












TEMPERATURE CONVERTERS

FREQUENCY CONVERTERS

	Z109PT2-1	Z109TC2-1	Z104	Z111
	    <p>RTD to DC Current/Voltage isolator/converter</p>	    <p>TC to DC Current/Voltage isolator/converter</p>	 <p>DC current / voltage to frequency isolator / converter</p>	  <p>Frequency to DC current / voltage isolator / converter</p>
GENERAL DATA				
Power Supply	9..40 Vdc 19..28 Vac; (50..60 Hz)	9..40 Vdc 19..28 Vac; (50..60 Hz)	19 - 40 Vdc, 19 - 28 Vac (50 - 60 Hz)	19 - 40 Vdc, 19 - 28 Vac (50 - 60 Hz)
Power transducers			supply of the sensor with 2-wire method: 20VDC stabilized	
Power Consumption	2.5 W	2 W	2.5 W	2.5 W
Isolation	1.500 Vac, 3 way	1.500 Vac, 3 way	1.500 Vac, 3 way	1.500 Vac, 3 way
Status indicators	Power supply, Out of range, Setting error	Power supply, Out of range, Setting error	Power supply Output (relay)	Power Supply Error
Interface	Micro USB	Micro USB	-	-
Response time	140 ms Sampling frequency: 15 bits + sign resolution.	35 ms with 11 bit resolution, 140 ms with 16 bit resolution.	350 ms	250 ms
Accuracy	0,1% (RTD) – 0.3% (voltage output)	0,1% (TC) – 0.3% (voltage output)	0,20%	0,30%
Thermal drift	0.01%/°K	0.01%/°K	0,02 % f.s. / °C	0,01 % f.s. / °C
Settings	Dip-switches: range and input type; output selecting Software / App (EASY SETUP)	Dip-switches: range and input type; output selecting Software / App (EASY SETUP)	Dip-switches: input type, output, end scale Trimmer: end scale settings, integration constant	Dip-switches: input type, filter, pulses average, output Trimmer: end scale settings (1 Hz..10KHz)
Operating Temperature	-10..+60°C	-10..+60°C	0..+50 °C	0..+50 °C
Dimensions (w x h x d)	17,5 x 100 x 112 mm	17,5 x 100 x 112 mm	17,5 x 100 x 112 mm	17,5 x 100 x 112 mm
Connections	Removable 3-way screw terminals, 5 mm pitch, cable section's 0.25-2.5 mm ²	Removable 3-way screw terminals, 5 mm pitch, cable section's 0.25-2.5 mm ²	Removable 3-way screw terminals, 5 mm pitch, cable section's 0.25-2.5 mm ²	Removable 3-way screw terminals, 5 mm pitch, cable section's 0.25-2.5 mm ²
Weight	200 g	200 g	200 g	200 g
Approvals	CE- UL-UR CSA	CE- UL-UR CSA	CE	CE- UL-UR CSA
Norms	EN 55011, EN 61000-4-2, EN 61000-4-4, EN 50140 / 141	EN61000-6-4, EN61000-6-2, EN61010-1	EN50081-2, EN50082-2, EN61010-1	EN50081-2, EN50082-2 EN61010-1
INPUT DATA				
Nr	1	1	1	1
Type	RTD PT100, PT500, PT1000, NI100 2, 3 or 4 wires measurement, energising current 1 mA, resolution 0.1 °C	TC Type J, K, R, S, T, B, E, N; resolution 2.5 µV, automatic TC burn out detection, input impedance > 5MΩ	VOLTAGE: 0 - 5 Vdc, 1 - 5 Vdc, 0 - 10 Vdc and 2 - 10 Vdc Input impedance 1 MΩ CURRENT: 0 - 20 mA or 4 - 20 mA, both active and passive connection. Active connection : loop supply voltage approx. 15 Vdc Passive connection : input impedance 100 Ω	PULSES Mechanical contact, reed, npn with 2 and 3 wires , pnp with 3 wires and 24V DC power supply, Namur, photoelectric, "HALL" sensor, and variable reluctance. Maximum frequency 10 KHz
OUTPUT DATA				
Channels	1	1	1	1
Type	VOLTAGE: 0..5 V / 0..10 V / 1..5 V / 2..10 V, min load resistance 2 kΩ Resolution: 2.5 µA/ 1.25mV. CURRENT: 0..20 / 4..20 mA, max load resistance 600 Ω Resolution: 2.5 µA/ 1.25mV.	VOLTAGE: 0..5 V / 0..10 V / 1..5 V / 2..10 V, min load resistance 2 kΩ Resolution: 2.5 µA/ 1.25mV. CURRENT : 0..20 / 4..20 mA, max load resistance 600 Ω	PULSE Npn open-collector transistor 30 Vdc 300 mA Max frequency: 10 kHz Reed-relay 30 Vdc-ac 100 mA. Frequency below 40 Hz	VOLTAGE: 0..5 V / 0..10 V / 1..5 V / 2..10 V , Min. load resistance: 25 kΩ CURRENT: 0/4..20 mA (active/passive) Max load resistance: 600 Ω
ORDER CODES	Z109PT2-1	Z109TC2-1	Z104	Z111