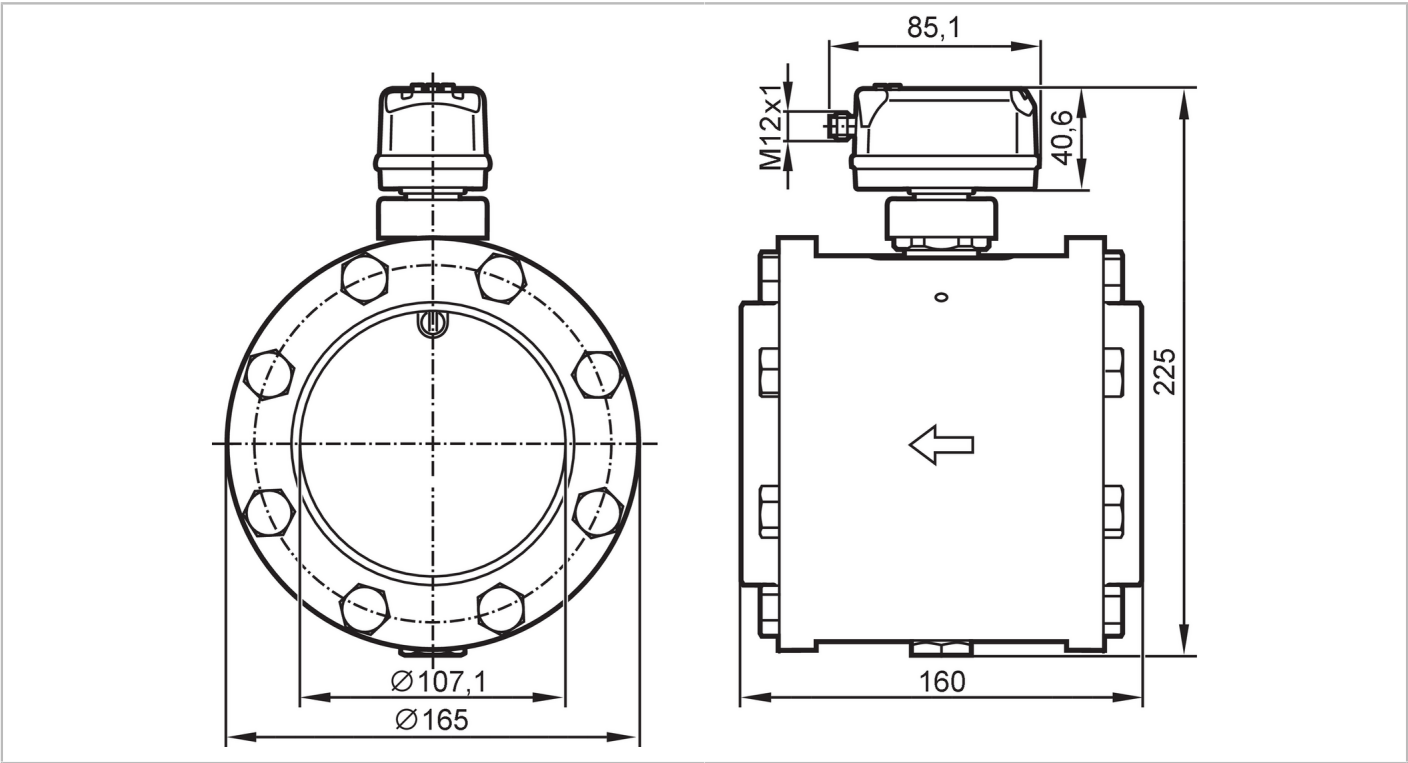


SDG550



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 m³/h
Process connection	flange DN100 according to:DIN EN 10220	
Application		
Application	for industrial applications	
Media	compressed air	
Medium temperature [°C]	-10...60	
Min. burst pressure	64 bar	6.4 MPa
Pressure rating	16 bar	1.6 MPa
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	
Inputs		
Inputs	counter reset	
Outputs		
Output signal	switching signal; analog signal; pulse signal; IO-Link; (configurable)	
Electrical design	PNP/NPN	



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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 m³/h
Display range	1.2...172.7 m/s	38...5600 m³/h
In steps of	0.1 m/s	1 m³/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 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
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
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: $\pm (3 \% \text{ MW} + 0,3 \% \text{ MEW})$; class 344: $\pm (6 \% \text{ MW} + 0,6 \% \text{ MEW})$; air quality to ISO 8573-1:2010; reference conditions: inlet pipe length ≥ 166 cm outlet
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pipe length ≥ 22 cm; reference temperature: 18..26 °C; standard volume flow 19...2837 m³/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)
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Reaction times

Response time [s]	< 0.1 ; (dAP = 0, T09)
Damping process value dAP [s]	0...5

Pressure monitoring

Response time [s]	0.05
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Temperature monitoring

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

Parameter setting options	hysteresis / window; normally open / closed; current/pulse output; display can be rotated and switched off; Display unit; totalizer
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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	Common - I&D	Identification and Diagnosis
	Function	Measurement data, standard resolution
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	DeviceID
	default	1541

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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SDG550



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SDG4"/METRIS PB DN100

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	
Housing	rectangular	
Dimensions [mm]	160 x 165 x 225	
Material	housing sensor: PBT+PC-GF30; PPS GF40; electronics fastener: stainless steel (1.4301 / 304), stainless steel (1.4305 / 303); knurled nut: stainless steel (1.4404 / 316L); Display sealing: FKM	
Materials (wetted parts)	sensor feedthrough: stainless steel (1.4301 / 304), stainless steel (1.4404 / 316L); Sealing sensor - Pipe section: FKM; sensor tip: ceramics glass passivated; PPS GF40; Al2O3 (ceramics); acrylate; Pipe section: steel galvanized (1.0460 / 1.0565); flange: steel galvanized (1.0460 / 1.0565)	
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; Contacts: 4



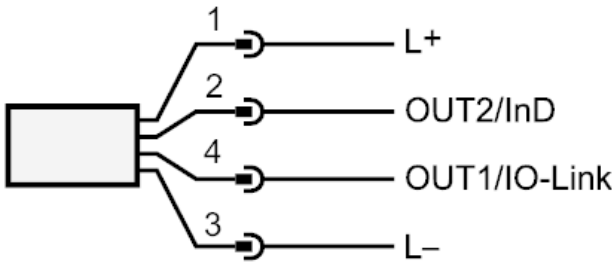
SDG550



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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