



420-TW

ISOLATING TERMINAL BLOCKS

- Replace Standard DIN-Rail Terminals
- RFI Protection, Input Isolation
- Voltage, Current & Thermocouple Inputs.
- Simple 2 Wire Connection
- High Noise Immunity
- Low Cost Solution



Description

The 420-TW series of isolating terminal blocks 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 available include thermocouple, RTD, current and voltage and the standard output is 4-20mA.

For thermocouple inputs, internal rotary switches allow the user to select virtually any type of thermocouple and the temperature range required.

A typical wiring arrangements is shown opposite.

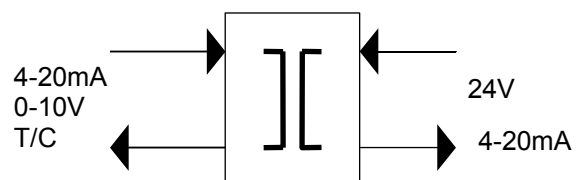
In addition two digital modules are available allowing the isolation of digital inputs and outputs.

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

Input Options

The most common wiring configuration is shown below:

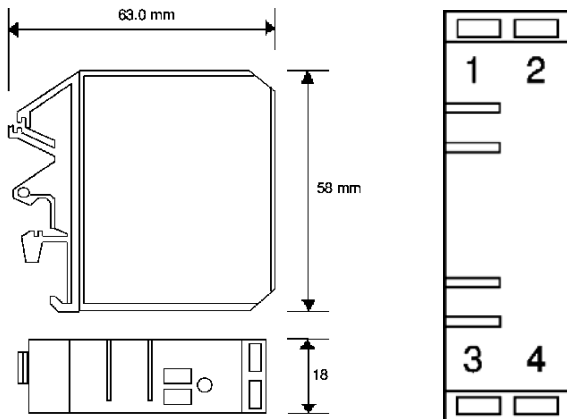
Powered from the Output Side





Performance Characteristics

Parameter	Min	Typ	Max	Comments
Supply Voltage	10V	24V	32V	Powered from Output Side
Input Current	0mA	0-20mA	30mA	
Full Scale Volt Drop		0.2V	0.3V	On Input Side (20mA Input)
Input Impedance (Volt In)		1MΩ		Voltage Input
Input Impedance (mA In)		10Ω		mA Input
Output Linearity Error		±0.1%		
Temp Coefficient			100ppm/°C	
Load Resistance Error			±5ppm/Ω	0 < R _L < 600Ω
Time Constant (10-90%)		30ms		300ms for Thermocouple Input
Operating Ambient	0°C		50°C	
Relative Humidity	0%		90%	
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. Accuracy figures based on 0-20mA input, 250Ω load resistance, and an ambient temperature of 20±C.			



Installation Data

Mounting	DIN Rail TS32/35
Orientation	Any
Connections	Screw Clamp with pressure plate
Conductor size	0.5-4.0mm
Insulation Stripping	12mm
Weight	Approx 50g

HL Input Unit as above

The TC unit is 12.5mm wide and 60.0mm tall

The RTD unit is 12.5mm wide and 75.0mm tall

Connection Details

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

Ordering Information

Please supply:

Part Number:	
4-20 In 4-20 Out	420-TW-HL
T/C In 4-20 Out	420-TW-TC
RTD In 4-20 Out	421-TW-RTD

T/C or RTD Type:	e.g. Type K
Temp Range:	e.g. 0-500°C