

SD6000



Compressed air meter

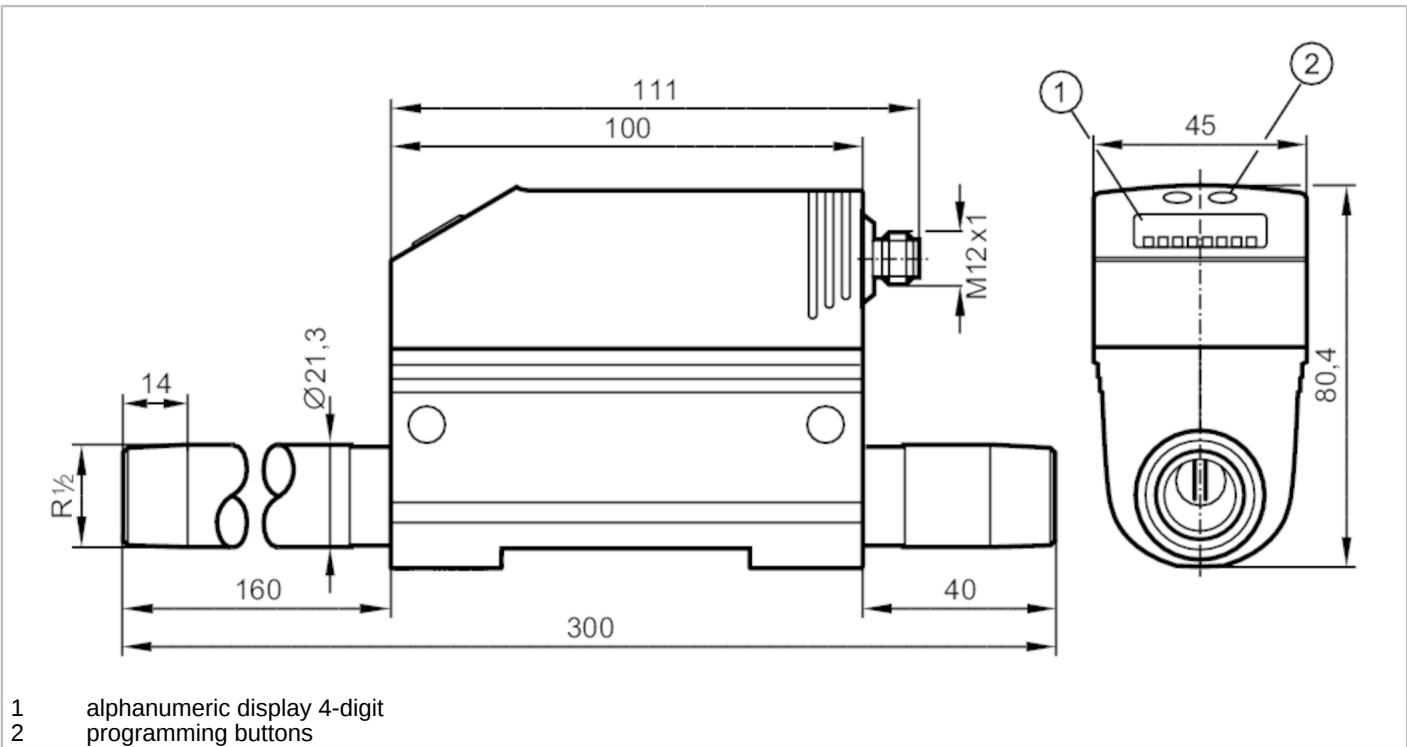
SDR12DGXFPKG/US-100

phase-out article

Discontinuation date: 12/31/2024

Alternative articles: SD6500

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	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



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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	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
Analogue start point ASP	0...938 l/min	0...77.7 m/s	0...56.3 m³/h
Analogue 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 l; class 344; conditions: installation to DIN ISO 2533; installation in pipes: DN15)



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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)
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	
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	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
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
Materials	PBT-GF20; NBR; PC; stainless steel (304/1.4301); PTFE; brass coated; FKM; aluminium powder-coated	

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

Displays / operating elements

Display	Display unit	5 x LED, green (NI/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

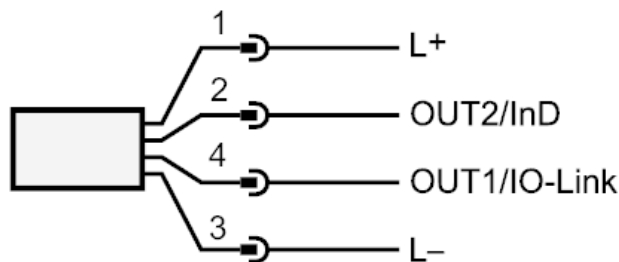
Remarks	MW = measured value
	MEW = Final value of the measuring range
	Measuring, display and setting ranges refer to the standard volume flow according to DIN ISO 2533.
	For information about installation and operation please see the operating instructions.
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A



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