

Climate sensor for rooms

Characteristics



Temperature:	Sensor RTD:	1x Pt100, 2x Pt100 (2-, 3-, 4-wire)
	Measuring range:	-40...+80°C
Humidity:	Measuring range:	0...100% rF
	Output:	0...10 V / 2...10 V / 4...20 mA
Transmitter:	Input :	RTD Pt100 (2-, 3-wire)
	Output:	0...10 V / 2...10 V / 4...20 mA
Indication:	Display:	7-segments, 8 mm, red
	Range of indication:	-999...9999 (programmable)
Supply:	24 VDC	
Mechanics::	Enclosure:	aluCase AC092 (160 x 90 x 60 mm)
	Protection:	IP65 (humidity sensor: IP63)

Technical data temperature sensor

Input

Sensor RTD: 1x Pt100 / 2x Pt100 (2-, 3-, 4-wire)

Output

Sensor: 1x Pt100 / 2x Pt100 (2-, 3-, 4-Leiter)

Accuracy

RTD Pt100: class: B, A, 1/2, 1/3 DIN

Ambient conditions

Operating temperature: -50...+100°C

Storing temperature: -50...+100°C

Mechanics

Protection tube: stainless steel 1.4571

Technical data humidity sensor

Input

Sensor: relative humidity 0...100%

Output

Sensor: 4...20 mA / 0...10 V

Accuracy

Sensor: $\pm 2\%$ rF (range 5...95% rF at 10...40°C)

additional error: $< 0,1\%$ / K (at $< 10^\circ\text{C}$ and $> 40^\circ\text{C}$)

Response time: < 20 s (stationary air)

Minimum air speed (across the sensor)

Current output: ≥ 1 m/s

Voltage output: $\geq 0,5$ m/s

Voltage supply

Current output: 12...30 VDC

Voltage output: 15...30 VDC

Own electricity: < 5 mA (at output 0...10 V)

Load resistance: ≥ 10 kOhm

Working resistance: see chart page 2

Ambient conditions

Temperature range: -40...+80°C

Mechanics

Protection sensor: filter made of PTFE

Degree of protection: IP63

Technical data transmitter (for more details see data sheet TMRO and TAP2L)

Input

Measuring input: Pt100 (2-, 3-wire)

Output

Signal: 4...20 mA / 0...10 V / 2...10 V

Supply

Voltage: 7,5...30 / 10...30 / 15...30 VDC

Ambient conditions

Temperature range: -40...+85°C

Technical data indicator (for more details see data sheet CULO-L)

Input

Current loop: 4...20 mA

Accuracy

Resolution: -999...9999 digit

Error of measurement: $\pm 0,2\%$ of measuring range, ± 1 Digit

Temperature drift: 100 ppm/K

Ambient conditions

Operating temperature: 0...+80°C

Mechanics

Enclosure: $\varnothing 43/48,5/62,5$ mm x 37mm

Indicator

Display: 7- segment, 8 mm, red, 4-digit

Applications

This sensor is suitable for climating and cold storage technics (eg marine refrigeration plants, climatic cabinets, building technics). With the integrated indicators the measured values can be displayed.



photo: www.pixelquelle.de

Ordering code

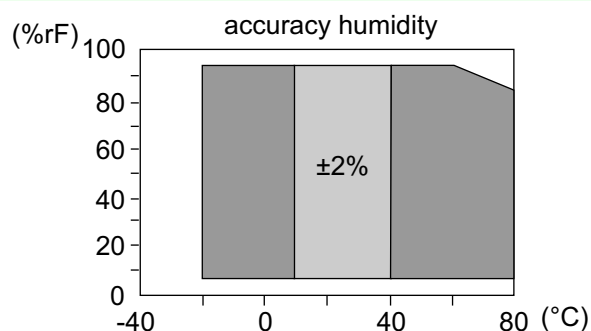
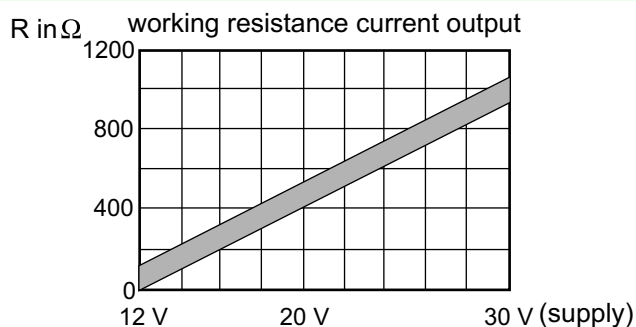
R	K	X	X	X	X	X	X	-	X	X	X
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Input:	1x Pt100	0									
	2x Pt100	1									
	1x Pt100 / 1x rF with 4...20 mA	2									
	1x Pt100 / 1x rF with 0...10 V	3									
	1x rF mit 4...20 mA	4									
	1x rF mit 0...10 V	5									
	1x Pt100 / 1x rF with 2...10 V	6									
	1x rF with 2...10 V	7									
Type (RTD) Pt100:	2-wire	0									
	3-wire	1									
	4-wire	2									
Accuracy (RTD) Pt100:	class B DIN	0									
	class A DIN	1									
	class B 1/2 DIN	2									
	class B 1/3 DIN	3									
Transmitter:	ohne	0									
	4...20 mA / current loop / type: TAP2L	1									
	2...10 V / type: TAP2L	2									
	0...10 V / type: TAP2L	3									
	4...20 mA / current loop / type: TMRO	4									
	2...10 V / type: TMRO	5									
Indication:	without	0									
	1x indicator (Pt100)	1									
	2x indicator (Pt100)	2									
	2x indicator (Pt100 and rF)	3									
	1x indicator (rF)	4									
Adjustment:	without (factory configuration: 0...50 °C / 0...100 %rF)	0									
	with (please indicate)	1									
Supply:	24...30 VDC								0		
Enclosure:	AluCase AC092 (160 x 90 x 60 mm)									0	
Other / accessories:	special model										0

Technical data mechanics

Enclosure:	aluCase AC 092 160 x 90 x 60 mm with clip-on design covers	Protection:	IP 65 (with humidity sensor: IP63)
Material:	die-cast aluminium	Weight:	1,1 kg maximum
Mounting:	covered screw channels	Connection:	terminal screw up to 2,5 mm ²
Colour:	RAL 9006 (aluminium white)	Cable entry:	3 screwed cable gland M16x1,5

Ratings humidity sensor



Dimensions (in mm)

