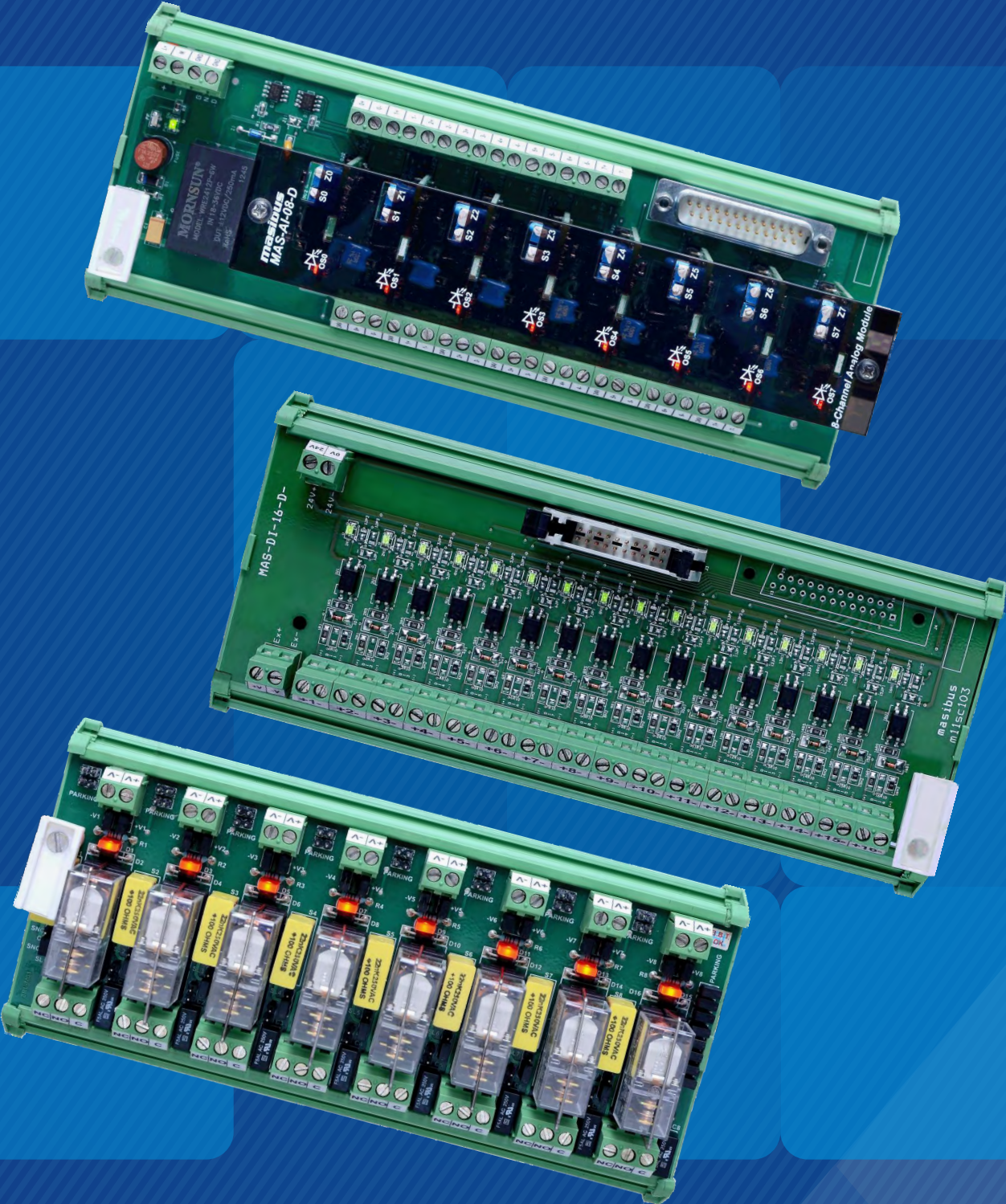


FIB (Field Interface Board)

Reduced wiring time, saves space and are easy to install - At affordable cost!



Introduction

Field interface board (FIB) is a family of versatile, truly modular I/O products suitable for use in a wide range of control system architecture which provide easily configurable discrete and analog I/O interface.

These modules simplify interconnections between system I/O cards and field equipment.

FIB can manage signal transmission and distribution from the control system to the field (system, machine) and vice versa.

They are available in standard configurations, or can be quickly customised for customer requirements.

They connect:

- Signal transmission in control system \leftrightarrow field (system, machine)

Our Expertise:

Masibus offers broad spectrum of dynamic and cost effective FIB (Field Interface boards) that allows I/O signals from automation devices to be customized to interface input/ output modules of the control system.

Masibus FIB consists of multiple channels (4, 8, 12 and 16 nos.) and perform the function of signal conditioning and channel to channel isolation at the input/ output side to generate calibrated and linearly proportional 0 - \pm 10V, 0-20mA, 4-20mA, RTD, Thermocouple, etc. of 2 wire or 4 wire output signal which is connected to input/ output of discrete system.

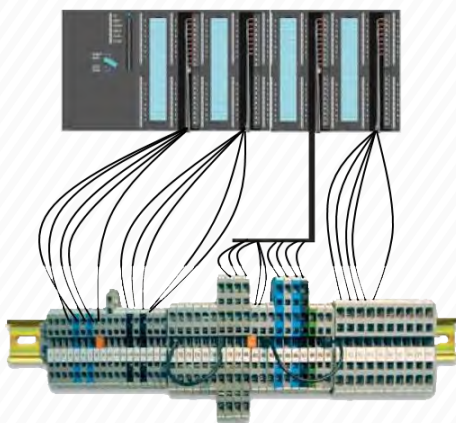
Masibus also provides application specific modules to several global customers, who require integration of various control system components. Masibus' R&D strength of electronics product design along with superior understanding of field and analog circuit design ensures the right solution for your needs.

Benefits

- Save time & cost
- Faster troubleshooting and easier maintenance
- Increased volume and productivity
- Simplified design
- Easy labeling and marking
- Reduces the complexity of wiring and wiring error
- Easy for future extensions
- Design flexibility
- Fewer parts, less inventory and lower carrying cost

Save COST!
Labor cost for wiring
Panel Space saving

Save TIME!
Designing Time
Assembly Time
Testing Time
Troubleshooting Time



Traditional wiring



FIB wiring

Features v/s Benefits

Features

Reliable signal transmission solution for automation applications

Compact design

Eliminates long installation times and costly wiring errors

Over 15 times faster than traditional "point-to-point" wiring

Modules simplify interconnections between system I/O cards and field equipment

Benefits

Safe and maintenance-free connection of signal lines

Space-saving, high-density wiring

Time saving and economical

Reduced labour costs

Quick wiring, commissioning and troubleshooting

Advantages

- Reduce design times during installation
- Eliminate ground loop problems & common mode voltages
- Protect expensive control systems against field faults
- Flexibility in exchanging input/ output interfaces
- Secure DIN rail connection which provides resistant to vibration

Reliability

- No wiring errors
- Clear wiring in the cabinet (cable system instead of individual wires)
- Labelling corresponding to that of the PLC

Functions

- Multichannel configurations
- Universal DIN rail mounted
- Customized labeling
- Signal isolation
- Channel wise LED based fault diagnostic

Strength & Opportunities

Strengths

- In-house product range (AI, AO, DI, DO)
- In-house manufacturing facility
- In-house cable assembly solution
- Standard relays for relay interface module
- Engineering capability for customization

Opportunities

- Growing automation applications
- Modules with cable assembly solution
- Tie-ups with major multinational companies

Technical Specifications

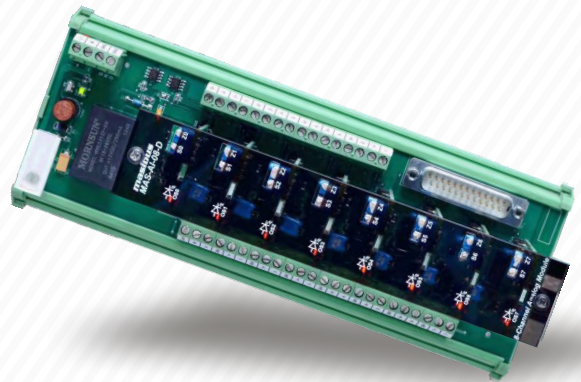
- Power supply 24VDC \pm 10%
- Operating temperature: 0 to 50 °C
- Relative humidity: 30% to 95% RH non-condense
- Environmental protection: Conformal coating on PCB
- Universal DIN rail mounted

Applications

- Field interface for PLC/ DCS/ SCADA systems
- Factory automation
- Panel wiring
- OEM (original equipment manufacturer)
- SPM (special machine manufacturer)

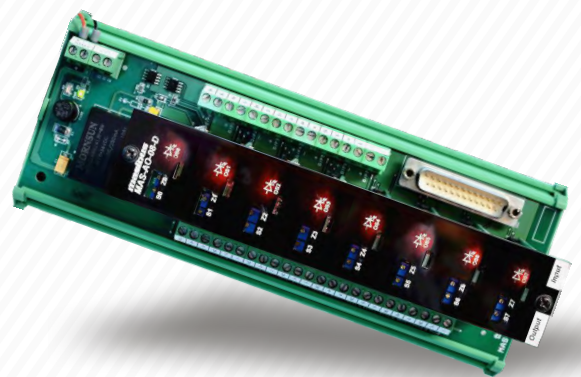
8 Channel Analog Input FIB (MAS-AI-08-D)

- Input 0/4-20 mA, 0/1-5VDC, 0-10VDC
- Output 0/4-20 mA, 0/1-5VDC, 0-10VDC } Factory set
- 3-Way isolation of analog signals
- $\pm 0.1\%$ accuracy across span & drift 0.1% per year
- LED Indication for signal over/ under
- 24VDC@25mA Transmitter power supply
- Output option with D-Type or PCB terminal
- Response time - 50 ms



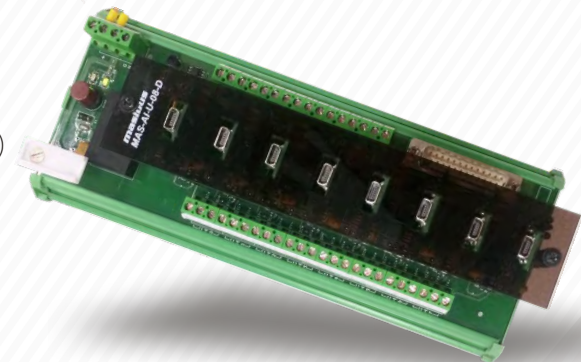
8 Channel Analog Output FIB (MAS-AO-08-D)

- Input 0/4-20 mA, 0/1-5VDC, 0-10VDC
- Output 0/4-20 mA, 0/1-5VDC, 0-10VDC } Factory set
- 3-Way isolation of analog signals
- $\pm 0.1\%$ accuracy across span & drift 0.1% per year
- LED indication for signal over/ under
- Input option with D-Type or PCB terminal
- Response time - 50 ms



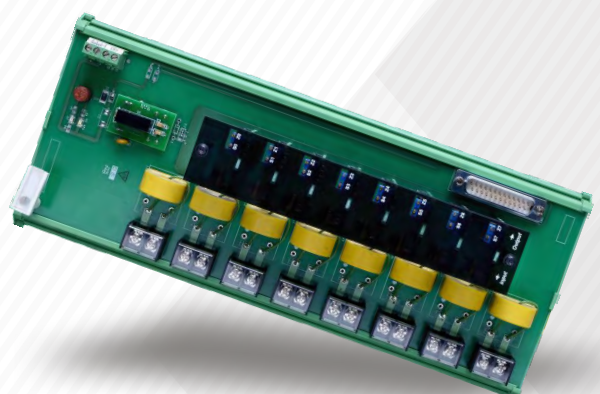
8 Channel Analog Linearized RTD/TC Input FIB (MAS-AI-U-08-D)

- RTD Pt100 and thermocouple (J, K, T, E, R, S, N & B)
- Output 0/4-20 mA, 0/1-5VDC, 0-10VDC
- 3-Way isolation of analog signals
- Sensor break output : upscale or downscale (Field setting)
- Automatic 3 wire compensation
- Output direction - direct or reverse
- Response time - 500 ms at full load
- Calibration through mTRAN software
- Output option with D-Type or PCB terminal



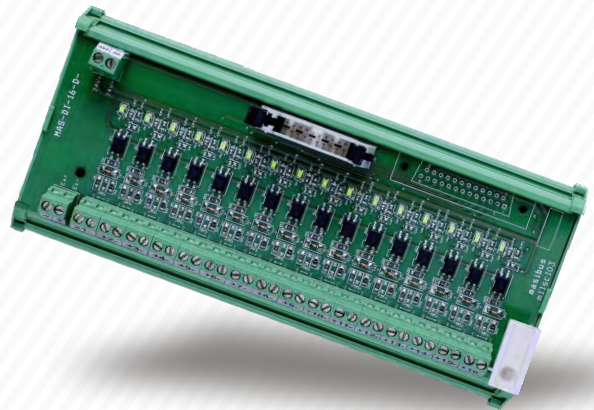
8 Channel AC Input FIB (CT/CBCT)

- Wide range of inputs
 - Current: 0-5A AC, 0-1A AC, 0-300 mA AC
 - Voltage: 0-150V AC, 0-300V AC, 0-450V AC
- Output 4-20 mA DC, 0-5V DC, 0-10V DC, 1-5V DC
- 3-Way isolation of analog signals
- Output option with D-Type



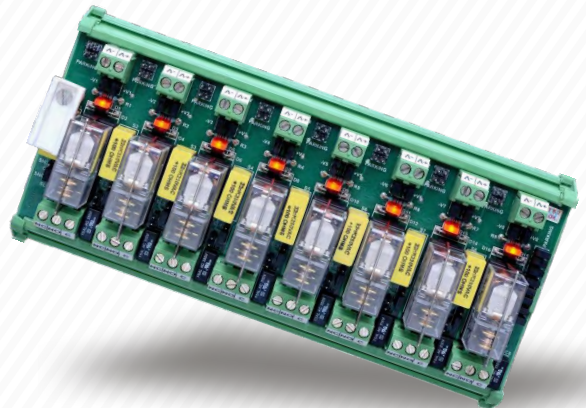
16 Channel Digital Input FIB (MAS-DI-16-D)

- Translate and isolate AC/DC field voltages to 24V signals
- Both sinking and sourcing output are available
- Protect expensive control systems against field faults
- Resettable fuse protection on output side - Optional
- Signal healthy indication for each channel
- Output option with FRC or D-type



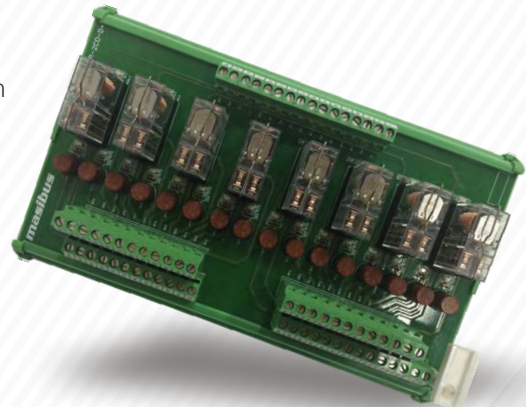
8 Channel Digital Output FIB - 1COC (MAS-DO-RL-08-D)

- Switching current: upto 5A at 250VAC/24VDC
- LED status indicator and freewheeling diode per signal path
- Easy to replace pluggable relays
- Fuse per output circuit as short-circuit protection and LED fuse fault status indicator



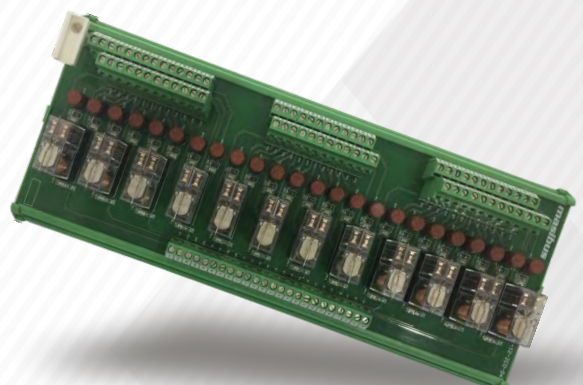
8 Channel Digital Output FIB - 2COC (MAS-DO-RL-08-D-2CO)

- Switching current: upto 5A at 250VAC/30VDC
- LED status indicator and freewheeling diode per signal path
- Easy to replace pluggable relays
- Fuse per output circuit as short-circuit protection and LED fuse fault status indicator



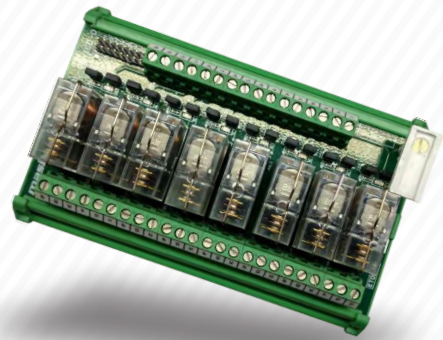
12 Channel Digital Output FIB - 2COC (MAS-DO-RL-12-D-2CO)

- Switching current: upto 5A at 250VAC/30VDC
- LED status indicator and freewheeling diode per signal path
- Easy to replace pluggable relays
- Fuse per output circuit as short-circuit protection and LED fuse fault status indicator



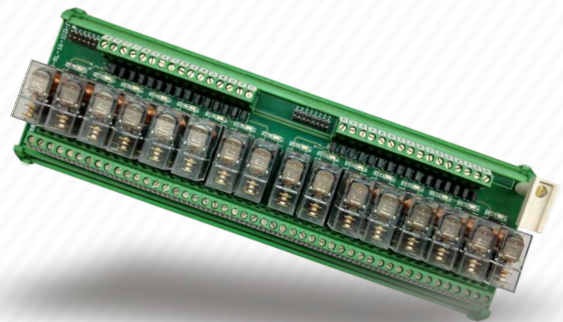
8 channel digital output FIB - 1COC (MAS-DO-RL-08-1CO-D)

- Switching current: Upto 10A at 250VAC/24VDC
- LED Status indicator and freewheeling diode per signal path
- Easy to replace pluggable relay
- PCB mounted terminal (wire size of up to 2.5 Sq. mm.)
- Max. switching voltage 380VAC/125VDC



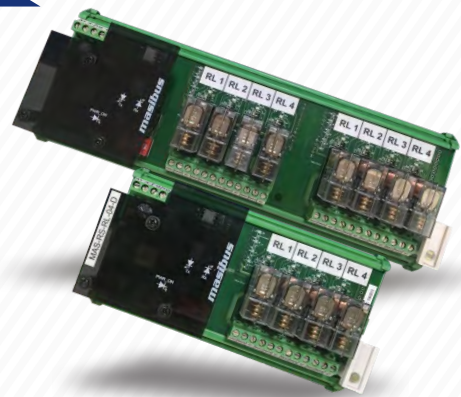
16 channel digital output FIB - 1COC (MAS-DO-RL-16-1CO-D)

- Switching current: Upto 10A at 250VAC/24VDC
- LED status indicator and freewheeling diode per signal path
- Easy to replace pluggable relay
- Max. switching voltage 380VAC/ 125VDC



Relay - RS - Communication (MAS-RS-RL)

- Switching current: Upto 10A at 250VAC/24VDC
- No. of relay Output 04/08
- LED Indication: Power on, Rx-Tx, Relay status



Why Rhombus?

Backed with our manufacturing experience and brand name of Masibus; Rhombus is able to provide a flexible business model that caters to both small and big enterprises.

We have well developed infrastructure, in-house testing facilities and complete technical exposure which works for techno-commercial benefits of customer.

We offer complete range of FIB for Analog, Digital, RTD/ TC and relay input/ output modules.

We also provide customised application oriented FIB modules to global customers who require integration of various control and field systems.

Masibus R&D has over four decades of experience in electronics with a deep understanding of customised applications which meet customer demands.

C/o Masibus Automation And Instrumentation Pvt Ltd,
B-30, G.I.D.C Electronic Estate, Sector - 25, Gandhinagar – 382044, Gujarat - India.
Phone: +91 79 23287275-79, Fax: +91 79 23287281
Email: info@rhombusglobal.com

RHOMBUS
intangible to tangible