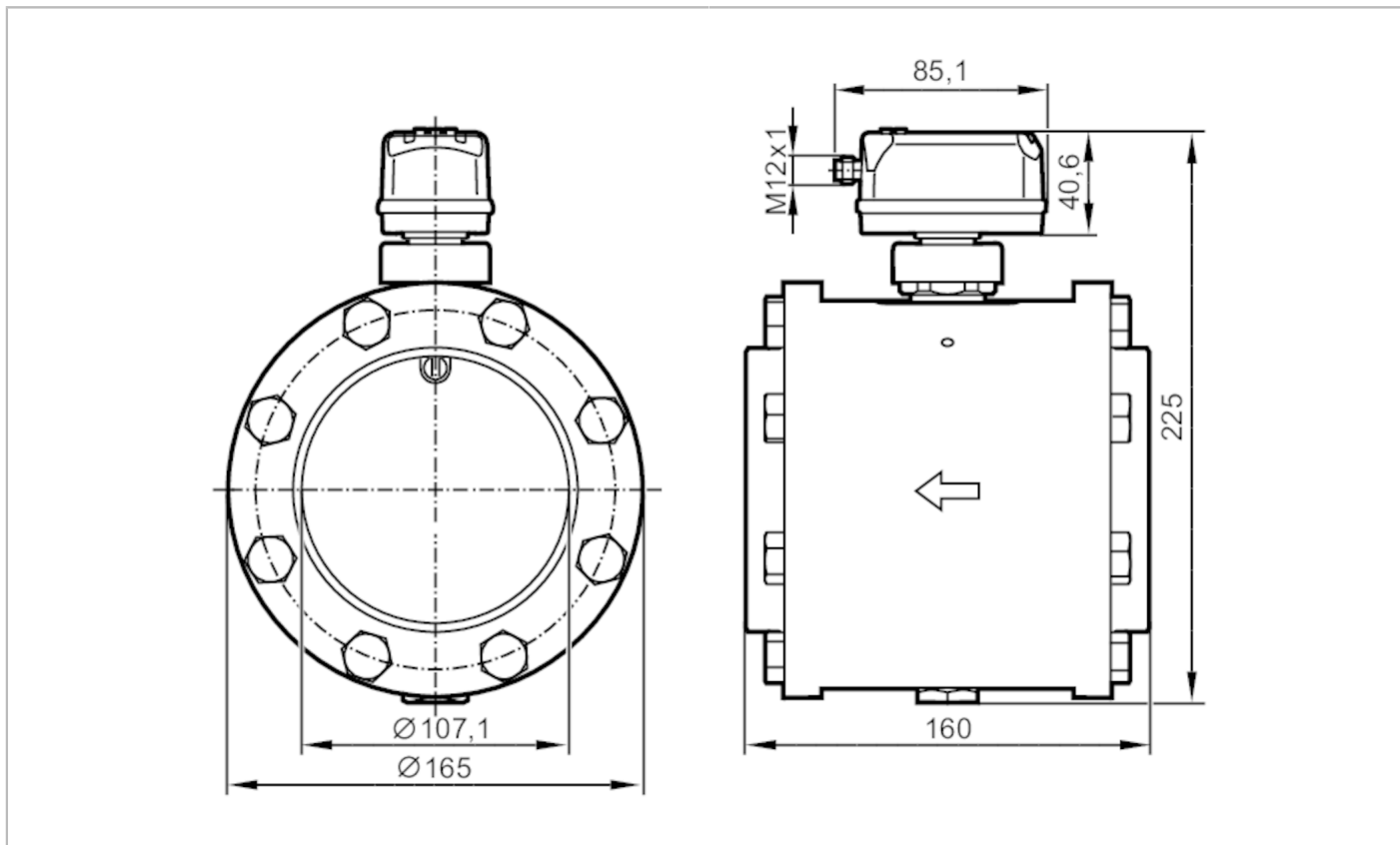


SDG550



Compressed air meter

SDG4"/METRIS PB DN100



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2; Number of analog outputs: 1	
Measuring range	0.6...143.9 m/s	19...4667 m ³ /h
Process connection	flange DN100 according to: DIN EN 10220	

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	

Electrical data

Operating voltage [V]	18...30 DC; (to SELV/PELV)	
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 analog outputs: 1	
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Compressed air meter

SDG4"/METRIS PB DN100

Inputs		
Inputs	counter reset	
Outputs		
Output signal	switching signal; analog signal; pulse signal; IO-Link; (configurable)	
Electrical design	PNP/NPN	
Number of digital outputs	2	
Output function	normally open / closed; (configurable)	
Max. voltage drop switching output DC [V]	2.5	
Permanent current rating of switching output DC [mA]	150; (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	0.6...143.9 m/s	19...4667 m ³ /h
Display range	1.2...172.7 m/s	38...5600 m ³ /h
In steps of	0.1 m/s	1 m ³ /h
Pressure monitoring		
Measuring range [bar]	-1...16	
Display range [bar]	-1...20	
Resolution [bar]	0.05	
Set point SP [bar]	-0.92...16	
Reset point rP [bar]	-1...15.92	
Analog start point [bar]	-1...12.8	
Analog end point [bar]	2.2...16	
In steps of [bar]	0.01	
Volumetric flow quantity monitoring		
Measuring range	0...100000000 m ³	0...353146667.2 scf
Display range	0...100000000 m ³	0...353146667.2 scf
Set point SP	0.001...10000000 m ³	0.05...353146667.2 scf
Pulse value	0.001...10000000 m ³	0.05...353146667.2 scf
In steps of	0.0001 m ³	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
Set point SP	-9.7...60 °C	14.6...140 °F
Reset point rP	-10...59.7 °C	14...139.4 °F
Analog start point	-10...46 °C	14...114.8 °F

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Analog end point	4...60 °C	39.2...140 °F
In steps of	0.1 °C	0.1 °F
Accuracy / deviations		
Accuracy (in the measuring range)	class 141: $\pm (3 \% MW + 0,3 \% MEW)$; class 344: $\pm (6 \% MW + 0,6 \% MEW)$; air quality to ISO 8573-1:2010; reference conditions: inlet pipe length ≥ 166 cm outlet pipe length ≥ 22 cm; reference temperature: 18..26 °C; standard volume flow 19...2837 m ³ /h; (standard volume flow DIN_ISO_2533 15 °C , 1013,25 mbar, 0 % r.H.)	
Pressure monitoring		
Repeatability [% of the final value]	$\pm 0,2$	
Characteristics deviation [% of the final value]	$< \pm 0,5$; (BFSL = Best Fit Straight Line)	
Greatest TEMPCO of the span [% MEW / 10 K]	$\pm 0,3$	
Greatest TEMPCO of the zero point [% MEW / 10 K]	$\pm 0,1$	
Temperature monitoring		
Accuracy [K]	$\pm 0,5$; (medium flow in the limit area of the flow measurement range)	
Reaction times		
Response time [s]	0.1; (dAP = 0)	
Damping process value dAP [s]	0...5	
Pressure monitoring		
Response time [s]	0.05	
Temperature monitoring		
Dynamic response T05 / T09 [s]	T09 = 0,5	
Software / programming		
Parameter setting options	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	Digital Measuring Sensor (0x800A), Identification and Diagnosis (0x4000)	
SIO mode	yes	
Required master port class	A	
Process data analog	8	
Process data binary	2	
Min. process cycle time [ms]	7.2	
Supported DeviceIDs	Type of operation default	DeviceID 1541
Operating conditions		
Ambient temperature [°C]	0...60	
Storage temperature [°C]	-20...85	

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SDG4"/METRIS PB DN100

Max. relative air humidity [%]	90
Protection	IP 65; IP 67

Tests / approvals	
EMC	DIN EN 60947-5-9
Vibration resistance	DIN EN 68000-2-6 5 g (10...2000 Hz)
MTTF [years]	167
Pressure equipment directive	Modul A; can be used for group 2 fluids; group 1 fluids on request

Mechanical data	
Weight [g]	13929
Material	PBT+PC-GF30; PPS GF40; stainless steel (1.4301 / 304); stainless steel (1.4305 / 303); stainless steel (1.4404 / 316L); FKM
Materials (wetted parts)	stainless steel (1.4301 / 304); stainless steel (1.4404 / 316L); FKM; ceramics glass passivated; PPS GF40; Al2O3 (ceramics); acrylate; Pipe section: steel galvanized
Process connection	flange DN100 according to: DIN EN 10220

Displays / operating elements	
Display	Color display 1,44", 128 x 128 pixels 2 x LED, yellow

Remarks	
Remarks	MW = Measured value MEW = Final value of the measuring range D = inside pipe diameter 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



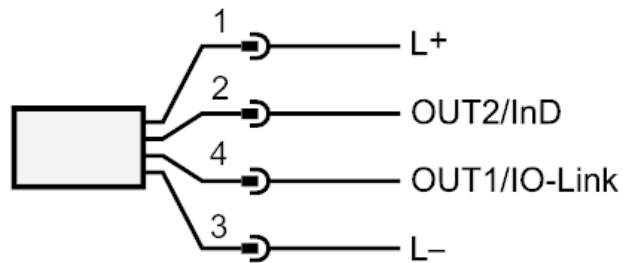
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Connection



- OUT1/IO-Link:
- Switching output flow
 - Switching output temperature
 - Switching output pressure
 - Pulse output quantity meter
 - signal output Preset counter
- OUT2/InD:
- Switching output flow
 - Switching output temperature
 - Switching output pressure
 - analog output flow
 - analog output temperature
 - analog output pressure
 - signal output Preset counter
 - Pulse output quantity meter
 - Input counter reset