

# 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		
<b>Version</b>	Wall mounting	
<b>Dimensions (W x H x D)</b> → Housing with mounting plate	170 mm x 150 mm x 35 mm	6.693" x 5.906" x 1.378"
<b>Display</b> → 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	
<b>Indication accuracy</b>	0.01	
<b>Operating elements</b>	5 capacitive keys	
<b>Measuring rate</b>	1 s	
<b>Ambient temperature</b>	-20...70 °C	-4...158 °F
<b>Storage temperature</b>	-20...70 °C	-4...158 °F
<b>Degree of protection EN 60529</b>	IP65, plug & cable connected	
<b>Approvals</b>		
EU RO Mutual Recognition Type Approval Certificate (Covers: ABS, BV, CCS, CRS, DNV, IRS, KR, LR, ClassNK, PRS, RINA, RS)		

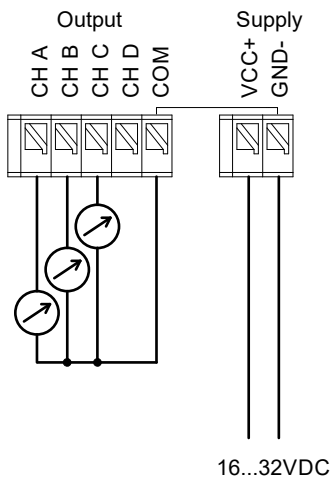
# Electrical data

Electrical data				
<b>Power supply</b>	24 VDC (16...32 V)			
<b>Current consumption</b>	<100 mA			
<b>Input</b>				
<b>Measuring element</b>	Digital multi sensor for humidity, temperature and pressure			
<b>Electrical connection</b>	4-pin plug connector M12 x 1			
<b>Output</b>				
<b>Number of channels</b>	3			
<b>Signals</b>	0...20 mA or 4...20 mA or 0...10 V or 0...5 V			
<b>Measuring range</b>	→ Humidity 0...100 % RH → Temperature -40...85 °C <span style="float: right;">-40...185 °F</span> → Pressure 300...1200 mbar abs.			
<b>Accuracy</b>	16 bit / ±0.1 % of range ±1 digit @ 25 °C		16 bit / ±0.1 % of range ±1 digit @ 77 °F	
<b>Signal error</b>	<b>4...20 mA</b>	<b>0...20 mA</b>	<b>0...10 V</b>	<b>0...5 V</b>
→ 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
→ Overage	20.5 mA	20.5 mA	10 V	5 V
→ Sensor error	>21 mA	>21 mA	0 V	0 V
<b>Electrical connection</b>	Cable gland M16 x 1.5 (cable outer diameter 5...10 mm) Spring clamp terminal: cable cross section 0.2...1.5 mm <sup>2</sup> (without wire ferrule) cable cross section 0.25...1 mm <sup>2</sup> (with wire ferrule)			
<b>Load</b>	→ Current output Max. 500 Ω → Voltage output Min. 1.5 kΩ			

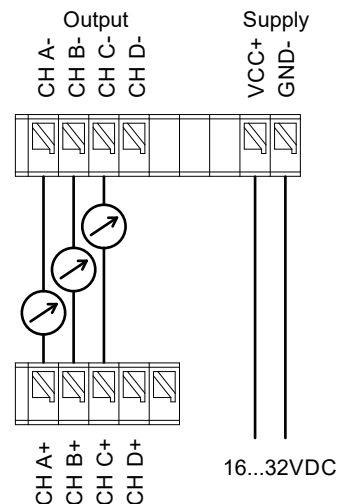
Electrical data galvanic isolation module (optional)	
<b>Power supply</b>	24 VDC (16...32 V)
<b>Current consumption</b>	<100 mA
<b>Reverse polarity protection</b>	yes (power supply)
<b>Isolation test voltage</b>	1000 VDC

## Wiring diagram

Room condition monitor RCM 880

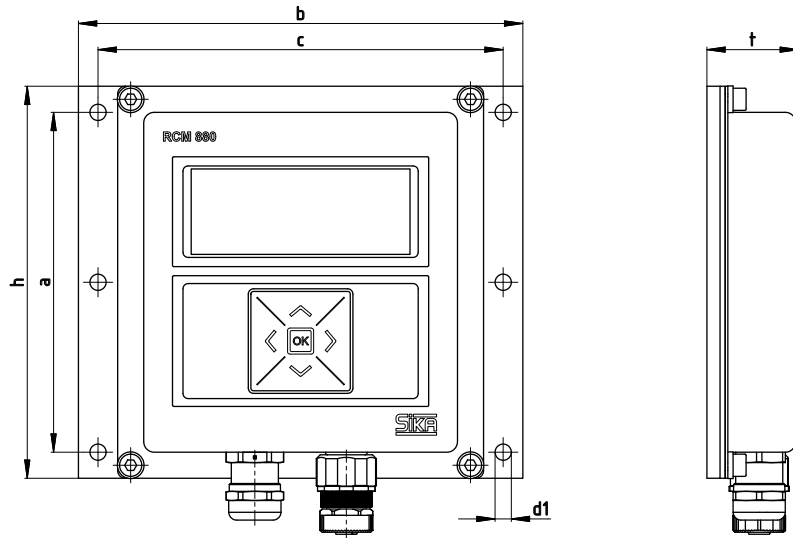


Room condition monitor RCM 880 with galvanic isolation module



# 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

<b>Housing</b>	Powder-coated steel, glass front window
<b>Mounting plate</b>	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