Differential Pressure Sensor MIDS

Characteristics

1540 - MODULAR - ECONOMIC - SERIES

- Input	0…10 mbar up to 0…100 mbar
- Output	current loop 2-wire / voltage output 3-wire
- Voltage supply	2-wire current output / 3-wire current-/voltage output
- Accuracy	see technical data
- Process connection	2 x tube connection
- Medium	clean dry air, dry gases
- Electrical conncetion	several plugs / cable
- Temp. range	-20…+80 °C (operation)
- Housing	UniCase5
- Protection class	min. IP65
- Adjustment	factory setting / software (free of charge)

Technical Data

Input

Differential pressure	0…10 mbar up to 0…100 mbar
Pressure range	10 mbar, 40 mbar, 100 mbar
Medium	clean dry air, dry gases and the like (non-corriding, non-ionizing)

Output

Analog	4 …20	mA	2-wire / 3-wire
	0 …10	V	3-wire
	0,5…10,5	V	3-wire
	2 …10	V	3-wire

3 programmable outputs possible e.g. für tare-, release setting, limit setting

Performance Parameters

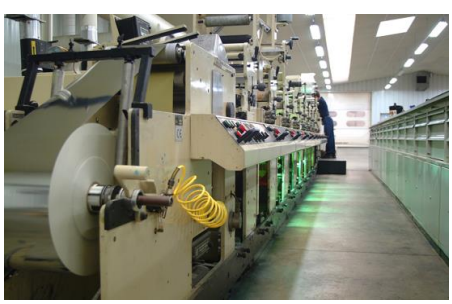
Entry level	24 Bit,	4-20 mA Output 16 Bit
Auccuracy	max. 0,1 % from measuring range + sensor error	
	- 40… 0 °C	max. 0,1 % ± 0,0015 % FS / K
	0...+ 40 °C	max. 0,1 % FS
	+40…+ 80 °C	max. 0,1 % ± 0,0019 % FS / K
Measurement range	variable programmable	
Switch-on delay	1 s	
Filter setting	5…5000 ms	

Applications

Air conditioning, heating, ventilation applications or general pressure measurements, …, the MIDS differential pressure sensor is versatile. The compact design and high accuracy ensure high-quality measurements of new or existing machines and systems, with easy programming and integration capability.

Erich Westendarp@pixelio.de

Poschle@pixelio.de



Simon Coste@pixelio.de

Technical Data (Continued)

Supply

Voltage	9…35 VDC (Current output) / 12…35 VDC (Voltage output)
Reverse polarity protection	is present (no function, no destruction)
Load	R = (U_B + 9 V) / 22 mA
Short-circuit resistance	is present

Pressure Table (in mbar)

Differential range	0…10 mbar up to 0…100 mbar
Pressure ranges	10 mbar, 40 mbar, 100 mbar
Medium	clean dry air, dry gases and its like (non-corroding, non-ionizing)

Adjustable Measuring Amplifier

nominal measurement range	LRL
nominal measurement range end	URL
Filter function	
measurement range start	LRV
measurement range end	URV
Output current alignment	
Simulation currrent	
Linear output signal	
2 Point calibration	
10 Point calibration	linearization

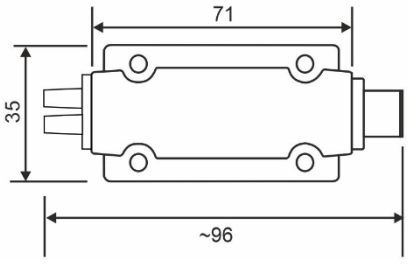
Environmental Conditions

Temperature	operating range	0…+ 50 °C (compensated range)
	nominal range	- 20…+ 80 °C
	storage	- 20…+ 85 °C
Condensation	uncritical	
CE-compliance	pressure equipment directive 2014/68/EU	EMC directive 2014/30/EU

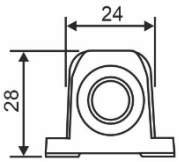
Mechanik

Electr. connection	see below	
Pressure connection	2 x tube connection	4 mm
Material	process connection	PBT GF 30 black
	housing body & cover	PBT GF 30 black
	protection class / flammability	at least IP65 (elektronic), PCB potted / UL 94 HB
Weight	50 g	

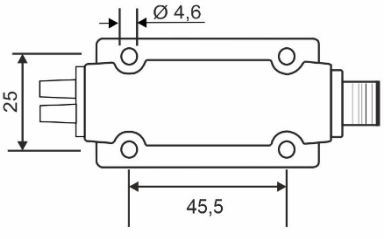
Dimensions in mm, Tolerance ± 0,5 mm



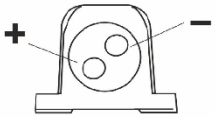
Topview



Front View



Mounting Dimensions



Pressure Connection

Electrical Connection

M12x1	Super Seal	Deutsch	Deutsch	Bayonet	Valve	MIL	Cable
							
4-, 5-, 8-pole	3-pole	3-pole	4-pole	4-pole	4-pole	6-pole	4-pole

Order Code

M	D	-	X	-	X	-	X	X	-	X	X	X

Input	0…10 mbar		10
	0…40 mbar		40
	0…100 mbar		A1
Output	4…20 mA		2
Casing	UniCase5		5
Supply	9…35 VDC / 12…35 VDC (Volt output)		2
Electr. Connection	M12	4-pole	1
	M12	5-pole	2
	M12	8-pole	3
	Deutsch DT04	3-pole	4
	Deutsch DT04	4-pole	5
	Super Seal 1.5	3-pole	6
	Bayonet (DIN)	4-pole	7
	Valve	4-pole	8
	Cabel	2 m	9
	MIL	6-pole	A
Configuration	Factory settings		0
			1
Special Model	No		0
	Yes (please specify)		1

1) Configuration: Settings are made according to the order code.
2) Please select settings according to the technical data.
After consultation values are possible that deviate from the order code.