

SD6100



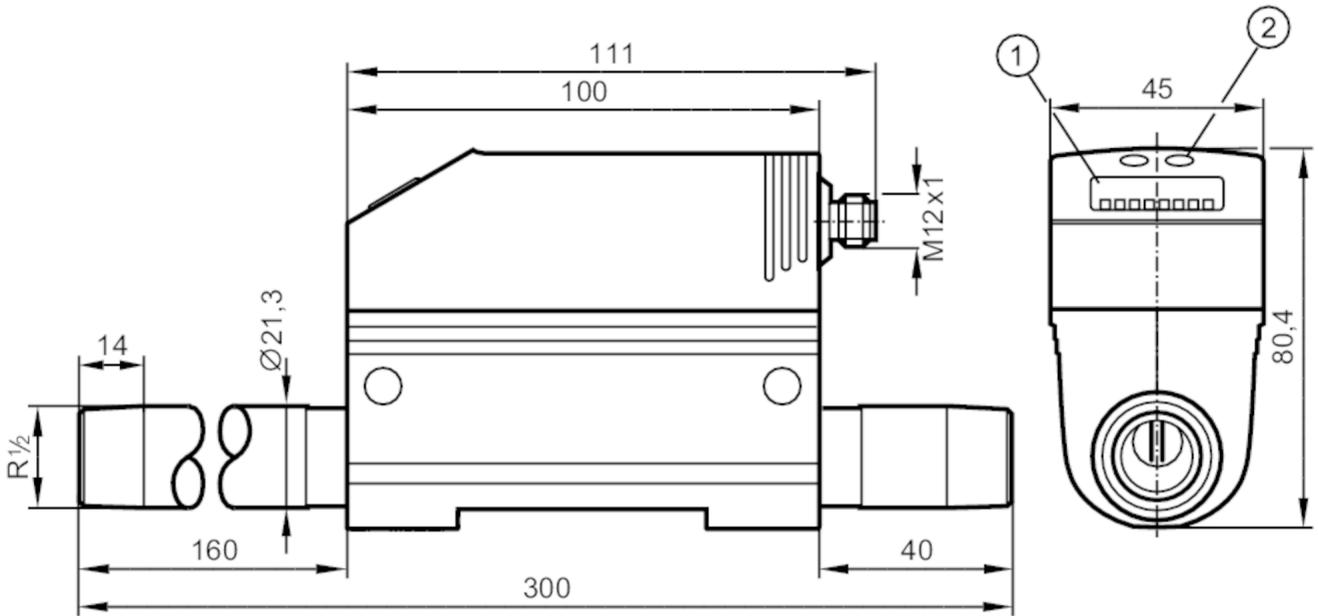
Flow rate meter for gases

SDR12DGXFPKG/US-100

Discontinued article

Alternative articles: SD6600

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 analog outputs: 1
Process connection	threaded connection R 1/2 DN15
Ar	
Measuring range [m ³ /h]	0.4...122
CO₂	
Measuring range [m ³ /h]	0.2...74.7
N₂	
Measuring range [m ³ /h]	0.2...75

Application

Application	for industrial applications
Media	Argon (Ar); carbon dioxide (CO ₂); nitrogen (N ₂)
Medium temperature [°C]	0...60
Pressure rating [bar]	16
Pressure rating [Mpa]	1.6

SD6100



Flow rate meter for gases

SDR12DGXFPKG/US-100

Electrical data		
Operating voltage [V]		18...30 DC; (according to EN 50178 SELV/PELV)
Current consumption [mA]		< 100
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 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		
Low flow cut-off LFC [m ³ /h]		< 1.3
Measuring dynamics		1:300
Ar		
Measuring range [m ³ /h]		0.4...122
Display range [m ³ /h]		0...146.4
Resolution [m ³ /h]		0.1
Set point SP [m ³ /h]		1.1...122
Reset point rP [m ³ /h]		0.6...121.5
Analog start point ASP [m ³ /h]		0...97.6
Analog end point AEP [m ³ /h]		24.4...122
In steps of [m ³ /h]		0.1

SD6100



Flow rate meter for gases

SDR12DGXFPKG/US-100

CO2		
Measuring range	[m ³ /h]	0.2...74.7
Display range	[m ³ /h]	0...89.7
Resolution	[m ³ /h]	0.1
Set point SP	[m ³ /h]	0.7...74.7
Reset point rP	[m ³ /h]	0.4...74.4
Analog start point ASP	[m ³ /h]	0...59.8
Analog end point AEP	[m ³ /h]	14.9...74.7
In steps of	[m ³ /h]	0.1
Volumetric flow quantity monitoring		
Pulse value		0.001...1 000 000 m ³
In steps of		0.001...1000 m ³
Pulse length	[s]	0,012...2
N2		
Measuring range	[m ³ /h]	0.2...75
Display range	[m ³ /h]	0...90
Resolution	[m ³ /h]	0.1
Set point SP	[m ³ /h]	0.7...75
Reset point rP	[m ³ /h]	0.4...74.7
Analog start point ASP	[m ³ /h]	0...60
Analog end point AEP	[m ³ /h]	15...75
In steps of	[m ³ /h]	0.1
Temperature monitoring		
Measuring range	[°C]	0...60
Display range	[°C]	-12...72
Resolution	[°C]	0.2
Set point SP	[°C]	0.4...60
Reset point rP	[°C]	0...59.8
Analog start point	[°C]	0...48
Analog end point	[°C]	12...60
In steps of	[°C]	0.2
Accuracy / deviations		
Flow monitoring		
Repeatability		± 1,5
	[% of the measured value]	
Accuracy (in the measuring range)		± (6 % MW + 0,6 % MEW); (conditions: installation to DIN ISO 2533; installation in pipes: DN15)
Temperature monitoring		
Accuracy	[K]	± 2; (medium flow in the limit area of the flow measurement range)

SD6100



Flow rate meter for gases

SDR12DGXFPKG/US-100

Reaction 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; hysteresis / window; normally open / closed; current/pulse output; display can be rotated and switched off; Display unit; medium selection	
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
Profiles	Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis	
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	265
Operating conditions		
Ambient temperature	[°C]	0...60
Storage temperature	[°C]	-20...85
Max. relative air humidity	[%]	90
Protection		IP 65
Tests / approvals		
EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	10 V
CPA approval	model number	003TG
	accuracy class	-
	maximum allowable error	± 7 % FS
	Q (min)	0,2 m³/h (N2)
		0,2 m³/h (CO2)
		0,4 m³/h (Ar)
	Q (t)	-
	Q (max)	75 m³/h (N2)
		74,7 m³/h (CO2)
		122 m³/h (Ar)
Vibration resistance	DIN IEC 68-2-6	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	

SD6100



Flow rate meter for gases

SDR12DGXFPKG/US-100

Mechanical data	
Weight [g]	963.5
Material	PBT-GF20; PC; PC; stainless steel (1.4301 / 304); FKM
Materials (wetted parts)	stainless steel (1.4301 / 304); ceramics glass passivated; PEEK; polyester; FKM; aluminum anodized
Tightening torque [Nm]	50
Process connection	threaded connection R 1/2 DN15

Displays / operating elements		
Display	Display unit	4 x LED, green (NI/min, Nm ³ /h, Nm ³ , °C)
	Function display	1 x LED, yellow
	Switching status	2 x LED, yellow
	Measured values	alphanumeric display, 4-digit
	Programming	alphanumeric display, 4-digit
Display unit	NI/min; Nm ³ /h; Nm ³ ; °C	

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.
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12



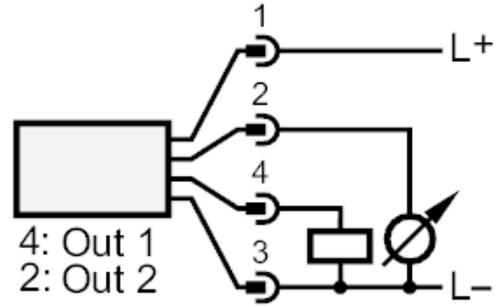
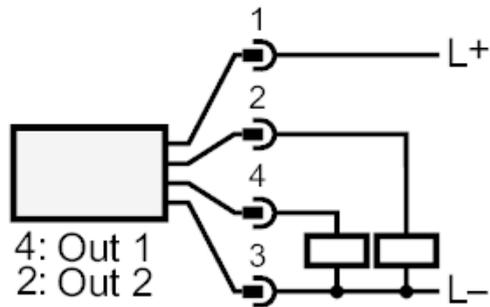
SD6100



Flow rate meter for gases

SDR12DGXFPKG/US-100

Connection



- OUT1: Switching output
 Pulse output quantity meter
 signal output Preset counter
- OUT2: Switching output
 analog output