

MAS-DI-16-D Field Interface Board 16 Digital Inputs

Masibus Digital Input Field Interface Board has 16 channels that accepts various types of AC/DC Wet voltages and potential free contacts with common External Field Excitation supply and converts them to isolated Open Collector/24V Digital output with external System side Excitation supply. It is compact, universal DIN rail mounted with labeled input and output connections.

Applications

- Translate and Isolate AC/DC Field voltages to 24V signals
- Protect Expensive control systems against Field Faults
- Digital Field Interface for PLC/DCS/SCADA systems
- D-sub/FRC connector on system side for Pre-Fab cables
- Output Compatible with Source/Sink system side modules

TECHNICAL SPECIFICATIONS

16-Channel Digital Input Field Interface Board

| Input | | Output | |
|---------------------------------|---|----------------------|--|
| No of Channels | 16 Channels | Output Signal Type | Open Collector, Source or Sink |
| Input Voltage & Category | Refer Table 1 | Nominal/Max Voltage | 24V/28V DC |
| Operating Voltage Range | Refer Table 1 | Nominal/Max Current | 5mA/50mA |
| On State Voltage (V_{on}) | Refer Table 1, Figure 1 | Output ON status LED | Green |
| Off State Voltage (V_{off}) | Refer Table 1, Figure 1 | Termination | 25 pin D-sub/20 pin FRC connector |
| Termination | Screw, up to 2.5 mm ² conductor, 2 per channel | Supply | 24V DC |
| Excitation Supply Terminals | Common 2 Terminals | Isolation | |
| | | Isolation | 1.5KV AC between Field and system side |

TECHNICAL SPECIFICATIONS

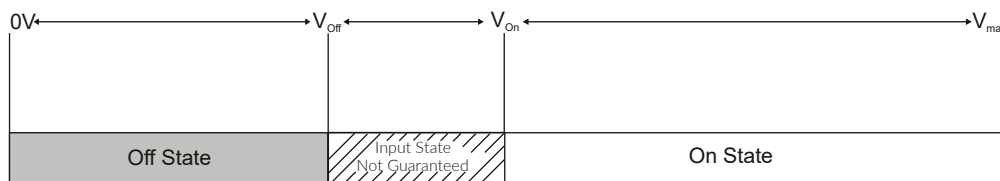
16-Channel Digital Input Field Interface Board

| Physical | | Environmental | |
|---------------------|-----------------------------------|--------------------------|-----------------------------|
| Dimension (in mm) | 200(L) x 90(W) x 60(D) | Operating Temperature | 0 to 50 °C |
| Mounting | DIN Rail | Humidity | 30 to 95% RH non-condensing |
| Profile Material | PVC | Environmental Protection | Conformal Coating on PCB |
| Terminal Block | UL, CSA standard | | |
| Terminal Cable Size | Upto 2.5mm ² conductor | | |
| Weight | Approx 250 gm | | |

Table1

| Voltage Category | Operating Voltage | On State Voltage(V _{on}) | Nominal Input Current | Off State Voltage (V _{off}) | Response Time |
|------------------|-------------------|------------------------------------|-----------------------|---------------------------------------|---------------|
| 230VAC | 110-265VAC | ≥110VAC | 12 mA at 230VAC | ≤50VAC | ≤100mSec |
| 110VAC | 70-132VAC | ≥70VAC | 12 mA at 120VAC | ≤30VAC | ≤100mSec |
| 220VDC | 110-250VDC | ≥110VDC | 2 mA at 220VDC | ≤50VDC | ≤20mSec |
| 110VDC | 75-132VDC | ≥75VDC | 2 mA at 110VDC | ≤30VDC | ≤15mSec |
| 48VDC | 30-55VDC | ≥30VDC | 3.2 mA at 48VDC | ≤9VDC | ≤10mSec |
| 24VDC | 15-30VDC | ≥15VDC | 3 mA at 24VDC | ≤5VDC | ≤10mSec |
| 12VDC | 7-15VDC | ≥7VDC | 3 mA at 12VDC | ≤4VDC | ≤10mSec |

Figure1: On/Off State Voltage Range



Ordering Code

| Model | Input Type | Input Voltage | Output Type | Output Protection | Output Connection |
|-------------|------------|---------------|-------------|-------------------|-------------------|
| MAS-DI-16-D | X | X | X | X | X |
| | AC | 1 230VAC | 0 Source | 0 Non Fuse | 0 D Type |
| | | 2 110VAC | 1 Sink | 1 With Fuse | 1 FRC |
| | DC | 1 220VDC | | | |
| | | 2 110VDC | | | |
| | | 3 48VDC | | | |
| | | 4 24VDC | | | |
| | | 5 12VDC | | | |

Connection Details

