SD6000

Compressed air meter
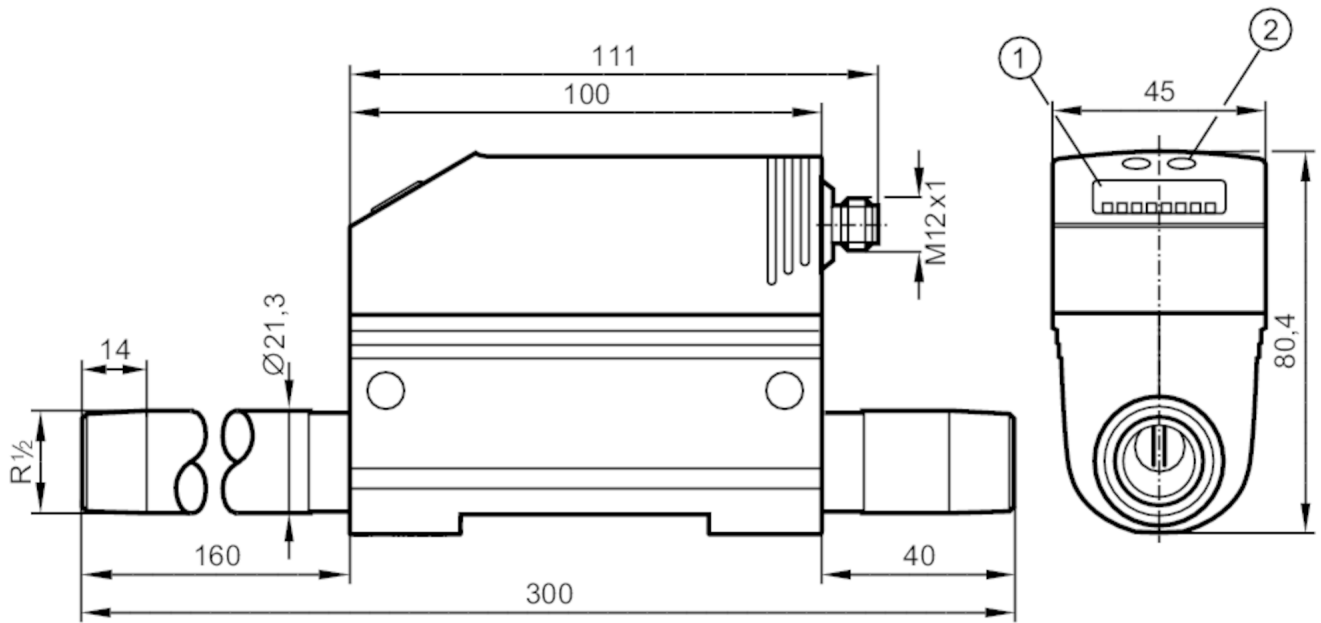
SDR12DGXFPKG/US-100

Article to be discontinued
Discontinuation date: 12/31/2024

Alternative articles: SD6500
When selecting an alternative article and accessories please note that technical data may differ!

1   alphanumeric display 4-digit
2   Programming buttons

CE CRN cULus LISTED IO-Link UKCA

Product characteristics			
Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1		
Measuring range	10...1250 l/min	0.3...103.6 m/s	0.2...75 m³/h
Process connection	threaded connection R 1/2 DN15		

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
MAWP (for applications according to CRN) [bar]	16

Electrical data	
Operating voltage [V]	18...30 DC; (to SELV/PELV)
Current consumption [mA]	< 110
Protection class	III

SD6000

Compressed air meter

Reverse polarity protection		yes	
Power-on delay time	[s]	1	

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1

Outputs

Total number of outputs		2
Output signal		switching signal; analog signal; pulse signal; IO-Link; (configurable)
Electrical design		PNP
Number of digital outputs		2
Output function		normally open / closed; (configurable)
Max. voltage drop switching output DC	[V]	2
Permanent current rating of switching output DC	[mA]	250; (per output)
Number of analog outputs		1
Analog current output	[mA]	4...20; (scalable)
Max. load	[Ω]	500
Pulse output		consumed quantity meter
Short-circuit protection		yes
Type of short-circuit protection		yes (non-latching)
Overload protection		yes

Measuring/setting range

Measuring range	10...1250 l/min	0.3...103.6 m/s	0.2...75 m³/h
Display range	0...1500 l/min	0...124.3 m/s	0...90 m³/h
Set point SP	10...1250 l/min	0.8...103.6 m/s	0.6...75 m³/h
Reset point rP	4...1244 l/min	0.3...103.1 m/s	0.2...74.6 m³/h
Analog start point ASP	0...938 l/min	0...77.7 m/s	0...56.3 m³/h
Analog end point AEP	312...1250 l/min	25.9...103.6 m/s	18.7...75 m³/h
In steps of	1 l/min	0.1 m/s	0.1 m³/h

Volumetric flow quantity monitoring

Pulse value	0.001...1000000 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: DN15)

SD6000

Compressed air meter

SDR12DGXFPKG/US-100

Temperature monitoring		
Accuracy	[K]	± 2; (medium flow in the limit area of the flow measurement range)

Reaction times		
Flow monitoring		
Response time	[s]	0.1; (dAP = 0)
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 / closed; current/pulse output; display can be rotated and switched off; Display unit; totalizer

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 class		A
Process data analog		3
Process data binary		2
Min. process cycle time	[ms]	4.1
Supported DeviceIDs	**Type of operation**	**DeviceID**
	default	262

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)	0,2 m³/h
	Q (t)	-
	Q (max)	75 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]	942.5
Material	PBT-GF20; NBR; PC; stainless steel (1.4301 / 304); PTFE; brass coated; FKM; aluminum powder-coated

SD6000

Compressed air meter

Materials (wetted parts)		stainless steel (1.4301 / 304); FKM; ceramics glass passivated; PEEK GF30; polyester; aluminum
Tightening torque	[Nm]	50
Process connection		threaded connection R 1/2 DN15

Displays / operating elements

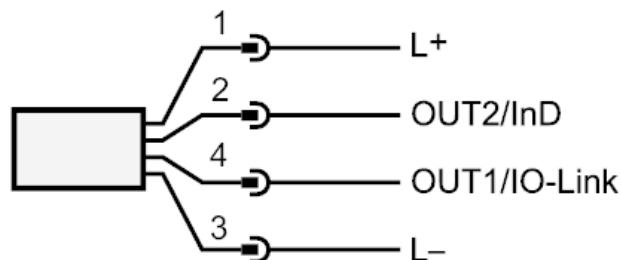| Display	Display unit	5 x LED, green (Nl/min, Nm³/h, Nm/s, Nm³, °C)
	Function display	1 x LED, green
	Switching status	2 x LED, yellow
	Measured values	alphanumeric display, 4-digit
	Programming	alphanumeric display, 4-digit

Remarks

Remarks	MW = Measured value
	MEW = Final value of the measuring range
	Measuring, display and setting ranges refer to 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
analog output Volumetric flow quantity monitoring / Temperature monitoring
Input counter reset