MTL MTL Series Service Manual

ICC212

1. Description

ICC212

3. Product Information

ICC212

repeater power supply (for smart transmitters)/isolating driver

Galvanic isolation

between power supply, input and output

Provides transmitter power supply Digital signal

transmission for smart transmitters

T-or G-section DIN-rail mounting

Can be used as either repeater power supply or driver

ICC212 is a dual-purpose,current-to-current converter with three-port isolation. It provides a fully floating, isolated dc supply for energising a conventional 2.or 3-wire 4 to 20mA transmit- ter/'smart'transmitter and repeats the current in another isolated circuit,or accepts a 4 to20mA signal from a controller/source to drive loads up to 650Ω2. A 20-35V dc power supply is required for operation. The power supply terminations are at the top of the unit to enable this model to be used either as a repeater power supply or driver. For a 2-wire smart transmitter the unit also allows bi-directional transmission of digital communication signals superimposed on the 4 to 20mA signal so that the transmitter can be interrogated either from the operator station or by a hand-held configurator.

SPECIFICATION

Number of channels

One

Input and output signal range

0 to 20mA for normal operation

4 to 20mA for operations with digital communication

Isolation (between power supply, input and output)

1500V dc/ac

Power supply voltage (V)

20 to 35V dc LED indicator

www.autronexa.com

One green LED indicating POWER ON Voltage available to transmitter

20V minimum at 20mA

Digital signal bandwidth

100Hz to 10kHz

Maximum load resistance

Conventional transmitters/drivers:650Ω Smart transmitters:2200 650Ω Voltage drop across input from current source (terminals5&6)

<1V

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

Better than 20μA Temperature drift

<1μA/°C

Response time

To reach 90% of span:80ms To reach 99.9% of span: 280ms

Power requirement (supplying a transmitter)

135mA max at 20V with a 20mA signal95mA max at 35V with a 20mA signal

Power requirement (current source input)

90mA at 20V with 20mA signal65mA at 35V with a20mA signal Common mode rejection ratio

150dB typical

Ambient temperature limits

-20°°C to +55C(operating) -40°C to +80°C(storage) Humidity

5 to 95% RH non-condensing

Terminals

Accommodate 2.5mm² conductors

For power supply, removable 2-way, plug-in type connector provided at the top of the unit Casing

25mm width polyamide casing Mounting

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

List of compatible devices for digital communication

All HART* compatible devices