

## TXDU4 Isolated DIN Rail Mounting Universal Input/Output Transmitter

The TXDU4 DIN rail mounting isolated transmitters are microprocessor based and fully linearised. As standard they can be configured to have the following inputs/outputs:

### Inputs

- RTD (Pt100 or Pt1000)
- Thermocouple (Types K, J, T, N, E, R, S, B)
- Millivolts (mV)
- Milliamps (mA)
- Voltage (V)
- Potentiometer

### Outputs

- Voltage: 0 to 10V DC or -10 to 10V DC
- Current: 4~20mA, 0~20mA, 20~4mA, 20~0mA

The units accept a 21-300V DC or 85-265V AC direct power supply (not loop powered). For ease of installation we can supply with the inputs and outputs configured to suit your application requirements.

Alternatively they can be easily configured using the **TX-USB** configuration kit (see page 86). Simply install the software (which is available for free download from our website), connect the USB configuration module and plug the lead into the transmitter. The software will then provide the necessary prompts.

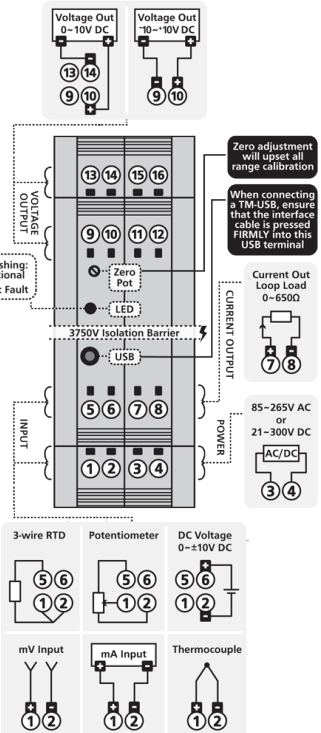


Technical Details (Common)	
<b>Configuration</b>	4-wire
<b>Output</b>	Voltage: 0 to 10V DC or -10 to 10V DC Current: 4~20mA, 0~20mA, 20~4mA, 20~0mA
<b>Power Supply</b>	21-300V DC or 85-265V AC
<b>Isolation Test Voltages</b>	Between input/output: 3750V AC for 1 minute
<b>Accuracy</b>	< ±0.03% FSO typical
<b>Ambient Drift</b>	< ±0.003%/°C FSO typical
<b>Noise Immunity</b>	125dB CMRR average (2.0kV DC limit)
<b>R.F. Immunity</b>	<1% effect FSO typical
<b>Response Time</b>	400ms typical (10-90%) 300ms typical)
<b>USB Programmable Zero</b>	0 to ±99% of span (Potentiometer Input N/A)
<b>Operating Temperature</b>	-20°C to +85°C
<b>Storage Temperature</b>	-20°C to +100°C
<b>Operating Humidity</b>	5-85% RH max (non-condensing)
<b>Mounting</b>	35mm symmetrical DIN rail
<b>Dimensions</b>	30mm (W) x 79mm (H) x 68mm (D)
<b>EMC Compliance</b>	Emissions (EN 61326), Immunity (EN 61326) Safety (EN 61010-1)

RTD Input Specifications	
<b>Input</b>	Pt100 or Pt1000 DIN 3-wire type (2-wire can be used with offset calibration)
<b>Sensor Current</b>	0.15mA nominal
<b>Lead Wire Resistance</b>	Pt100: 10Ω/wire max. Pt1000: 5Ω/wire max.
<b>Accuracy</b>	0.02% FSO offset error per Ω of lead resistance ≤ 0.1°C (0°C to +100°C) ≤ 0.3°C (-200°C to 0°C; +100°C to +850°C)
<b>USB Programmable Span</b>	-200°C to +850°C
<b>Sensor Break Output Drive</b>	Function high upscale/low downscale 0.02% FSO for span inputs ≤ +200°C 0.1% FSO for span inputs ≤ +850°C
<b>Linearity (Pt100)</b>	0.02% FSO for span inputs ≤ +200°C 0.2% FSO for span inputs ≤ +520°C

Thermocouple Input Specifications	
<b>Thermocouple Types</b>	K, J, T, N, E, R, S, B
<b>Input Impedance</b>	1MΩ min
<b>Thermocouple Lead Resistance</b>	100Ω max
<b>Cold Junction Compensation</b>	-20°C to +90°C
<b>Accuracy</b>	Types K, J, T, N, E: < ±1°C Types R, S, B: < ±2°C
<b>Temperature Drift</b>	Types K, J, T, N, E: < ±0.05°C Types R, S, B: < ±0.2°C
<b>Sensor Break Output Drive</b>	Function high upscale/low downscale
<b>CJC Error</b>	< ±1°C

Current Input Specifications	
<b>Field Programmable Span</b>	1µA-24mA DC
<b>Input Resistance</b>	10Ω
<b>Maximum Over-Range</b>	50mA DC continuous
<b>Linearity and Repeatability</b>	< ±0.02% FSO typical



Voltage Input Specifications	
<b>USB Programmable Span</b>	100mV to ±10V DC (bipolar)
<b>Input Resistance</b>	300kΩ min
<b>Maximum Over-Range</b>	60V DC continuous
<b>Linearity and Repeatability</b>	< ±0.02% FSO typical

Potentiometer Input Specifications	
<b>Potentiometer Input</b>	3-wire potentiometer
<b>Excitation Voltage</b>	1.2V DC
<b>Potentiometer Resistance</b>	0-2KΩ low pot 0-1MΩ high pot
<b>Field Programmable Zero</b>	0-90% of the span
<b>Field Programmable Span</b>	0.1-100%
<b>Linearity and Repeatability</b>	< ±0.02% FSO typical

order code **TXDU4**