E-770 SERIES
TEMPERATURE CONVERTERS

DESCRIPTION

E--770 series devices are rail-mountable industrial devices in a plastic case designed to be used as signal converters. E-770 series converters convert resistance thermometer (RTD) and thermocouple (TC) type temperature sensors, resistance and DC mV signals to standard 4 - 20 mA output signals. The input and output signals of the E-770 series devices are not galvanically isolated.

E-770 series converters can be ordered as 2-wire or 4-wire types. In 2-wire types, the operating voltage and output signal are not galvanically isolated, in 4-wire types, the operating voltage and output signal are galvanically isolated.

E-770 series converters can be configured with special PC software provided by Elimko.

CE

EU Directive Compliance;
- Electromagnetic Compatibility Directive EN 61326-1
- Low Voltage Directive EN 61010-1

TECHNICAL SPECIFICATIONS

Electrical	
Operating Voltage	10 – 30 V DC (2 wire types) 18 – 36 V DC (4 wire types)
Voltage Drop	10 V
Environmental Conditions	
Operating Temperature	Between -10 °C to +70 °C
Operating Humidity	< 95 %Rh (non-condensing)
Protection Class	IP20
Calibration Temperature	25 °C ± 3 °C
Mechanical	
Dimensions	90 mm x 112 mm x 6,5 mm
Weight (approx.)	60 gr
Connection Cables	Maximum 1,5 mm^2 (AWG 16)
Resistance Thermometer (RTD) / Resistance Input	
Sensor Connection Type	3 wire
Max. Wire Resistance	100 Ω
Error Signaling	Sensor Break
Thermocouple (TC) / Millivolt Input	
Input Impedance	> 10 MΩ
Max. Wire Resistance	100 Ω
Error Signaling	Sensor Break
Linearization	Yes / No
Output	
Output Signal	4 – 20 mA or 20 – 4 mA
Load Resistance	< ((Voperation-10) / 0,020) Ω ((2 wire types) Maximum 600 Ω (4 twire types)
Operation Influences	
Ambient Temperature	< ± 0,01 %/°C
CJC Error (For TC input)	< ±1 °C
EMC Immunity	< ± 0,5% Span

STANDARD WORKING LIMITS

Inputs	Standard	Min.	Max.	Min. S.
TC Tip B	IEC 60584	0°C	1800°C	200°C
TC Tip E	IEC 60584	-200°C	850°C	50°C
TC Tip J	IEC 60584	-200°C	1100°C	50°C
TC Tip K	IEC 60584	-200°C	1300°C	50°C
TC Tip L	DIN 43710	-200°C	900°C	50°C
TC Tip N	IEC 60584	-200°C	1200°C	50°C
TC Tip R	IEC 60584	0°C	1760°C	200°C
TC Tip S	IEC 60584	0°C	1760°C	200°C
TC Tip T	IEC 60584	-200°C	400°C	50°C
TC Tip U	DIN 43710	-200°C	600°C	50°C

Inputs	Standard	Min.	Max.	Min. S.
Pt-50	IEC 60751	-200°C	840°C	50°C
Pt-100	IEC 60751	-200°C	840°C	50°C
Pt-500	IEC 60751	-200°C	840°C	50°C
Pt-1000	IEC 60751	-200°C	800°C	50°C
Ni-100	DIN 43760	-60°C	180°C	50°C
Ni-200	DIN 43760	-60°C	180°C	50°C
Ni-500	DIN 43760	-60°C	180°C	50°C
Ni-1000	DIN 43760	-60°C	180°C	50°C
Ohm	-	0Ω	500Ω	50Ω
mV	-	-200 mV	1000 mV	25 mV

ORDERING GUIDE

E-770 Series Signal Converters — E- 770 - W - X - Y -Z

Standard Features

User configurable.

Input Signal

Thermocouple (TC), Resistance thermometer (RTD), mV and Resistance 1

Output Signal

4-20 mA 1

Communication

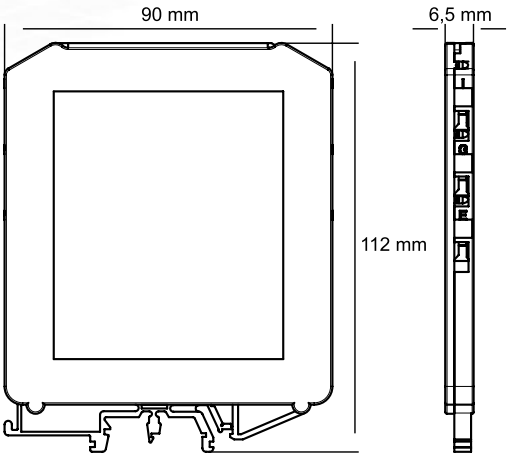
None 0

Operating Voltage

2 wire 10-30 V DC 0
4 wire 18-36 V DC 1

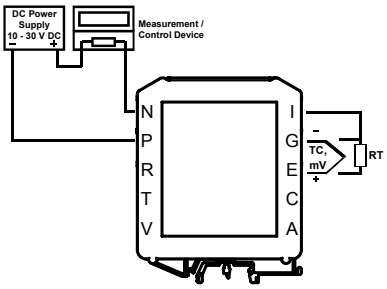
* E-770 series converters can be configured with special PC software to be provided by Elimko.

DIMENSIONS

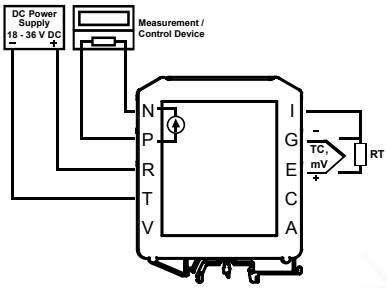


CONNECTION DIAGRAM

Connection Diagram for 2-Wire Types



Connection Diagram for 4-Wire Types



Elimko Elektronik İmalat ve Kontrol Ticaret Ltd. Şti.
Ankara Sanayi Odası 2. Organize Sanayi Bölgesi Alcı Mahallesi 2001. Cad. No:14 Temelli 06909 ANKARA-TÜRKİYE
Tel: +90 312 212 64 50 (Pbx) • Fax: +90 312 212 41 43
e-mail: elimko@elimko.com.tr • www.elimko.com.tr

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