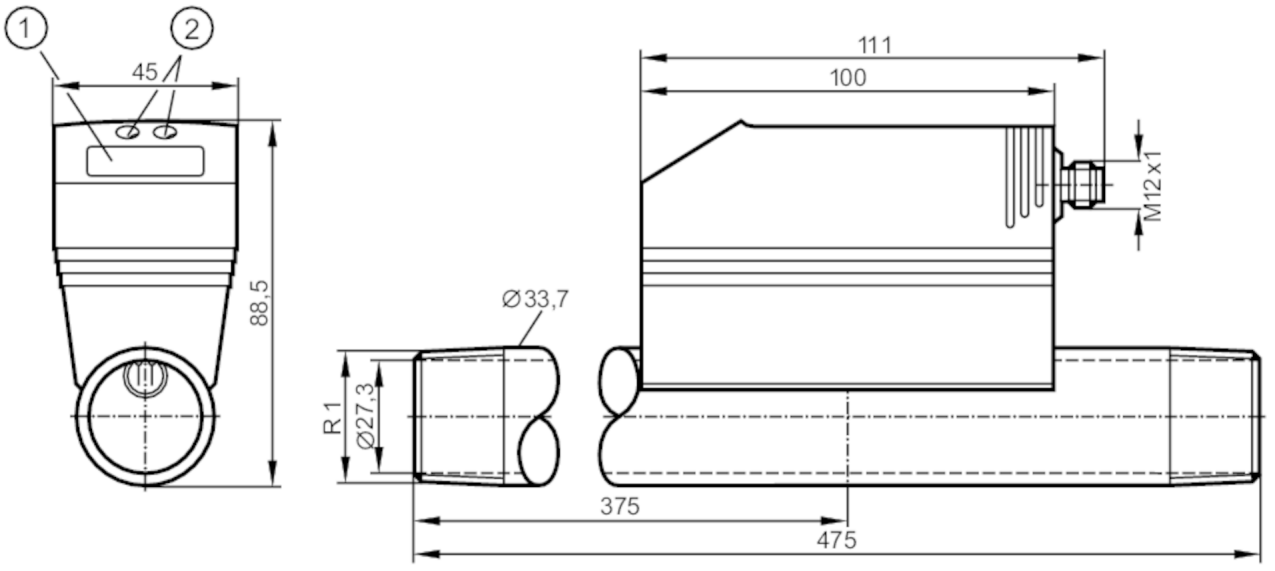
SD8000

Compressed air meter

SDR11DGXFPKG/US-100

phase-out article

Alternative articles: SD8500
When selecting an alternative article and accessories please note that technical data may differ!



1 alphanumeric display 4-digit
2 programming buttons

Product characteristics			
Number of inputs and outputs		Number of digital outputs: 2; Number of analogue outputs: 1	
Measuring range	13...3750 l/min	0.4...109.2 m/s	0.7...225 m³/h
Process connection		threaded connection R 1 external thread DN25	
Application			
Application		for industrial applications	
Media		compressed air	
Note on media		air quality ISO 8573-1	
		class 141	
		class 344	
Medium temperature	[°C]	0...60	
Pressure rating	16 bar	1.6 MPa	
Electrical data			
Operating voltage	[V]	18...30 DC; (to SELV/PELV)	
Current consumption	[mA]	< 110	
Min. insulation resistance	[MΩ]	100; (500 V DC)	
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		13...3750 l/min	0.4...109.2 m/s	0.7...225 m³/h
Display range		0...4500 l/min	0...131 m/s	0...270 m³/h
Set point SP		30...3750 l/min	0.9...109.2 m/s	1.8...225 m³/h
Reset point rP		12...3732 l/min	0.4...108.7 m/s	0.7...223.9 m³/h
Analogue start point ASP		0...2813 l/min	0...81.9 m/s	0...168.8 m³/h
Analogue end point AEP		937...3750 l/min	27.3...109.2 m/s	56.2...225 m³/h
In steps of		1 l/min	0.1 m/s	0.1 m³/h
Volumetric flow quantity monitoring				
Pulse value		0.003...3000000 m³		
In steps of		0.001 m³		
Pulse length	[s]	0,02...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: DN25)		
Temperature monitoring				
Accuracy	[K]	± 2; (medium flow in the limit area of the flow measurement range)		
Response times				
Flow monitoring				
Response time	[s]	0.1; (dAP = 0)		

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Damping process value 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	
SIO mode		yes	
Required master port type		A	
Process data analogue		3	
Process data binary		2	
Min. process cycle time	[ms]	4.1	
Supported DeviceIDs		**Type of operation**	**DeviceID**
		default	267
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	
CPA approval		model number	002TG
		accuracy class	-
		maximum allowable error	± 4 % FS
		Q (min)	0,7 m³/h
		Q (t)	-
		Q (max)	225 m³/h
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]	2029	
Dimensions	[mm]	475 x 45 x 88.5	
Materials		PBT-GF20; NBR; PC; stainless steel (304/1.4301); PTFE; brass coated; FKM; aluminium powder-coated	
Materials (wetted parts)		stainless steel (304/1.4301); FKM; ceramics glass passivated; PEEK GF30; polyester; aluminium	
Process connection		threaded connection R 1 external thread DN25	

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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

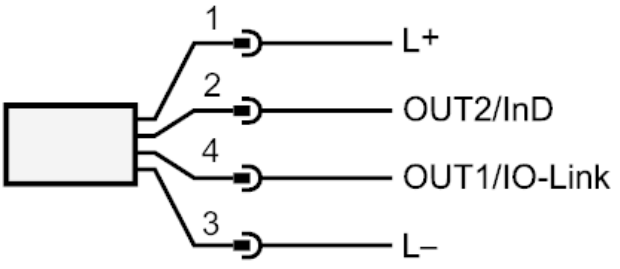
Remarks	MW = measured value
	MEW = Final value of the measuring range
	Measuring, display and setting ranges refer to the standard volume flow according to DIN ISO 2533.
	For information about installation and operation please see the operating instructions.
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4



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