

# SD6100



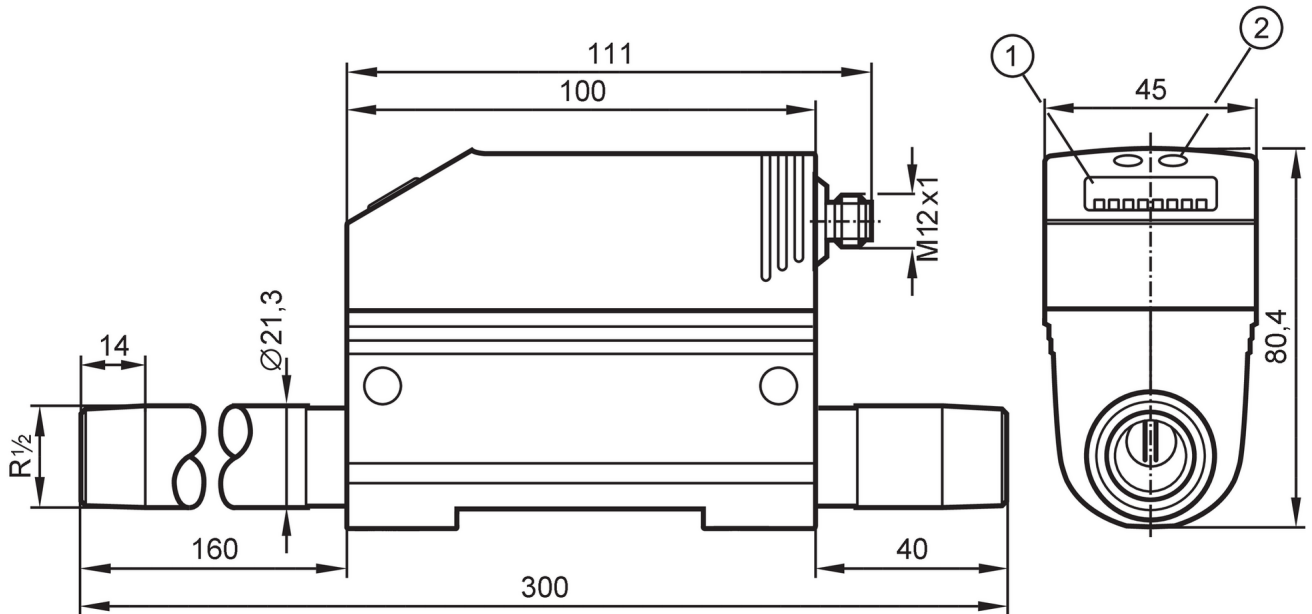
## Industrial gas counter

SDR12DGXFPKG/US-100

phase-out article

Alternative articles: SD6600

When selecting an alternative article and accessories please note that technical data may differ!



- 1 alphanumeric display
- 2 4-digit programming buttons



### Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1	
Process connection	threaded connection R 1/2 external thread DN15	
Ar		
Measuring range	[m <sup>3</sup> /h]	0.4...122
CO <sub>2</sub>		
Measuring range	[m <sup>3</sup> /h]	0.2...74.7
N <sub>2</sub>		
Measuring range	[m <sup>3</sup> /h]	0.2...75

### Application

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

### Electrical data

Operating voltage	[V]	18...30 DC; (to SELV/PELV)
Current consumption	[mA]	< 100
Protection class		III
Reverse polarity protection		yes
Power-on delay time	[s]	1

# SD6100



## Industrial gas counter

SDR12DGXFPKG/US-100

Inputs / outputs	
Number of inputs and outputs	Number of digital outputs: 2; Number of analogue outputs: 1
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 [ $\Omega$ ]	500
Pulse output	consumed quantity meter
Short-circuit protection	yes
Type of short-circuit protection	pulsed
Overload protection	yes
Measuring/setting range	
Low flow cut-off LFC [m <sup>3</sup> /h]	< 1.3
Measuring dynamics	1:300
Ar	
Measuring range [m <sup>3</sup> /h]	0.4...122
Display range [m <sup>3</sup> /h]	0...146.4
Resolution [m <sup>3</sup> /h]	0.1
Set point SP [m <sup>3</sup> /h]	1.1...122
Reset point rP [m <sup>3</sup> /h]	0.6...121.5
Analogue start point ASP [m <sup>3</sup> /h]	0...97.6
Analogue end point AEP [m <sup>3</sup> /h]	24.4...122
In steps of [m <sup>3</sup> /h]	0.1
CO <sub>2</sub>	
Measuring range [m <sup>3</sup> /h]	0.2...74.7
Display range [m <sup>3</sup> /h]	0...89.7
Resolution [m <sup>3</sup> /h]	0.1
Set point SP [m <sup>3</sup> /h]	0.7...74.7
Reset point rP [m <sup>3</sup> /h]	0.4...74.4
Analogue start point ASP [m <sup>3</sup> /h]	0...59.8
Analogue end point AEP [m <sup>3</sup> /h]	14.9...74.7
In steps of [m <sup>3</sup> /h]	0.1
Volumetric flow quantity monitoring	
Pulse value	0.001...1 000 000 m <sup>3</sup>
In steps of	0.001...1000 m <sup>3</sup>

# SD6100



## Industrial gas counter

SDR12DGXFPKG/US-100

Pulse length	[s]	0,012...2
<b>N2</b>		
Measuring range	[m <sup>3</sup> /h]	0.2...75
Display range	[m <sup>3</sup> /h]	0...90
Resolution	[m <sup>3</sup> /h]	0.1
Set point SP	[m <sup>3</sup> /h]	0.7...75
Reset point rP	[m <sup>3</sup> /h]	0.4...74.7
Analogue start point ASP	[m <sup>3</sup> /h]	0...60
Analogue end point AEP	[m <sup>3</sup> /h]	15...75
In steps of	[m <sup>3</sup> /h]	0.1
<b>Temperature monitoring</b>		
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
Analogue start point	[°C]	0...48
Analogue end point	[°C]	12...60
In steps of	[°C]	0.2
<b>Accuracy / deviations</b>		
<b>Flow monitoring</b>		
Repeatability	[% of the measured value]	± 1,5
Accuracy (in the measuring range)		± (6 % MW + 0,6 % MEW); (conditions: installation to DIN ISO 2533; installation in pipes: DN15)
<b>Temperature monitoring</b>		
Accuracy	[K]	± 2; (medium flow in the limit area of the flow measurement range)
<b>Response times</b>		
<b>Flow monitoring</b>		
Response time	[s]	0.1; (dAP = 0)
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; hysteresis / window; normally open / normally closed; current/pulse output; display can be rotated and switched off; Display unit; medium selection
<b>Interfaces</b>		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9

# SD6100



## Industrial gas counter

SDR12DGXFPKG/US-100

Profiles	Smart Sensor - SSP 0	Generic Profiled Sensor
	Function	Device identification
	Function	Process data variable
	Function	Device diagnosis
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	<b>Type of operation</b>	<b>DeviceID</b>
	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		

Mechanical data		
Weight [g]		963.5
Dimensions [mm]		300 x 45 x 80.4
Materials	PBT-GF20; PC; PC; stainless steel (304/1.4301); FKM	
Materials (wetted parts)	stainless steel (304/1.4301); ceramics glass passivated; PEEK; polyester; FKM; aluminium anodised	
Tightening torque [Nm]		50
Process connection	threaded connection R 1/2 external thread DN15	

# SD6100



## Industrial gas counter

SDR12DGXFPKG/US-100

### Displays / operating elements

Display	Display unit	4 x LED, green (NI/min, Nm <sup>3</sup> /h, Nm <sup>3</sup> , °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 <sup>3</sup> /h; Nm <sup>3</sup> ; °C	

### 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.

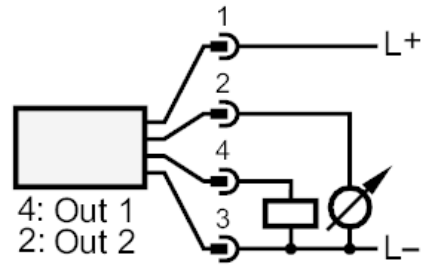
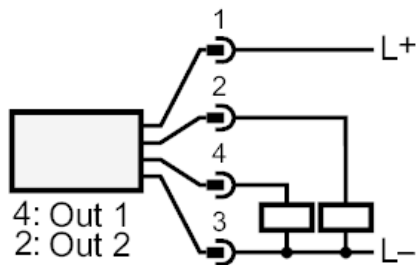
Pack quantity	1 pcs.
---------------	--------

### Electrical connection

Connector: 1 x M12; coding: A



### Connection



- OUT1:
  - switching output
  - Pulse output quantity meter
  - signal output Preset counter
- OUT2:
  - switching output
  - analogue output