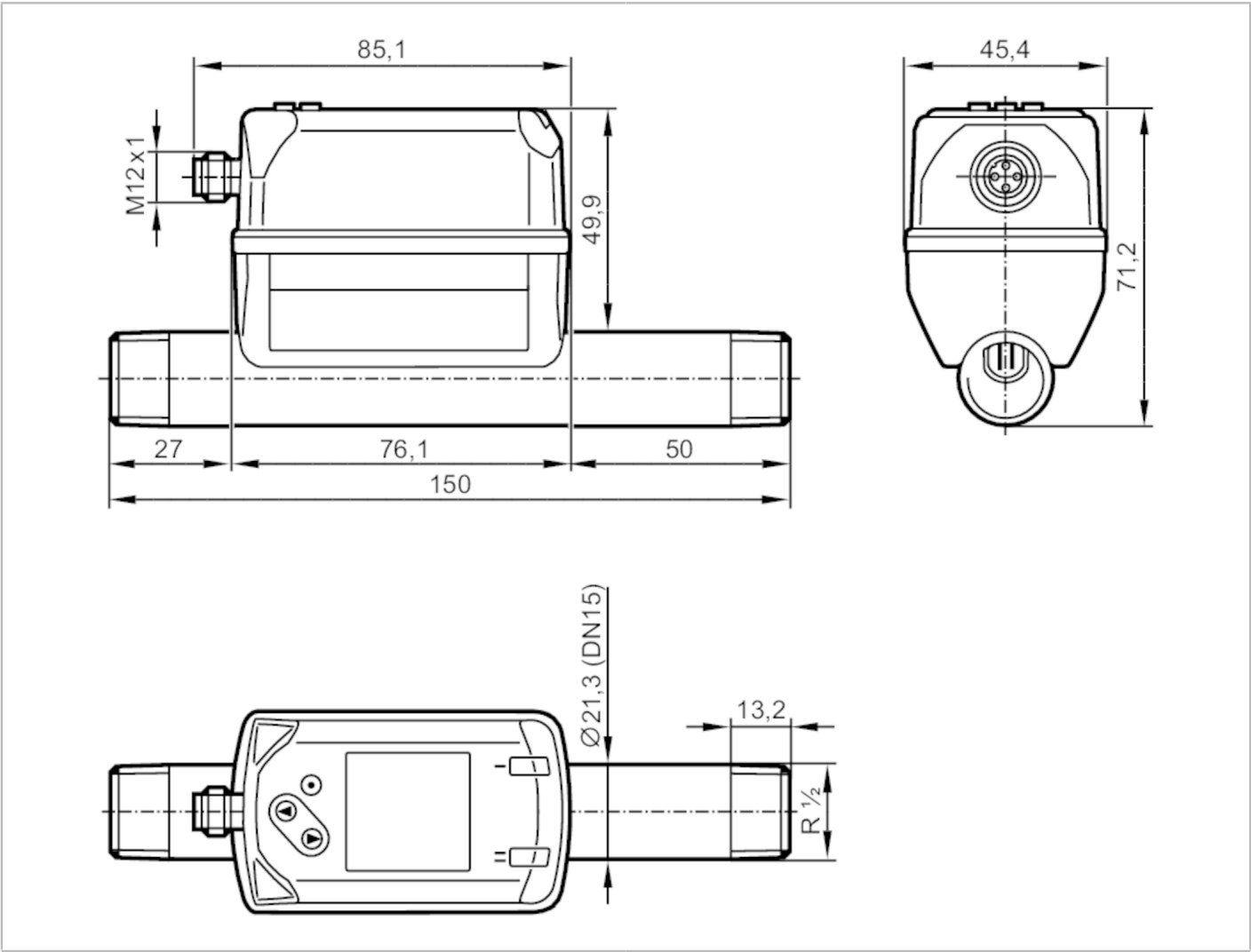


SD6020



Compressed air meter

SDR12DGXFRKG/US-100



Product characteristics			
Number of inputs and outputs		Number of digital outputs: 2; Number of analogue outputs: 1	
Measuring range		4...1250 l/min	0.3...99.8 m/s 0.25...75 m³/h
Process connection		threaded connection R 1/2 DN15	
Application			
Application		for industrial applications	
Media		compressed air	
Medium temperature [°C]		-10...60	
Min. bursting pressure [bar]		64	
Min. bursting pressure [MPa]		6.4	
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)	



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Current consumption	[mA]	< 80
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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Inputs

Inputs	counter reset
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Outputs

Output signal	switching signal; analogue signal; pulse signal; IO-Link; (configurable)
Electrical design	PNP/NPN
Number of digital outputs	2
Output function	normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC	[V] 2.5
Permanent current rating of switching output DC	[mA] 150; (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	4...1250 l/min	0.3...99.8 m/s	0.25...75 m³/h
Display range	0...1500 l/min	0...119.8 m/s	0...90 m³/h
Resolution	1 l/min	0.1 m/s	0.05 m³/h
Set point SP	11...1250 l/min	0.9...99.8 m/s	0.65...74.97 m³/h
Reset point rP	5...1243 l/min	0.4...99.3 m/s	0.28...74.6 m³/h
Analogue start point ASP	0...1000 l/min	0...79.8 m/s	0...60 m³/h
Analogue end point AEP	250...1250 l/min	20...99.8 m/s	15...75 m³/h
Low flow cut-off LFC	1...13 l/min	0.1...1.1 m/s	0.09...0.8 m³/h
In steps of	1 l/min	0.1 m/s	0.01 m³/h

Volumetric flow quantity monitoring

Measuring range	0...100000000 m³	0...353146667.2 scf
Display range	0...100000000 m³	0...353146667.2 scf
Set point SP	0.001...10000000 m³	0.05...353146667.2 scf
Pulse value	0.001...10000000 m³	0.05...353146667.2 scf
In steps of	0.0001 m³	0.005 scf
Pulse length	[s]	0.002...2

Temperature monitoring

Measuring range	-10...60 °C	14...140 °F
Display range	-24...74 °C	-11.2...165.2 °F
Resolution	0.2 °C	0.5 °F



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Set point SP	-9.7...60 °C	14.6...140 °F
Reset point rP	-10...59.7 °C	14...139.4 °F
Analogue start point	-10...46 °C	14...114.8 °F
Analogue end point	4...60 °C	39.2...140 °F
In steps of	0.1 °C	0.1 °F

Accuracy / deviations

Temperature coefficient	[1/K]	± 0,07 % MW
Accuracy (in the measuring range)	± (15 % MW + 1,5 % MEW); (maximum value to be achieved for air quality class 344 (DIN8573-1:2010); when using pipes of tolerance class T3/T4; inlet and outlet pipe lengths without edges and abrupt diameter changes; inner surface of the pipe free of burrs)	
Repeatability		± 1,5 % MW

Temperature monitoring

Accuracy	[K]	± 0,5; (medium flow in the limit area of the flow measurement range)
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Response times

Response time	[s]	0.1; (dAP = 0)
Damping process value dAP	[s]	0...5

Temperature monitoring

Dynamic response T05 / T09	[s]	T09 = 0,5
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Software / programming

Parameter setting options	hysteresis / window; normally open / normally closed; current/pulse output; display can be rotated and switched off; Display unit; totaliser	
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Interfaces

Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9 CDV	
Profiles	Digital Measuring Sensor (0x800A), Identification and Diagnosis (0x4000)	
SIO mode	yes	
Required master port type	A	
Process data analogue	6	
Process data binary	2	
Min. process cycle time	[ms]	5.9
Supported DeviceIDs	Type of operation	DeviceID
	default	1001

Operating conditions

Ambient temperature	[°C]	0...60
Storage temperature	[°C]	-20...85
Max. relative air humidity	[%]	90
Protection	IP 65; IP 67	

Tests / approvals

EMC	DIN EN 60947-5-9	
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CPA approval	model number	004TG
	accuracy class	-
	maximum allowable error	± 16,5 % FS
	Q (min)	0,25 m³/h
	Q (t)	-
	Q (max)	75 m³/h
Vibration resistance	DIN EN 68000-2-6	5 g (10...2000 Hz)
MTTF [years]		195
UL approval	UL Approval no.	I012
	File number UL	E174189
Pressure Equipment Directive	Sound engineering practice; can be used for stable gases fluid group 2	

Mechanical data

Weight [g]	546.5
Materials	PBT+PC-GF30; PPS GF40; stainless steel (304/1.4301); stainless steel (303/1.4305); steel (1.5523) galvanised; 2.0401 (brass / CW614N); FKM
Materials (wetted parts)	stainless steel (304/1.4301); stainless steel (303/1.4305); FKM; ceramics glass passivated; PPS GF40; acrylate
Process connection	threaded connection R 1/2 DN15

Displays / operating elements

Display	colour display 1,44", 128 x 128 pixels
	2 x LED, yellow

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

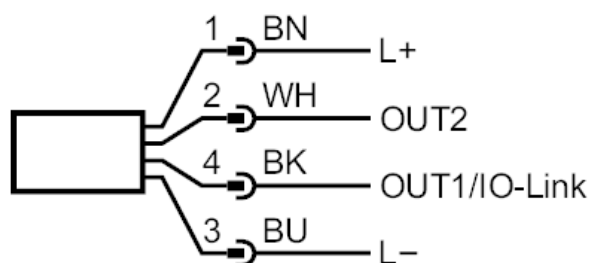




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Connection



OUT1/IO-Link: switching output flow
switching output temperature
Pulse output quantity meter
signal output Preset counter

OUT2/InD: switching output flow
switching output temperature
switching output pressure
analogue output flow
analogue output temperature
signal output Preset counter
Pulse output quantity meter
input counter reset