

420TWTC

THERMOCOUPLE INPUT ISOLATING TERMINALS



- Replace Standard DIN-Rail Terminals
- RFI Protection, Input Isolation
- Wide range of thermocouple inputs
- Simple 2 Wire Connection
- High Noise Immunity

The 420TWTC isolating terminal block can replace standard DIN-rail terminals to provide input isolation, signal conversion and excellent RFI and noise rejection.

The units are powered from the output side, making them ideal for plc and data acquisition applications.

Inputs for the 420TWTC are J,K,T,N,R & S type thermocouples, other units are available for RTD, PT100, current and voltage inputs and the standard output is an output powered 4-20mA.

The units can be factory or user configured for virtually any type of thermocouple or mV input.

A typical wiring arrangement is shown opposite.

In addition two digital modules are available allowing the isolation of digital inputs and outputs.

The devices are housed in ultra-compact DIN rail mounted enclosures from only 12.5mm wide.

Input options

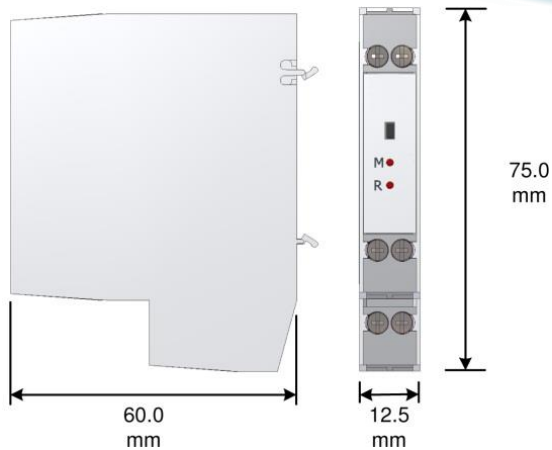
The 420TWTC can accept the following inputs:

Thermocouple Types and Ranges

T/C Type	Offset	Span
K	-200 to 400	100 to 1200
T	-200 to 300	100 to 400
J	-200 to 300	70 to 750
N	-200 to 400	150 to 1200
R	0 to 1000	500 to 1700
S	0 to 1000	500 to 1750
mV	-5 to 15mV	3 to 50mV

Technical Specifications

Parameter	Min	Typ	Max	Comments
Supply Voltage	10V	24V	30V	Powered from Output Side
Output Current	4mA	4-20mA	23mA	
Output Linearity Error		±0.1%		
Temp Coefficient			100ppm/°C	
Load Resistance Error			±5ppm/Ω	0 < R _L < 600Ω
Time Constant (10-90%)		200ms		To reach 70% of final value
Operating Ambient	0°C		50°C	
Relative Humidity	10%		95%	
Isolation Voltage	500V			
Surge Voltage	2.5kV for 50μS		Transient of 10kV/μS	
Notes	Absolute maximum ratings indicate sustained limits beyond which damage to the device may occur. Device is protected against reverse polarity connection.			



Installation data

Mounting	DIN Rail TS35
Orientation	Any
Connections	Screw Clamp with pressure plate
Conductor size	0.5-4.0mm
Insulation Stripping	12mm
Weight	Approx 50g

Connection details

1.	Output Channel +ve
2.	Output Channel -ve
3.	Input Channel +ve
4.	Input Channel -ve

Please supply:

Part Number:	II-420TWTC-TAFB-A-9-000
T/C Type:	e.g. type K
Temp Range:	e.g. 0-1200°C