	[°C]	0...60
Storage temperature	[°C]	-20...85
Max. relative air humidity	[%]	90
Protection		IP 65
Tests / approvals		
EMC		DIN EN 60947-5-9
		DIN EN 61000-6-3
Vibration resistance		DIN EN 60068-2-6
MTTF	[years]	213
Mechanical data		
Weight	[g]	442
Materials		PBT-GF20; PC; stainless steel (1.4301 / 304); FKM
Materials (wetted parts)		stainless steel (1.4401 / 316); stainless steel (1.4301 / 304); ceramics glass passivated; PEEK; polyester; FKM
Process connection		threaded connection G 1 internal thread

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Displays / operating elements

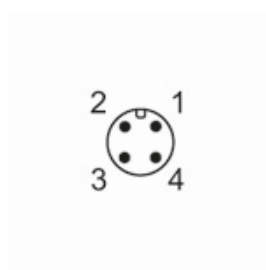
Display	Display unit	4 x LED, green (Nm ³ /min, Nm ³ /h, Nm ³ , °C)
	function display	1 x LED, green
	switching status	2 x LED, yellow
	measured values	alphanumeric display, 4-digit
	programming	alphanumeric display, 4-digit

Remarks

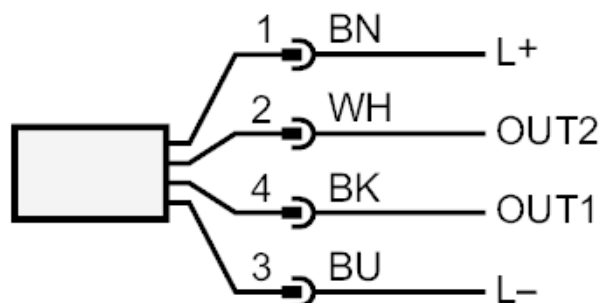
Remarks	Measuring, display and setting ranges refer to the standard volume flow according to DIN ISO 2533. D = inside pipe diameter
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12



Connection



OUT1: Flow monitoring / quantity meter / Preset counter

IO-Link

OUT2: Flow monitoring / Temperature monitoring

input counter reset

colours to DIN EN 60947-5-2

Core colours :

- BK = black
- BN = brown
- BU = blue
- WH = white

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Diagrams and graphs

final value of the measuring range
referred to the internal pipe diameter

