

19

ADJUSTABLE RING SENSOR

Sensor for pipe temperature measurement. Measuring probe is attached to an adjustable stainless steel ring. RTD sensor is rated up to 350°C and thermocouple to 400 °C

- available types: Pt100, Pt500, Pt1000, J, K, T
- accuracy class: A or B for resistance thermometers: (to PN-EN 60751) and 1 or 2 for thermocouples (60584-1 table I, page 63)
- 2,3 or 4-wire configuration for resistance thermometers
- insulated or grounded junction for thermocouples
- with fibreglass insulated leads with a stainless steel overbraid



19	sensor type	accuracy class	junction type or the number of wires	pipe dia.	lead length	lead type	max. operating temp.
	Pt100, Pt500, Pt1000, J, K, T						
	Give accuracy class, table 1						
	Give wiring configuration (for RTD) or junction type, table 2						
	Give a diameter of the pipe to which the sensor will be attached						
	Give lead length L [mm]						
	Give lead type, table 3						
	Give max. operating temp. [°C]						

TAB. ORDERING CODE:

19	Pt100	A	3	50	1500	RW301	300 °C
----	-------	---	---	----	------	-------	--------

19 – Pt100 – A – 3 – 50 – 1500 – RW301 – 300 °C

Temperature sensor model 19 (adjustable ring RTD sensor), type Pt100, class A, 3 wire configuration, pipe diameter: 50 mm, a 1500 mm fibreglass insulated lead with a stainless steel overbraid 3x0,22 m2). Max. operating temp. 300 °C.

TAB. 1 MEASURING INSERT TYPE *)

SENSOR TYPE	THERMO-ELECTRODE TYPE	OPERATING RANGE [°C]
J	Fe - CuNi	+20 ÷ 400
T	Cu - CuNi	-185 ÷ 400
K	NiCr - NiAl	0 ÷ 400

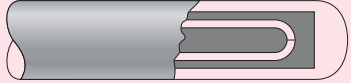
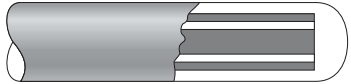
*) Tolerance to PN-EN 60584-1, table I, page 63

TRANSMITTER TOLERANCE CLASS AND OPERATING TEMP. RANGE *)

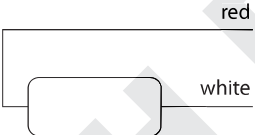
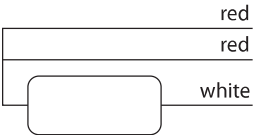
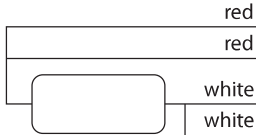
TOLERANCE CLASS	FOR FHIN FILM RESISTORS	TOLERANCE VALUE **)
AA	0 ÷ +150	± (0.1+0.0017 t)
A	-30 ÷ +300	± (0.15+0.002 t)
B	-50 ÷ +400	± (0.3+0.005 t)
C	-50 ÷ +400	± (0.6+0.01 t)

*) to PN-EN60751:2009 **) |t| = temperature in °C no matter what unit (absolute value)

TAB. 2 JUNCTION TYPE, CONFIGURATION AND COLOUR MARKING

HOT JUNCTION TYPES		
HOT JUNCTION CODE	DESCRIPTION	DRAWING
I1	Simplex insulated junction	
Z1	Simplex grounded junction	

SINGLE (ONE RESISTOR)

2-WIRE DESIGN	3-WIRE DESIGN	4-WIRE DESIGN
		

TAB. 3 COMPENSATED CONNECTORS

The sensors can be supplied complete with cables of various design. The following insulation types are available: PCV, PTFE, fiberglass, Kapton or combination of the mentioned materials. Standard cable sections are 0.22mm² (7/0.2 mm). To choose the right cable, please see table D, page 54.

The most common cables:

RTD cables:

RS301 - 3x0,22 mm² – Silicone insulated / 3 wires

RS401 - 4x0,22 mm² – Silicone insulated / 4 wires

RW301 - 3x0,22 mm² – fiberglass insulated / steel overbraid, 3 wires

RW401 - 4x0,22 mm² – fiberglass insulated / steel overbraid, 4 wires

Thermocouple cables:

S201 - 2x0,22 mm² – silicone insulated

TW204 - 2x0,22 mm² – fiberglass insulated / stainless steel overbraid

TT201 - 2x0,22 mm² – Teflon insulated

TT204 - 2x0,22 mm² - Teflon insulated / stainless steel overbraid