

E-KC-102R SERIES HEAD MOUNTED TYPE TEMPERATURE CONVERTER USER MANUAL



KY-KC-102R-1026-1

The E-KC-102R converter is designed for use in an industrial environment.

- The package of the E-KC-102R converter contains; the Converter, user manual and guarantee certificate.
- After opening the package, please visually check whether the type of the transmitter is suitable for the order, whether the above-mentioned parts are missing and whether the transmitter has been damaged during shipment.
- Before installing and operating the controller, please read the user manual thoroughly.
- The installation and configuration of the controller must only be performed by a person qualified in instrumentation.
- Keep the unit away from flammable gases, that could cause explosions.
- Do not use alcohol or other solvents to clean the transmitter. Use a clean cloth soaked in water tightly squeezed to gently wipe the outer surface of the transmitter.
- It is not used in medical applications.



1. DESCRIPTION

E-KC-102R series two wire transmitters are microprocessor based industrial instruments in plastic case. E-KC-102R transmitters are used to convert the resistance thermometer signals into standard 4-20 mA. The configuration of the transmitter is done by PC, using a software programme supplied by Elimko. The USB connection hardware is also available from Elimko.



2. TECHNICAL SPECIFICATIONS

2.1. OPERATING RANGE and MEASURING ACCURACY

(at 24 V supply voltage and 25°C ± 3°C ambient temperature)

SENSOR		STANDARD	LOWER LIMIT	UPPER LIMIT	MINIMUM SPAN	ACCURACY	
						A/D	D/A
RTD	Pt-50	IEC 60751	-200°C	850°C	50°C	±0.5°C	±0.1% Span
	Pt-100		-200°C	850°C	50°C	±0.25°C	
	Pt-500		-200°C	850°C	50°C	±0.25°C	
	Pt-1000		-200°C	850°C	50°C	±0.25°C	
	Ni-50	DIN 43760	-60°C	180°C	50°C	±0.25°C	
	Ni-100		-60°C	180°C	50°C	±0.25°C	
	Ni-120		-60°C	180°C	50°C	±0.25°C	
	Ni-200		-60°C	180°C	50°C	±0.25°C	
	Ni-500		-60°C	180°C	50°C	±0.25°C	
	Ni-1000		-60°C	180°C	50°C	±0.25°C	

If the input type and scale is not specified while ordering, factory settings are;
For KC-102-R **Input Type** : Pt-100, and **Scale** : 0-200°C,

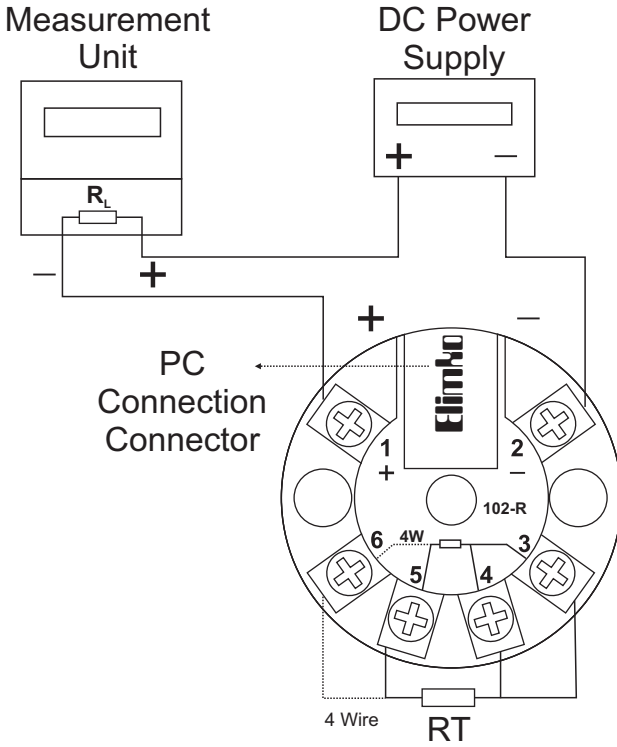
2.2. General Specifications

Electrical:	
Supply Voltage	10.0 - 30 V DC
Voltage Drop	10.0 V
Environmental Conditions:	
Operating Temperature	-10°C to +55°C
Protection Class	IP 00, IP 66 (DIN 43729 mounted on type B head)
Calibration Temp.	25°C ±3°C
Mechanical:	
Dimensions	Ø 44.0 mm x 21.5 mm
Weight (approx.)	40 g
Connection Cables	Max. 1.5 mm ² (AWG 16)
Resistance Thermometer (RTD) / Resistance Input:	
Sensor Connection	3-wire or 4-wire (Configurable)
Maximum Wire Resistance	100 Ω
Error Signaling	Wire Break (Output current can be configured Up / Down.)
Output:	
Output Signal	4 - 20 mA or 20 - 4 mA
Load Resistance	[V _{supply} - 10] × 50 Ω (600 Ω at 22 V DC)
Operating Influences:	
Ambient Temperature	< ± 0.01% / °C
CJC Error (For TC Inputs)	< ± 1.0 °C
EMC Immunity	< ± 0.5% Span

Electromagnetic Compatibility:

The E-KC-102R meets the requirements of
TS EN 61326-1.

3. CONNECTION DIAGRAM

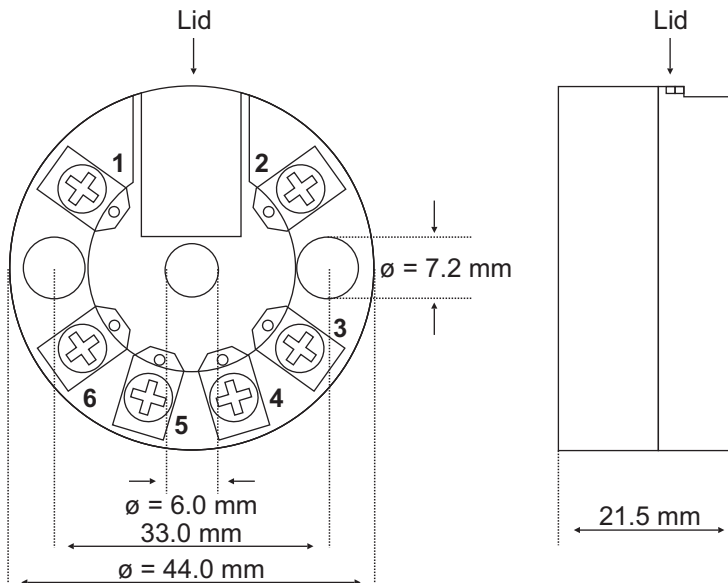


E-KC-102R Connection Diagram

- Before operating the converter, ensure that the converter is correctly configured. Incorrect configuration could result in damage to the process being controlled.
- To minimize the pick-up of electrical noise, the wiring of low voltage lines, particularly the sensor input should be routed away from the high-current power cables. Where it is not possible, use shielded cable and ground the shielded cable.
- The cables used for powering the transmitter and the power outputs must conform to the standards IEC 60245 and IEC 60227.



4. DIMENSIONS



Manufacturer / Technical Support :

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