

# Operating Instructions

## Temperature Transducer PROT31

**ARTEL**

### 1. Cautions

The proper and safe operation of the device assumes that the operating instruction is read carefully and safety warnings given in the various sections. Mountings and electrical sections are observed.

The device should only be handled by appropriately trained personnel who are familiar with it and authorized work in electrical installations. Unauthorized repair or alternation of the unit invalidates the warranty.



The sign indicates there is potential electrical power danger, which might result in the harm if not following the rule.

**For your safety reason, please properly use our products. It is strongly recommended that you follow the instructions:**

1. Please connect to the power and load as rated in label.
2. Please confirm the wire is connected correct, to avoid the harm resulted from the wrong connection.
3. Please turn off the power system before releasing the transducer from DIN rail.

### 2. Brief description

PROT31 Temperature transducer is designed to measure and convert Temperature into a corresponded analog signal with temperature measuring resistance.

### 3. Technical Data

Accuracy:	Class0.2, Class0.5
Auxiliary Power Supply:	24~80VAC/DC, 85~265VAC/DC
Stability:	Annual Change Rate $\leq 0.2\%$
<b>Input:</b>	
Input:	Cu50/PT50/Cu100/PT100
Continuous Overload Capacity	$\leq 1.5X$
Transient Overload Capacity	Voltage Limit $\leq 3X$ Current Limit $\leq 30X$
<b>Output:</b>	
4~20mA, 0~20mA, 0~1mA, 0~10mA, 0~5V, 0~10V	
Constant Voltage Output, Load Resistor: $R_{ext} \geq 250\Omega$	
Constant Current Output, Load Resistor: $R_{ext} \leq 500$	
Alternating Wave:	$\leq 18mV(\text{Peak-Peak})$
Striking Voltage:	$\leq 2.5kV$
Response Time:	$\leq 300ms$
Housing:	PC
Operating Temperature:	$-10^{\circ}C \sim +50^{\circ}C$
Storage Temperature:	$-40^{\circ}C \sim +85^{\circ}C$
Humidity:	$\leq 90\%RH$
Installation:	DIN 35mm Rail
Size:	35mm $\times$ 69mm $\times$ 110mm

Measuring input and output are specified and labeled on the nameplate according to the different type ordered.

### 4. Mounting and Releasing the transducer

#### 4.1 Installing the transducer

Simply clip the transducer or DIN rail as shown in fig.1.

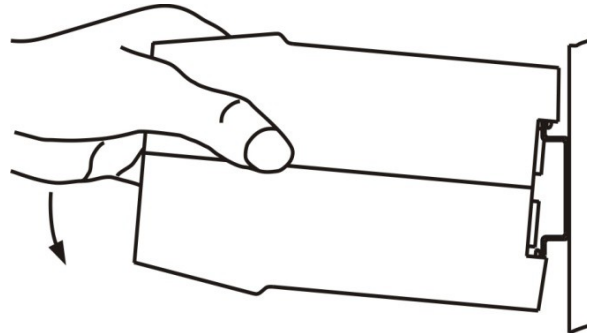


Fig1. Mounting onto a DIN rail 35mm

#### 4.2 Releasing the transducer

Release the transducer from a DIN rail as shown in fig.2.

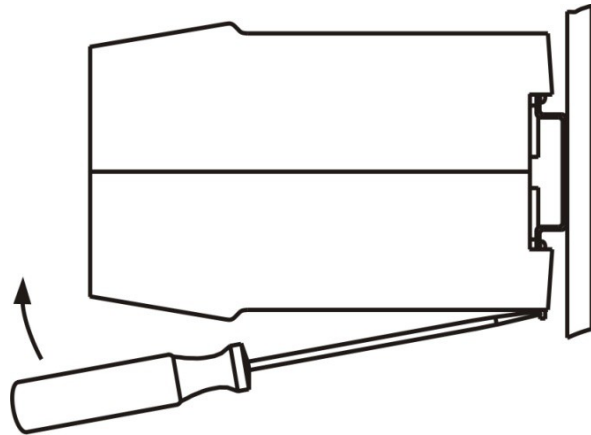
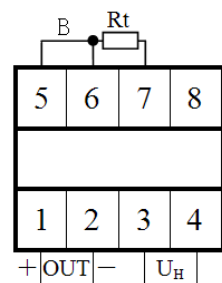


Fig 2. Release from a DIN rail 35mm

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“OUT” Output In Correspondence  
 “Rt” Input RTD  
 “UH” Auxiliary Power Supply  
 “B” Compensation line

Fig 3. PRO T31 Wiring Diagram