



ISB

MXB4000-02 WIRING BOX

Terminal Wiring Guide

**PRODUCTIVITY
RESOURCES
INC.**



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PROVIDING INDUSTRIAL EQUIPMENT SOLUTIONS SINCE 1987

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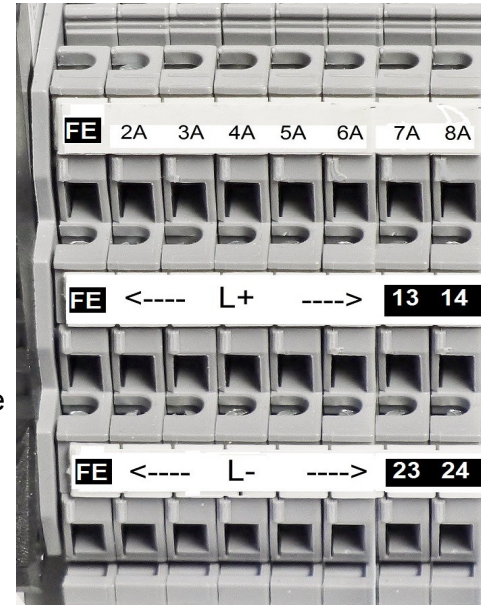
Introduction

The MXB4000-02 wiring box contains the following parts:

- One 24VDC power supply
- One ISB-SR-22-4001 safety relay
- One RESET push-button for the MX light curtain's optional Start or Restart Interlock functions
- Terminal blocks for connection to the light curtain cables

All the above components are housed in a rugged polycarbonate IP66 (NEMA 4X) dust and moisture proof enclosure with a transparent cover.

All electrical installations should comply with all state and local electrical codes. The installation should be performed by qualified, skilled personnel familiar with safety regulations.



Wiring instructions

1. Connect 110-220 VAC to the AC **L(+)** terminal and the neutral to the **N(-)** terminal of the power supply.
2. Connect the functional earth wires from emitter and detector to the terminals marked as **FE**. Connect the external AC supply protective earth, (ground wire) to the remaining **FE** terminal. Note: In the event of ground loop interference, it is possible to disconnect the external AC supply protective earth without affecting the safe operation of the light curtains.
3. Connect the emitter wires to the terminal block according to table 1.
4. Connect the detector wires to the terminal block according to table 2.
5. The ISB Safety Relay contains three normally open contacts. Two of those contacts are attached to the terminal block terminal pairs, **13-14** and **23-24**. Connect the device to be controlled to those terminal pairs.
6. Once all the above steps are completed, attach the connector ends of the cables to the emitter and the detector. See the MX4000 User Manual.

RESET Push-Button

The wiring box comes prewired with a RESET push-button to be used with the Start and Restart Interlock functions. The normally closed terminal of the push button is connected to RST/EDM input of the MX4100 or MX4200 Detector through the (YE) wire connected to terminal 2A. The common terminal of the push-button is connected to 24VDC through one of the (L+) terminals.






The RESET button is functional only when the Start Interlock or Restart Interlock function is enabled.

ISB-SR-22-4001 safety relay

For relay instruction and application examples, see ISB-SR-22-4001-Manual-007.pdf.

MX4000 Emitter



















Table 1: MX4000 Emitter to wiring box

SIGNAL NAME	WIRING BOX TERMINAL BLOCK	MX4000 COLOR CODE
FE	FE	GY 
L+	L+	BN 
TEST	L+	BK 
L-	L-	BU 
CS	Default: Code "A" connect to L-	WH 
	(Optional Code "B" connect to L+)	

Note: See MX4000 User Manual for TEST and CODE signals

MX4100 and MX4200 Detector

Table 2: MX4100 and MX4200 Detector to wiring box

SIGNAL NAME	WIRING BOX TERMINAL BLOCK	MX4100 COLOR CODE	MX4200 COLOR CODE
FE	FE	RD 	VT 
RST/EDM	2A	YE 	YE 
PTB	3A	WH 	WH 
AUX	4A	GN 	GN 
MS1	5A	-----	BK 
MS2	6A	-----	RD 
OSSD1	7A	GY 	GY 
OSSD2	8A	PK 	PK 
L+	L+	BN 	BN 
L-	L-	BU 	BU 

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