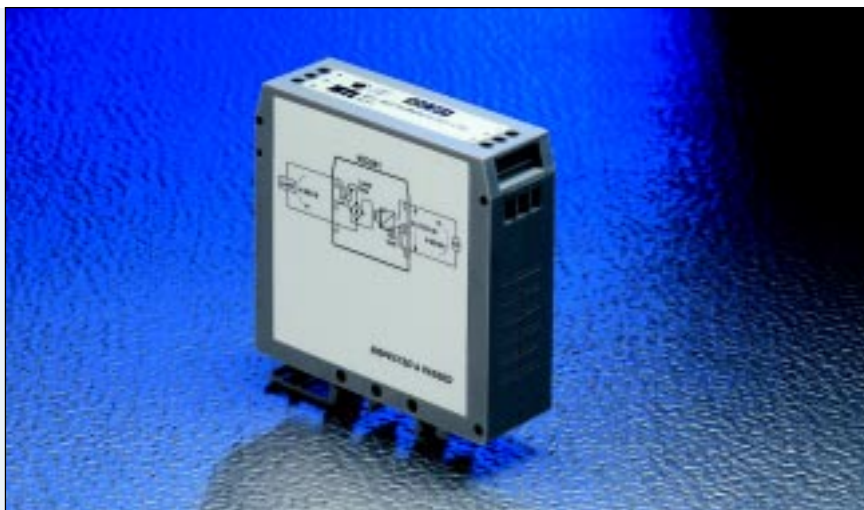


MTL ICC200 SERIES



ICC241 current to current loop-powered isolator



- ◆ Galvanic isolation between input and output
- ◆ Wide range of applications
- ◆ Optional load-trimming facilities
- ◆ Eliminates earthing problems
- ◆ Loop-powered
- ◆ T- or G-section DIN-rail mounting

The ICC241 is a loop-powered isolator with a number of possible applications. Examples include isolating and passing on a 4 to 20mA signal from a controller to drive an I/P converter and isolating the signal from a transmitter. In applications where two outputs are needed from a single input, two ICC241 units can be used in series. Galvanic isolation between input and output signals simplifies interface wiring by eliminating possible earthing and ground loop problems. An optional trimming potentiometer provides facilities for optimising accuracy for load changes. Simple checking facilities for incoming and outgoing signals are provided by 10Ω resistors at both sets of terminals. The maximum load voltage drop across the input terminals is <4.5V (4.9 for T3 option) plus the load voltage – if this drop is unacceptable for the input loop, use an ICC211 unit in place of an ICC241.

SPECIFICATION

Number of channels

One

Input signal

4 to 20mA

Output signal

4 to 20mA

Isolation between input and output

1500V dc/ac

Maximum input voltage when output open circuit or >700Ω

24V typical

Voltage drop across isolator (V_{in})

<4.5V (4.9 for T3 option) including test resistors plus voltage drop across the load

Load (R_L) range for specified performance

75 to 275Ω for T1, T2

100 to 600Ω for T3

Transfer accuracy at 25°C (including non-linearity and hysteresis)

Better than 20μA

Response time

To reach 90% of span: 40ms

To reach 99.9% of span: 100ms

Temperature drift

<0.01% of span/°C

Common mode rejection ratio

150dB typical

RFI susceptibility

Conforms to IEC801.3

Ambient temperature limits

-20°C to +55°C (operating)

-40°C to +80°C (storage)

Humidity

5 to 95% RH, non-condensing

Terminals

Accommodate 2.5mm² conductors

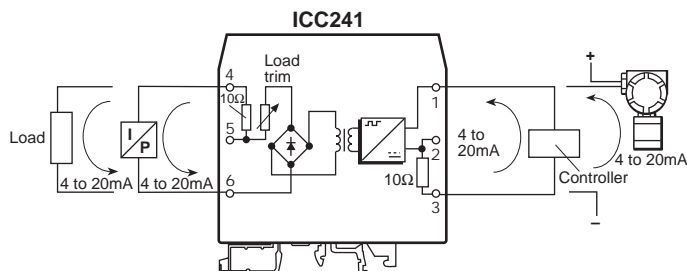
Casing

25mm width polyamide casing

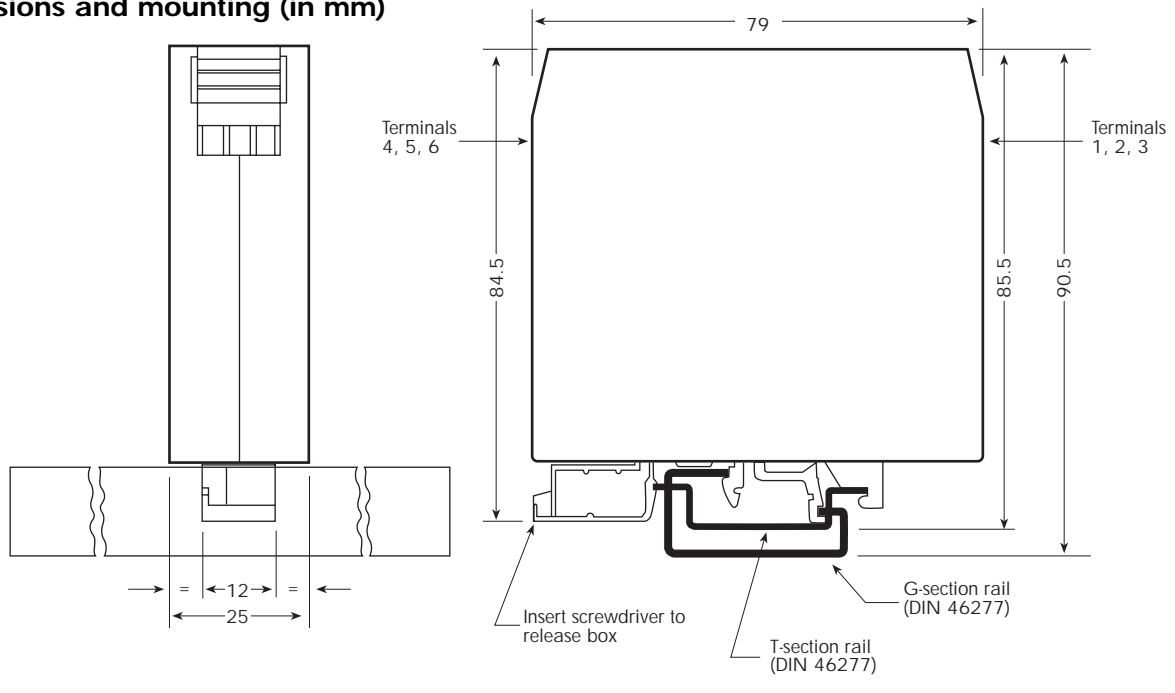
Mounting

Directly onto T- or G-section DIN-rail to DIN46277

Circuit diagram



Dimensions and mounting (in mm)



TO ORDER:-

- ICC241-T1** Current to current loop-powered isolator maximum 275 Ω load (without load-trim potentiometer)
- ICC241-T2** Current to current loop-powered isolator maximum 275 Ω load (with load-trim potentiometer)
- ICC241-T3** Current to current loop-powered isolator maximum 600 Ω load (with load-trim potentiometer)

Specification subject to change without notice

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