MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

MTL

8121-DI-DC-01

16-CHANNEL DRY-CONTACT INPUT MODULE

Used with the applicable MTL8000 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: MTL8000 8121-DI-DC Digital Input Module Datasheet; common family characteristics, complete -01 identity retained.

16-channel Discrete Input

24 V dc, non-isolated, module-powered

8121-DI-DC

- 16 input channels
- For dry contact switches
- 24 V dc provided on input high side
- Returns commoned internally
- Pulse counting option
- 24 V dc bussed field power required

MODULE SPECIFICATION

See also System Specification

INPUTS

Number of channels
- 16

OFF current
- < 0.3 mA

ON current
- >1.2 mA

Wetting current
- 2.8 mA (typ.)

Minimum pulse width detected
- 5 ms

Max input freq in pulse counting mode (no-debounce)
- 100 Hz

Isolation
- Any channel to Railbus – 250 V ac

CONFIGURABLE PARAMETERS

Selectable input filter
- Fast, slow or user defined

(User defined permits 0 to 512 ms values in 2ms steps)

Latch inputs
- Enable / Disable

Latch polarity
- Latch on high / latch on low

Pulse counting
- Enable / Disable

RESPONSE TIME

I/O response time
- Field event to new data available on Railbus – 5 ms (max.)

SAFETY

FM non-incendive field wiring parameters (each channel)
- V_{oc} = 30 V; I_{sc} = 3.5 mA; C_a = 0.12 µF; L_a = 1000 mH

POWER SUPPLIES

Railbus (12V) current
- 90 mA (typ.)
- 135 mA (max.)

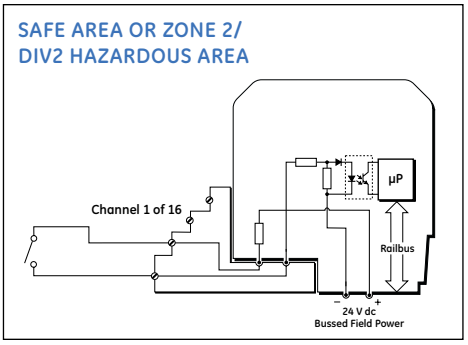
Bussed Field Power
- 60 mA, @ 18–30 V dc

MECHANICAL

Module Key Code
- E1

Module width
- 42 mm

Weight
- 210 g



FIELD TERMINALS

Field Wiring	Recommended Field Terminal	Compatible Field Terminal
General purpose	8617-FT-NI† 16 Channel DI	–
Class 1, Div 2 or Zone 2 hazardous area	8617-FT-NI † 16 Channel DI	–

† *External fusing of the Field Power supply is recommended in order to protect the field wiring.*