

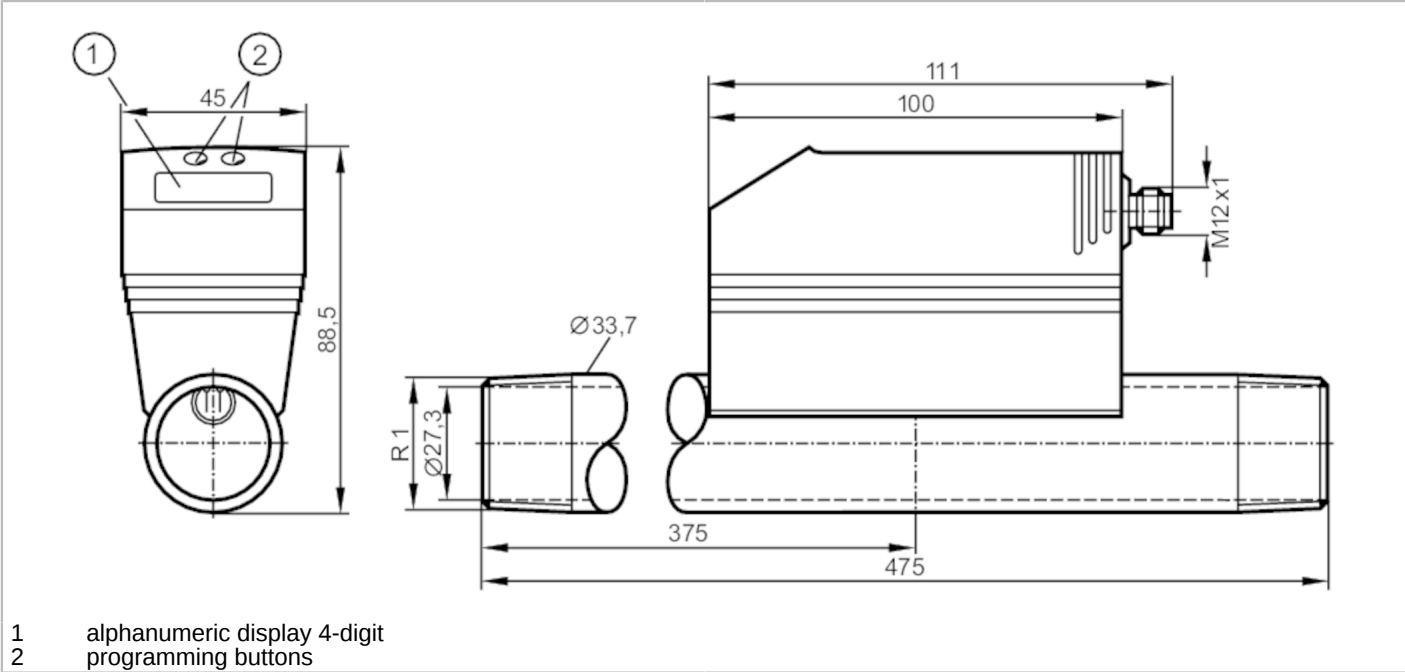


Compressed air meter

SDR11DGXFPKG/US-100

phase-out article
Discontinuation date: 12/31/2024

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



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 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	[bar]	16	
Pressure rating	[MPa]	1.6	
Electrical data			
Operating voltage	[V]	18...30 DC; (to SELV/PELV)	
Current consumption	[mA]	< 110	
Protection class		III	
Reverse polarity protection		yes	
Power-on delay time	[s]	1	



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Inputs / outputs			
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
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 [X17]	± 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
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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
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Interfaces

Communication interface	IO-Link				
Transmission type	COM2 (38,4 kBaud)				
IO-Link revision	1.1				
SDCI standard	IEC 61131-9 CDV				
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				
Supported DeviceIDs	<table> <tr> <th>Type of operation</th><th>DeviceID</th></tr> <tr> <td>default</td><td>267</td></tr> </table>	Type of operation	DeviceID	default	267
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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	[ANN]	227
Pressure Equipment Directive	Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data

Weight	[g] 2029
Materials	PBT-GF20; NBR; PC; stainless steel (1.4301 / 304); PTFE; brass coated; FKM; 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 DN25

SD8000



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Displays / operating elements

Display	Display unit	5 x LED, green (NI/min, Nm ³ /h, Nm/s, 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

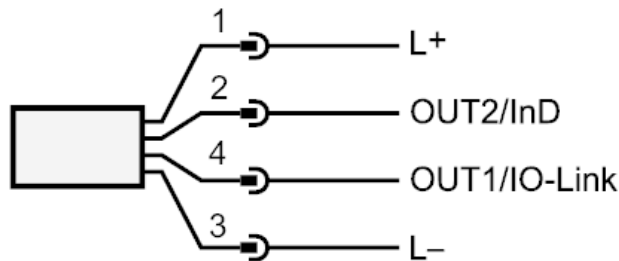
Remarks	MW = measured value
	MEW = Final value of the measuring range
	Measuring, display and setting ranges refer to the standard volume flow according to DIN ISO 2533.
	For information about installation and operation please see the operating instructions.
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A



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