Room Condition Monitor RCM 880

Humidity, temperature and pressure



RCM 880

Highlights

- Multi sensor system → Simultaneous measuring of humidity, temperature and pressure at one measuring point
- Integrated transmitter → Simple integration into your system by standard signal
- Optionally with integrated galvanic isolation → Resistant to electromagnetic interference
- Graphical trend display of all parameters → Intuitive recognition of process parameters and trends
- Robust construction → Reliable and long-lasting operation also at high mechanical stress
- Dirt-proof keyboard → Use in dusty or oily environments

Technical data		
Version	Wall mounting	
Dimensions (W x H x D) → Housing with mounting plate	170 mm x 150 mm x 35 mm	6.693" x 5.906" x 1.378"
Display		
→ Type	Dot matrix graphic display	
→ Backlight	Yes (adjustable)	
→ Size (W x H)	83 mm x 33 mm	3.268" x 1.300"
→ Resolution	256 x 100 Pixel	
Indication accuracy	0.01	
Operating elements	5 capacitive keys	
Measuring rate	1 s	
Ambient temperature	-20…70 °C	-4...158 °F
Storage temperature	-20…70 °C	-4...158 °F
Degree of protection EN 60529	IP65, plug & cable connected	
Approvals		
EU RO Mutual Recognition Type Approval Certificate (Covers: ABS, BV, CCS, CRS, DNV, IRS, KR, LR, ClassNK, PRS, RINA, RS)		

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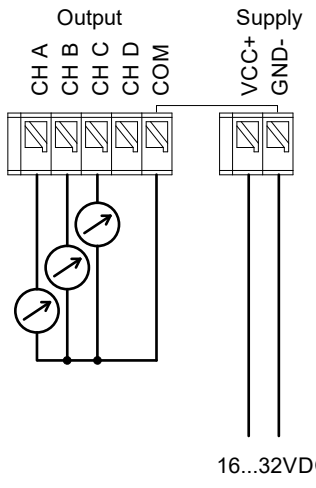
Electrical data

Electrical data				
Power supply	24 VDC (16...32 V)			
Current consumption	<100 mA			
Input				
Measuring element	Digital multi sensor for humidity, temperature and pressure			
Electrical connection	4-pin plug connector M12 x 1			
Output				
Number of channels **Signals**	3 0...20 mA or 4...20 mA or 0...10 V or 0...5 V			
Measuring range				
→ Humidity	0...100 % RH			
→ Temperature	-40...85 °C		-40...185 °F	
→ Pressure	300...1200 mbar abs.			
Accuracy	16 bit / ±0.1 % of range ±1 digit @ 25 °C		16 bit / ±0.1 % of range ±1 digit @ 77 °F	
Signal error	**4...20 mA**	**0...20 mA**	**0...10 V**	**0...5 V**
→ Error Analog/Digital Converter	0 mA	0 mA	0 V	0 V
→ General error	<3.5 mA	0 mA	0 V	0 V
→ Underrange	3.8 mA	0 mA	0 V	0 V
→ Overrange	20.5 mA	20.5 mA	10 V	5 V
→ Sensor error	>21 mA	>21 mA	0 V	0 V
Electrical connection	Cable gland M16 x 1.5 (cable outer diameter 5...10 mm) Spring clamp terminal: cable cross section 0.2...1.5 mm² (without wire ferrule) cable cross section 0.25...1 mm² (with wire ferrule)			
Load				
→ Current output	Max. 500 Ω			
→ Voltage output	Min. 1.5 kΩ			

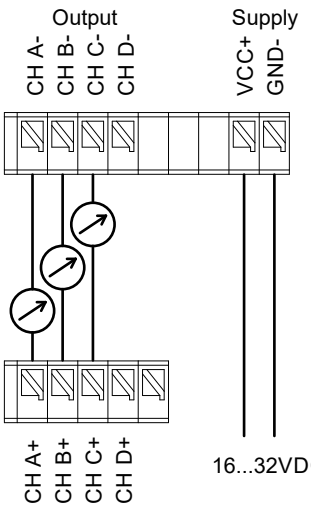
Electrical data galvanic isolation module (optional)	
Power supply	24 VDC (16...32 V)
Current consumption	<100 mA
Reverse polarity protection	yes (power supply)
Isolation test voltage	1000 VDC

Wiring diagram

Room condition monitor RCM 880



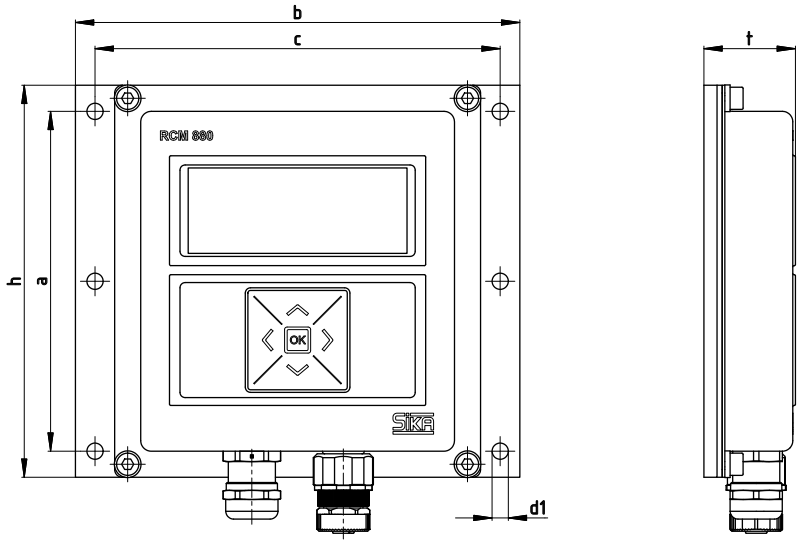
Room condition monitor RCM 880 with galvanic isolation module



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Dimensions and materials

Room condition monitor RCM 880



Dimensions [mm]						
Type	**b**	**h**	**a**	**c**	**d1**	**t**
RCM 880	170	150	130	155	Ø 6.2	35

Dimensions [inch]						
Type	**b**	**h**	**a**	**c**	**d1**	**t**
RCM 880	6.693	5.906	5.118	6.102	Ø 0.244	1.378

Materials	
Not in contact with medium	
Housing	Powder-coated steel, glass front window
Mounting plate	Aluminium, black anodized

Article numbers

Order code	
Type	
Room condition monitor type 880	880TPHXMU10
Room condition monitor type 880 with int. galvanic isolation module	880TPHXMU20
Set consisting of RCM type 880 and multi sensor type E03	880TPHXMU1SET1
Set consisting of RCM type 880 with int. galvanic isolation module and multi sensor type E03	880TPHXMU2SET1
Multi sensor type E03 for room condition monitor type 880	W103E030380X00