

Datasheet | base BM duct

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Multi transmitter

Humidity & Temperature
& differential pressure

The simplest way of
precise measurement.



Highlights:

- Transmitter for humidity, temperature and differential pressure in one device
- Individual pressure measuring ranges from -30... 30 Pa to -1... 1 bar freely selectable
- High precision accuracies of $\pm 2\%RH$ (Humidity) | $\pm 0.2K$ (Temperature) | $\pm 1\%FS$ (diff. pressure)
- Excellent long term stabilities
- Easy to install in the duct
- Smart PCB design for optimum cost efficiency
- All common analog output signals selectable
- Optional display

Technical Data

Measurement data	
Measurement range	<p>Relative Humidity 0 ... 100 %rH</p> <p>Temperature Selectable via model code -20... 80 °C [T1] -20... 60 °C [T2] 0... 50 °C [T3]</p> <p>Differential pressure Selectable via model code Possible ranges: Lower end of range: 0 Pa <u>OR</u> any value from -30 to -100.000 Pa in 1 Pa-steps selectable Upper end of range: 0 Pa <u>OR</u> any value from +30 to +100.000 Pa in 1 Pa-steps selectable</p> <p><i>Minimum difference between lower and upper end of range: 30 Pa</i></p>
Units	<p>Relative Humidity %rH</p> <p>Temperature Selectable via model code °C [C] °F [F]</p> <p>Differential pressure Selectable via model code Pascal [PA] hektopascal [HP] millibar [MB] inch Water Column [WC]</p>
Overall accuracies	<p>Relative Humidity ± 2% rH typ. @ 0... 90 % rH ± 3% rH typ. @ Range 91... 100 % rH</p> <p>Temperature ± 0,2 K typ. @ -20... 60 °C ± 0,3 K typ. @ Range ≠ -61... 80 °C</p> <p>Differential pressure 1,0 % FS (Full Scale)</p>
Long-term stability:	<p>Relative Humidity ± 0,5 % rH/Year</p> <p>Temperature ± 0,05 K/Year</p>

	Differential pressure ≤ 0,1% FS/Year
Electrical data	
Power supply	22...27 VAC (50 Hz) / 19...31 VDC
Output signal	Selectable via model code 0... 10 V [010] 2... 10 V [210] 5... 10 V [510] 4... 20 mA [420] 0... 20 mA [020] <i>Valid for all three outputs</i>
Electrical connections	Spring loaded terminals max. 2.5 mm ²
Ambient conditions	
Operating conditions	Humidity: 0... 100% rF non-condensing Temperature: -20°C... 80 °C
Storing conditions	Humidity: 0... 100% rF non-condensing Temperature: -30°C... 80 °C
Ambient pressure	600 ... 1200 hPa
Housing	
Dimensions	Housing: 86 x 56 x 40 mm (H x W x D) Sensor probe: 200 x 12 mm (L x Outer Diameter)
Mounting	Duct mounting via duct flange
Material housing transmitter	Grilamid XE4073 PA610
Material housing probe	AL6063
Material filter sensor probe	Option selectable via model code Wire mesh filter [W] Sinter filter [S]
Pressure connections	Ø 6,6 x 10 mm stainless steel
Cable glands	Skintop M16 x 1,5 mm (4,5 - 10 mm)
Protection type	IP65
Display	Option selectable via model code Display [D]

Model Code

	Beispiel Example	BM	0	50	PA	H	T1	C	D	W	010	D
Model name	<i>Base Multi</i>	BM										
Range Differential pressure (lower value)	Measuring range in the desired unit, e.g. "0" for the desired measuring range of 0... 50 Pa"	XX										
Range Differential pressure (end value)	Measuring range in the desired unit, e.g. "50" for the desired measuring range of 0... 50 Pa"	XX										
Unit Differential pressure	Pa hPa mbar inch WC	PA HP MB WC										
Range Humidity	0... 100%RH	H										
Range Temperature	-20... 80°C -20... 60°C 0... 50 °C	T1 T2 T3										
Unit Temperature	°C °F	C F										
Sensor mounting variant	Duct sensor	D										
Filter material sensor probe	Wire mesh filter Sinter filter	W S										
Output configuration Current	0-10 V 2-10 V 0-5 V 4-20 mA 0-20 mA	010 210 005 420 020										
Display	Display None	D X										

PRELIMINARY