

MTL ICC300 SERIES



ICC301 dual-channel current/voltage isolator



- ◆ Galvanic isolation between power supply and each channel's inputs and outputs
- ◆ Large choice of inputs and outputs
- ◆ Provides transmitter supply
- ◆ 20 – 35V power supply
- ◆ T- or G-section DIN-rail mounting

The ICC301 is an independently powered, low-cost, dual-channel, general-purpose isolator. Galvanic isolation is provided between channels for either voltage or current signals from sensors/field instruments and control instrumentation. This simplifies interface wiring by eliminating possible earthing and ground-loop problems. Wide ranges of input and output are provided for scaling and transmitting dc analogue signals. The isolator is available with factory-configured input and output options and can work with a power supply of 20 to 35V dc.

SPECIFICATION

Number of channels
Two

Input signal options
0 to 500mV, 0 to 1V, 0 to 5V, 0 to 10V,
1 to 5V, $\pm 5V$, $\pm 10V$, 0 to 20mA or 4 to 20mA

Output signal options
4 to 20mA, 1 to 5V or 0 to 10V

Isolation (between power supply, input 1, input 2, output 1 and output 2)
1500V dc/ac

Power supply voltage (V_s)
20 to 35V dc

Voltage available to transmitter
(for 4 to 20mA input option only)
20V minimum at 20mA

Input impedance
<25 Ω for current source inputs
>100k Ω for voltage inputs

Maximum load resistance (for current output)
650 Ω

Output impedance (for voltage option only)
<150 Ω

Transfer accuracy at 20°C (including non-linearity and hysteresis)
0.1% of span

Temperature drift
0.01% of span/°C

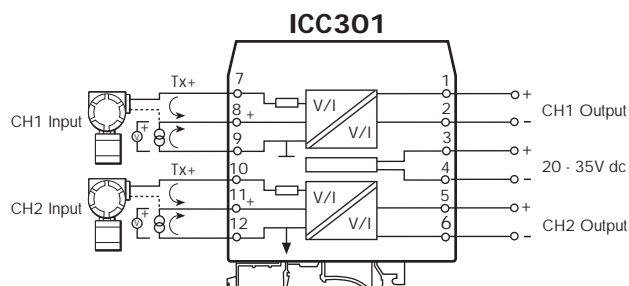
Response time
To reach 90% of span: 100ms
To reach 99.9% of span: 300ms

Common mode rejection ratio
150dB typical

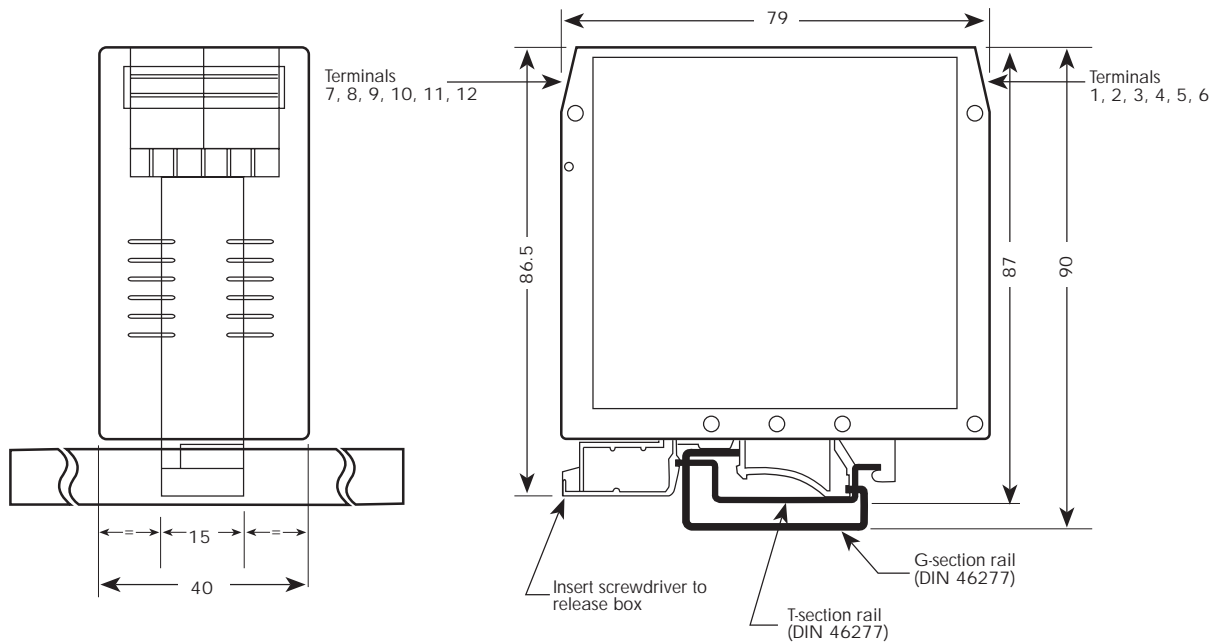
Ambient temperature limits
-20°C to +55°C (operating)
-40°C to +80°C (storage)

(specification continued overleaf)

Circuit diagram



Dimensions and mounting (in mm)



Power requirement

INPUT OPTION	SUPPLY VOLTAGE	OUTPUT OPTION	
		O1	O2 AND O3
I1- I8*	20V	160mA	85mA
	35V	110mA	60mA
I9*	20V	225mA	150mA
	35V	140mA	100mA

* See inputs/outputs table opposite

Humidity

5 to 95% RH, non-condensing

Terminals

Accommodate 2.5mm² conductors

Casing

40mm width polyamide casing

Mounting

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

TO ORDER:-

Please order by quoting ICC301 followed by the appropriate input and output codes from the following table; Eg: **ICC301-I1-O3** refers to an ICC301 unit for 0 to 500mV input with 0 to 10V output.

INPUTS AVAILABLE		OUTPUTS AVAILABLE	
OPTION	ORDER CODE	OPTION	ORDER CODE
0 to 500mV*	I1	4 to 20mA	O1
0 to 1V*	I2	1 to 5V	O2
0 to 5V	I3	0 to 10V	O3
0 to 0V	I4		
1 to 5V	I5		
±5V*	I6		
±10V*	I7		
0 to 20mA	I8		
4 to 20mA	I9		

* For these options, a minimum ordering quantity may apply and price and delivery may vary

Specification subject to change without notice

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