RTD Temperature probe with standard M12X1 connectors Type TR23

- For temperatures from -50 to +400 °C
- As single or double RTD temperature probes
- Plug connection locked contact stable, protection type IP67 (IP69K)
- Available with transmitter

This temperature probe in compact design type comprises a protection tube with integrated temperature sensor, a process connection, and an attached case for the transmitter electronics. The integrated programmable two-wire transmitter converts the resistance value into a current signal.

RTD temperature probe with programmable two-wire transmitter is used to measure temperatures from -50 °C to +400 °C. The measuring range, the fine adjustment, or the measuring circuit monitoring etc. can be configured using a setup program.

The output signal 4 to 20 mA is available in a linearized way. The transmitter must be protected from temperatures above 85 °C. The device is designed for industrial applications.

Technical data

Machine connector M12×1 4-pin is the standard, other versions also available
Thread and flange is available, stainless steel or brass; customizable
Stainless steel AISI 304 or 316L, Various materi als and diameters are available
Pt100 according to DIN EN 60751, Pt500 or Pt1000 are also available
t0.5 approx. 2 s, t0.9 approx. 6 s, in water 0.2m/s, Ø 6mm t0.9 approx. 50 s, in water 0.2 m/s, Ø 9 mm





Ag			

anPoQiul

() DATA SHEE

RTD Temperature probe with standard M12X1 connectors Type TR23

Connection diagram

Connection example with transmitter

Connection example with power supply unit



Connection diagram

Machine connector M12 x 1, 4-pin according to IEC 60947-5-2





Warning: Do not connect Pin 2 and 4 to voltage!

Electrical connection	Terminal assignment
Basic type without transmitter	
Screw-in RTD temperature probe in two-wire circuit	
Screw-in RTD temperature probe in four-wire circuit	
Basic type with programmable transmitter	
Voltage supply DC 8 to 35 V +	
Current output 4 to 20 mA ↔	 V+ V-
Setup communication via special configuration cable (for configuration only, continuous operation is not admissable)	2 4 0 0

Agent:		

TanPoQiuET DATA SHEET





RTD temperature probe with standard M12X1 connectors Type TR23V0

Тур	e 1	2	3	4	5	6		7	8	9
TR23	VO L	Р	D	R	М	E		A	Т	ę
	M12x1		D							
	-	-	D4	4mm	meter D in mm		A A1	-	uracy class to E	N 60 751
ļ	=		D4 D6	6mm			A2		s :±0.3 C at 0 C	
-			D8	8mm			A2 A3		s:±0.1°C at 0°C	
			D	Customization			AS	Custom	6. C. 1922	
				Cusionization			^	Cusion	lizauori	
			R	4. Range in °	c		т	8. Coni	nectors	
		T	R1	-50200°C			T11	M12×1	Connector male	
			R2	-50260°C			т	Custorr	nization	
			R3	-50400°C						
			R	Customizatio	n		s	9. Spec	cial requiremen	ts
			34				S0	None		
		-	м	5. Material of	fsheath		S6	Transm	itter,420mA	
			M 1	Stainless stee	el ANSI 304		S16	gMatch	ing socket	
			M2	Stainless stee	bl 1.4435/316L		S	Custom	nization	
			м	Customizatio	n					
		t i	E	6. Elements	of measuring in	nsert				
		<u>.</u>	E1	1×Pt100 2-v	vires					
			E2	1×Pt100 3-v	vires					
			E3	1×Pt100 4-v	vires					
			E4	2×Pt100 2-v	vires					
L	1. Fitting length L	in mm	E7	1×Pt500 2-v	vires					
1 4 0 0	100mm		E8	1×Pt500 3-v	vires					
L100	and the second se		-	1.0000 4.	viree					
L100	200mm		E9	1×Pt500 4-v	VIES					
	200mm 300mm		E9 E10	2×Pt500 2-v	_					
L200	Chiperconcerner 2014		_		vires					
L200 L300	300mm		E10	2×Pt500 2-v	vires wires					
L200 L300	300mm	ction	E10 E13	2×Pt500 2-v 1×Pt1000 2-	vires wires wires					
L200 L300 L	300mm Customization		E10 E13 E14	2×Pt500 2-v 1×Pt1000 2- 1×Pt1000 3-	vires wires wires wires					
L200 L300 L	300mm Customization 2. Process conne	nnection	E10 E13 E14 E15	2×Pt500 2-v 1×Pt1000 2- 1×Pt1000 3- 1×Pt1000 4-	wires wires wires wires wires					
L200 L300 L P P0	300mm Customization 2. Process conner without process con	nnection nection G1/4	E10 E13 E14 E15 E16	2×Pt500 2-v 1×Pt1000 2- 1×Pt1000 3- 1×Pt1000 4 2×Pt1000 2-	wires wires wires wires wires					
L200 L300 L P P0 PA3	300mm Customization 2. Process conne without process con Sheath screw conr	nnection nection G1/4 nection G1/2	E10 E13 E14 E15 E16	2×Pt500 2-v 1×Pt1000 2- 1×Pt1000 3- 1×Pt1000 4 2×Pt1000 2-	wires wires wires wires wires					

۸		
٦g	ent	

Ρ

Customization





RTD temperature probe with standard M12X1 connectors-Clamp process connection Type TR23V1

Ordering Guidance

Туре	1	2	3	4	5	6	7	8	9
TR23V	1 L	Р	D	R	М	E	A	Т	S

Γ

TANPOQIUET DATA SHEET



L	1. Fitting length L in mm	
L100	100mm	
L200	200mm	
L300	300mm	
L	Customization	

P	2. Process connection				
P90	Clamp DIN 32676 DN10/15/20 (φ34)				
P91	Clamp DIN 32676 DN25/32/40 (φ50.5				
P92	Clamp DIN 32676 DN50 (φ64)				
P94	Clamp ASME 1/4;3/8;1/2;3/4 (φ24.99				
P	Customization				

D	3. Sheath diameter D in mm	A
D4	4mm	A
D6	6mm	A
D8	8mm	A
D	Customization	A

R	4. Range in °C	
R1	-50200°C	
R2	-50260°C	
R3	-50400°C	
R	Customization	

м	5. Material of sheath
M1	Stainless steel AISI 304
M2	Stainloss stocl 1.4435/AISI 316L
М	Customization

E	6. Elements of measuring insert
E1	1×Pt100 2-wires
E2	1×Pt100 3-wires
E3	1×Pt100 4-wires
E4	2×Pt100 2-wires
E7	1×Pt500 2-wires
E8	1×Pt500 3-wires
E9	1×Pt500 4-wires
E10	2×Pt500 2-wires
E13	1×Pt1000 2-wires
E14	1×Pt1000 3-wires
E15	1×Pt1000 4-wires
E16	2×Pt1000 2-wires
E	Customization

A	7. Accuracy class to EN 60 751
A1	B Class: ±0.3°C at 0°C
A2	A Class :±0.15°C at 0°C
A3	AA Class:±0.1°C at 0°C
А	Customization

т	8. Connectors	
T11	M12×1 Connector male	
т	Customization	

S	9. Special requirements	
S0	None	
S6	Transmitter,420mA	
S16	gMatching socket	
s	Customization	





Agent:

RTD temperature probe with standard M12X1 connectors-Screw in connection Type TR23V2

Ordering Guidance

Туре	1	2	3	4	5	6	7	8	9
TR23V2	L	Р	D	R	М	E	А	Т	S

anpoqiuer Data sheet

L

L100

L200

L300

L

P

P3

P5

P7

P41

Р



1. Fitting length L in mm

100mm

200mm

300mm

Customization

Thread G1/4

Thread G1/2

Thread G3/4

Thread M16×1.5

Customization

2. Process connection

D	3. Sheath diameter D in mm	
D4	4mm	
D6	6mm	
D8	8mm	
D	Customization	

R	4. Range in °C	
R1	-50200°C	
R2	-50260°C	
R3	-50400°C	
R	Customization	

М	5. Material of sheath
M1	Stainless steel AISI 304
M2	Stainless steel 1.4435/AISI 316L
M	Customization

E	6. Elements of measuring insert
E1	1×Pt100 2-wires
E2	1×Pt100 3-wires
E3	1×Pt100 4-wires
E4	2×Pt100 2-wires
E7	1×Pt500 2-wires
E8	1×Pt500 3-wires
E9	1×Pt500 4-wires
E10	2×Pt500 2-wires
E13	1×Pt1000 2-wires
E14	1×Pt1000 3-wires
E15	1×Pt1000 4-wires
E16	2×Pt1000 2-wires
E	Customization

A	7. Accuracy class to EN 60 751
A1	B Class: ±0.3°C at 0°C
A2	A Class :±0.15°C at 0°C
A3	AA Class:±0.1°C at 0°C
A	Customization

т	8. Connectors	
T11	M12×1 Connector male	
т	Customization	

S	9. Special requirements	
S0	None	
S6	Transmitter,420mA	
S16	gMatching socket	
S	Customization	

Ag	on	ŧ	
ny	CII	۰	•



