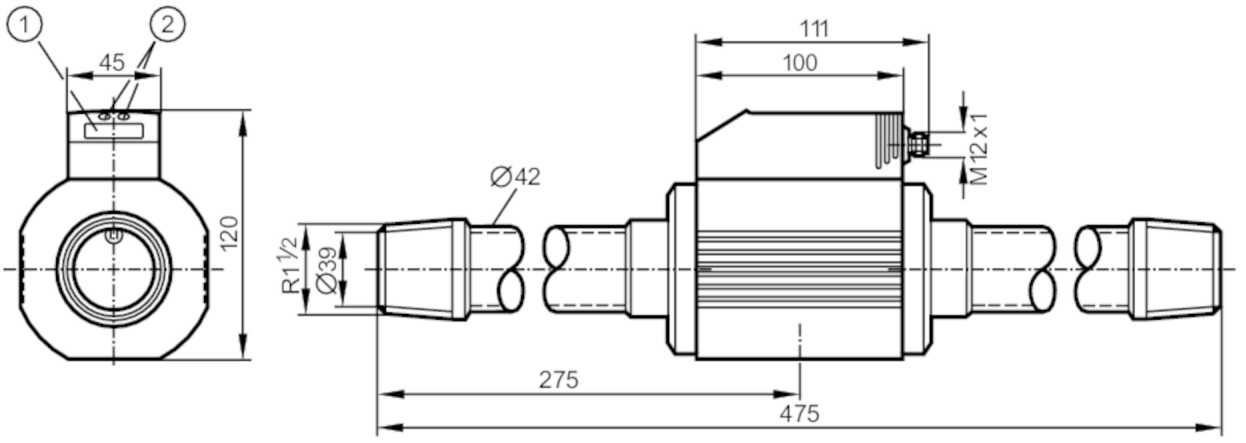
SD9000

Compressed air meter

SDR32DGXFPKG/US-100



1 alphanumeric display 4-digit
2 programming buttons

Application		
Application		for industrial applications
Media		compressed air
Medien		air quality ISO 8573-1
		class 141
		class 344
Medium temperature	[°C]	0...60
Pressure rating	[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

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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		1.5...410 m³/h	20...6835 l/min	0.3...95.3 m/s
Display range		0...492 m³/h	0...8200 l/min	0...114.4 m/s
Set point SP		3.5...410 m³/h	55...6835 l/min	0.8...95.3 m/s
Reset point rP		1.5...408 m³/h	20...6800 l/min	0.3...94.8 m/s
Analogue start point ASP		0...307.5 m³/h	0...5125 l/min	0...71.5 m/s
Analogue end point AEP		102.5...410 m³/h	1710...6835 l/min	23.8...95.3 m/s
In steps of		0.5 m³/h	5 l/min	0.1 m/s
volumetric flow quantity monitoring				
Pulse value		0.005...4 000 000 m³		
In steps of		0.001 m³		
Pulse length	[s]	≥ 0,018 / ≤ 2		
Temperature monitoring				
Measuring range	[°C]	0...60		
Display range	[°C]	-12...72		
Accuracy / deviations				
Flow monitoring				
Repeatability	[% of the measured value]	± 1,5		
Accuracy (in the measuring range)		± (3 % MW + 0,3 % MEW) / ± (6 % MW + 0,6 % MEW); (class 141 / ; class 344; conditions: installation to DIN ISO 2533; installation in pipes: DN40)		
Temperature monitoring				
Accuracy	[K]	± 2; (medium flow in the limit area of the flow measurement range)		

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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
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		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9 CDV
IO-Link device ID		269 d / 00 01 0D h
Profiles		no profile
SIO mode		yes
Required master port type		A
Process data analogue		3
Process data binary		2
Min. process cycle time	[ms]	4.1
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 61000-6-2
		DIN EN 61000-6-3
Vibration resistance		DIN EN 68000-2-6 — 5 g (55...2000 Hz)
MTTF	[years]	227
Pressure Equipment Directive		Sound Engineering Practice; can be used for group 2 fluids; group 1 fluids on request
Mechanical data		
Weight	[g]	4163
Materials		PBT-GF20; NBR; PC; stainless steel (1.4301 / 304); PTFE; brass coated; aluminium powder-coated
Materials (wetted parts)		stainless steel (1.4301 / 304); FKM; ceramics glass passivated; PEEK GF30; polyester; aluminium
Process connection		threaded connection R 1 1/2 DN40

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Displays / operating elements

Display	Display unit	5 x LED, green (Nl/min, Nm³/h, Nm/s, Nm³, °C)
	function display	1 x LED, green
	switching status	2 x LED, yellow
	measured values	alphanumeric display, 4-digit
	programming	alphanumeric display, 4-digit

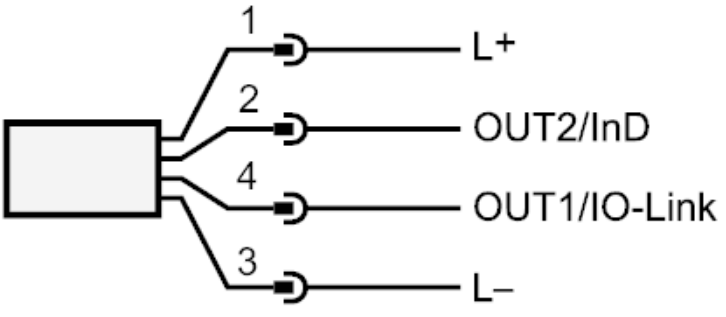
Remarks

Remarks	MW = measured value
	MEW = Final value of the measuring range
	Measuring, display and setting ranges refer to the standard volume flow according to DIN ISO 2533.
	For information about installation and operation please see the operating instructions.
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12

Connection



OUT1/IO-Link:	switching output volumetric flow quantity monitoring
	Pulse output quantity meter
	signal output Preset counter
OUT2/InD:	switching output volumetric flow quantity monitoring / Temperature monitoring
	analogue output volumetric flow quantity monitoring / Temperature monitoring
	input counter reset