

Field Interface Board

MAS-DI-16-D 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

Innut

- 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	
No of Channels	16 Channels
Input Voltage & Category	Refer Table 1
Operating Voltage Range	Refer Table 1
On State Voltage (V _{on})	Refer Table 1, Figure 1
Off State Voltage (V_{off})	Refer Table 1, Figure 1
Termination	Screw, up to 2.5 mm ² conductor, 2 per channel
Excitation Supply Terminals	Common 2 Terminals

Output

Output Signal Type	Open Collector, Source or Sink
Nominal/Max Voltage	24V/28V DC
Nominal/Max Current	5mA/50mA
Output ON status LED	Green
Termination	25 pin D-sub/20 pin FRC connector
Supply	24V DC
Isolation	
Isolation	1.5KV AC between Field and system side

Technical Specifications

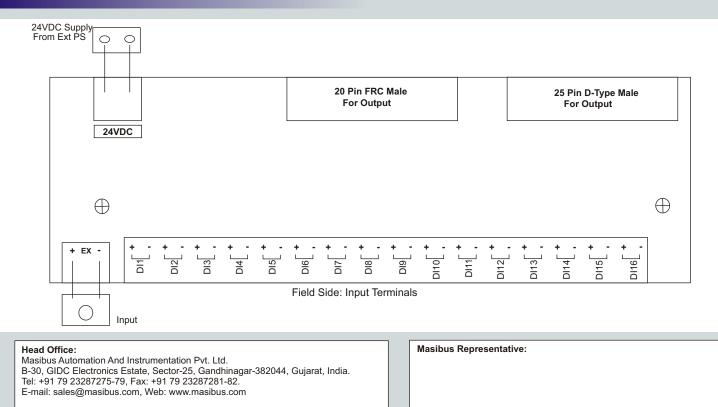
Physical	Table1							
Dimension (in mm) 200(L) x 90(W) x 60(D)		Voltage	Operating	On State	Nominal	Off State	Response	
Mounting	DIN Rail	Category	Voltage	Voltage(V _{on})		Voltage (V _{off})	Time	
Profile Material	PVC	230VAC	110-265VAC	≥110VAC	12 mA at 230VAC		≤100mSec	
Terminal Block	UL , CSA standard	110VAC	70-132VAC	≥70VAC	12 mA at 120VAC		≤100mSec	
Terminal Cable Size	Upto 2.5mm ² conductor	220VDC	110-250VDC	≥110VDC	2 mA at 220VDC		≤20mSec	
Weight	Approx 250 gm	110VDC	75-132VDC	≥75VDC	2 mA at 110VDC		≤15mSec	
Environmental		48VDC	30-55VDC	≥30VDC	3.2 mA at 48VDC	≤9VDC	≤10mSec	
Operating Temperature	0 to 50°C	24VDC	15-30VDC	≥15VDC	3 mA at 24VDC	≤5VDC	≤10mSec	
Humidity	30 to 95% RH non-condensing	12VDC			3 mA at 12VDC	≤4VDC	≤10mSec	
Environmental Protection	Conformal Coating on PCB	IZVDC	7-15VDC	≥7VDC	5 MA & 12 VDC	≥4VDC	-10110ec	

Figure1: On/Off State Voltage Range

0V	$V_{\text{off}} \longleftrightarrow V_{\text{on}}$	· · · · · · · · · · · · · · · · · · ·
Off State	Input State Not Guaranteed	On State

	ORDERING CODE									
Model:MAS-DI-16-D-XXXXX										
	Model	Input Type	Input Voltage		Out	tput Type	pe Outpu Protecti		Output Connection	
	MAS-DI-16-D	Х	Х		Х		Х		Х	
		AC	1	230VAC	0	Source	0	Non Fuse	0	D Type
		AC	2	110VAC	1	Sink	1	With Fuse	1	FRC
			1	220VDC						
			2	110VDC						
		DC	3	48VDC						
			4	24VDC						
			5	12VDC						

Connection Details



All specifications are subject to change without notice due to continuous improvements. Doc. Ref. FIB MAS-DI-16-D/R0F/0214