

WD001

EZ-SCREEN® System (Type 4)

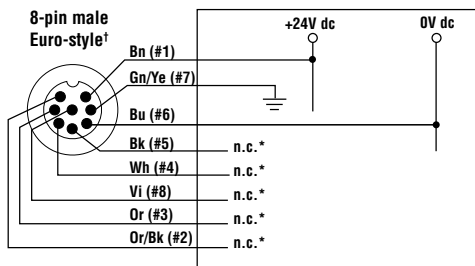
Emitter 8-Pin Euro-Style (Standard Emitter)



Page 469

Models

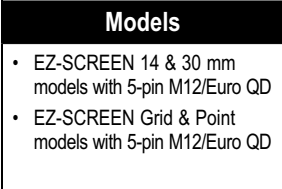
- EZ-SCREEN 14 & 30 mm models with 8-pin M12/Euro QD
- EZ-SCREEN Grid & Point models with 8-pin M12/Euro QD



*NOTE: Pins 2, 3, 4, 5, and 8 are not connected, or are paralleled to same color wire from the 8-pin receiver cable

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

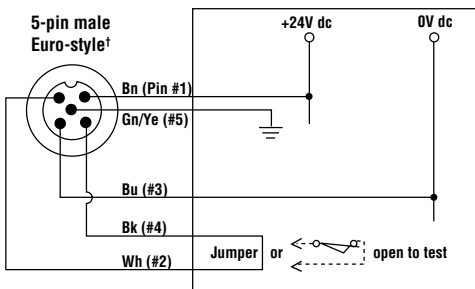
Emitter 5-Pin Euro-Style (Emitter with Test)



Page 469

Models

- EZ-SCREEN 14 & 30 mm models with 5-pin M12/Euro QD
- EZ-SCREEN Grid & Point models with 5-pin M12/Euro QD



[†] See Euro-style connectors on page 682 for female mating cordset.

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD002

EZ-SCREEN® LP System (Type 4)

Emitter 8-Pin Euro-Style (Reset Hookup)

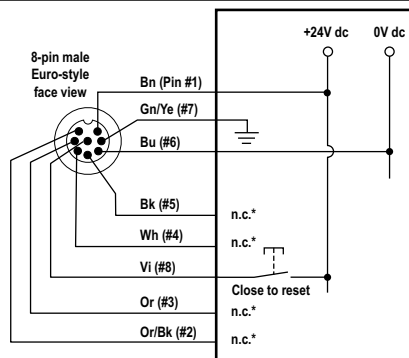


Page 481

Models

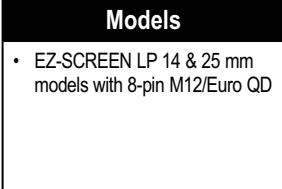
- EZ-SCREEN LP 14 & 25 mm models with 8-pin M12/Euro QD

*NOTE: Pins 2, 3, 4 and 5 either are not connected (n.c.), or are paralleled to same color wire from the 8-pin receiver cable.



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

Emitter 8-Pin Euro-Style (Test Hookup)

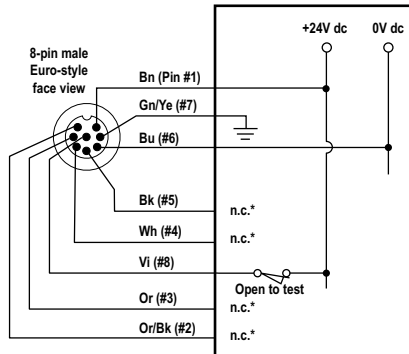


Page 481

Models

- EZ-SCREEN LP 14 & 25 mm models with 8-pin M12/Euro QD

*NOTE: Pins 2, 3, 4 and 5 either are not connected (n.c.), or are paralleled to same color wire from the 8-pin receiver cable.



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

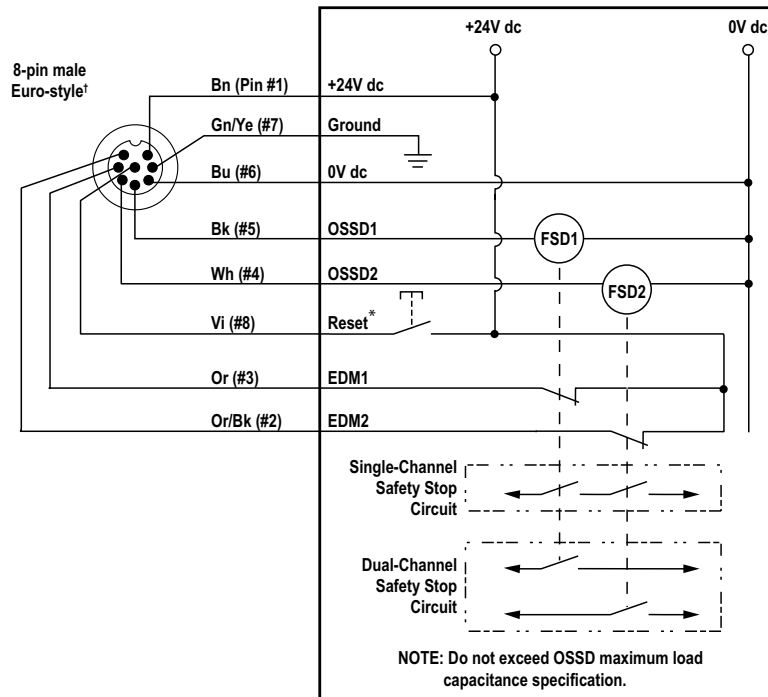
[†] See Euro-style connectors on page 682 for female mating cordset.

More on next page

WD003

EZ-SCREEN® System (Type 4)

Receiver with 2 Solid-State OSSDs, 2 FSDs and 2-Channel EDM



* Trip (auto reset) not connected

† See Euro-style connectors on page 682 for female mating cordset.



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

Accessories

Reference

Hookups

Wiring Diagrams

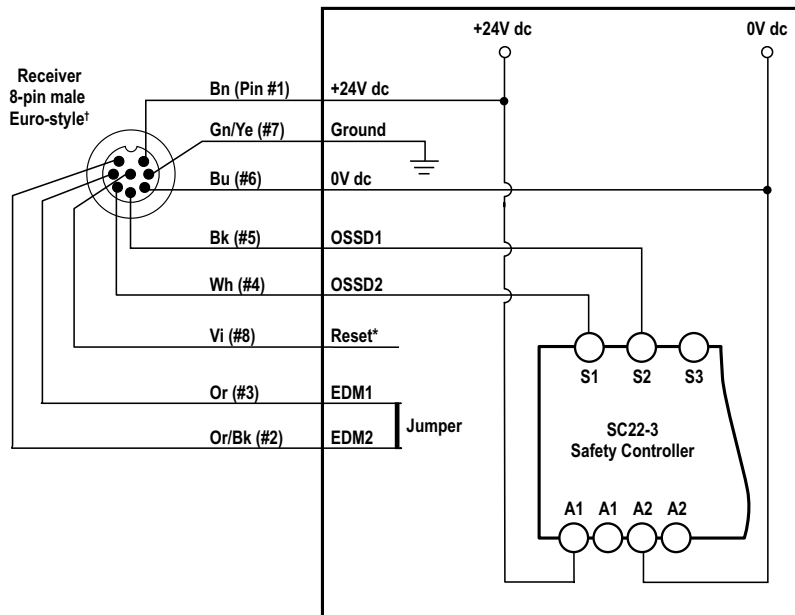
Glossary

International Reps

WD004

EZ-SCREEN® System (Type 4)

Receiver with 2 Solid-State OSSDs and 2-Channel EDM of SC22-3



NOTE: EZ-SCREEN receiver DIP switches are configured for "Trip" (T) output and 2-channel EDM (E2). If the Auxiliary output is to be used, configure the EZ-SCREEN receiver for 1-channel EDM (E1) and connect pin #3 (Or) to +24V dc.

* Trip (auto reset) not connected

† See Euro-style connectors on page 682 for female mating cordset.



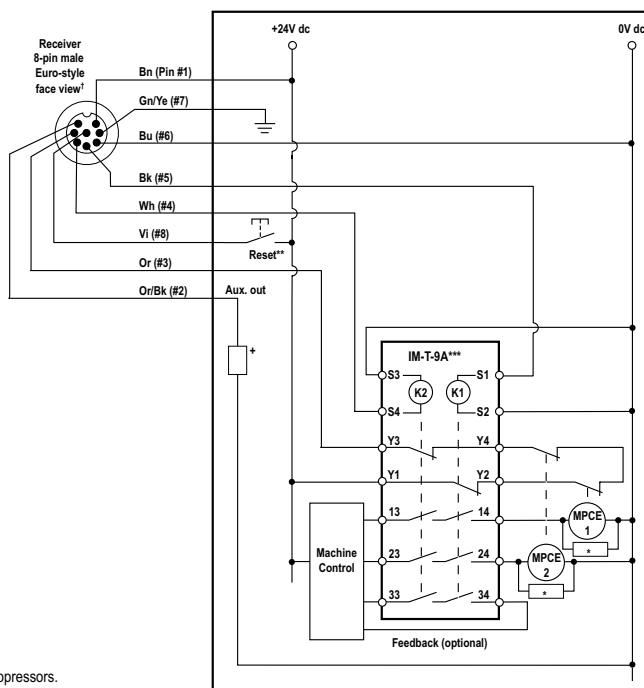
Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD005

EZ-SCREEN® System (Type 4)

1-Channel EDM of IM-T-9A Interface Module



* Arc Suppressors.
See manual for specific warnings.
** Trip (auto reset) not connected.
† See Euro-style connectors on page 685 for female mating cordset.

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

Models

- EZ-SCREEN 14 & 30 mm models with 8-pin M12/Euro QD
- EZ-SCREEN LP 14 & 25 mm models with 8-pin M12/Euro QD
- EZ-SCREEN Grid & Point models with 8-pin M12/Euro QD

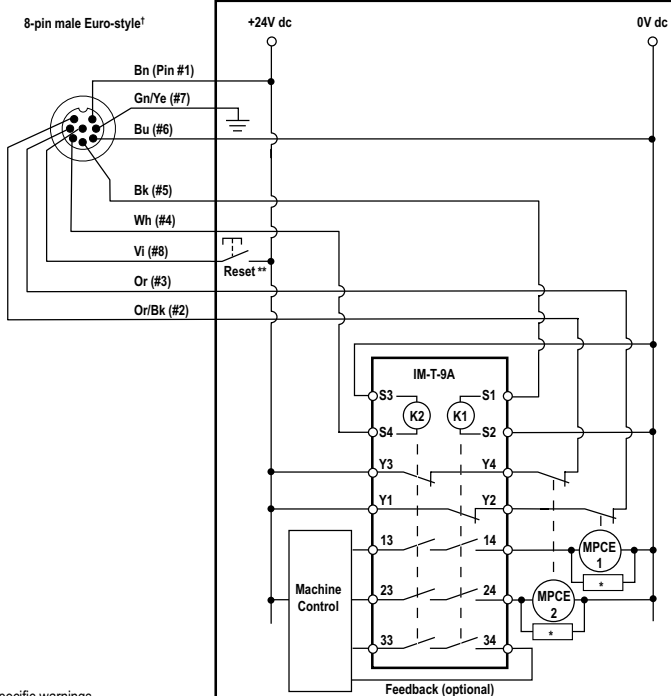
IM-T-9A
Terminal Locations



WD006

EZ-SCREEN® System (Type 4)

2-Channel EDM of IM-T-9A Interface Module



* Arc Suppressors.
See manual for specific warnings.
** Trip (auto reset) not connected.
† See Euro-style connectors on page 685 for female mating cordset.

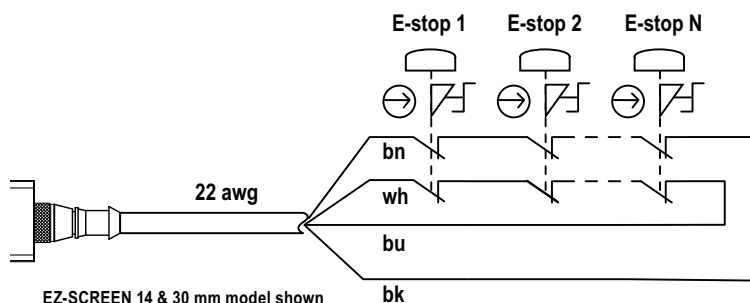
Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD007

EZ-SCREEN® System (Type 4)

Hookup of E-Stop Button to the last Receiver in a Cascade



Models

- EZ-SCREEN 14 & 30 mm models
- EZ-SCREEN LP 14 & 25 mm models

Page 469

EZ-SCREEN LP 14 & 25 mm Models

RDL6G-4..D Cordset Pinout*	Combination DELPEF-8..D/QDE2R4-8..D Cordset Pinout**	
Brown—Ch 1a	Pin #1 – Brown (Ch 1a)	Pin #5 – Blue (ch 2b)
White—Ch 2a	Pin #2 – n.c.	Pin #6 – n.c.
Blue—Ch 2b	Pin #3 – n.c.	Pin #7 – n.c.
Black—Ch 1b	Pin #4 – Black (Ch 1b)	Pin #8 – White (Ch 2a)

* Other cordset options may also be used, see above for more information.

** Standard M12/Euro-style cordsets (8-pin male QD) can also be used, although pin number/wire color must be verified.

EZ-SCREEN 14 & 30 mm Models

QDE2R4-8..D Cordset Pinout*

Pin #1 – Brown (Ch 1a)	Pin #5 – n.c.
Pin #2 – Black (Ch 1b)	Pin #6 – n.c.
Pin #3 – Blue (Ch 2b)	Pin #7 – n.c.
Pin #4 – n.c.	Pin #8 – White (Ch 2a)

* Standard M12/Euro-style cordsets (8-pin male QD) can also be used, although pin number/wire color must be verified.

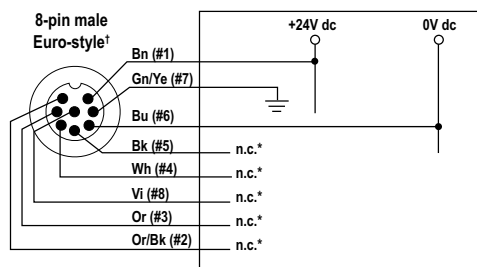


Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD008

EZ-SCREEN® System (Type 2)

Emitter



* NOTE: Pins 2, 3, 4, 5 and 8 are not connected, or are paralleled to same color wire from the receiver cable.

Models

- EZ-SCREEN Type 2 30 mm models

Page 469

† See Euro-style connectors on page 685 for female mating cordset.



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD009

EZ-SCREEN® System (Type 2)

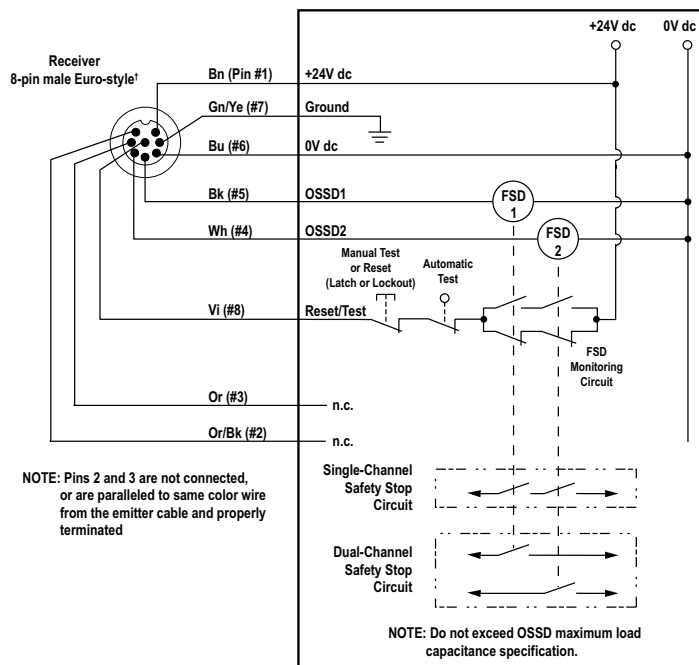
Receiver with 2 Solid-State OSSDs, 2 FSDs and Power Monitoring



Page 469

Models

- EZ-SCREEN Type 2 30 mm models



† See Euro-style connectors on page 685 for female mating cordset.



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD010

EZ-SCREEN® System (Type 2)

Power Monitoring of IM-T-9A Interface Module

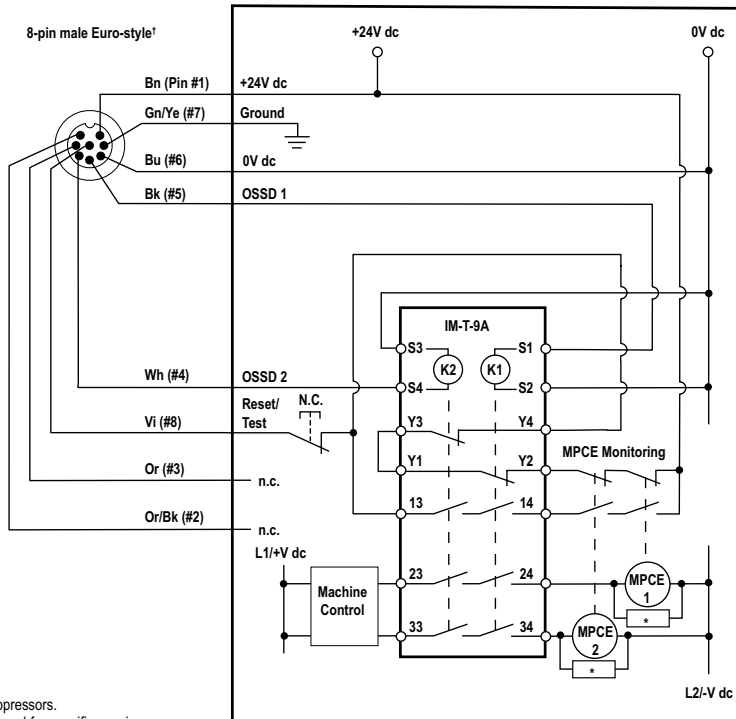


Page 469

Models

- EZ-SCREEN Type 2 30 mm models

IM-T-9A
Terminal Locations



* Arc Suppressors. See manual for specific warnings.
† See Euro-style connectors on page 685 for female mating cordset.

NOTE: Pins 2 and 3 are not connected, or are paralleled to same color wire from the emitter cable and properly terminated.



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD011

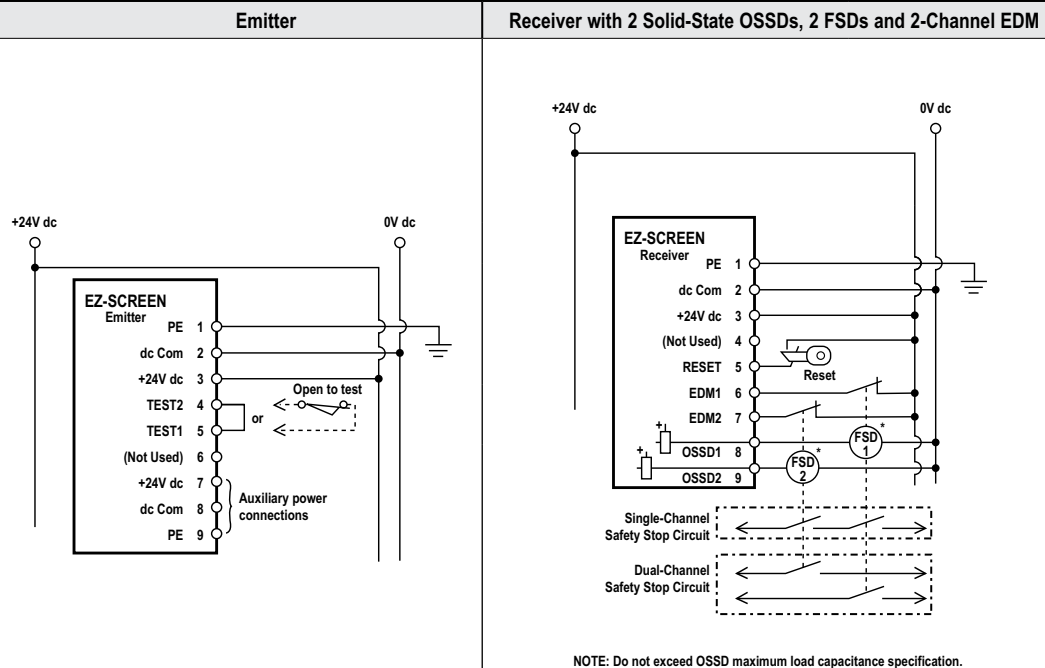
EZ-SCREEN® System (Type 4)



Page 469

Models

- EZ-SCREEN Grid & Point with terminal chamber hookup (Models with M12/Euro QD, see WD001)



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

* Arc Suppressors. See manual for specific warnings.



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD012

EZ-SCREEN® System (Type 4)



Page 469

Models

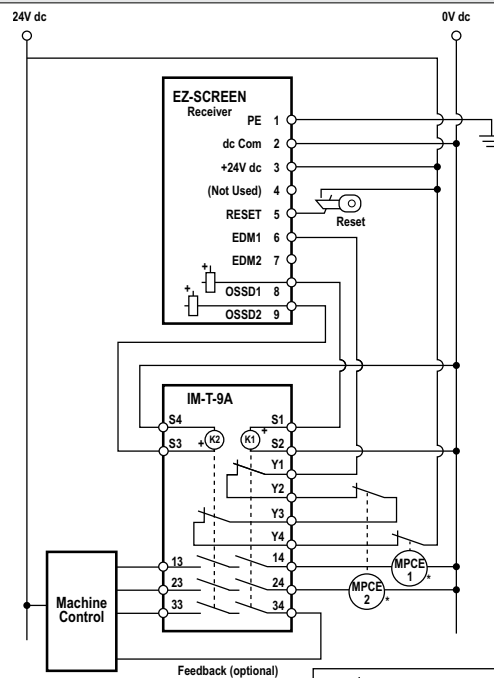
- EZ-SCREEN Grid & Point with terminal chamber hookup (Models with M12/Euro QD, see WD003-WD006)

IM-T-9A

Terminal Locations



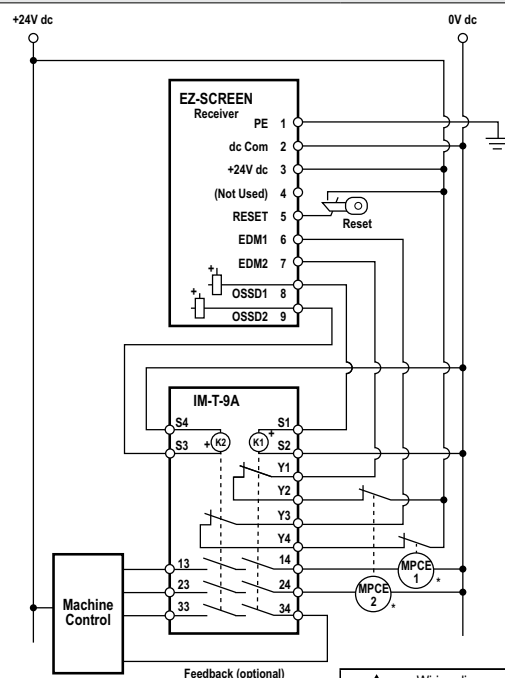
1-Channel EDM of IM-T-9A Interface Module



* Arc Suppressors. See manual for specific warnings.

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

2-Channel EDM of IM-T-9A Interface Module



* Arc Suppressors. See manual for specific warnings.

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD013

EZ-SCREEN® AC Interface Box

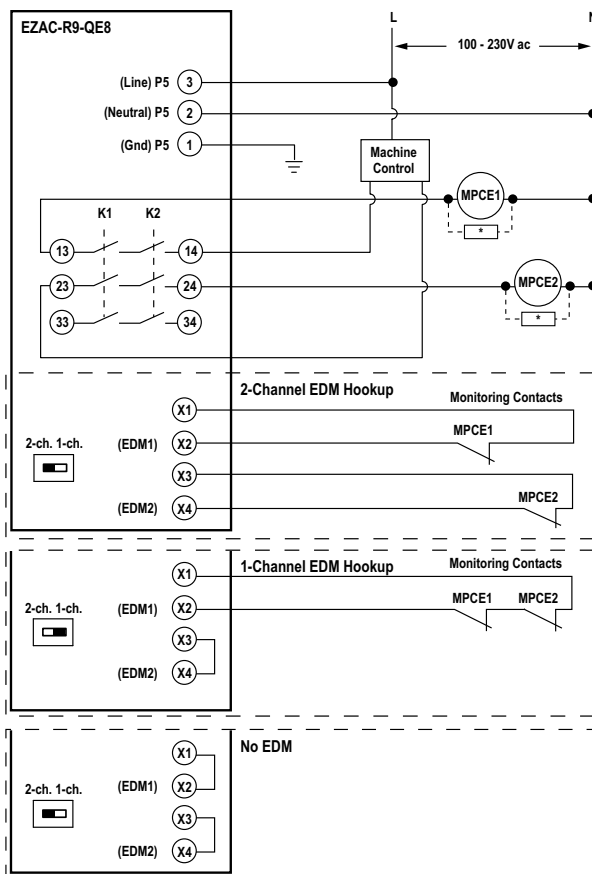
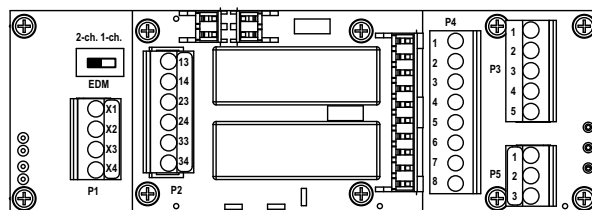
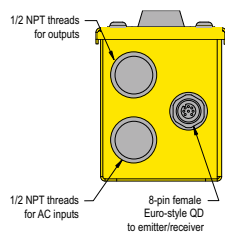
EZAC-R9-QE8 – Hard-Wired with 3 NO and EDM



Page 736

Models

- EZAC-R9-QE8

Connections
(Hand Wired)

* Arc Suppressors. See manual for specific warnings.



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD014

EZ-SCREEN® AC Interface Box

EZAC-R11-QE8 – Hard-Wired with 2 NO, 1 NC and EDM

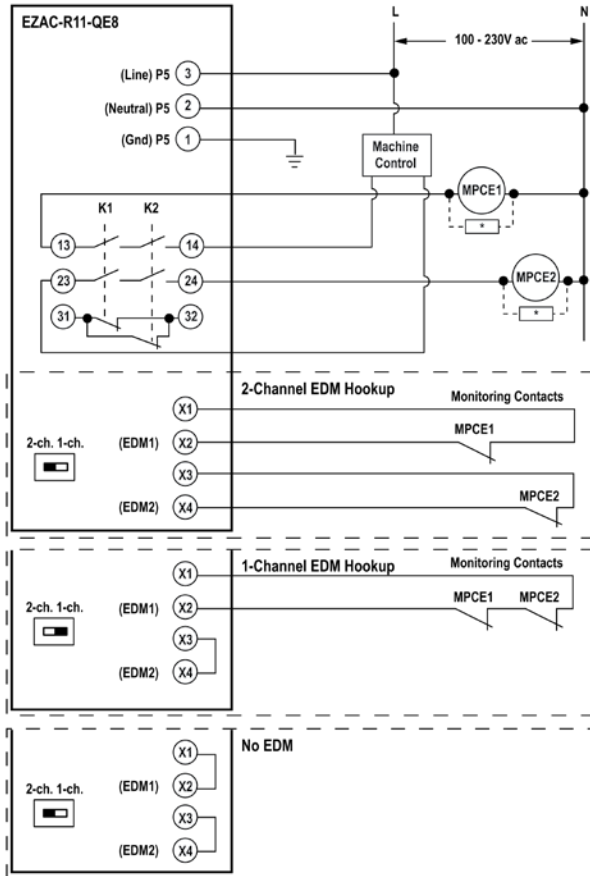
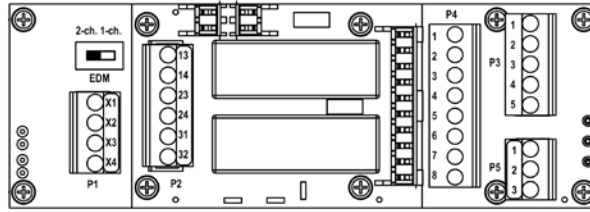
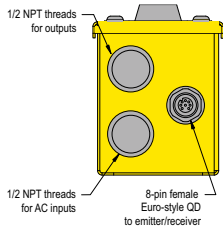


Page 736

Models

- EZAC-R11-QE8

Connections
(Hand Wired)



* Arc Suppressors. See manual for specific warnings.

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

Accessories
Reference
Hookups
Wiring Diagrams
Glossary
International Reps

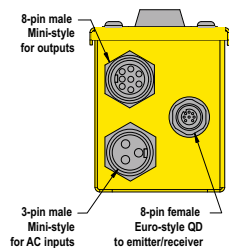
WD015



Page 736

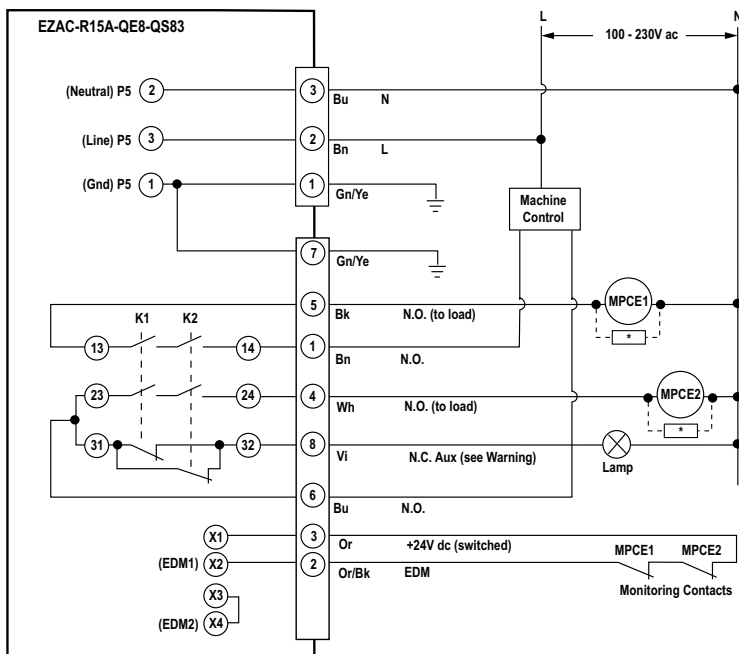
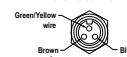
Models

- EZAC-R15A-QE8-QS83

Connections
(8-Pin Mini)

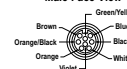
EZ-SCREEN® System (Type 4)

EZAC-R15A-QE8-QS83-Mini-Style QD with 1 NO, 1 SPDT and 1-Channel EDM

3-Pin Mini-Style Power Connector
Male Face View

Mating Cordset: QDS-3..C

Pin	Color	Function
1	Green/Yellow	Gnd/PE
2	Brown	Line
3	Blue	Neutral

8-Pin Mini-Style Output Connector
Male Face View

Mating Cordset: QDS-8..C

Pin	Color	Function
1	Brown	N.O.
2	Orange/Black	+24V dc (EDM)
3	Orange	EDM
4	White	N.O. (to load)
5	Black	N.O. (to load)
6	Blue	Common
7	Green/Yellow	Gnd/PE
8	Violet	N.C. Aux.



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

† Arc Suppressors. See manual for specific warnings.

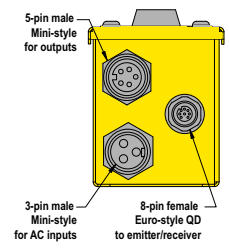
WD016



Page 736

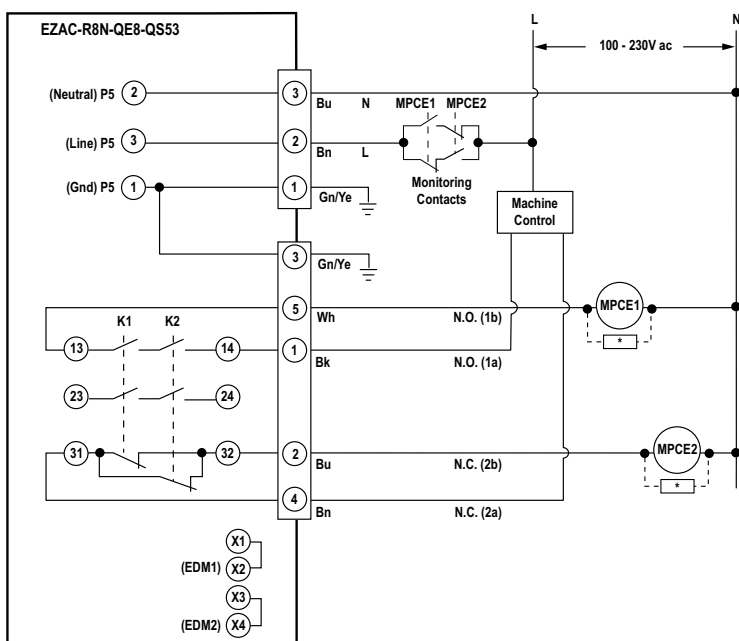
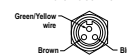
Models

- EZAC-R8N-QE8-QS53

Connections
(5-Pin Mini)

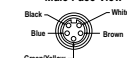
EZ-SCREEN® AC Interface Box

EZAC-R8N-QE8-QS53 - Mini-Style QD with 1 NO, 1 NC and Power Monitoring

3-Pin Mini-Style Power Connector
Male Face View

Mating Cordset: QDS-3..C

Pin	Color	Function
1	Green/Yellow	Gnd/PE
2	Brown	Line
3	Blue	Neutral

5-Pin Mini-Style Output Connector
Male Face View

Mating Cordset: QDS-5..C

Pin	Color	Function
1	Black	N.O. (1a)
2	Blue	N.C. (2a)
3	Green/Yellow	Gnd/PE
4	Brown	N.C. (2b)
5	White	N.O. (1b)



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

† Arc Suppressors. See manual for specific warnings.

WD017

EZ-SCREEN® AC Interface Box

EZAC-R10N-QE8-QS53 – Mini-Style QD with 2 NO and Power Monitoring

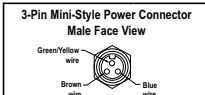
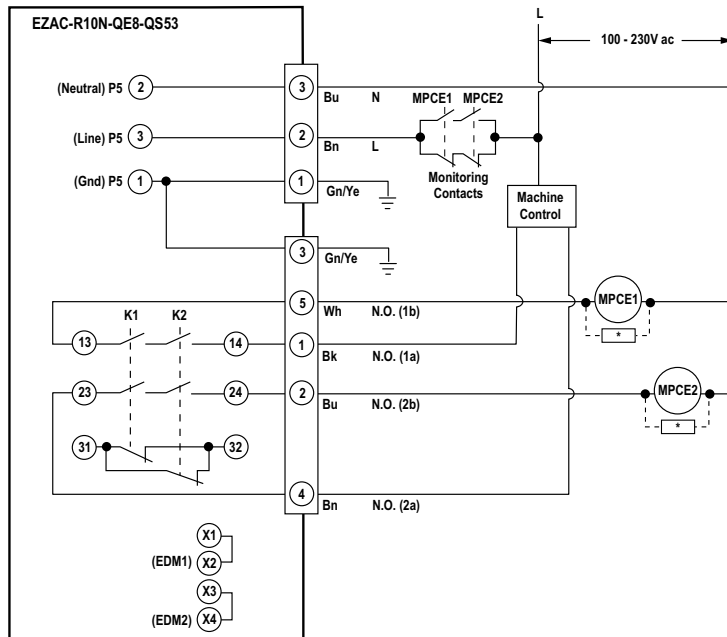
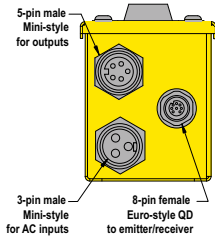


Page 736

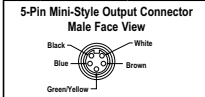
Models

- EZAC-R10N-QE8-QS53

Connections
(5-Pin Mini)



Mating Cordset: QDS-3..C		
Pin	Color	Function
1	Green/Yellow	Gnd/PE
2	Brown	Line
3	Blue	Neutral



Mating Cordset: QDS-5..C		
Pin	Color	Function
1	Black	N.O. (1a)
2	Blue	N.C. (2a)
3	Green/Yellow	Gnd/PE
4	Brown	N.C. (2b)
5	White	N.O. (1b)

! Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

† Arc Suppressors. See manual for specific warnings.

WD018

EZ-SCREEN® AC Interface Box

EZAC-E-QE.. – Hard-Wired Emitters with or without Test



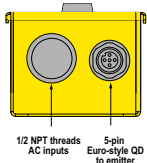
Page 736

Models

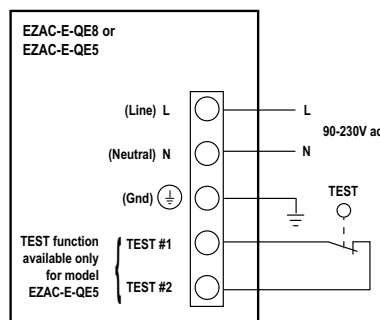
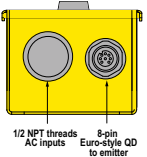
- EZAC-E-QE8
- EZAC-E-QE5

Connections

5-Pin Euro



8-Pin Euro



! Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD019

EZ-SCREEN® AC Interface Box



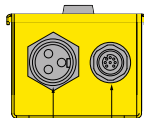
Page 736

Models

- EZAC-E-QE8-QS3
- EZAC-E-QE5-QS5

Connections

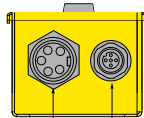
(3-Pin Mini)



3-pin male Mini-style AC inputs

8-pin Euro-style QD to emitter

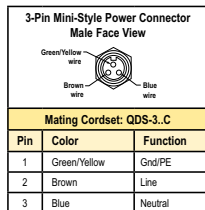
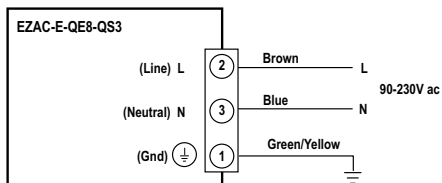
(5-Pin Mini)



5-pin male Mini-style AC inputs

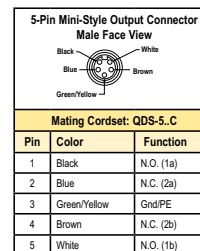
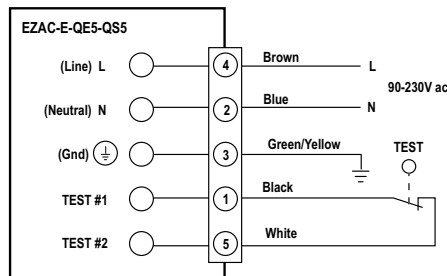
5-pin Euro-style QD to emitter

EZAC-E-QE8-QS3 – Mini-Style QD Emitter



! Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

EZAC-E-QE5-QS5 – Mini-Style QD Emitter with Test



! Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD020

AG4 Laser Scanner

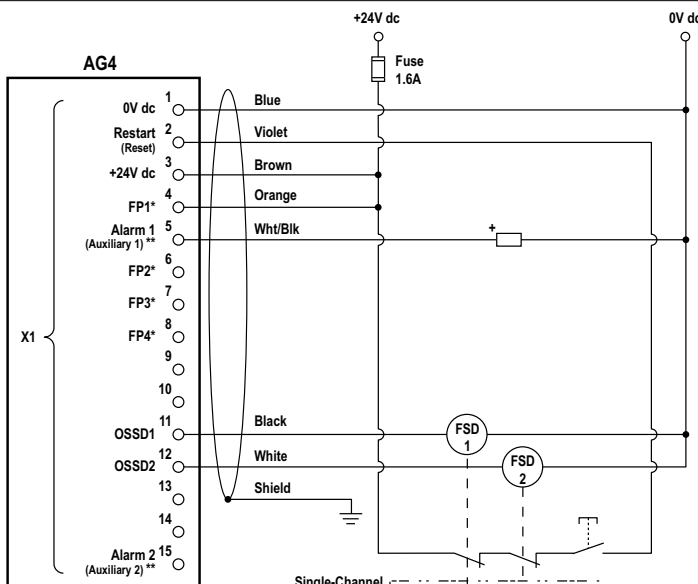
AG4 to FSD1 & FSD2



Page 398

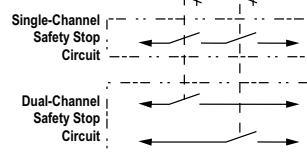
Models

- AG4



* Figure shows Field Pair #1 selected. See manual for further information on Field Pair Switchover

** See manual for further information on the non-safety Alarm/Auxiliary outputs.



NOTE: Do not exceed OSSD maximum load capacitance specification.

Warning: Monitoring FSDs FSD's must be monitored for proper operation. 1-channel EDM can only be used when the scanner is configured for manual reset. See manual for more information.

! Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD021



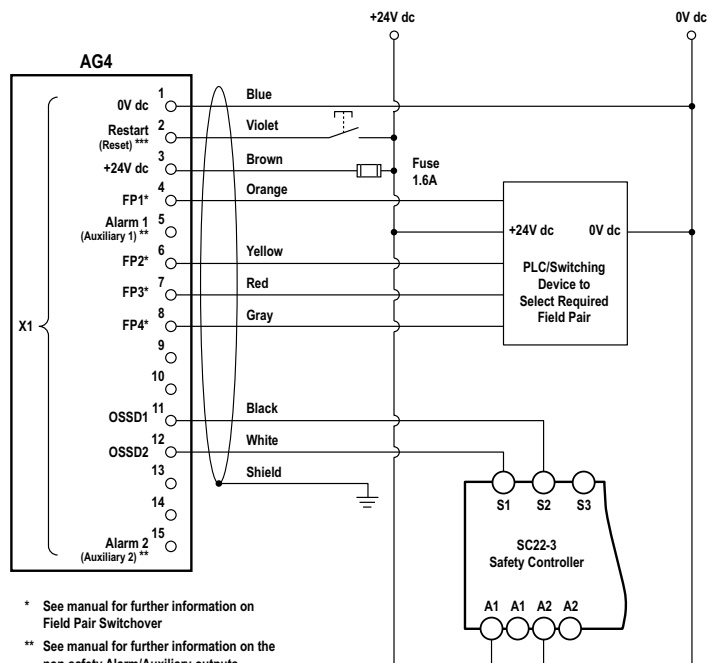
Page 398

Models

• AG4

AG4 Laser Scanner

AG4 to SC22-3



- * See manual for further information on Field Pair Switchover
- ** See manual for further information on the non-safety Alarm/Auxiliary outputs.
- *** The Manual Reset function can be accomplished by the SC22-3 or other safety rated logic device. In this case the scanner is configured for automatic start/restart (Reset).



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD022



Page 398

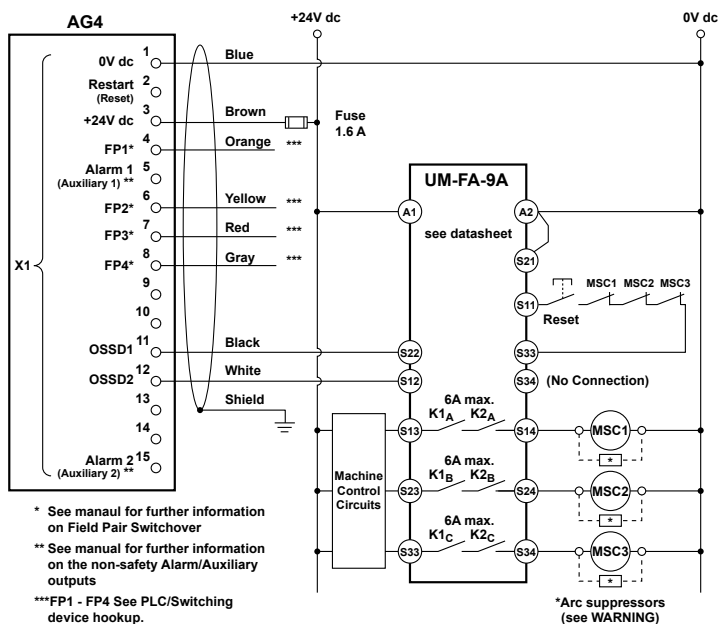
Models

• AG4

UM-FA-..A
Terminal Locations

AG4 Laser Scanner

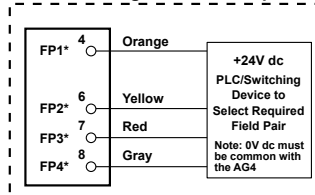
AG4 to UM Modules



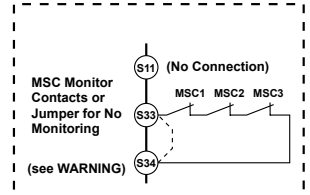
- * See manual for further information on Field Pair Switchover
- ** See manual for further information on the non-safety Alarm/Auxiliary outputs
- ***FP1 - FP4 See PLC/Switching device hookup.

*Arc suppressors (see WARNING)

PLC/Switching Device Hookup



UM Module Auto Reset



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD023



Page 515

Models

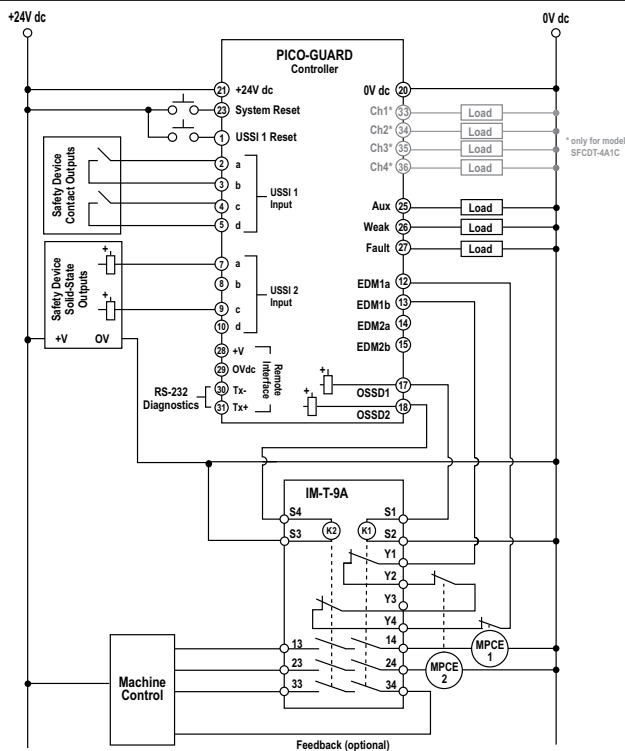
- SFCDT-4A1
- SFCDT-4A1C

IM-T-9A
Terminal Locations



PICO-GUARD™ Controller

One PICO-GUARD System with 1-Channel EDM of IM-T-9A Interface Module



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD024



Page 515

Models

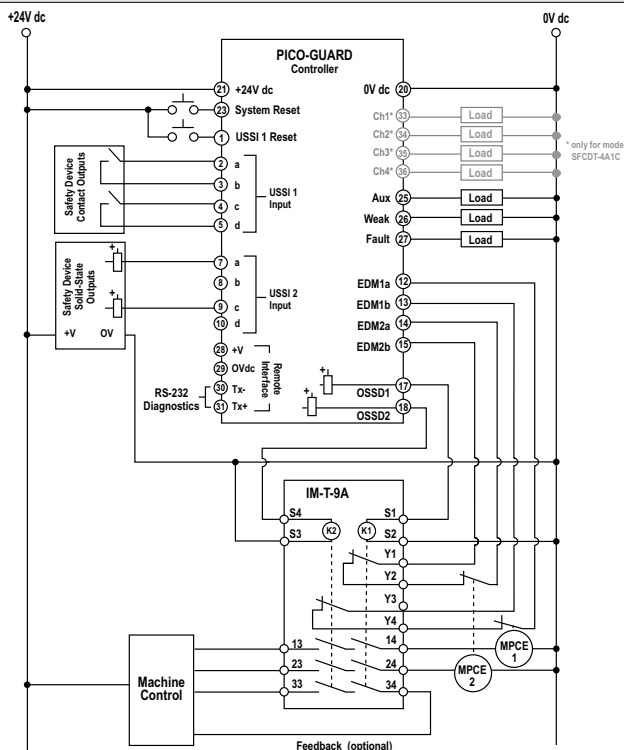
- SFCDT-4A1
- SFCDT-4A1C

IM-T-9A
Terminal Locations



PICO-GUARD™ Controller

One PICO-GUARD System with 2-Channel EDM of IM-T-9A Interface Module



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD025

PICO-GUARD™ Controller

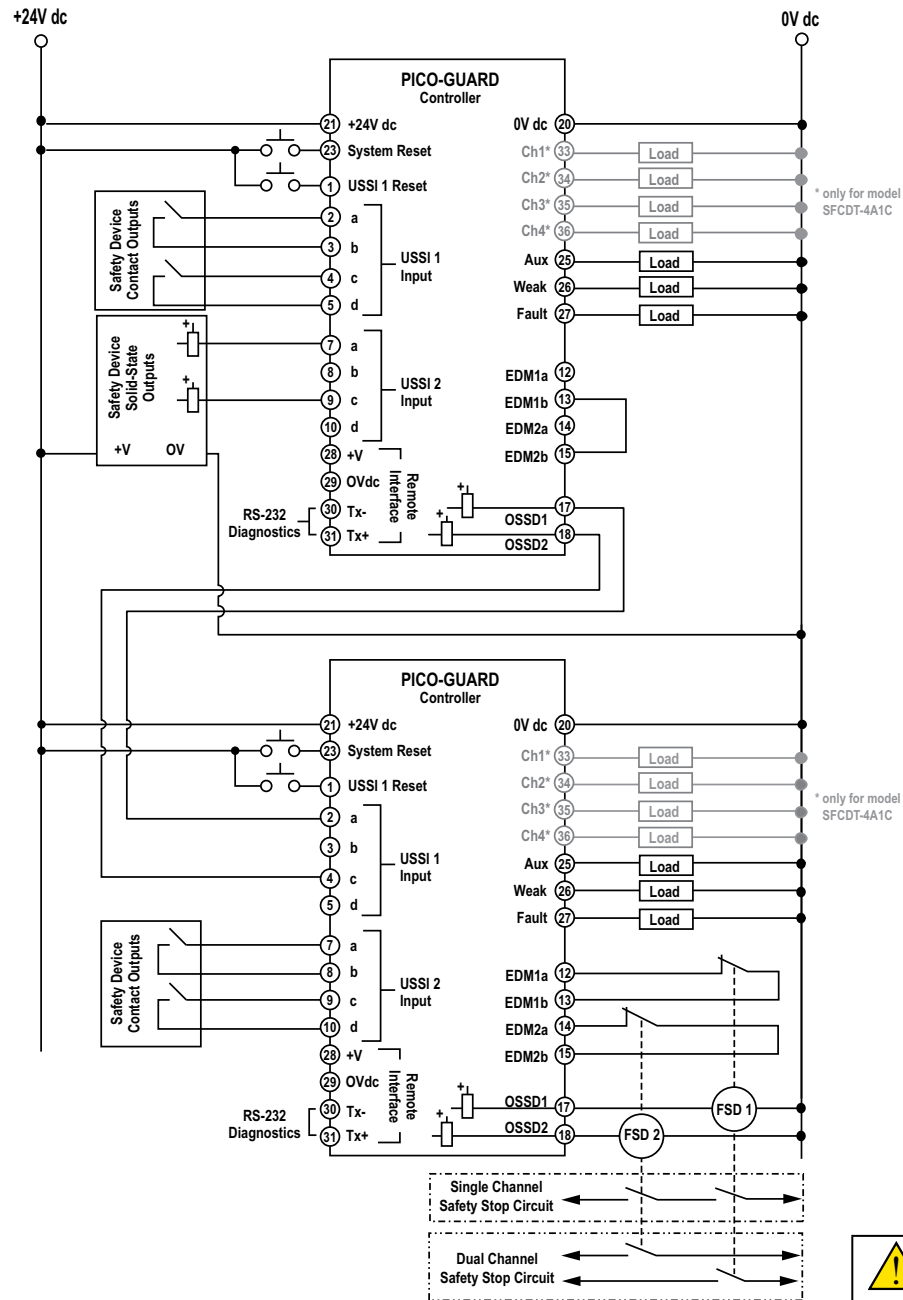
Two PICO-GUARD Systems with 2-Channel EDM



Page 515

Models

- SFCDT-4A1
- SFCDT-4A1C



! Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

Accessories
Reference
Hookups
Wiring Diagrams
Glossary
International Reps

WD026

PICO-GUARD™ Controller

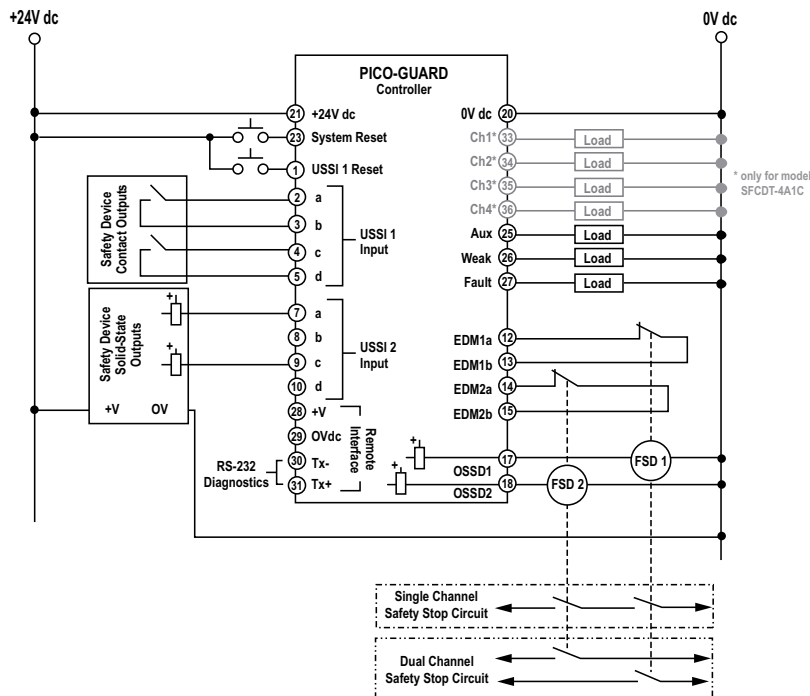
One PICO-GUARD System with 2-Channel EDM and 2 Generic FSDs



Page 515

Models

- SFCDT-4A1
- SFCDT-4A1C



Warning: Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD027

PICO-GUARD™ EXI/ATEX Controller

Hazardous Environment Application to Optical Elements

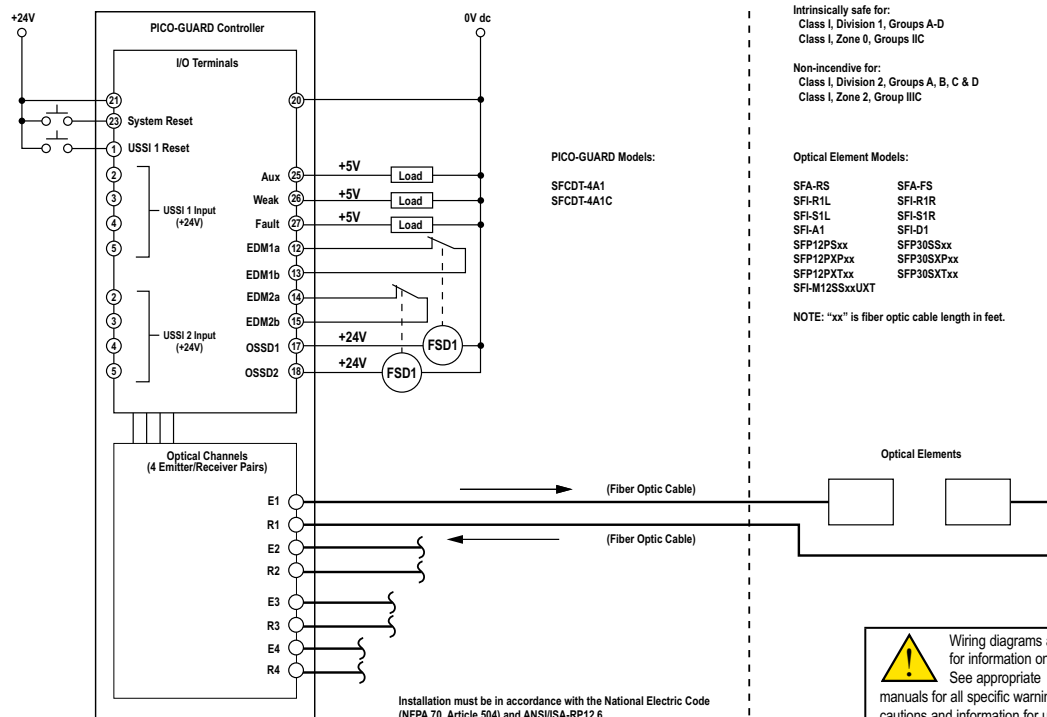


Page 515

Models

- SFCDT-4A1
- SFCDT-4A1C

Unclassified or Class I, Division 2, Groups A, B, C and D Hazardous (Classified) Locations Class I, Zone 2, Group IIC. For information on compliance and classification according to Directive 94/9/EC (ATEX).



Intrinsically safe for:
Class I, Division 1, Groups A-D
Class I, Zone 0, Groups IIC

Non-incendive for:
Class I, Division 2, Groups A, B, C & D
Class I, Zone 2, Group IIC

Optical Element Models:

- | | |
|---------------|------------|
| SFA-RS | SFA-FS |
| SFI-R1L | SFI-R1R |
| SFI-S1L | SFI-S1R |
| SFI-A1 | SFI-D1 |
| SFP12PSxx | SFP30SSxx |
| SFP12PXPxx | SFP30SXPxx |
| SFP12PXTxx | SFP30SXTxx |
| SFI-M12SxxUXT | |

NOTE: "xx" is fiber optic cable length in feet.

Installation must be in accordance with the National Electric Code (NFPA 70, Article 504) and ANSI/ISA-RP12.6.

Warning: Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD028



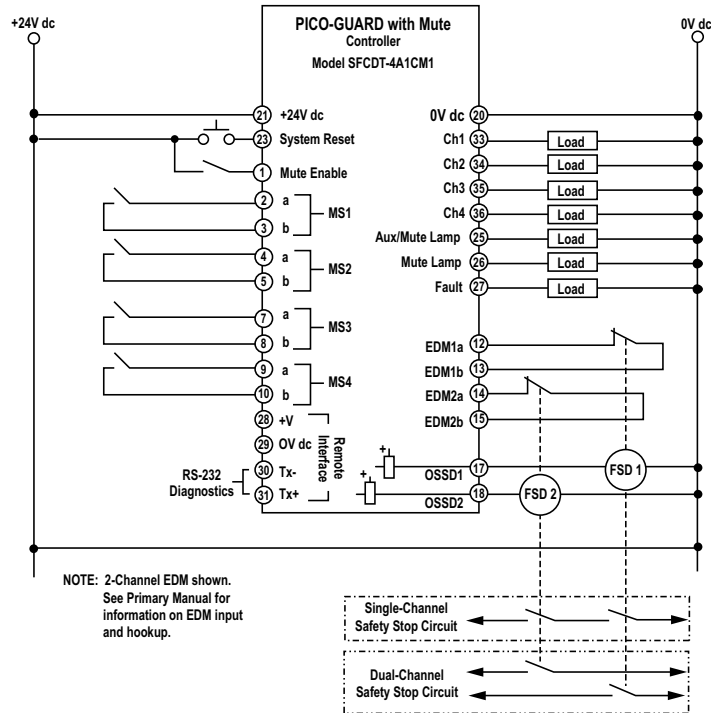
Page 515

Models

- SFCDT-4A1CM1

PICO-GUARD™ Controller with Muting

One PICO-GUARD with Muting and 2-Channel EDM and 2 Generic FSDs



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD029



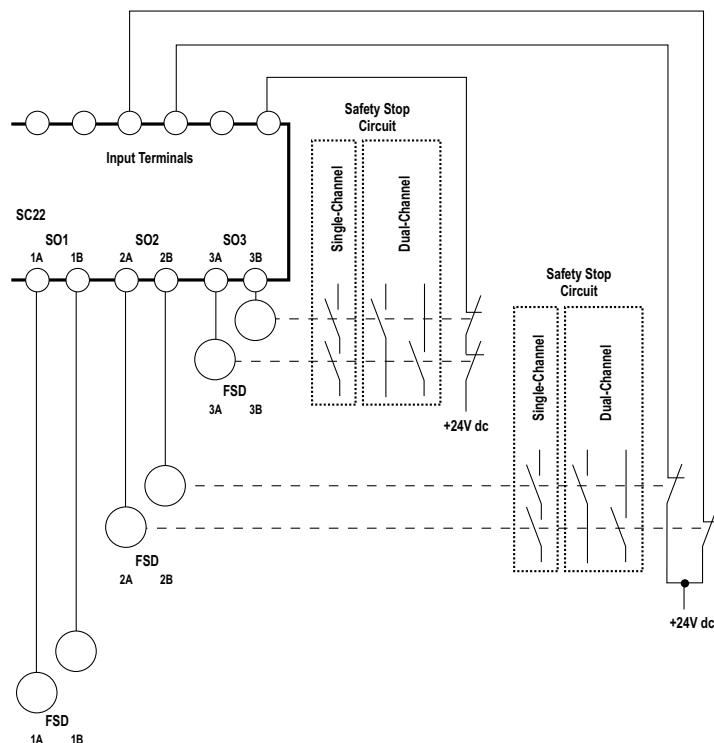
Page 522

Models

- SC22-3
- SC22-3E

SC22-3 Safety Controller

1-Channel, 2-Channel and No EDM



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD031



Page 522

Models

- SC22-3
- SC22-3E

The IM-TA interface module depicted in this figure is shown in one-channel EDM hookup. The IM-T-11A module is connected in the same manner.

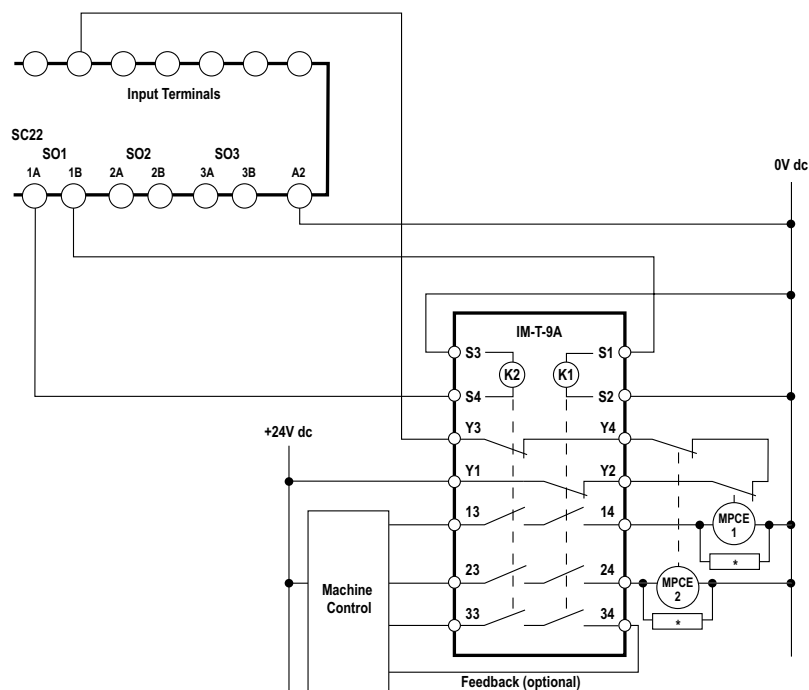
Depending on the application, each safety output requires a separate and individually wired IM-T.A module.

See product manual for information on external device monitoring and interfacing safety stop circuits.

* Arc Suppressors. See manual for specific warnings.

SC22-3 Safety Controller

1-Channel EDM to IM-TA-9A



WD032



Page 522

Models

- SC22-3
- SC22-3E

The IM-TA interface module depicted in this figure is shown in two-channel EDM hookup. The IM-T-11A module is connected in the same manner.

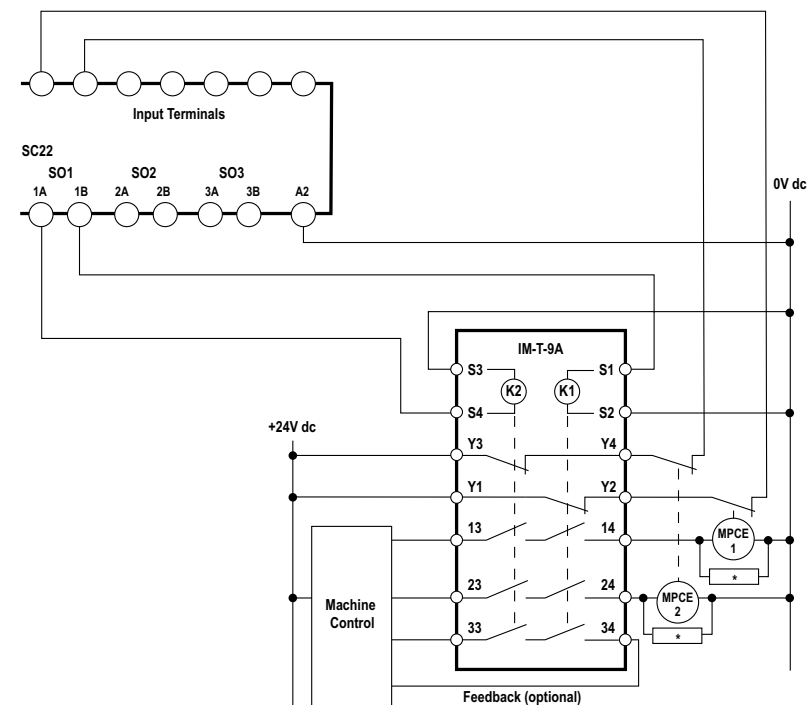
Depending on the application, each safety output requires a separate and individually wired IM-T.A module.

See product manual for information on external device monitoring and interfacing safety stop circuits.

* Arc Suppressors. See manual for specific warnings.

SC22-3 Safety Controller

2-Channel EDM to IM-TA-9A



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD033

GM-FA-10J Guard Monitoring Safety Module

GM-FA-10J 1-Channel Monitoring to Two 4-Wire Coded Magnetic Safety Switches

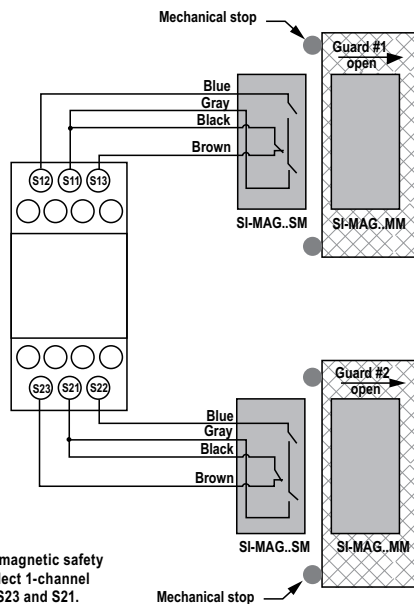


Page 527

Models

- GM-FA-10J

GM-FA-10J
Terminal Locations



NOTE: If only one magnetic safety switch is used, select 1-channel input and jumper S23 and S21.

Configured for one-channel monitoring of either one or two guards. This application is considered to meet or exceed requirements for OSHA control reliability and Safety Category 3 and 4 per ISO 13849-1 (EN 954-1).



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD034

GM-FA-10J Guard Monitoring Safety Module

GM-FA-10J 2-Channel Monitoring to Two Positive-Opening Safety Interlock Switches

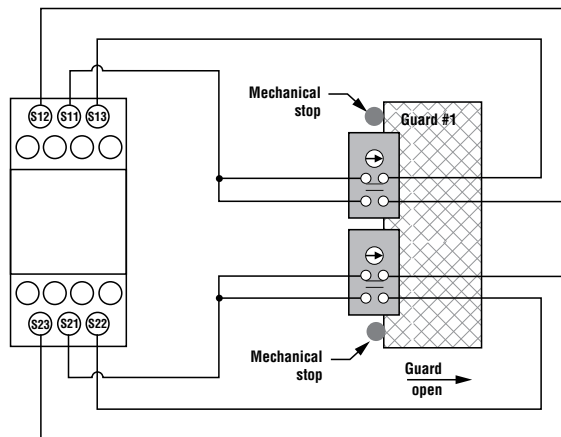


Page 527

Models

- GM-FA-10J

GM-FA-10J
Terminal Locations



NOTE: Guard shown in closed position.

Configured for two-channel monitoring of one guard. This application is considered to meet or exceed requirements for OSHA control reliability and Safety Category 3 and 4 per ISO 13849-1 (EN 954-1).



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD035

GM-FA-10J Guard Monitoring Safety Module

GM-FA-10J Alternate Wiring for 1-Channel Monitoring of Multiple Guards

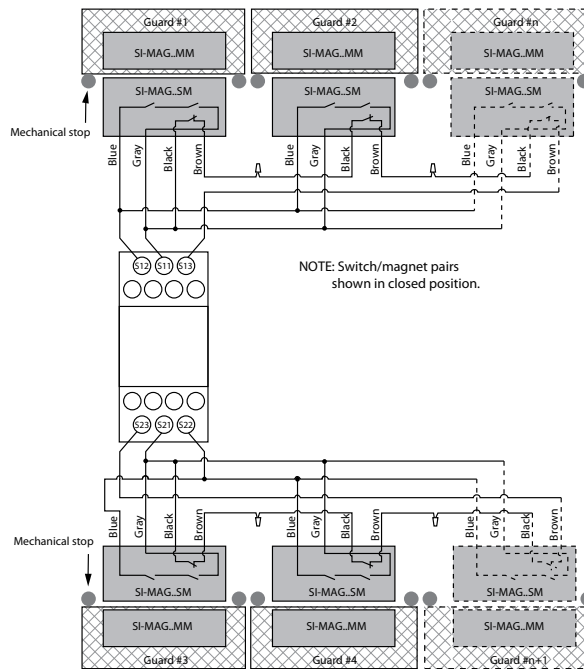


Page 527

Models

- GM-FA-10J

GM-FA-10J
Terminal Locations



Configured for one-channel monitoring of multiple guards with single switches at each guard. Up to 10 Banner magnetic switches may be connected to each channel in this series/parallel method. If other than Banner magnetic switches are used, a total resistance of 270 ohms between S11/S13, S11/S12, S21/S22 and S21/S23 must not be exceeded. **NOTE: Not a Category 4 application per ISO 13849-1 (EN 954-1).**

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD036

GM-FA-10J Guard Monitoring Safety Module

GM-FA-10J Alternate Wiring for 2-Channel Monitoring of Multiple Guards

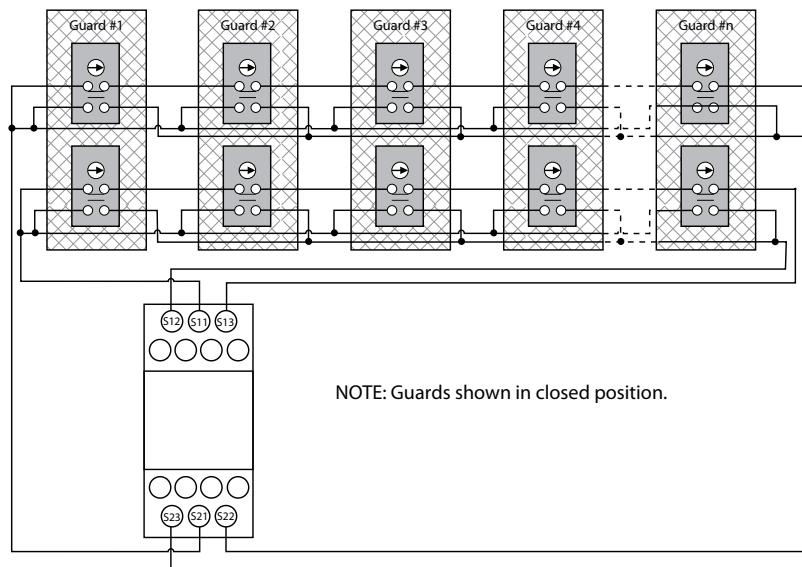


Page 527

Models

- GM-FA-10J

GM-FA-10J
Terminal Locations



Configured for two-channel monitoring of multiple guards with two safety switches mounted individually on each guard. The number of mechanical switches is limited by the max. resistance of 270 ohm between S11-S13, S11-S12, S21-S22 and S21-S23. The total resistance is calculated by adding the resistance of all guard switch contacts and the resistance of the cables that connect the switches and the switches to the module. **NOTE: Not a Category 4 application per ISO 13849-1 (EN 954-1).**

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD037

GM-FA-10J Guard Monitoring Safety Module

GM-FA-10J to Guarded Machine

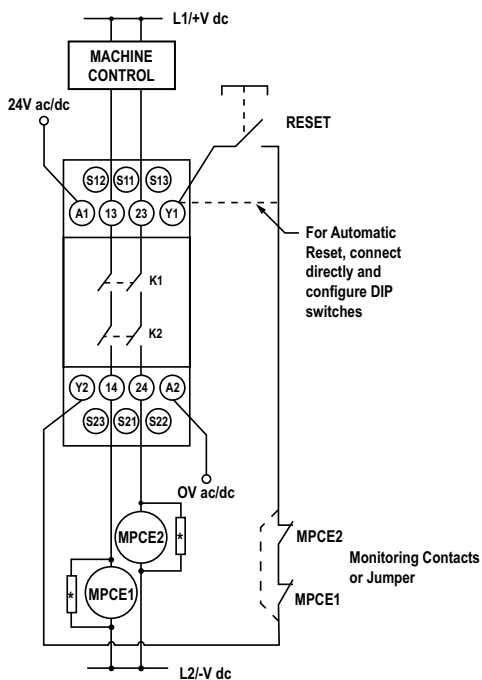


Page 527

Models

- GM-FA-10J

GM-FA-10J
Terminal Locations



* Arc Suppressors. See manual for specific warnings.



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

ES-FA-..AA 1-Channel

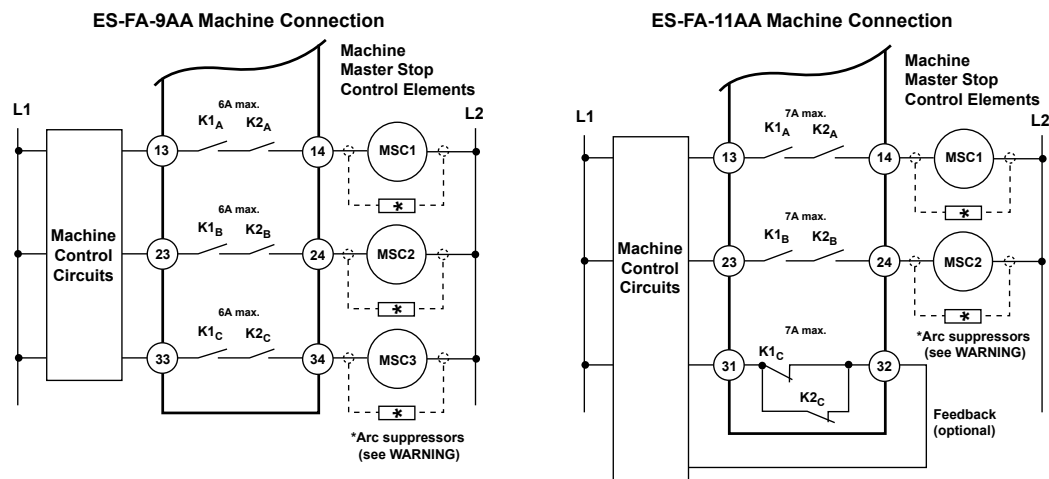
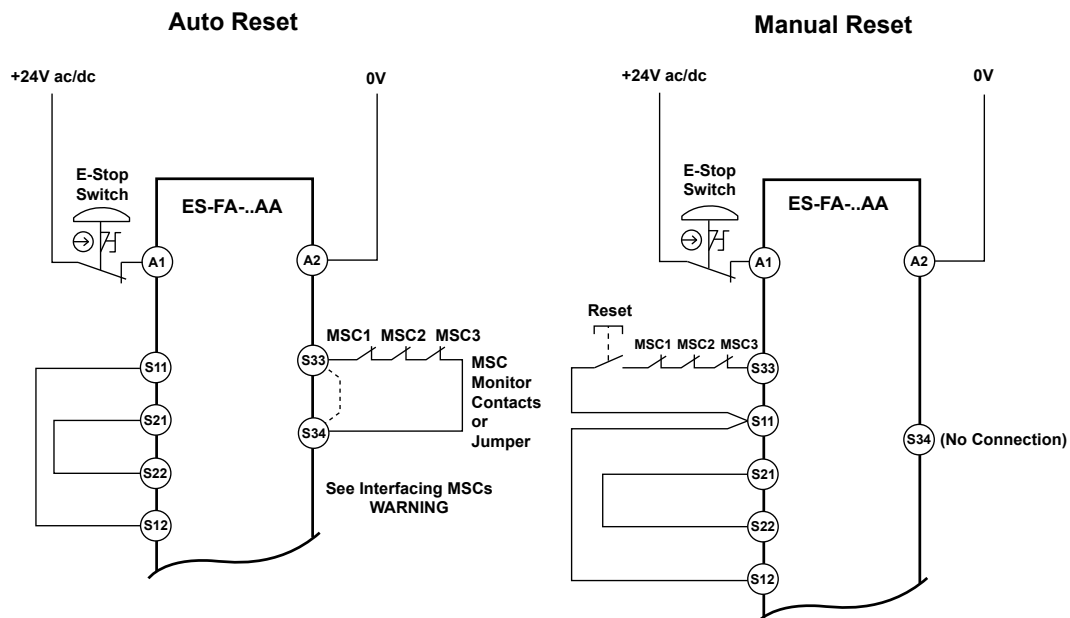
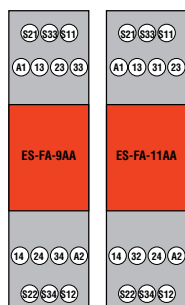


Page 527

Models

- ES-FA-9AA
- ES-FA-11A

ES-FA-..AA
Terminal Locations



* Arc Suppressors. See manual for specific warnings.

 Wiring diagrams are for information only. See appropriate manuals for all specific warnings,

More
on next
page

ES-A-5A 1-Channel

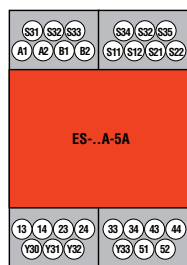


Page 527

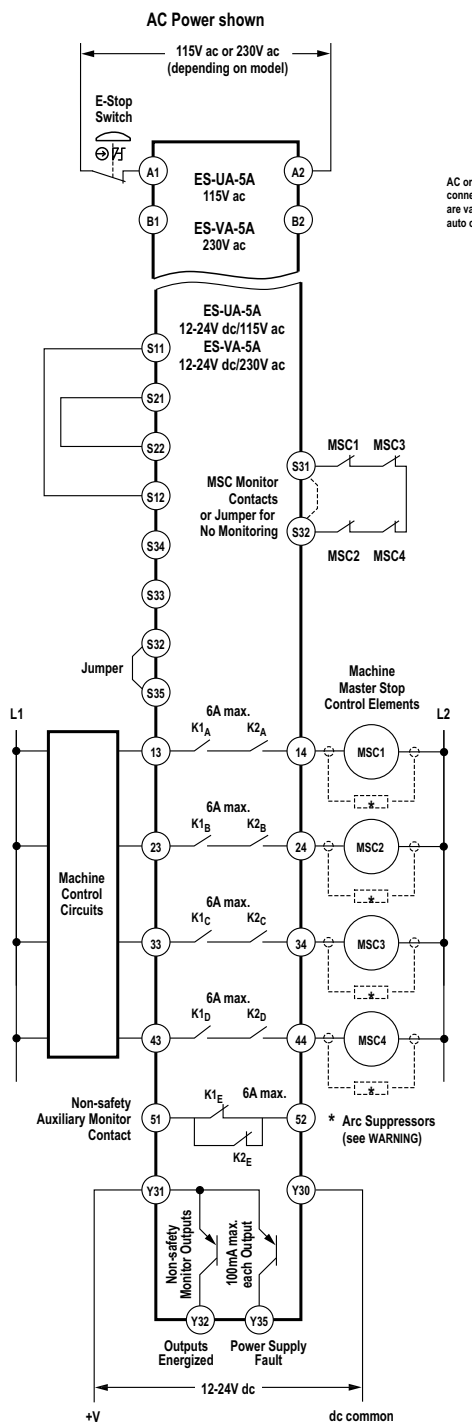
Models

- ES-UA-5A
- ES-VA-5A

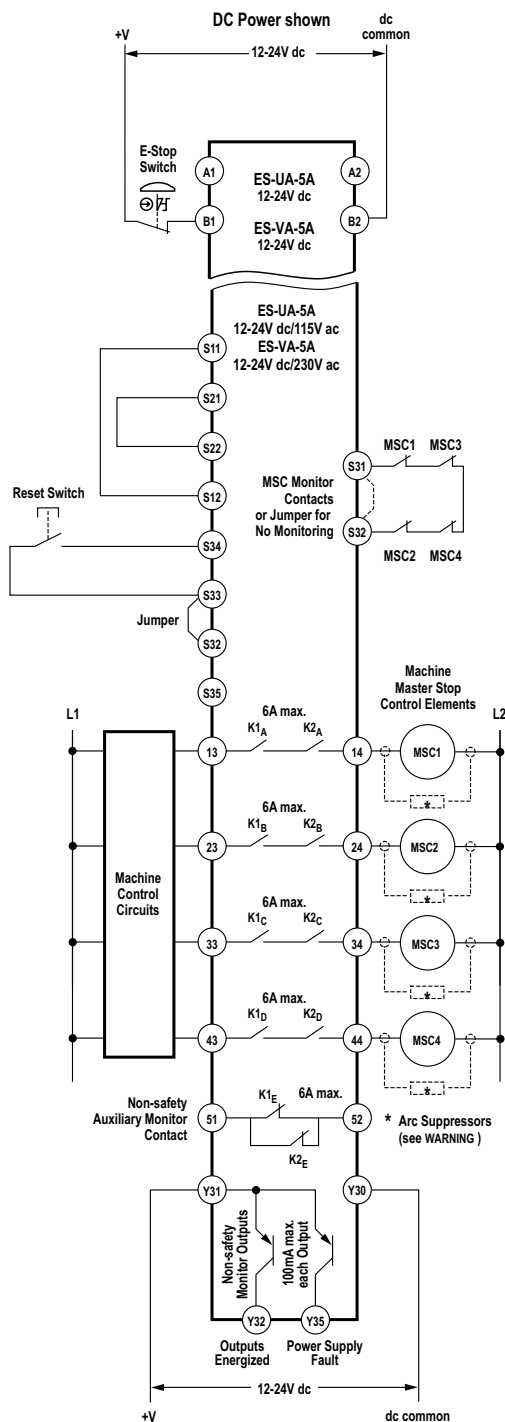
ES..A-5A
Terminal Locations



Auto Reset



Manual Reset



* Arc Suppressors. See manual for specific warnings.

 Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More
on next
page

WD041

ES...A-.5 E-Stop Safety Module

ES...A-5A 2-Channel



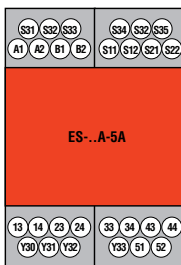
Page 527

Models

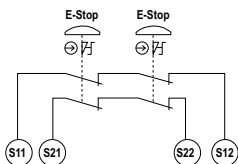
- ES-UA-5A
- ES-VA-5A

ES...A-5A

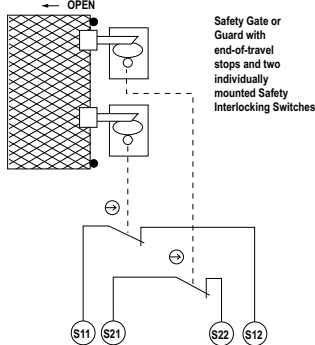
Terminal Locations



Series Connection of Multiple E-Stop Switches



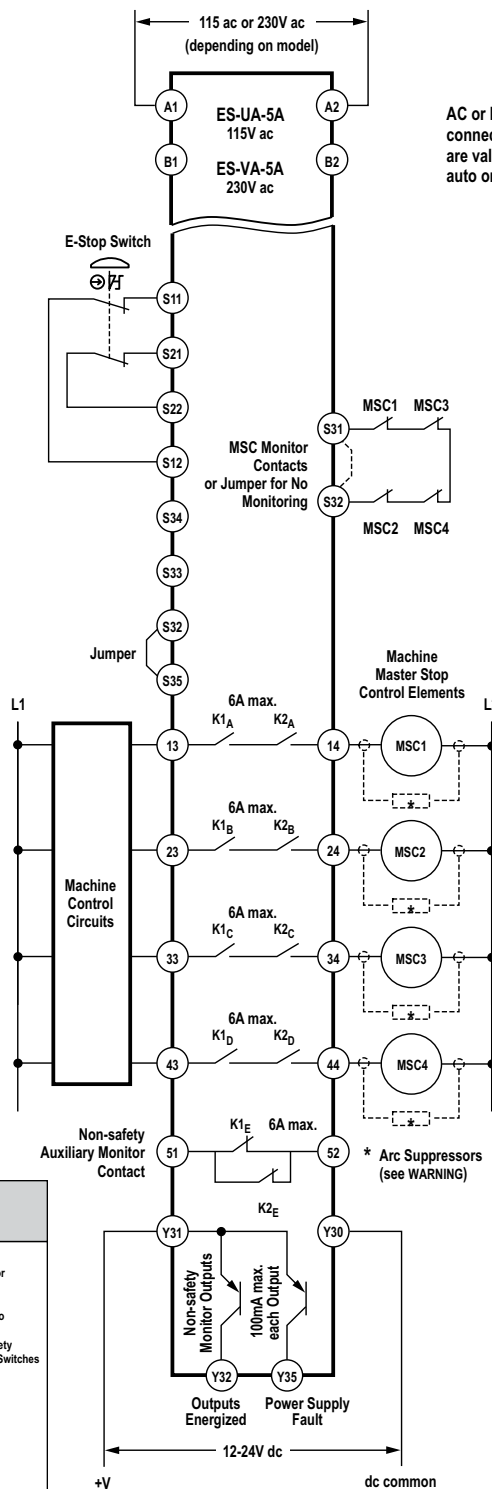
Hookup Using Contacts from Two Safety Switches



* Arc Suppressors. See manual for specific warnings.

Auto Reset

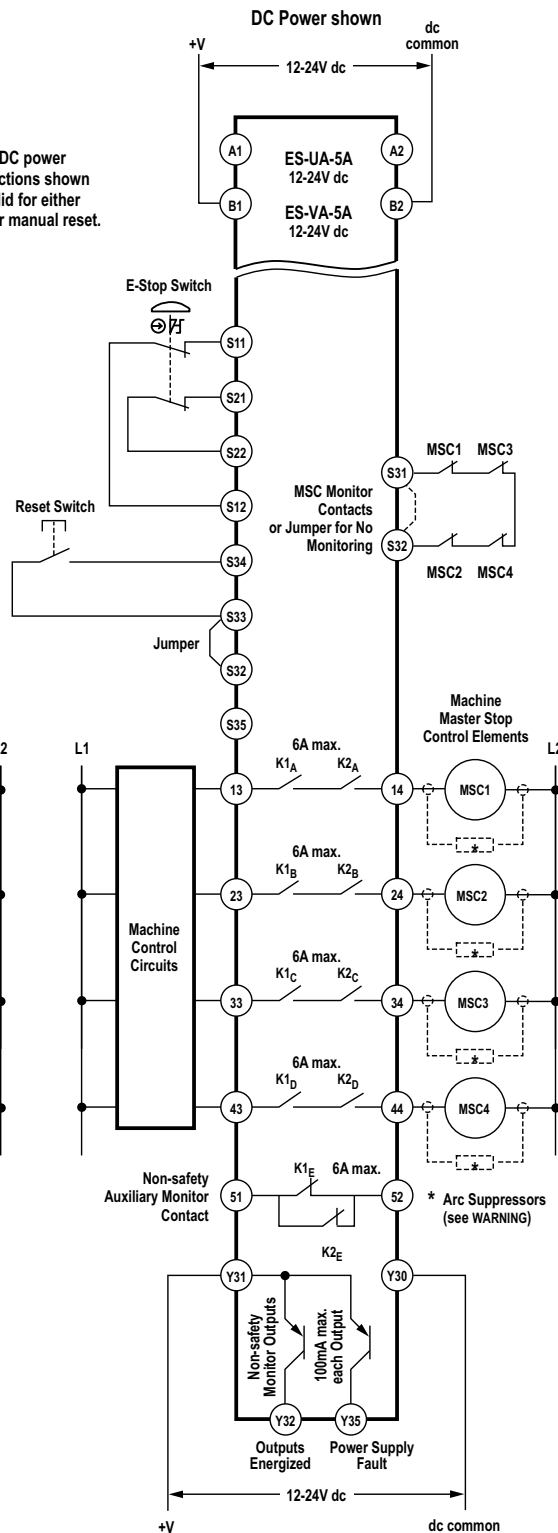
AC Power shown



AC or DC power connections shown are valid for either auto or manual reset.

Manual Reset

DC Power shown



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD042

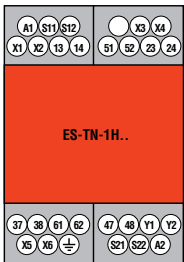


Page 527

Models

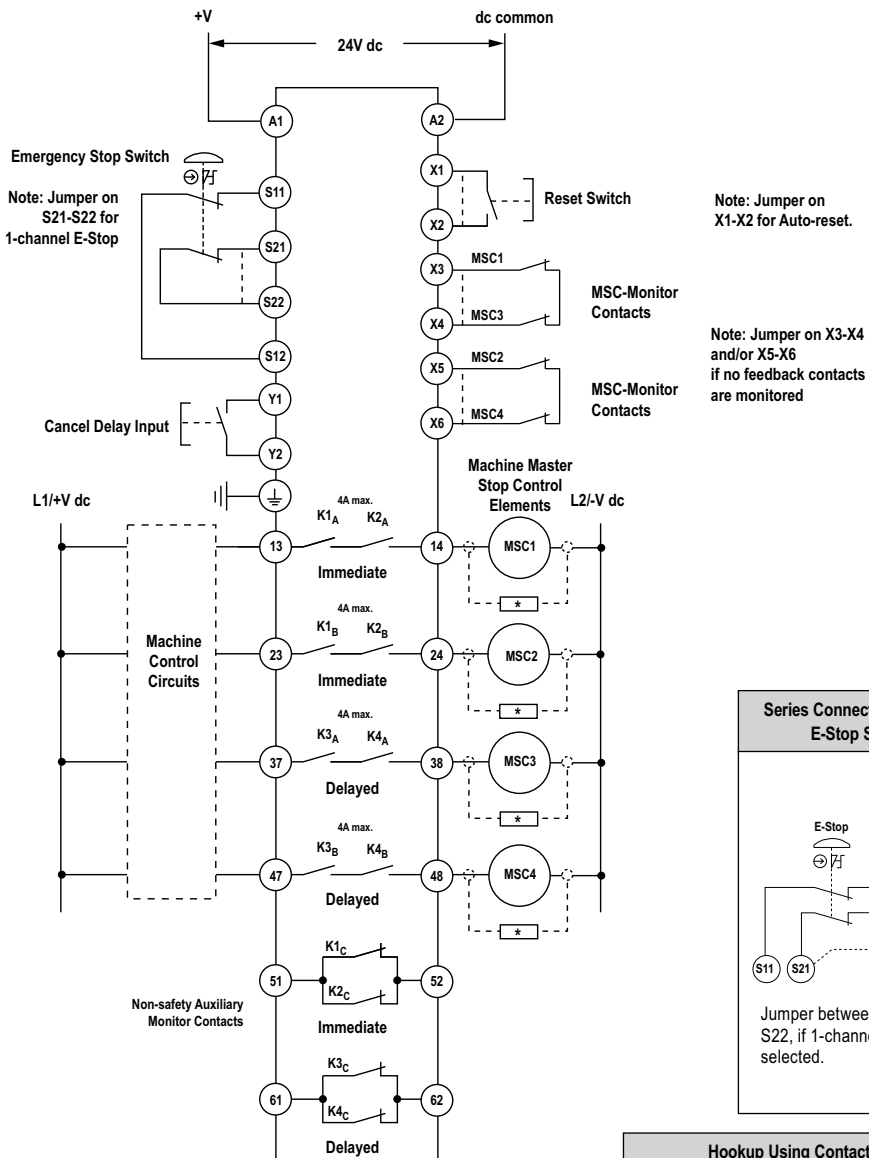
- ES-TN-1H1
- ES-TN-1H2
- ES-TN-1H3
- ES-TN-1H4
- ES-TN-1H5
- ES-TN-1H6
- ES-TN-1H7
- ES-TN-1H8
- ES-TN-1H9
- ES-TN-1H10
- ES-TN-1H11
- ES-TN-1H12

TN-1H.. Terminal Locations

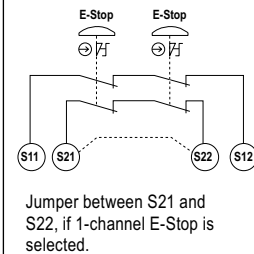


ES-TN-1H.. E-Stop Safety Module

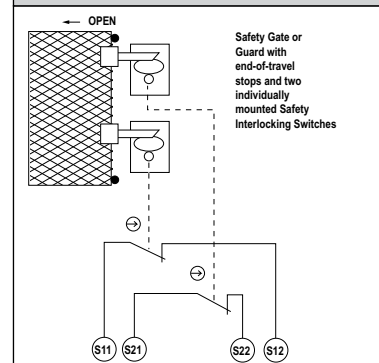
ES-TN-1H.. 2-Channel



Series Connection of Multiple E-Stop Switches



Hookup Using Contacts from Two Safety Switches



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

* Arc Suppressors. See manual for specific warnings.

WD043

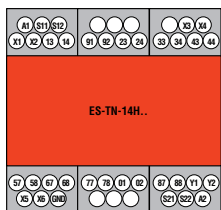


Page 527

Models

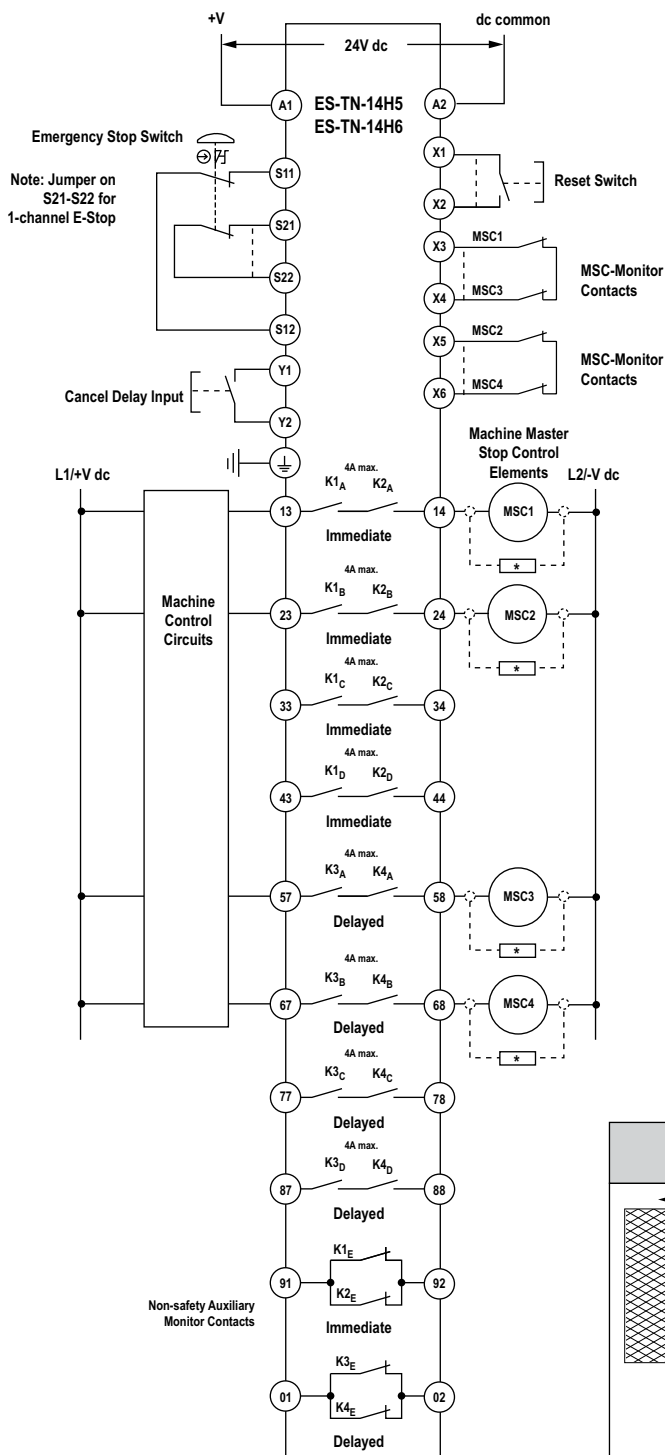
- ES-TN-14H5
- ES-TN-14H6

ES-TN-14H.. Terminal Locations

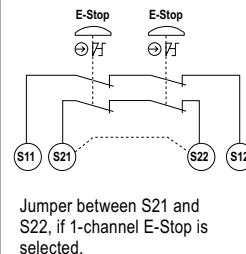


ES-TN-14..E E-Stop Safety Module

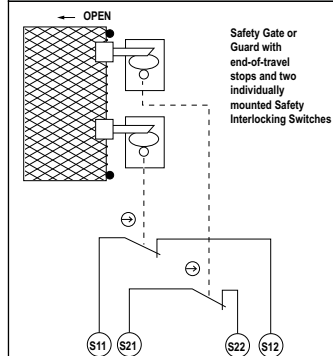
ES-TN-14H.. 2-Channel



Series Connection of Multiple E-Stop Switches



Hookup Using Contacts from Two Safety Switches



* Arc Suppressors. See manual for specific warnings.



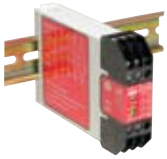
Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD044

ES-FA-6G E-Stop Safety Module

ES-FA-6G 1-Channel

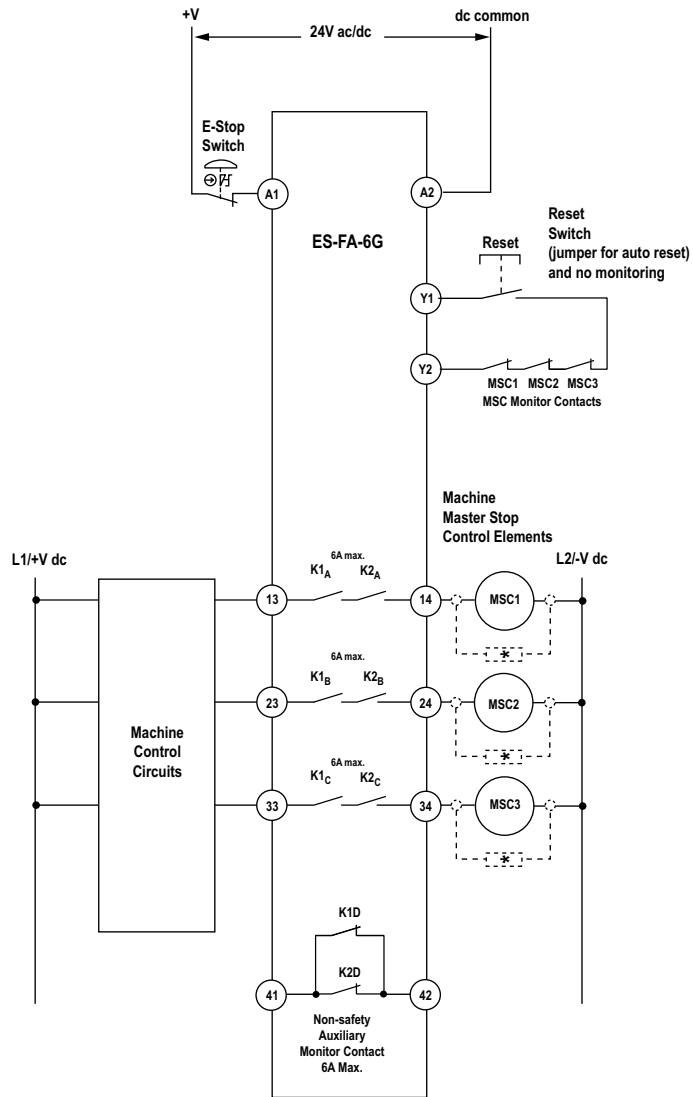


Page 527

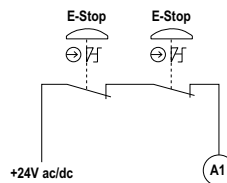
Models

- ES-FA-6G

ES-FA-6G Terminal Locations



Series Connection of Multiple E-Stop Switches



 Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

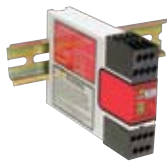
More on next page

* Arc Suppressors. See manual for specific warnings.

WD045

UM-A... Universal Safety Module

UM-FA...A Hard Contact, 2-Channel



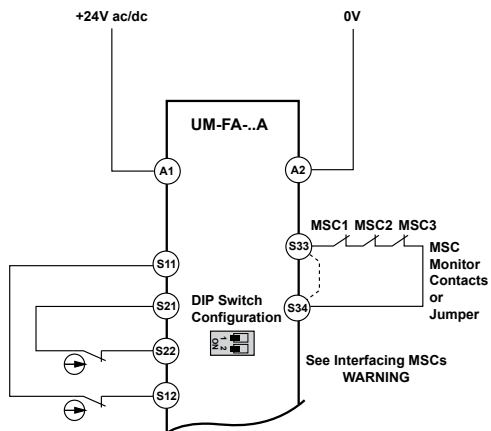
Page 535

Models

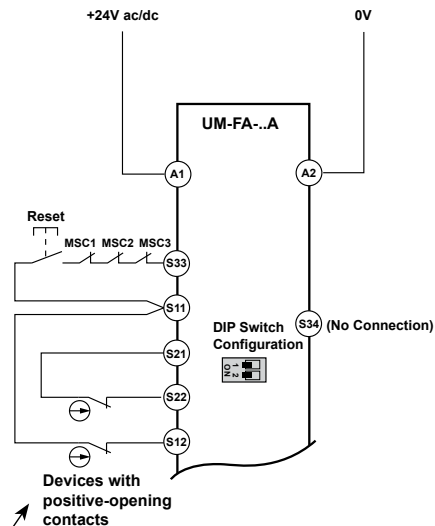
- UM-FA-9A
- UM-FA-11A

UM-FA...A
Terminal Locations

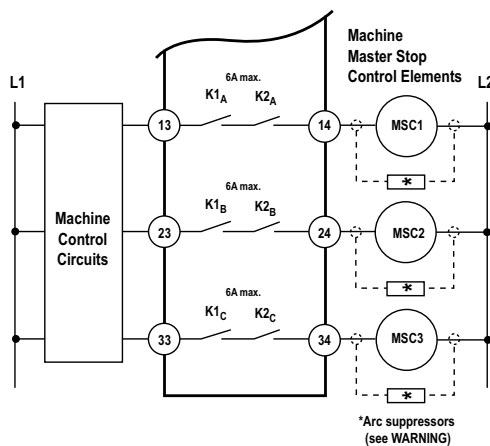
Auto Reset

Devices with
positive-opening
contacts

Manual Reset

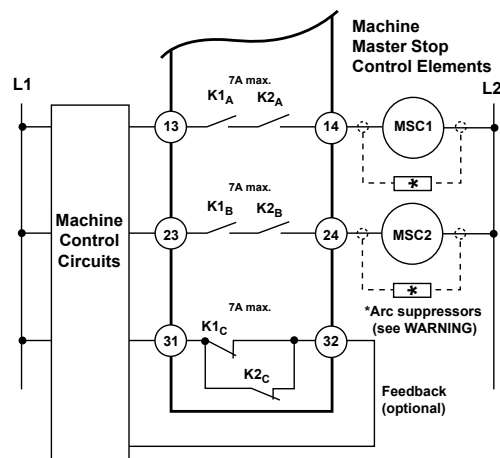
Devices with
positive-opening
contactsDevices with
relay output
contacts

UM-FA-9A Machine Connection



* Arc Suppressors. See manual for specific warnings.

UM-FA-11A Machine Connection



Wiring diagrams are
for information only.
See appropriate
manuals for all specific warnings,
cautions and information for use.

More
on next
page

WD046

UM-FA-..A Universal Safety Module

UM-FA-..A Hard Contact, 1-Channel



Page 535

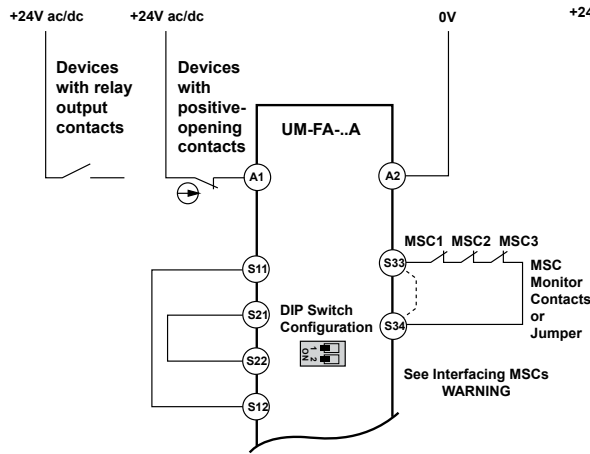
Models

- UM-FA-9A
- UM-FA-11A

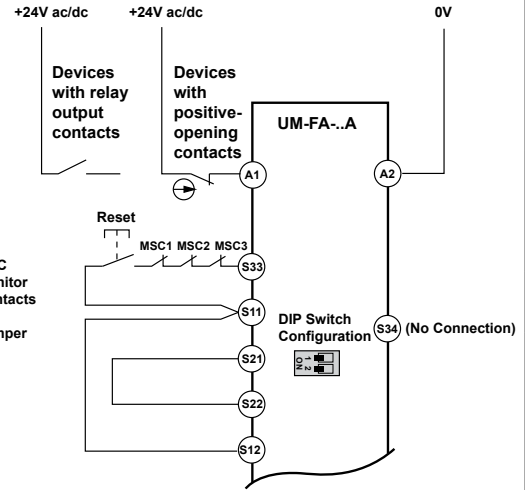
UM-FA-..A Terminal Locations



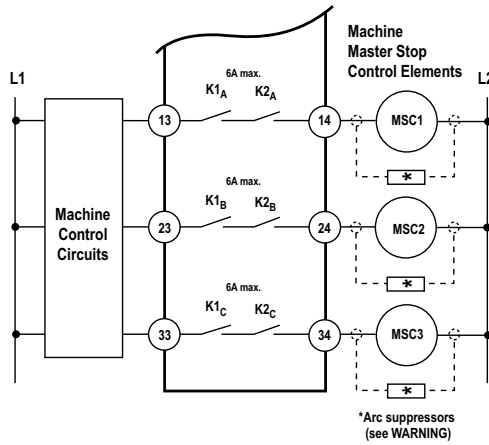
Auto Reset



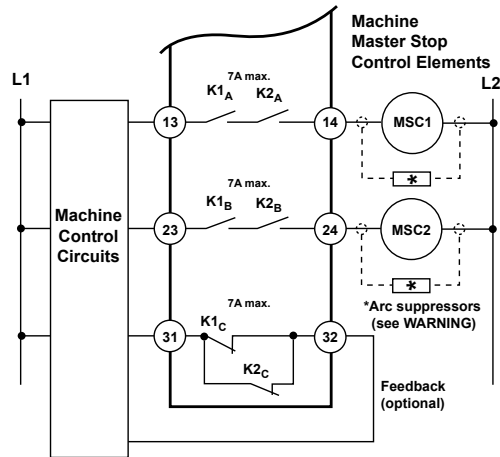
Manual Reset



UM-FA-9A Machine Connection



UM-FA-11A Machine Connection



* Arc Suppressors. See manual for specific warnings.

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

Accessories
Reference
Hookups
Wiring Diagrams
Glossary
International Reps

WD048

UM-FA-..A Universal Safety Module

UM-FA-..A Solid-State, 1-Channel



Page 535

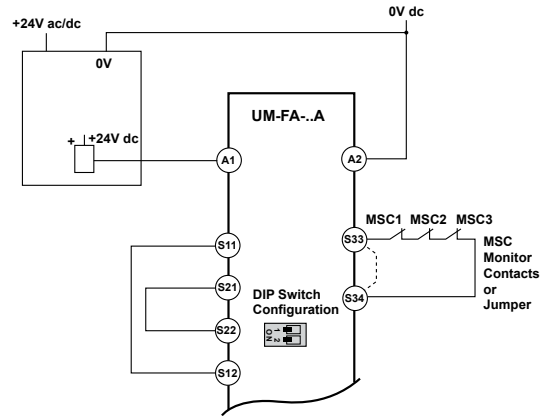
Models

- UM-FA-9A
- UM-FA-11A

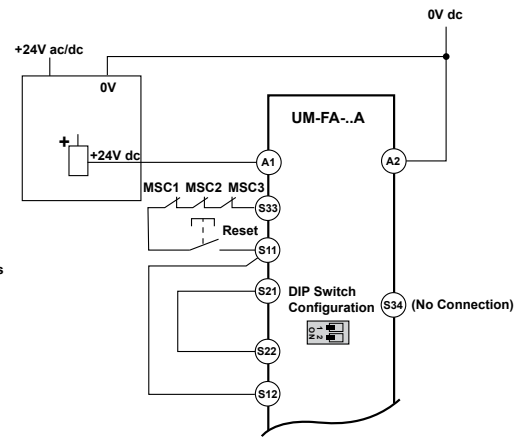
UM-FA-..A Terminal Locations



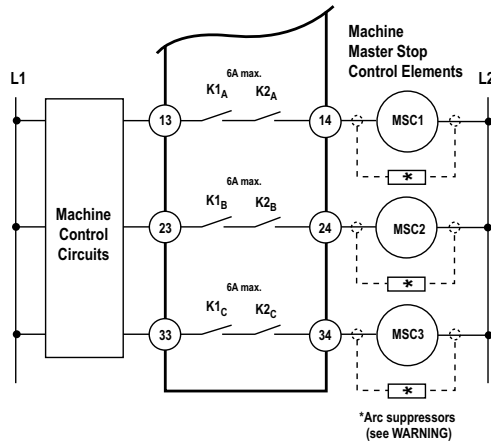
Auto Reset



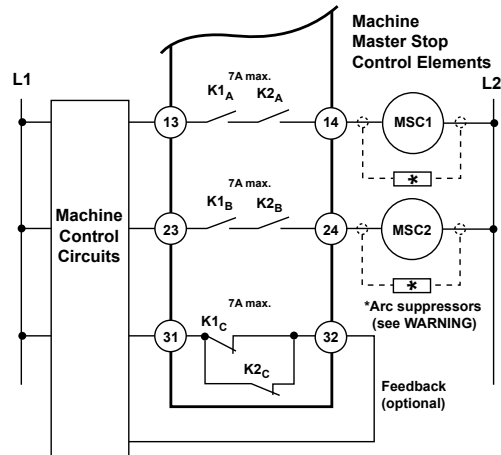
Manual Reset



UM-FA-9A Machine Connection



UM-FA-11A Machine Connection



* Arc Suppressors. See manual for specific warnings.

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

Accessories
Reference
Hookups
Wiring Diagrams
Glossary
International Reps

WD049

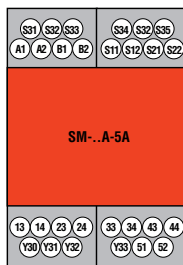


Page 537

Models

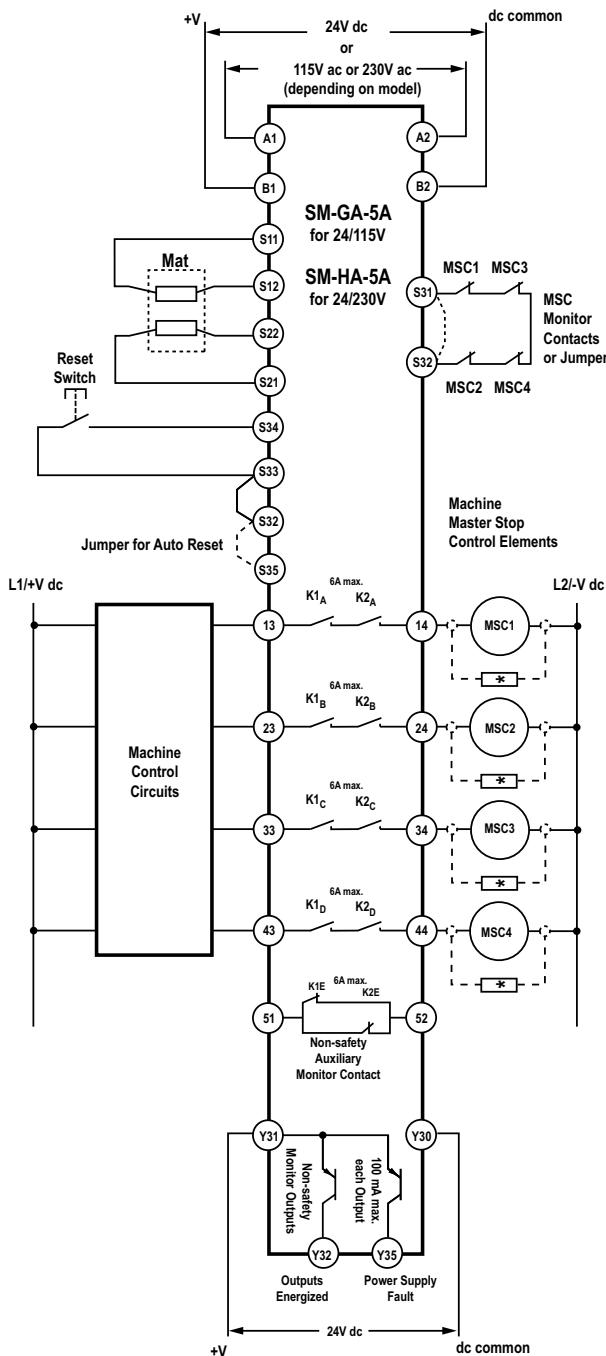
- SM-GA-5A
- SM-HA-5A

SM-A-5A Terminal Locations

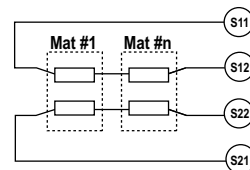


SM-A-5A Safety Mat Monitoring Module

SM-A-5A to 4-Wire Safety Mat



Series Connection of Multiple E-Stop Switches



NOTE: The number of mats is limited by the total series resistance per input channel.



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

* Arc Suppressors. See manual for specific warnings.

WD050

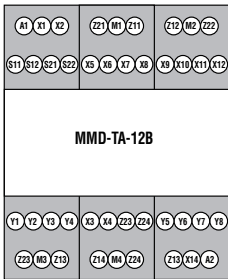


Page 540

Models

- MMD-TA-12B

MMD-TA-12B
Terminal Locations

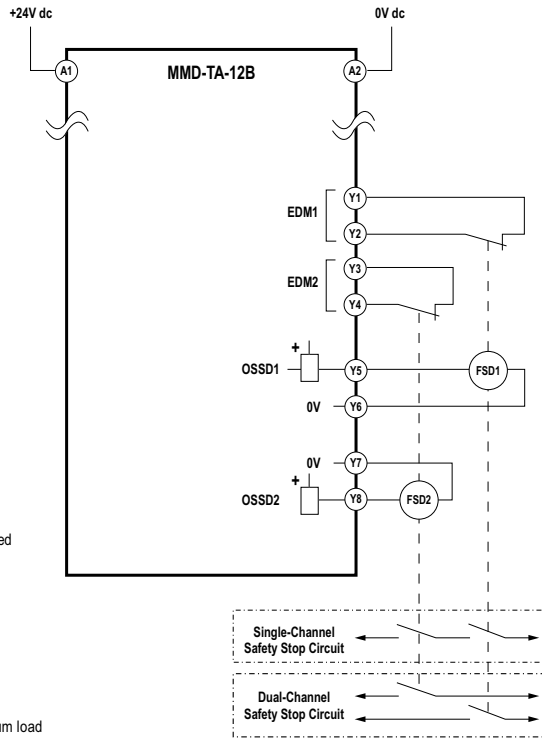


Installation of transient (arc) suppressors across the coils of FSD1 and FSD2 is recommended (see Warning).

NOTE: Do not exceed OSSD maximum load capacitance specifications.

MMD-TA-12B DIN-Rail Muting Module

Solid-State Output, 2 FSDs and 2-Channel EDM



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD051

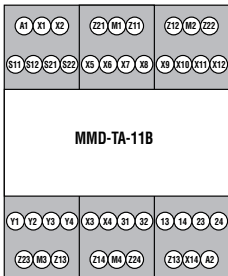


Page 540

Models

- MMD-TA-11B

MMD-TA-11B
Terminal Locations

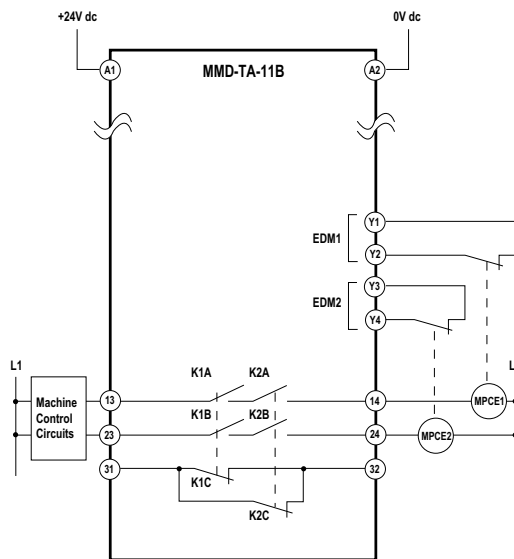


Installation of transient (arc) suppressors across the coils of MPCE1 and MPCE2 is recommended (See Warning).

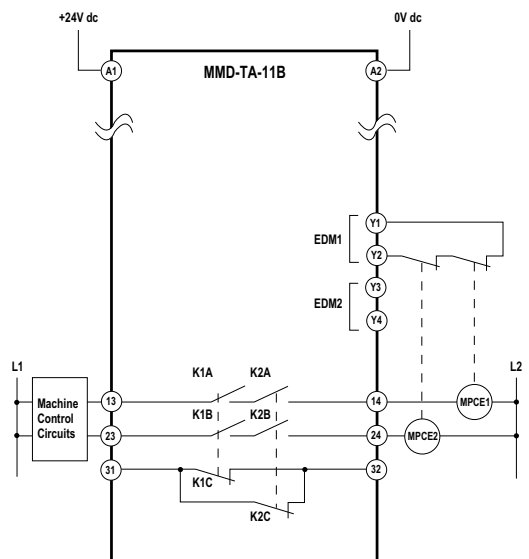
MMD-TA-11B DIN-Rail Muting Module

Relay Outputs

2-Channel EDM



1-Channel EDM



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD052

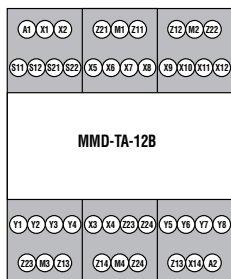


Page 540

Models

- MMD-TA-12B

MMD-TA-12B
Terminal Locations



WD053

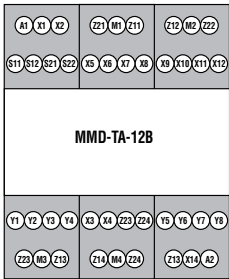


Page 540

Models

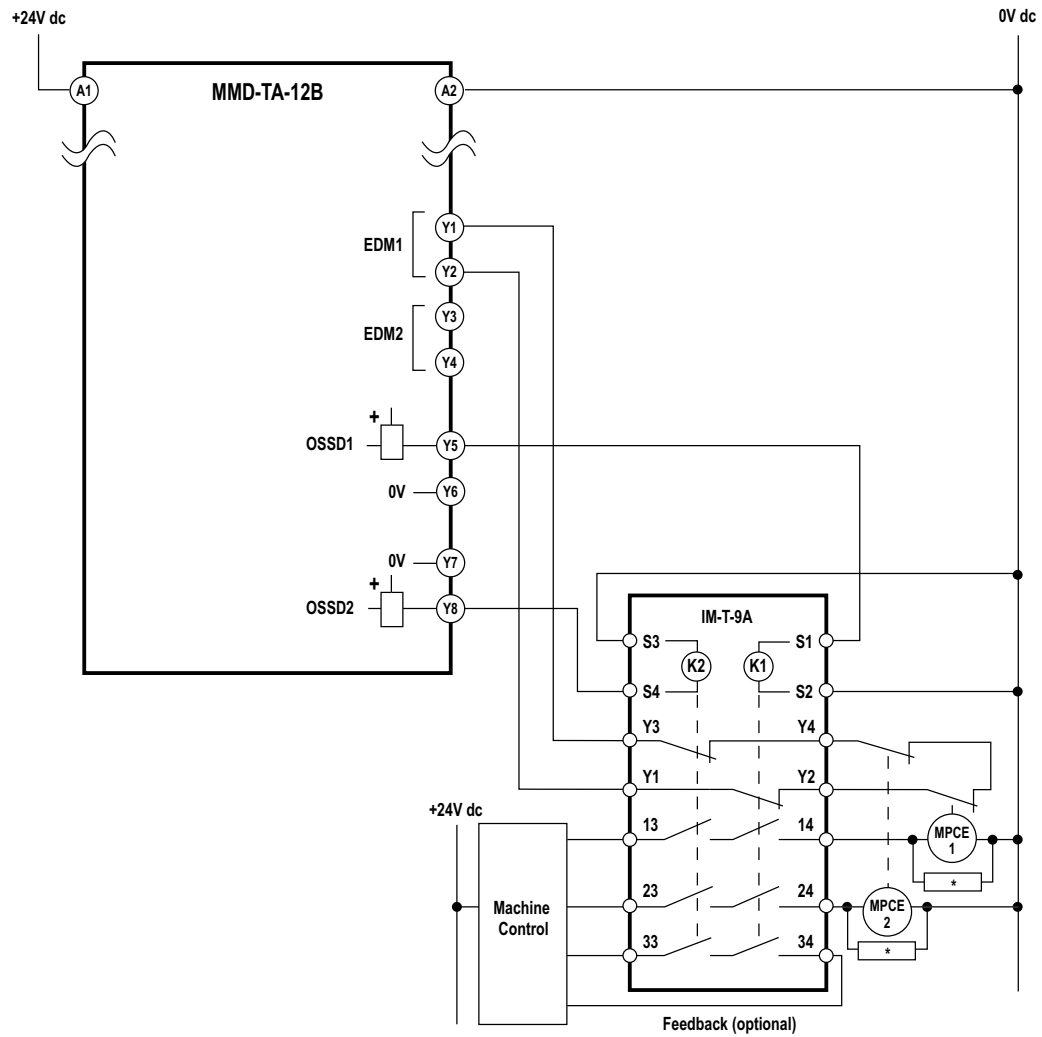
- MMD-TA-12B

MMD-TA-12B Terminal Locations



MMD-TA-12B DIN-Rail Muting Module

1-Channel EDM with Interface Model



* Arc Suppressors. See manual for specific warnings.

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD054

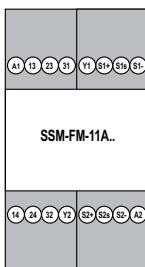


Page 544

Models

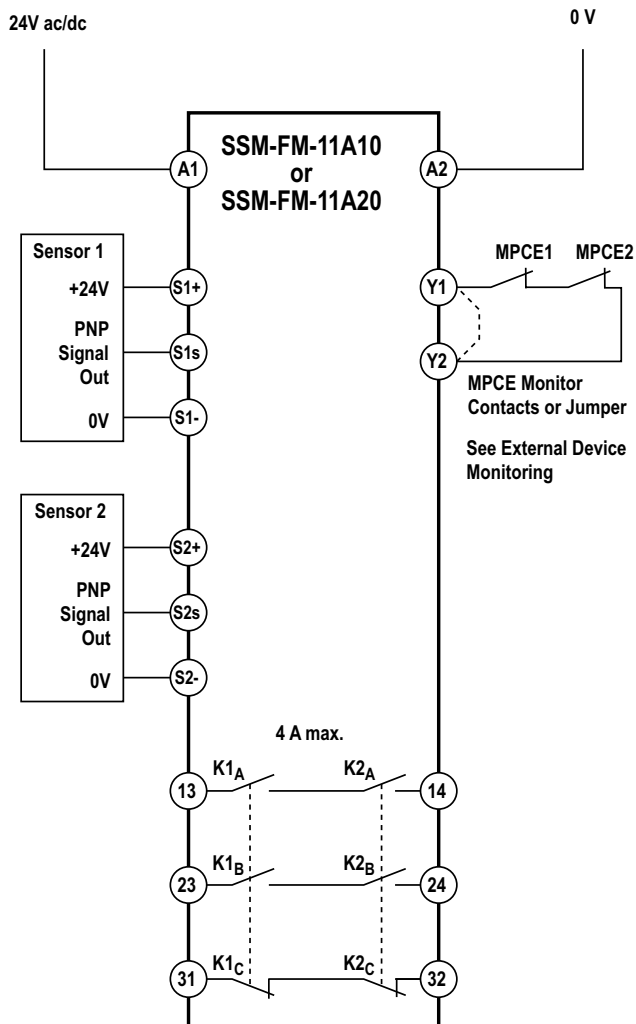
- SSM-FA-11A10
- SSM-FA-11A20

SSM-FA-11A..
Terminal Locations



SSM Safe Speed Monitor Module

SSM-FM-11.. to Two PNP Sensors



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD055

EM-T-7A Extension Module

EM-T-7A 1-Channel Control, 1-Channel EDM

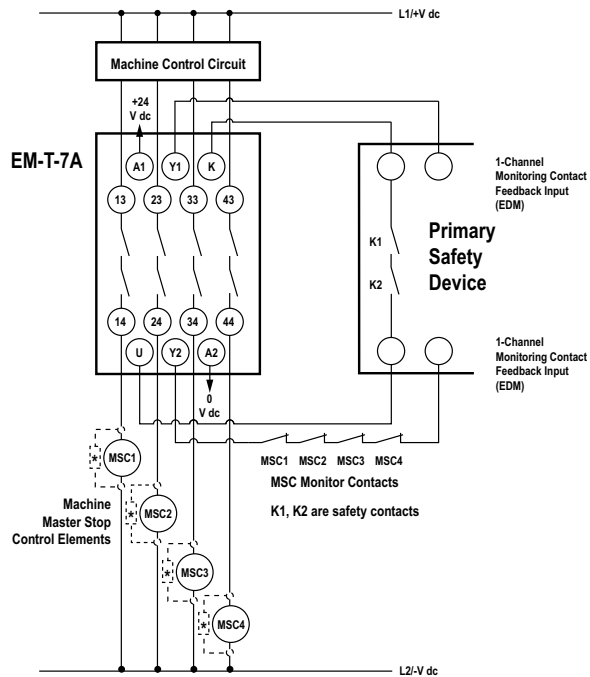


Page 546

Models

• EM-T-7A

EM-T-7A
Terminal Locations



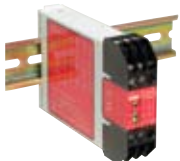
* Arc Suppressors. See manual for specific warnings.

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD056

EM-T-7A Extension Module

EM-T-7A 2-Channel Control, 1-Channel EDM

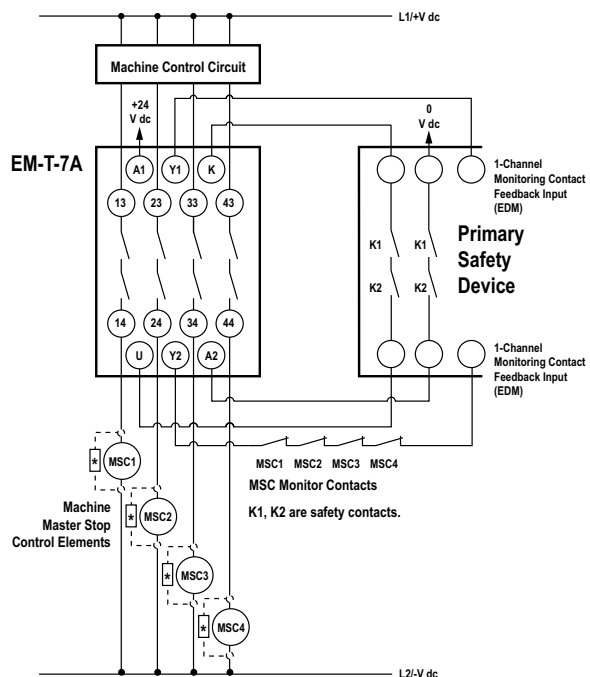


Page 546

Models

• EM-T-7A

EM-T-7A
Terminal Locations



* Arc Suppressors. See manual for specific warnings.

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD057



Page 546

Models

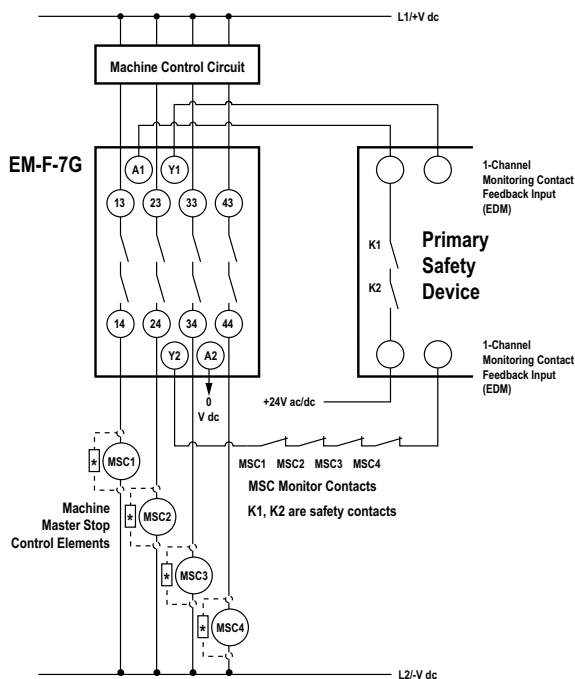
- EM-F-7G

EM-F-7G
Terminal Locations



EM-F-7G Extension Module

EM-F-7G One-Channel Control, 1-Channel EDM



* Arc Suppressors. See manual for specific warnings.

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD058



Page 546

Models

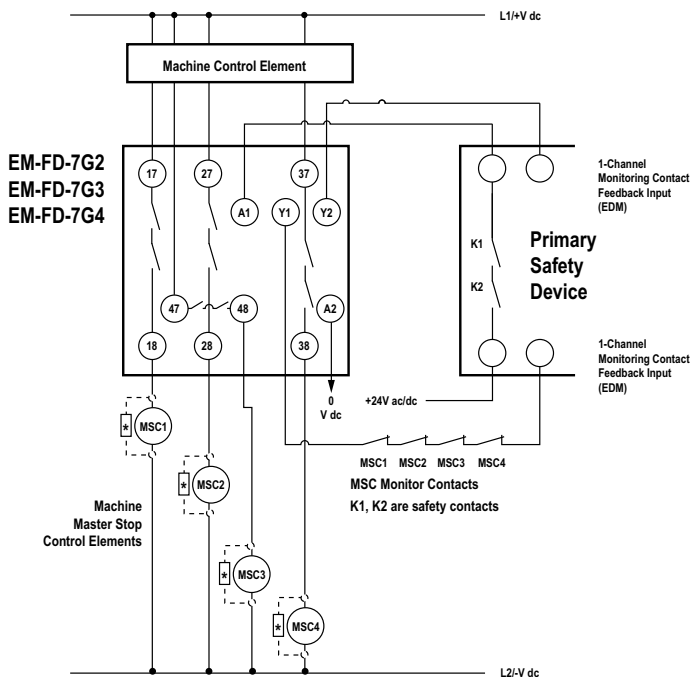
- EM-FD-7G2
- EM-FD-7G3
- EM-FD-7G4

EM-FD-7G
Terminal Locations



EM-FD-7G.. Extension Module

EM-FD-7G.. One-Channel Control, 1-Channel EDM



* Arc Suppressors. See manual for specific warnings.

Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD059

IM-T...A Interface Module

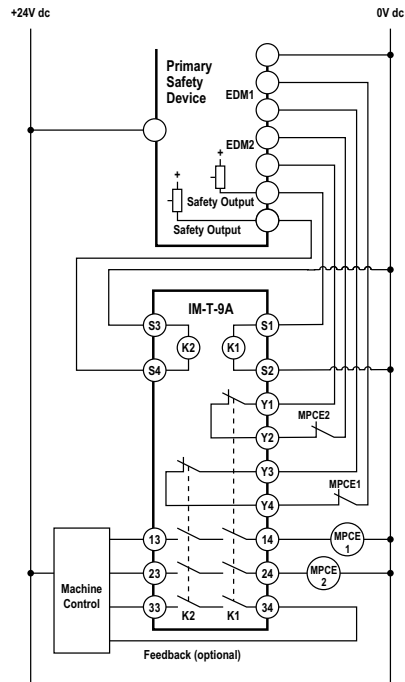
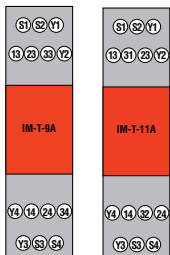
IM-T...A 2-Channel Primary Safety Device with 2 OSSDs and 2-Channel EDM



Page 548

Models

- IM-T-9A
- IM-T-11A

IM-T...A
Terminal Locations

* If arc suppressors are used, they MUST be installed across the coils of machine primary control elements (MPCE 1 and MPCE 2). See manual for specific warnings.



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

Accessories

Reference

Hookups

Wiring Diagrams

Glossary

International Reps

WD060

IM-T...A Interface Module

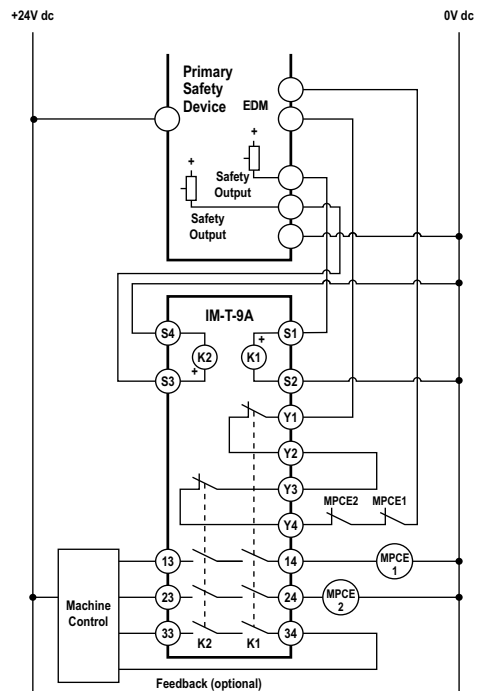
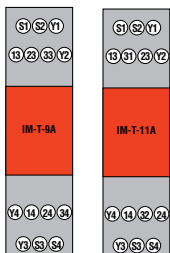
IM-T...A 2-Channel Primary Safety Device with 2 OSSDs and 1-Channel EDM



Page 548

Models

- IM-T-9A
- IM-T-11A

IM-T...A
Terminal Locations

* If arc suppressors are used, they MUST be installed across the coils of machine primary control elements (MPCE 1 and MPCE 2). See manual for specific warnings.



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

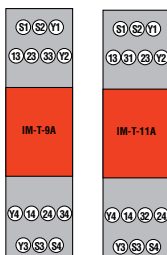
WD061



Page 548

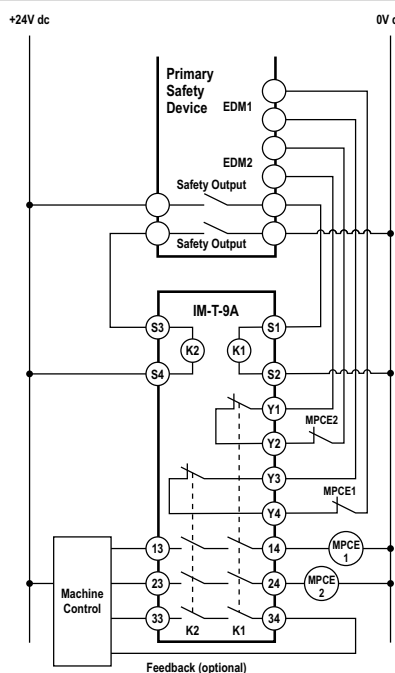
Models

- IM-T-9A
- IM-T-11A

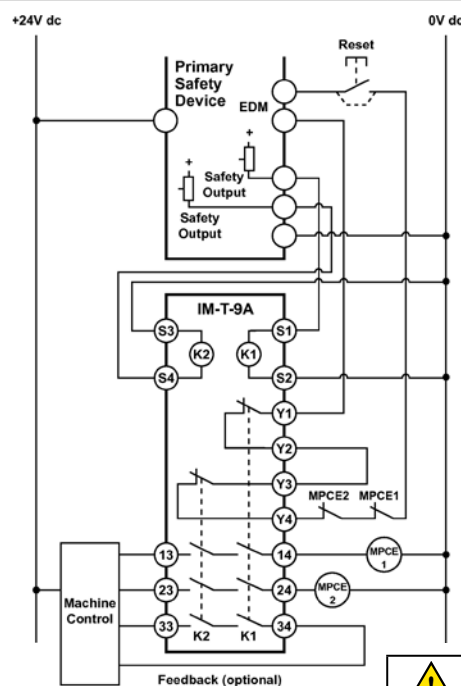
IM-T-9A
Terminal Locations

IM-T-9A Interface Module

2-Channel PSD with 2 FSDs and 2-Channel EDM



2-Channel PSD with 2 OSSDs and 1-Channel EDM



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

If arc suppressors are used, they MUST be installed across the coils of machine primary control elements (MPCE 1 and MPCE 2). See manual for specific warnings.

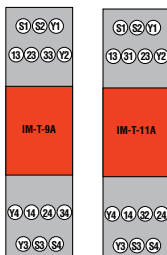
WD062



Page 548

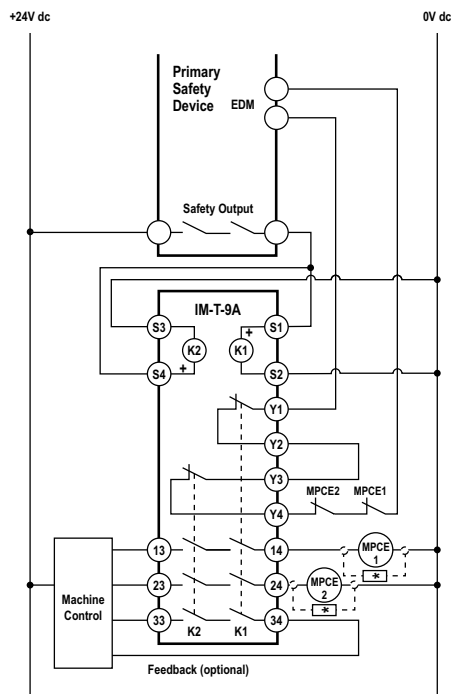
Models

- IM-T-9A
- IM-T-11A

IM-T-9A
Terminal Locations

IM-T-9A Interface Module

IM-T-9A 1-Channel Primary Safety Device with 1 Redundant-Relay and 1-Channel EDM



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

* Arc Suppressors. See manual for specific warnings.

More on next page

WD063

Accessories

Reference

Hookups

Wiring Diagrams

Glossary

International Reps



Page 552

Models

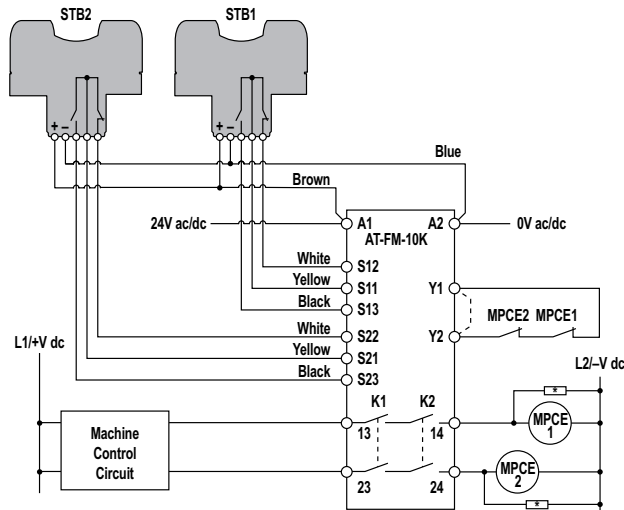
• AT-FM-10K

AT-FM-10K Terminal Locations



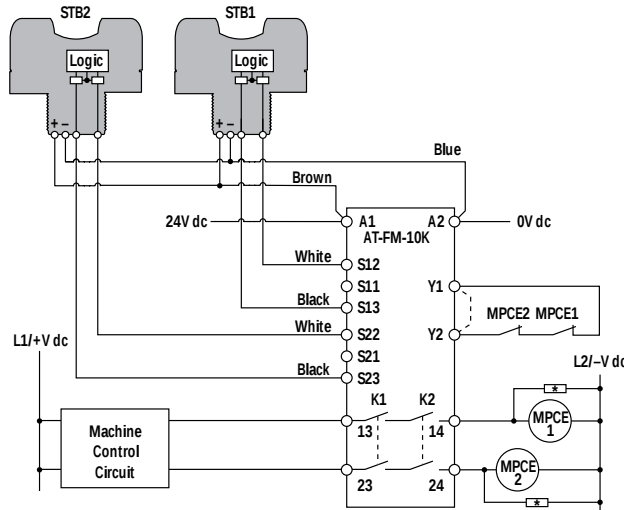
DUO-TOUCH® SG Two-Hand Control Modules STB Compatible

AT-FM-10K to Two STB Touch Buttons with Contact Output



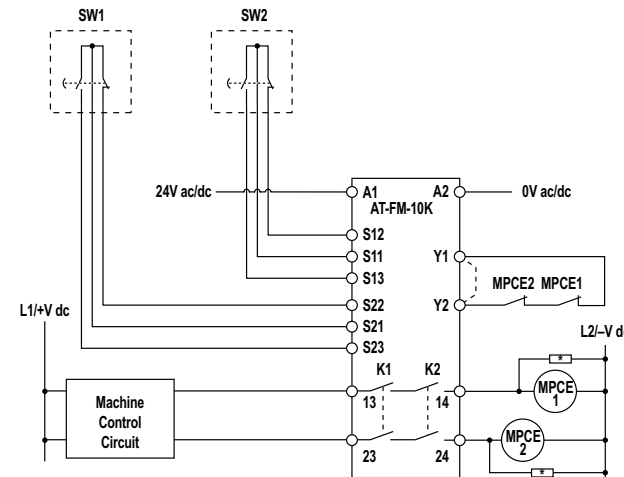
 Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

AT-FM-10K to Two STB Touch Buttons with PNP (Sourcing) Outputs



 Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

AT-FM-10K to Two Mechanical Push Buttons with Contact Outputs



 Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

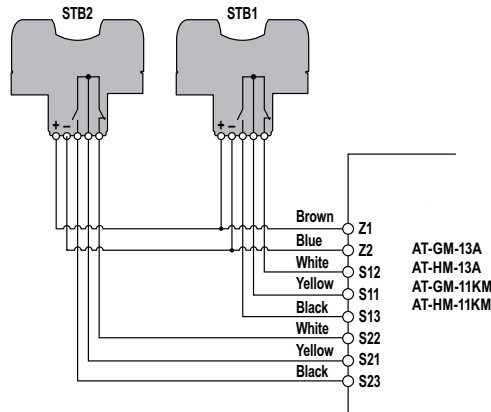
* Arc Suppressors. See manual for specific warnings.

More on next page

WD066

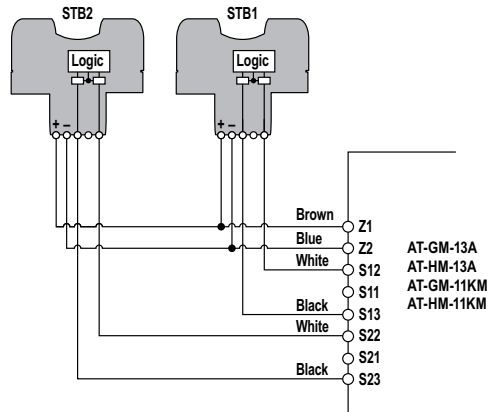
DUO-TOUCH® SG Two-Hand Control Modules, STB Touch-Button with Contact Output

2-Channel EDM with Interface Model



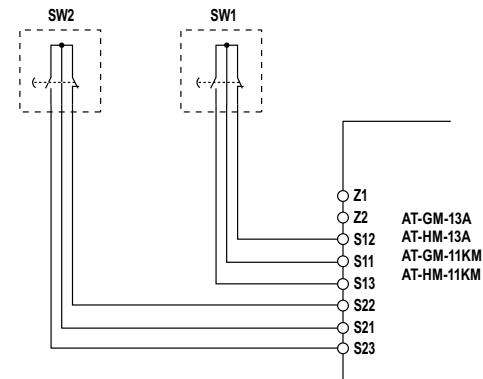
 Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

AT-..M-13A and AT-..M-11K to Two STB Touch Buttons with PNP (Sourcing) Outputs



 Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

AT-..M-13A and AT-..M-11KM to Two Mechanical Push Buttons with Contact Outputs



 Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

More on next page

WD067

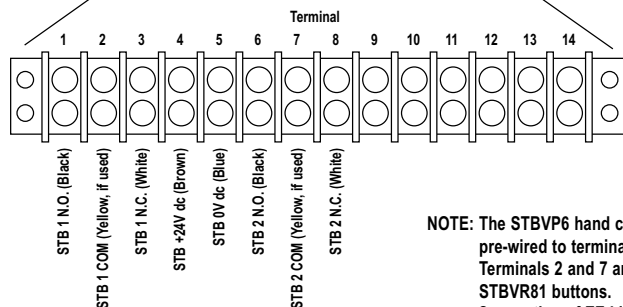
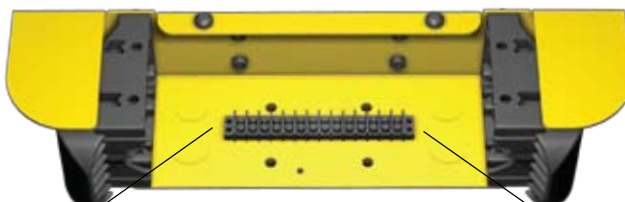
DUO-TOUCH® Run Bar with STBs



Page 560

Models

- STBVP6-RB1..



NOTE: The STBVP6 hand control buttons are pre-wired to terminals 1, 3, 4, 5, 6 and 8. Terminals 2 and 7 are reserved for use of STBVR81 buttons. Connection of EZ-LIGHT indicator(s) and QD connectors not shown. (See data sheet for details)



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

WD068

EZ-LIGHT™ for Two-Hand Control



Page 432

Models

- K50LGRYB11P
- T30GRYB11P

LED Function	Brown Wire	Gray Wire	Black Wire	White Wire	Typical Function
Red ON	+V dc	—	—	—	Stop and/or Not Ready
Blue ON	+V dc	+V dc	—	—	Stopped, but Ready/Enabled
Green ON	+V dc	+V dc	+V dc	—	Go
Yellow ON	+V dc	+V dc	+V dc	+V dc	Mute Condition
Red Flashing	Any other hookup combination				Abnormal State

NOTES:

- Blue wire connected to 0V dc
- Supply Voltage and Current = 10 to 30V dc, 60 mA max.

WD069

DUO-TOUCH® SG Two-Hand Control Modules, STB Compatible

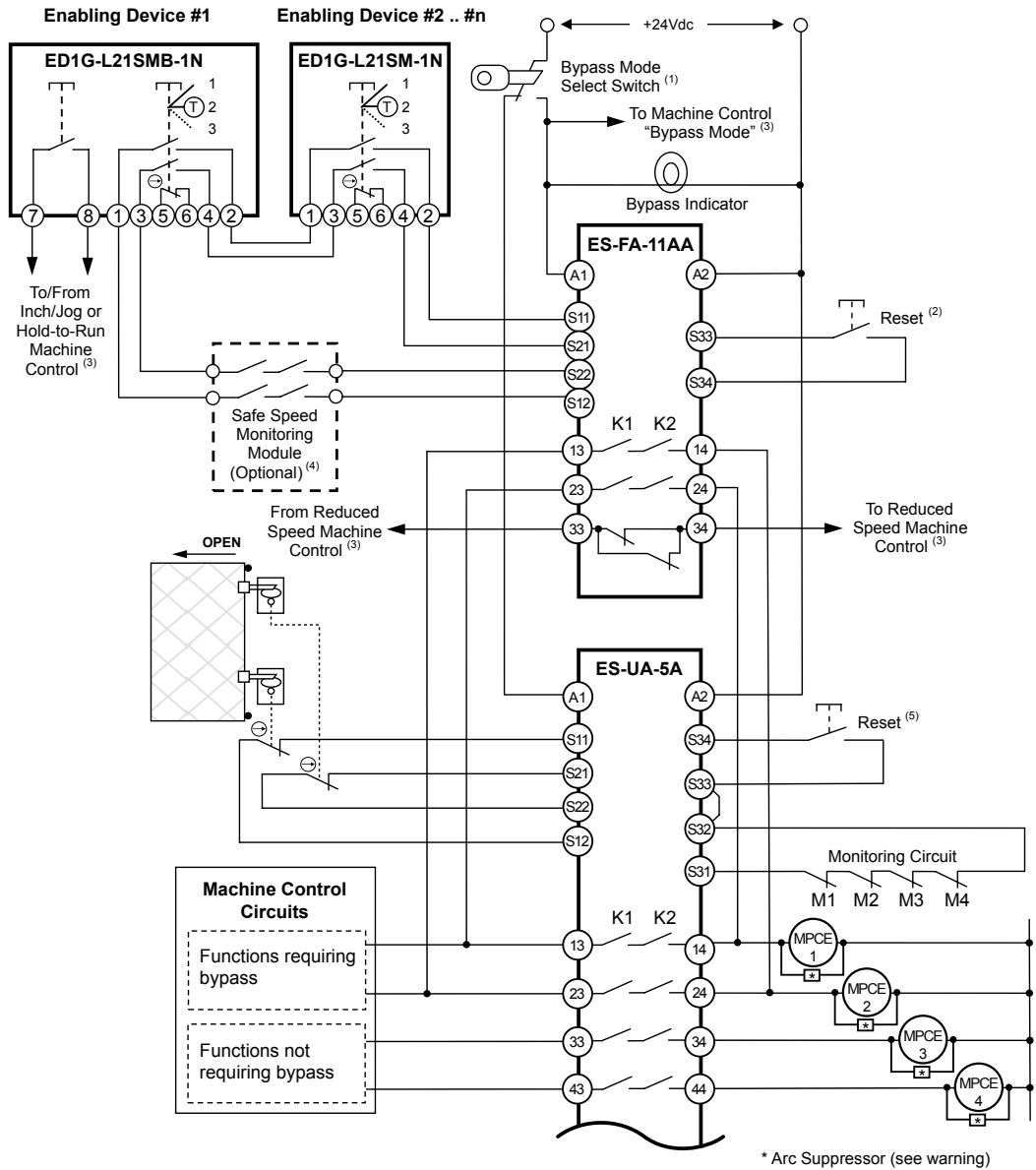
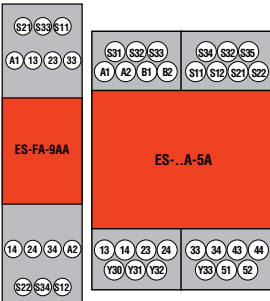


Page 611

Models

• ED1G

ES-FA-11AA/
ES-UA5A



Wiring diagrams are for information only. See appropriate manuals for all specific warnings, cautions and information for use.

Accessories
Reference
Hookups
Wiring Diagrams
Glossary
International Reps