



<b>Identification</b>	Type	WTPR 7-1890
	Part-No.	751890

**Input**

	<b>PT, Ni, PTC, KTY, Poti</b>	<b>Thermocouples</b>
Measurement input	PT 100, PT 500, PT 1000, Ni 100, Ni 1000, PTC, KTY, Potentiometer 0–5 kΩ	Type B, C, D, E, J, K, L, N, R, S, T, U
Temperature range	-200...+850°C, according to type	-200...+2400°C, according to type
Input resistance		appr. 1 MΩ
Sensor current	0.5 mA at PT	
Circuit	PT - 2, 3, 4 - wire, for 2-wire with offset correction	Redundancy function possible
Galvanic isolation I/O	3-way isolation	
Transmission frequency	0.5 Hz	

**Load Side**

	<b>0/10 V</b>	<b>2/10 V</b>	<b>0–20 mA</b>	<b>4–20 mA</b>
Max. load impedance at I-output			400 Ω	400 Ω
Max. load impedance at U-output	> 2 kΩ	> 2 kΩ		
Load deviation	≤ 0.15 %	≤ 0.15 %	≤ 0.07 %	≤ 0.07 %
Control range / Output current	10.6 V	10.6 V	max. 21.2 mA	max. 21.2 mA
Output signal	programmable with programming tool 750891			

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## General

	<b>PT, Ni, PTC, KTY, Poti</b>	<b>Thermocouples</b>
Accuracy	typ. 0.1% FSR	B, E, J, K, L, N, R, S, T, U: typ. 0.2% / C, D: typ. 0.5%
Internal temperature compensation		±1 K typ. max. ±1.2 K
External temperature compensation		Recommendation high-temperature thermocouple
Termination	Screw-/spring terminal 0.14–1.5 mm <sup>2</sup>	Screw-/spring terminal 0.14–1.5 mm <sup>2</sup>
Nominal voltage	DC 24 V	
Operation voltage range	20/30 V	
Rated current	5.0 mA	
Status Indication	LED green; blinking green = Sensor fault, wire break, short-circuit etc.	
Input/output protection	Overvoltage AC/DC 30 V, Output short circuit-proof	
Resolution	0.1°C, 16-Bit processing	
Linearity error	±0.03% above measurement range	
Temperature error	<30 ppm / °C	
Data storage	Nonvolatile EEPROM	
Insulation voltage input/output	2.5 kV <sub>eff</sub>	
Housing material	PA	
Field installation	rail TS 35 (EN 50022)	
Protection class	IP 20	
Installation position	Optional	
Termination	Spring terminal 0.14–1.5 mm <sup>2</sup>	
Operation temperature range	-25 °C – 60 °C	
Storage temperature range	-40 °C – 84 °C	
Dimensions (w × h × d)	6.2×90.0×115.5 mm	
Weight (kg/piece)	0.040 kg/piece	
Approvals	cULus in preparation	
PU	1	

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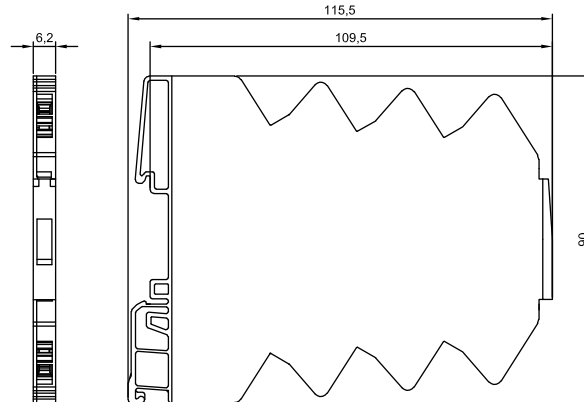
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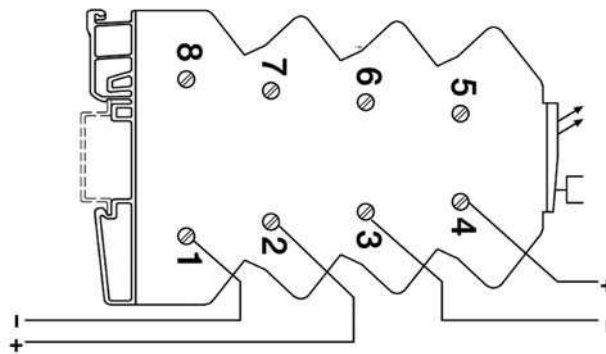


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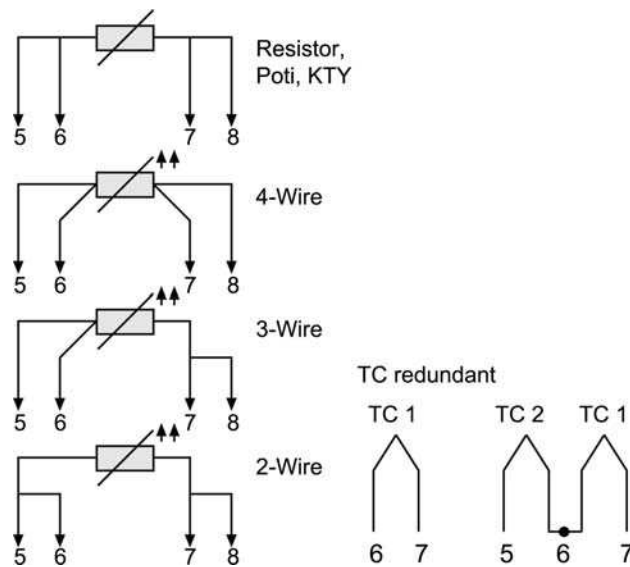
**Dimensions**



**PIN assignment**



**Circuit**



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Temperature range		
	Typ B	0...1820°C
	Typ C	0...2300°C
	Typ D	0...2400°C
	Typ E	-200...1000°C
	Typ J	-200...1200°C
	Typ K	-200...1372°C
	Typ L	-200...900°C
	Typ N	-200...1300°C
	Typ R	-50...1760°C
	Typ S	-50...1760°C
	Typ T	-200...400°C
	Typ U	-200...400°C
	PT100	-200...850°C
	PT500	-200...850°C
	PT1000	-200...850°C
	NI1000	-58...208°C
	KTY 81-110	-58...150°C
	KTY 81-120	-58...150°C
	KTY 81-121	-58...150°C
	KTY 82-122	-58...150°C
	KTY 82-150	-58...150°C
	KTY 82-151	-58...150°C
	KTY 82-152	-58...150°C
	KTY 83-110	-58...150°C
	KTY 83-120	-58...150°C
	KTY 83-121	-58...150°C
	KTY 83-122	-58...150°C
	KTY 83-150	-58...150°C
	KTY 83-151	-58...150°C
	KTY 83-152	-58...150°C
	KTY 84-130	-40...300°C
	KTY 84-150	-40...300°C
	KTY 84-151	-40...300°C
	KTY 84-152	-40...300°C
	KTY xyz	0...200°C
	Poti (2-Wire)	0...5 kΩ*

## Accessories

Accessories	Colour	Article number	Type	PU
Tag holder 4x11 mm	white	681313	BZT 0411	100
Isolation plate		760809	TP 7-0809	5
Labels for laser printer A4 unpunched		681031	LEB - A4	1
Labels for laser printer 4.23 x 11 mm (Sheet with 1056 labels)		681034	LEB 0411	1

## Accessories

Accessories	Colour	2-pole	3-pole	4-pole	8-pole	16-pole	PU
Jumper comb 6A	red	762802	762805	762812	762822	762832	10
Jumper comb 6A	white	762803	762806	762813	762823	762833	10
Jumper comb 6A	blue	762804	762807	762814	762824	762834	10

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