

INTRODUCTION

HTM SI420 signal isolator/converter is the low cost solution when isolation of input and output signal in an instrumentation system can not be avoided. The use of signal isolator in instrument loops can protect potential harmful effects of motor noise & ground loops etc on instruments connected in the loops. HTM SI420 is also a signal converter whereby input signals such as 1-5V(dc), 0-10V(dc), 0-100mV(dc) etc can be converted to 4-20mA without additional cost.



PRINCIPLE OF OPERATION

HTM SI420 employs a linear optocoupler to isolate the input & output signals while maintaining the linearity of the signal. The circuit of HTM SI420 has been carefully designed to provide a highly accurate and stable output signal with a low input impedance.

FEATURES

Compact Enclosure

HTM SI420 is housed in a compact DIN rail enclosure which occupy only a small space. The wiring terminals are easily accessed via the front without opening any cover of the unit.

Low Cost

Due to its design simplicity, HTM SI420 is a low cost and yet reliable signal isolator & converter.

Superior isolation

5000V isolation between input & output signals means process signal will not be affected by severe noises introduced at the input.

Low input impedance

The low input impedance of HTM SI420 at 10 ohms enable the unit to be used as a signal repeater without heavy loading on input loop.

Ease of calibration

HTM SI420 can be calibrated easily by adjusting the Zero & Span potentiometer located in front of the casing. This eliminates unnecessary works to dismantle the instrument from site during routing calibration works

Integral transmitter power supply

HTM SI420 has a built-in 24Vdc transmitter power supply which can be enabled to power loop powered instrument connected to the input, thus eliminates the need of additional power pack for the input instrument. The transmitter power supply in SI420 can be enable or disable through a jumper inside the unit. No major modification is needed.

Indication

A red colour LED indicator is available on the front surface of the unit for the indication of power Supply and output status.

SPECIFICATIONS

Input : 4-20mA, 1-5Vdc, 0-10Vdc, 0-100mV.
(other inputs as options)

Output: 4-20mA

No. of Channel: 1 (optional: 2 channel)

Input impedance : 10 Ohms

Accuracy : +/-0.1%FS

Power supply (+/-10%)

VDC: 12, 24, 48

VAC: 110, 115, 220, 240

Transmitter power supply : 24Vdc max 25mA

Power/signal isolation : 1000Vdc

Input/output isolation : 5000Vac

Casing: ABS shell

Polycarbonate Cover

Enclosure: IP10

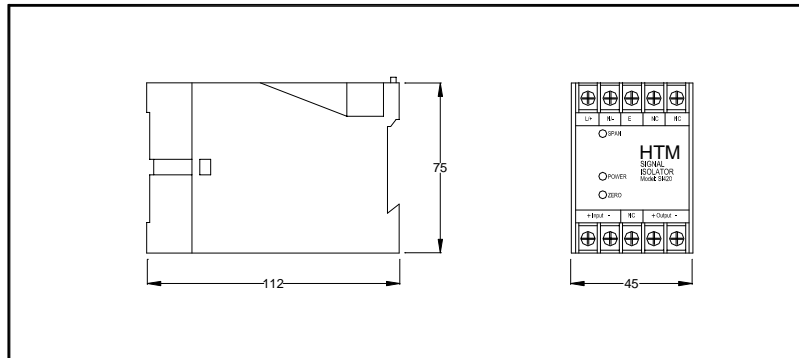
Terminal size: 2.5mm² cable

Temperature: -10 to 60°C

Temperature effect : +/-0.3% max.

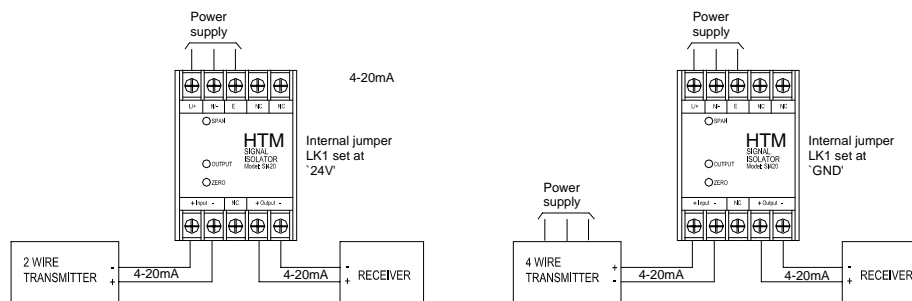
Mounting: DIN rail or panel mount

DIMENSIONS



TYPICAL WIRING DIAGRAMS

(4-20mA type shown)



NC = No Connection
All Dimensions in MM

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