

# SD9000



## Compressed air meter

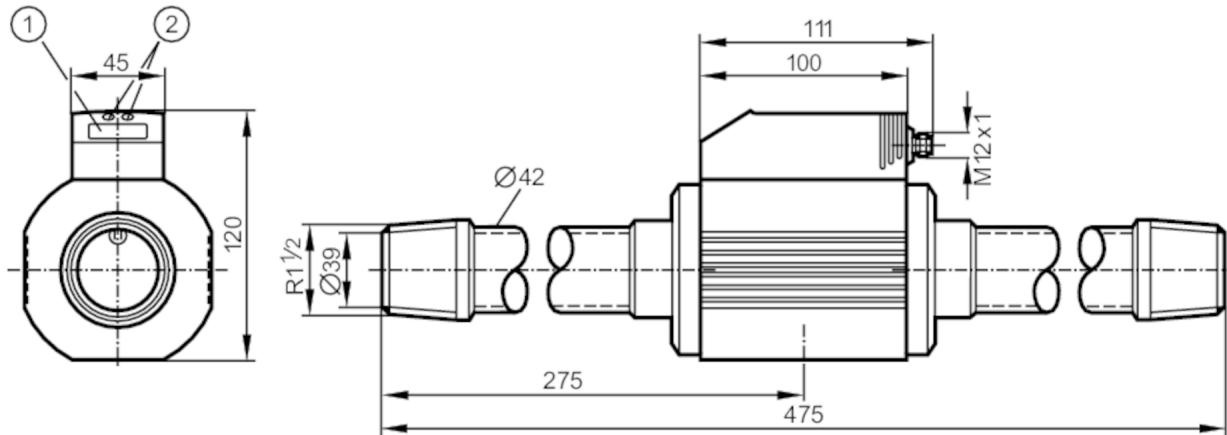
SDR32DGXFPKG/US-100

phase-out article

Discontinuation date: 12/31/2024

Alternative articles: SD9500

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	20...6835 l/min	0.3...95.3 m/s	1.5...410 m³/h
Process connection	threaded connection R 1 1/2 DN40		

### 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		

### Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1		
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# SD9000

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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	20...6835 l/min	0.3...95.3 m/s	1.5...410 m³/h			
Display range	0...8200 l/min	0...114.4 m/s	0...492 m³/h			
Set point SP	55...6835 l/min	0.8...95.3 m/s	3.5...410 m³/h			
Reset point rP	20...6800 l/min	0.3...94.8 m/s	1.5...408 m³/h			
Analogue start point ASP	0...5125 l/min	0...71.5 m/s	0...307.5 m³/h			
Analogue end point AEP	1710...6835 l/min	23.8...95.3 m/s	102.5...410 m³/h			
In steps of	5 l/min	0.1 m/s	0.5 m³/h			
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)					
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
<b>Software / programming</b>		
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
<b>Interfaces</b>		
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	Type of operation	DeviceID
	default	269
<b>Operating conditions</b>		
Ambient temperature	[°C]	0...60
Storage temperature	[°C]	-20...85
Max. relative air humidity	[%]	90
Protection		IP 65
<b>Tests / approvals</b>		
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)	1,4 m³/h
	Q (t)	-
	Q (max)	410 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	
<b>Mechanical data</b>		
Weight	[g]	4004
Materials	PBT-GF20; NBR; PC; stainless steel (304/1.4301); PTFE; brass coated; aluminium powder-coated	
Materials (wetted parts)	stainless steel (304/1.4301); FKM; ceramics glass passivated; PEEK GF30; polyester; aluminium	
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### Displays / operating elements

Display	Display unit	5 x LED, green (NI/min, Nm <sup>3</sup> /h, Nm/s, Nm <sup>3</sup> , °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

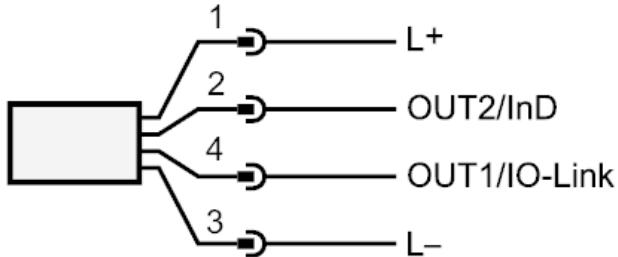
Remarks	MW = measured value MEW = Final value of the measuring range Measuring, display and setting ranges refer to the standard volume flow according to DIN ISO 2533. For information about installation and operation please see the operating instructions.
Pack quantity	1 pcs.

### 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