

# SD2000

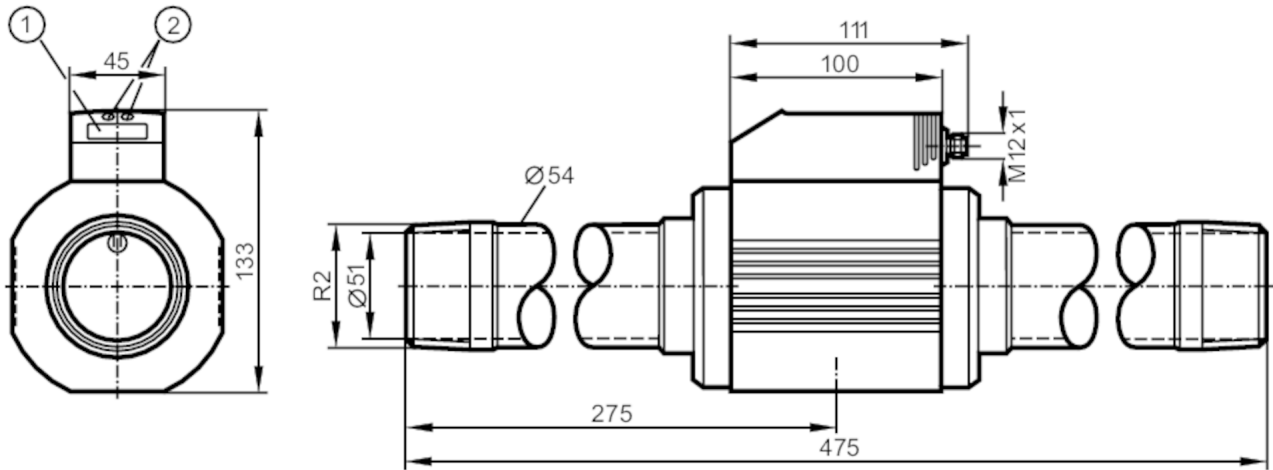


## Compressed air meter

SDR21DGXFPKG/US-100

discontinued article

Alternative article: SD2500 When selecting an alternative article and accessories please note that technical data may differ! – 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	0.3...95.2 m/s	3...700 m³/h	0.04...11.66 m³/min
Process connection	threaded connection R 2 DN50		

### Application

Application	for industrial applications		
Media	compressed air		
	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		

### 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		0.3...95.2 m/s	3...700 m <sup>3</sup> /h
Display range		0...114.2 m/s	0...840 m <sup>3</sup> /h
Set point SP		0.7...95.2 m/s	5...700 m <sup>3</sup> /h
Reset point rP		0.3...94.8 m/s	2...697 m <sup>3</sup> /h
Analogue start point ASP		0...71.4 m/s	0...525 m <sup>3</sup> /h
Analogue end point AEP		23.8...95.2 m/s	175...700 m <sup>3</sup> /h
In steps of		0.1 m/s	1 m <sup>3</sup> /h
			0.04...11.66 m <sup>3</sup> /min
			0...13.99 m <sup>3</sup> /min
			0.09...11.66 m <sup>3</sup> /min
			0.04...11.61 m <sup>3</sup> /min
			0...8.75 m <sup>3</sup> /min
			2.91...11.66 m <sup>3</sup> /min
			0.01 m <sup>3</sup> /min
Volumetric flow quantity monitoring			
Pulse value		0.010...4000000 m <sup>3</sup>	
In steps of		0.010 m <sup>3</sup>	
Pulse length	[s]	≥ 0,021 / ≤ 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: DN50)	
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	270 d / 00 01 0E 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]	4297	
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 2 DN50	

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### Displays / operating elements

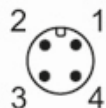
Display	Display unit	5 x LED, green (Nm <sup>3</sup> /min, Nm <sup>3</sup> /h, Nm/s, Nm <sup>3</sup> , °C)
	function display	1 x LED, green
	switching status	2 x LED, yellow
	measured values	alphanumeric display, 4-digit
	programming	alphanumeric display, 4-digit

### Remarks

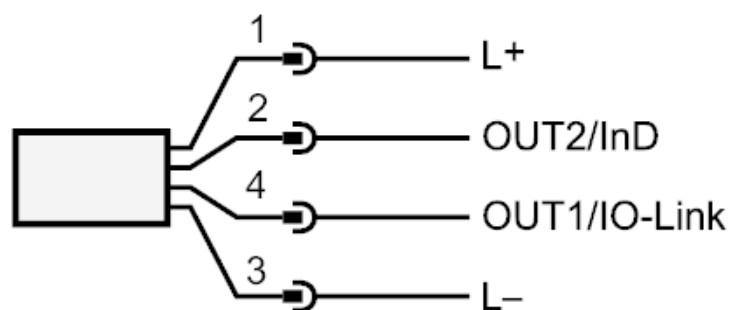
Remarks	MW = measured value
	MEW = Final value of the measuring range
	Measuring, display and setting ranges refer to the standard volume flow according to DIN ISO 2533.
	For information about installation and operation please see the operating instructions.
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12



### 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

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