

Wiring Connection Information

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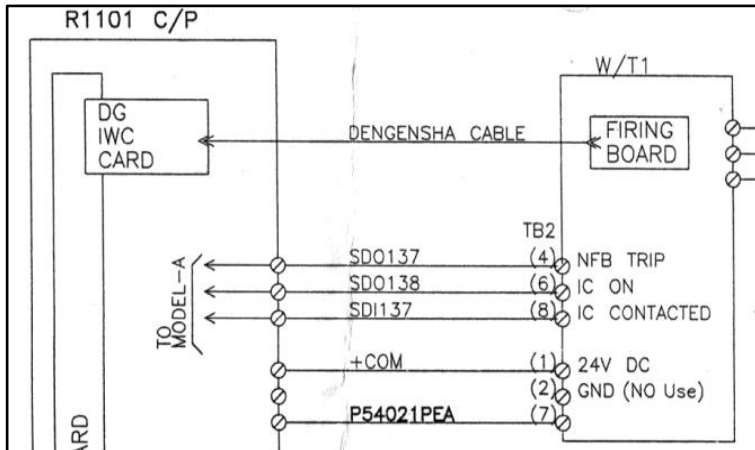
[Banner IM-T-9A to Sick Wiring](#)

[Relay Block Wiring Connectios](#)

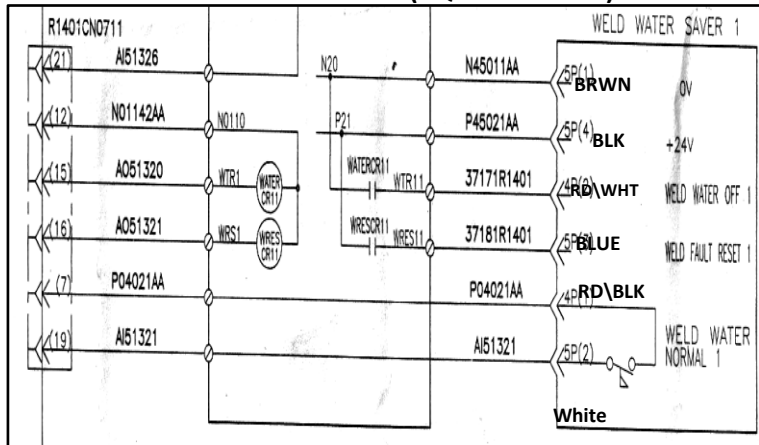
Weld Timer

Screw #	Wire #
1	Com
4	SDO 137
6	SDO 138
7	P#
8	SDI 137

****Numbers for Illustration Only****



****OLD STYLE PROTEUS (SQUARE SHAPE)****



Old Style Weld Saver (Square Shape)

Gray 5-Pin Cable

Wire Color for Pin #

Decription of Use

Pin #1 = Brown

**To Neg. Jumped to N.O.
contacts on Water Off Relay**

Pin #2 = White

Water Normal Input

Pin #3 = Blue

N.O. Contacts of Reset Relay

Pin #4 = Black

**To Pos. Jumped to N.O.
Contacts on Reset Relay**

Yellow 4-Pin Cable

Wire Color for Pin #

Decription of Use

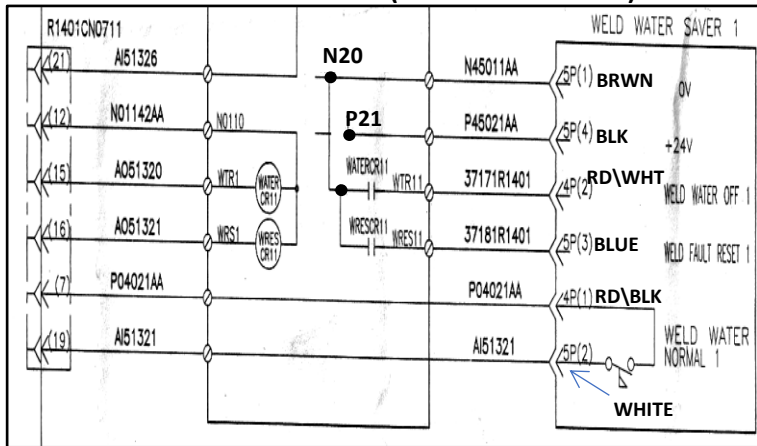
Pin #1 = Red/Black

Power - Water Normal Input

Pin #2 = Red/White

N.O. contacts of Water Off Relay

****NEW STYLE PROTEUS (RECTANGLE SHAPE)****



New Style Weld Saver (Rectangle Shape)

Gray 5-Pin Cable

Wire Color for Pin #

Decription of Use

Pin #1 = Brown

**To Neg. Jumped to N.O.
contacts on Water Off Relay**

Pin #2 = White

Water Normal Input

Pin #3 = Blue

**To Neg. Jumped to N.O.
contacts on Reset Relay**

Pin #4 = Black

To Positive P21

Yellow 4-Pin Cable

Wire Color for Pin #

Decription of Use

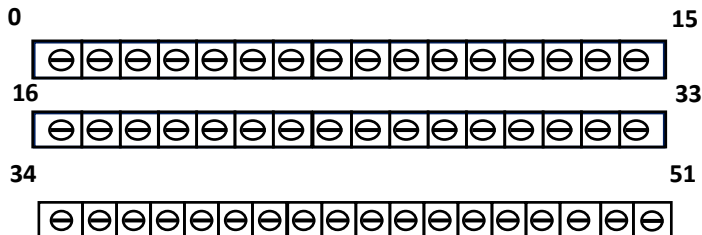
Pin #1 = Red/Black

Power - Water Normal Input

Pin #2 = Red/White

N.O. contacts of Water Off Relay

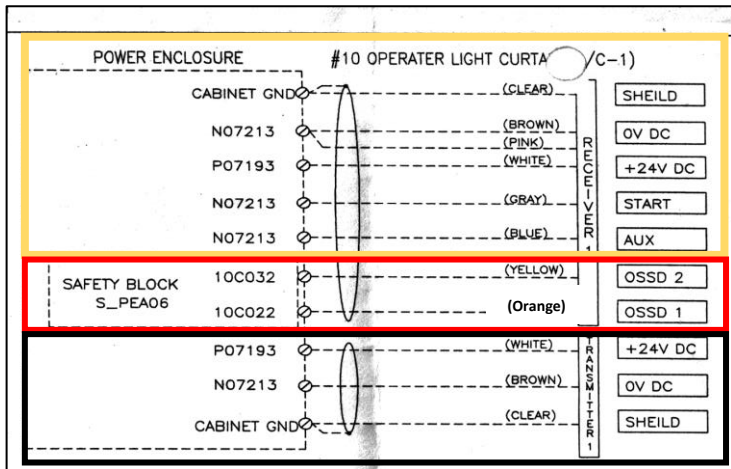
1794 - TB32 and - TB32S



N	+	C	+	C	+	C	+	C	+	C	+	C	+	C	+	C	N
C	V	O	V	O	V	O	V	O	V	O	V	O	V	O	V	O	C
	1	M	1	M	1	M	1	M	2	M	2	M	2	M	2	M	
		1		1		1		1		2		2		2		2	

AB Input Module
+V1= Terminals 35,37,39, & 41
+V2= Terminals 43, 45, 47, & 49
COM1= Terminals 36, 38, 40, & 42
COM2= Terminals 44, 46, 48, & 50
No Connections = 16, 33, 34, & 51
0 to 15 uses +V1 & COM1
16 to 31 uses +V2 & COM2

Light Curtain Terminations



MS4600 Series

Dip Settings for RM4 Module:

**1, 2 ON - 3 OFF - 4,5 ON(1 sets L\C's) - 4 ON, 5 OFF(2 sets L\C's)
- 4 OFF, 5 ON(3 sets) - 4 OFF, 5 OFF(4 sets) - 6 OFF - 7 ON**

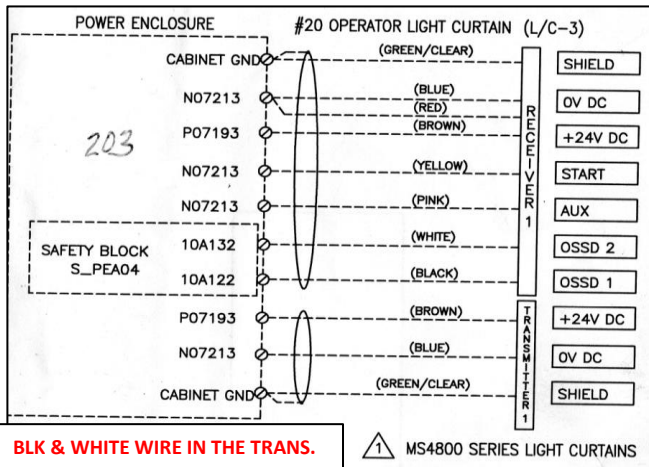
 **Receiver Cable**

 **Outputs to Safety Block**

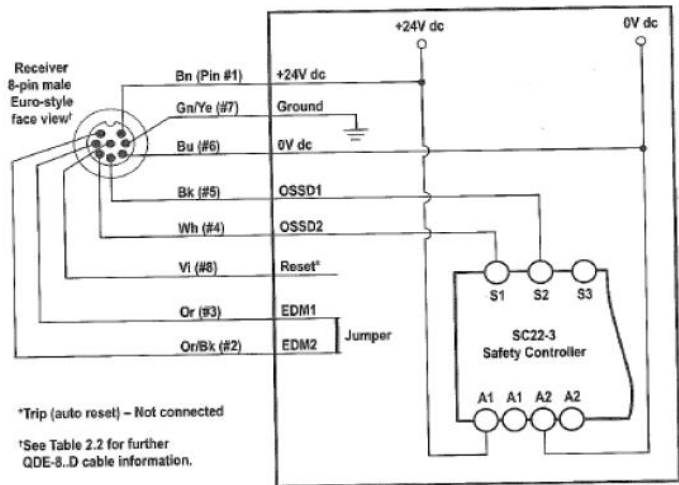
 **Transmitter Cable**

Standard L\C Dip Settings 4600:

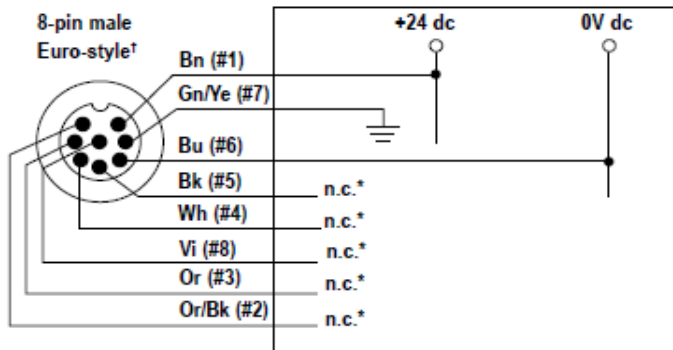
1,2,3 ON - 4,5,6 OFF



Banner LC Receiver



Emitter (Standard)

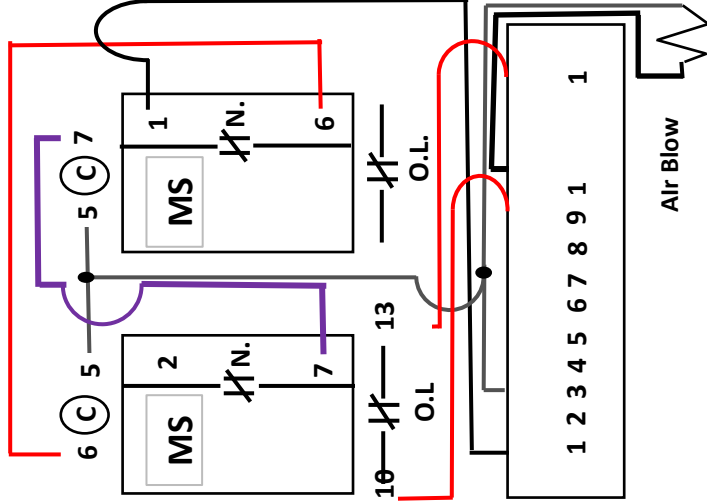


*NOTE: Pins 2, 3, 4, 5, and 8 are not connected, or are paralleled to same color wire from the 8-pin receiver cable (see Section 3.7 and Figure 3-16).

Tip Dresser Single Contactor		
Example Wire #	————→	Terminal Strip Location
41171PEA	————→	MSF Start
AI50607	————→	Axa - OCR (LOW INPUT#) —N—
P06121PEA	————→	Axc (Common for Inputs)
41211PEA	————→	Air Blow Solenoid SV1
N41011	————→	OV
AI510610	————→	CurrentNormal (HIGH INPUT#)

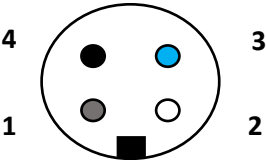
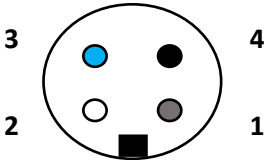
Jump P06121PEA to one of side Current Normal Input:





1	SV	1	O V R / L D I N P U T
1			A I R / B L O W P O W E R
5			L O A D / N O R M I N P U T
1			S T R T / O U T P U T N E G A T I V E
1			S T A R T P O W E R

Forw. - Rev. - Tip

Yellow Omron			
1. Brown		3. Blue	
2. White		4. Black	
 Male		 Female	
Black Omron			
1. Red		3. Black	
2. Green		4. White	

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D-Net Trunk Connector		
Pin #	Color	Usage
1	Shield	Drain
2	Red	V+
3	Black	V-
4	White	Can_H
5	Blue	Can_L

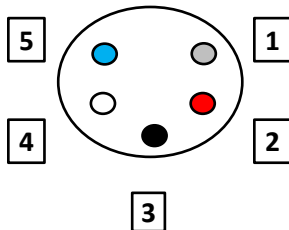
Trouble Shooting Checks

Resistance between Can_H & Can_L (No Power) 50 to 70 ohms

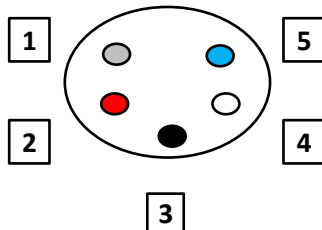
Resistance between Can_H & Shield (No Power) 0 ohms

For Wiring Connections

Male Back

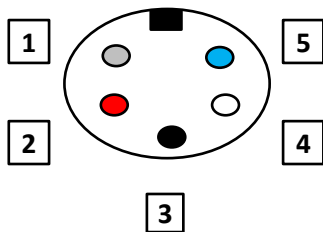


Female Back

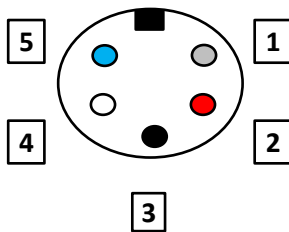


For Voltage and Resistance Checks

Male Front

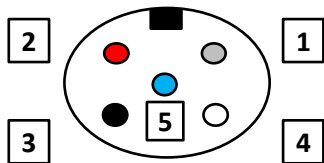


Female Front

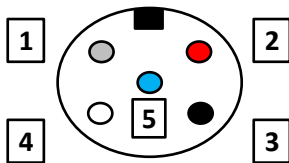


Small Dnet Drop Line Pinout

Male Front



Female Front



The distance between any two points must not exceed the maximum cable distance allowed for the data rate used.

Data rate	Maximum distance (flat cable)	Maximum distance (thick cable)	Maximum distance (thin cable)
125k bit/s	420m (1378 ft)	500m (1640 ft)	100m (328 ft)
250k bit/s	200m (656 ft)	250m (820 ft)	100m (328 ft)
500k bit/s	75m (246 ft)	100m (328 ft)	100m (328 ft)

Interpreting the Alphanumeric Display

Your 1756-DNB scanner module displays alphanumeric codes that provide diagnostic information about your module. The alphanumeric display flashes the codes at approximately 1 second intervals.

What is Displayed?

As an example, the display for RUN toggles between the network address and the mode:

A#01
RUN

If there is a *problem*, the display shows the network address, followed by the MAC ID of the problem node, followed by the error code. The display toggles through these elements until the error is corrected.

A#01
N#33
E#72

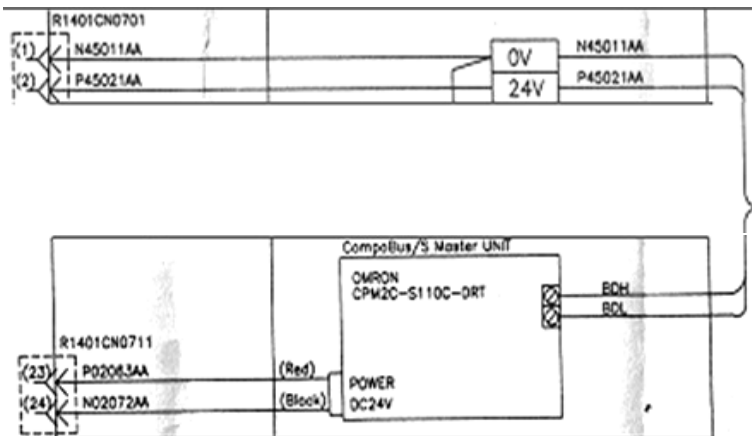
The following table summarizes the codes.

Alphanumeric Status Codes

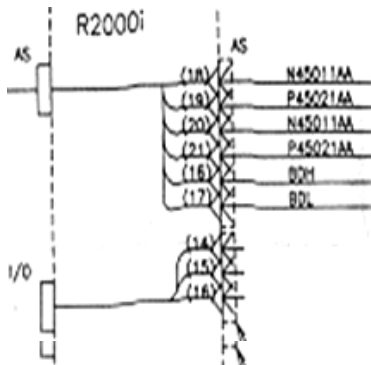
Code	Description	Recommended Action
70	Scanner failed Duplicate Node Address check	Change the scanner address to another available one. The node address you selected is already in use on that network.
71	Illegal data in scan list table (node number alternately flashes).	Reconfigure the scan list table and remove any illegal data.
72	Slave device stopped communicating (node number alternately flashes).	Inspect the slave devices and verify connections.
73	Device's identity information does not match electronic key in scan list table entry (node number alternately flashes).	Verify that the correct device is at this node number. Make sure the device at the scrolling node address matches the desired electronic key (vendor, product code, product type, etc.).

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Compobus

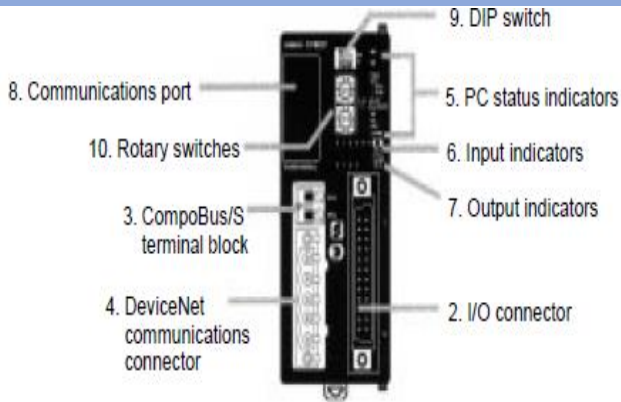


Cable CN0711		18or19	NCOM1
Wire #	Noodle	19or20	PCOM1
23	P02043AA	20or21	NCOM2
24	N02072AA	21or22	PCOM2



AIS Cable	
Wire #	Noodle
16	BDH
17	BDL
18or19	N45011AA
19or20	P45021AA
20or21	N45011AA
21or22	P45021AA

CompoBus Master Unit CPM2C-S110C-DRT



CompoBus Indicators and Dip Switches

Pin 3	Effective port settings
OFF	The ports operate according to the settings in the PC Setup. RS-232C port settings: DM 6645 to DM 6649 Peripheral port settings: DM 6650 to DM 6654
ON	The ports operate with the standard communications settings.

Programming Device connected	Startup mode with pin 4 OFF	Startup mode with pin 4 ON
None	PROGRAM mode	RUN mode
Programming Console	Operating mode set on the Programming Console's mode switch	
Other device	PROGRAM mode	

CompoBus Indicators and Dip Switches

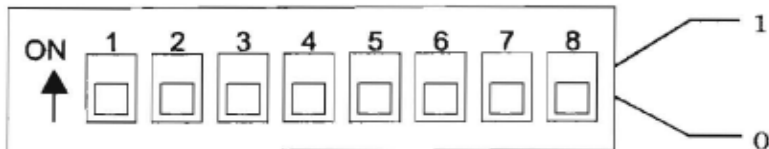
- DeviceNet communications speed

Pin 1	Pin 2	Speed	Max. transmission line length (see note)
OFF	OFF	125 kbps	500 m max.
ON	OFF	250 kbps	250 m max.
OFF	ON	500 kbps	100 m max.
ON	ON	Not used (invalid setting)	

Note Pins 1 and 2 are not used in the CPM2C-S100C/S110C. Leave pins 1 and 2 OFF in those CPU Units.

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SMC Serial Manifold EX124



<Setting of node address>

Node address	SW1	SW2	SW3	SW4	SW5	SW6
	1	2	4	8	16	32
#0	0	0	0	0	0	0
#1	1	0	0	0	0	0
#2	0	1	0	0	0	0
⋮						
#62	0	1	1	1	1	1
#63	1	1	1	1	1	1

Communication Speed & Cable Lengths

<Setting of communication speed> _____

Setting		Communication speed (kbps)	Max. transmission distance (m)			
SW7	SW8		Length of trunk		Length of branch line	Total length of branch line
			Thick cable	Think cable		
0	0	125	500	100	6	156
1	0	250	250			78
0	1	500	125			39
1	1	Not used	Not used			

G9SA-301 Safety Module

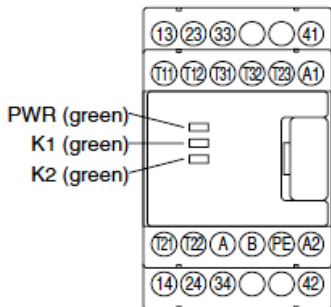
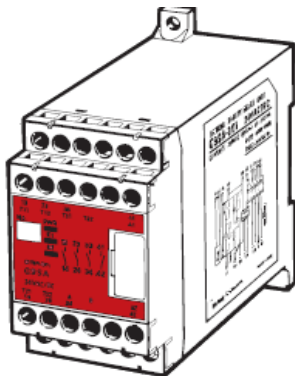
T11-T12 = K1 chain

T21-T22 = K2 chain

T31-T32 = External Reset

A1 = +DC 24V A2 = -DC 24V

G9SA-301



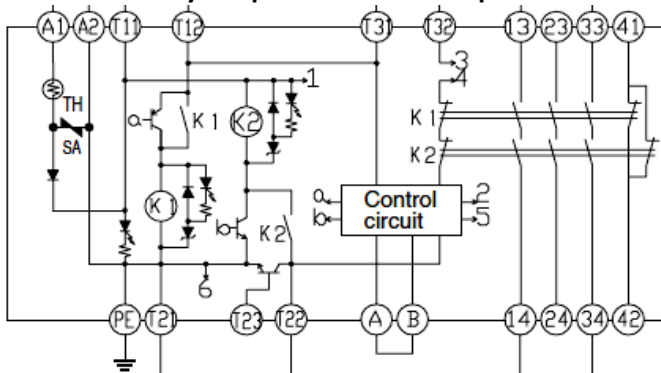
G9SA Schematic

13 & 14 = Safety Outputs

A & B Jumped = Auto Reset

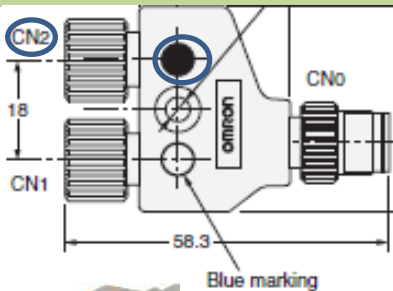
23 & 24 = Safety Outputs

A & B Open = Manual Reset



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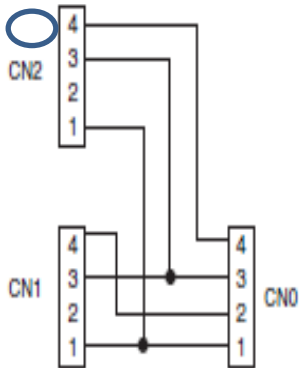
Omron XS2R-D426-1 Blue Dot Y Connector



Armor Block Splitter or Solenoid

Wiring Diagram

XS2R-D426-1



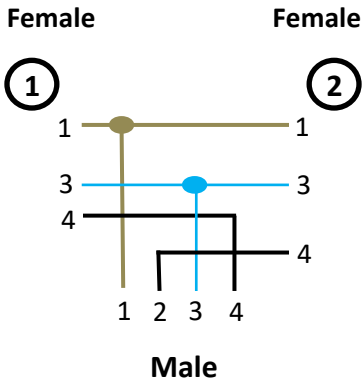
Weidmüller SAI Y-4S M12/M12 Y 1060730000

Armor Block Splitter



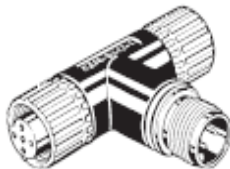
Solenoid Valve Splitter

2 Pin Not Used on Female



Omron XS2R-D422-5 T Joint Plug Connector

XS2R-D422-5 Aggregate Models

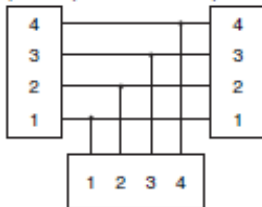


Pass Through

XS2R-D422-5

A (Female)

B (Female)

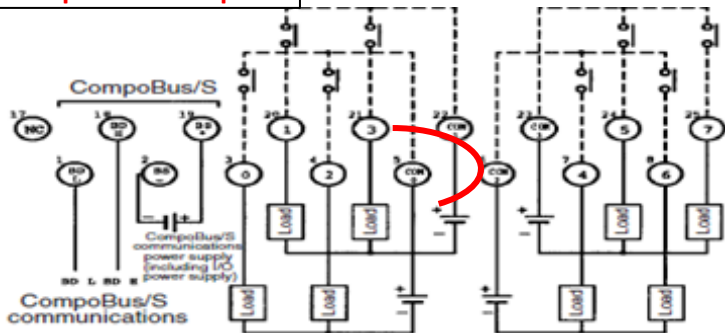


C (Male)

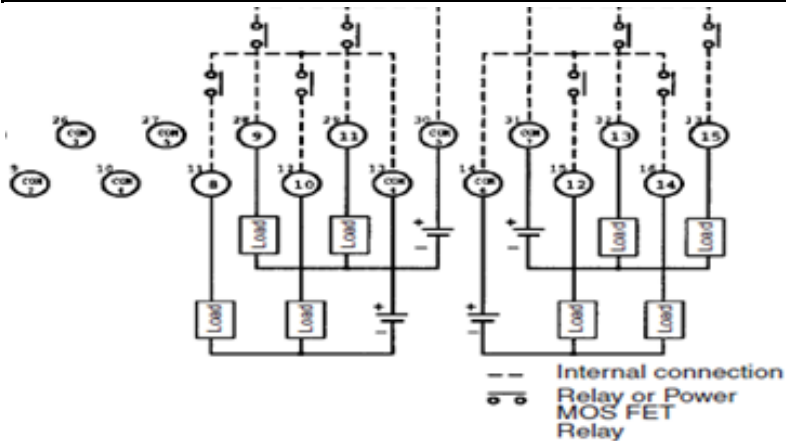
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CompoBus SRT2-ROC16 Output Card

Jump to Test Output



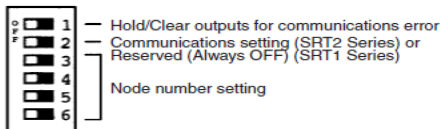
CompoBus SRT2-ROC16 Output Card



CompoBus SRT2-Input & Output Card

DIP Switch

The DIP switch is located on the left side of the Relay-mounted Remote Terminal, under the cover. Always turn OFF the Slave before changing DIP switch settings.



1. Always turn OFF the Slave before changing DIP switch settings.

Hold/Clear Outputs for Communications Error

Pin 1 is used to set the output data status when a communications error occurs, as shown in the following table.

Pin 1 (HOLD)	Output setting
OFF	Clear output status.
ON	Maintain output status.

CompoBus SRT2-Input & Output Card

Example of Node Number Settings (Input And Output Cards)

Box with 3 Input and 1 Output Cards

Node Number Settings

Set the node number with pins 3 through 6, as shown in the following table.

Node number	Pin 3 (8)	Pin 4 (4)	Pin 5 (2)	Pin 6 (1)
-------------	--------------	--------------	--------------	--------------

Input Card with Lowest Address, e.g.. AI100XX

Set All Dip Switches to OFF: 0000

Input Card with Next to Highest Address, e.g.. AI101XX

Set Dip Switch 5 to ON: 0010

Input Card with Highest Address, e.g.. AI102XX

Set Dip Switch 4 to ON: 0100

Output Card with Lowest Address, e.g.. AO201XX

Set All Dip Switches to OFF: 0000

CompoBus SRT2-Input & Output Card

Communications Mode Setting (SRT2 Series Only)

The following communications modes are set with pin 2.

Pin 2	Communications mode	Communications distance	Communications baud rate	Communications cycle time
OFF	High-speed Communications Mode	100 m max.	750 kbps	0.5 or 0.8 ms
ON	Long-distance Communications Mode	500 m max.	93.75 kbps	4.0 or 6.0 ms

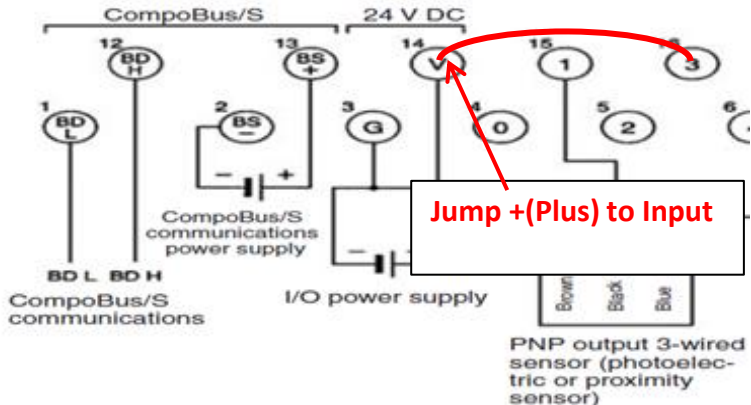
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CompoBus PLC Dip Switches

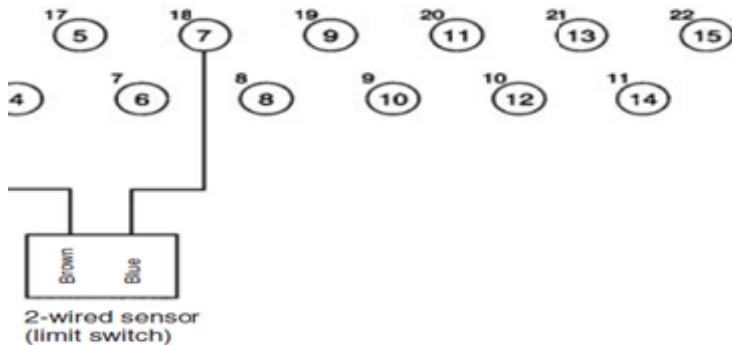
1	2	3	4
Down	Up	UP	Down

CompoBus SRT2-ID16-1 Input Card

SRT□-ID16-1.



CompoBus SRT2-ID16-1 Input Card



CompoBus SRT2-ID16-1 Indicators

The following table shows the meaning of the indicators.

Indicator	Status	Meaning
PWR (green)	ON	The communications power supply is ON.
	OFF	The communications power supply is OFF.
COMM (yellow)	ON	Normal communications
	OFF	A communications error has occurred or the Unit is in standby status.
ERR (red)	ON	A communications error has occurred.
	OFF	Normal communications or the Unit is in standby status.
0 to 3 (4 inputs) 0 to 7 (8 inputs) 0 to 15 (16 inputs) (yellow)	ON	The corresponding input is ON.
	OFF	The corresponding input is OFF or the Unit is in standby status.

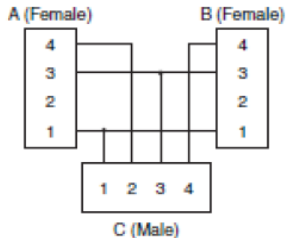
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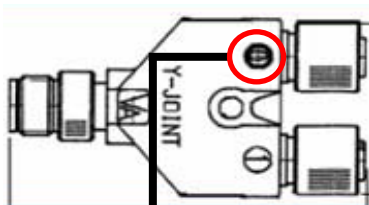
Omron XS2R-D422-1 T Joint Plug Connector

XS2R-D422-1 Aggregate Models



Wiring Diagram XS2R-D422-1



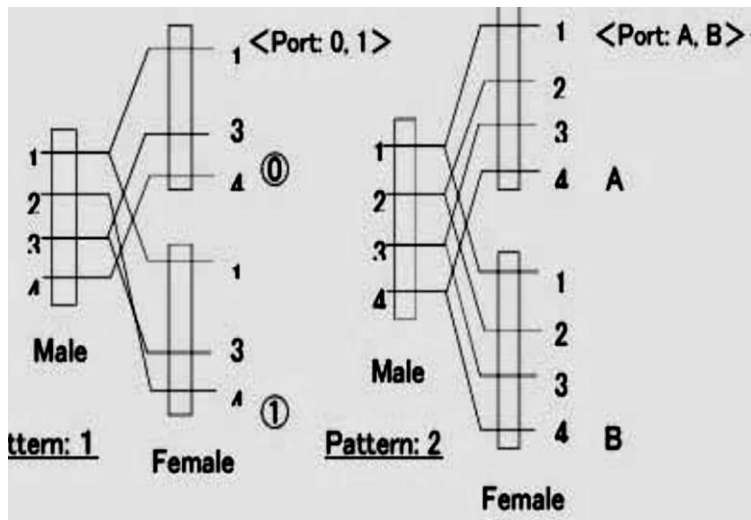


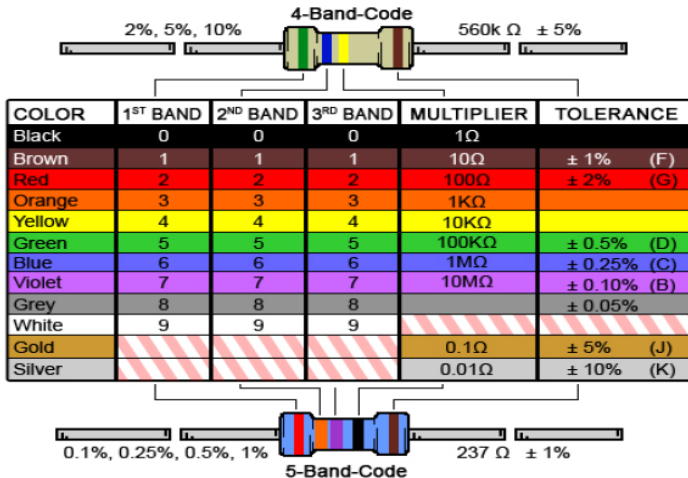
Labeled 0 & 1:

Armor Block Splitter - Pattern #1

Labeled A & B:

Pass Through - Pattern #2

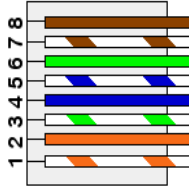




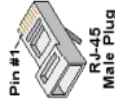
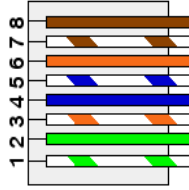
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RJ-45 Crossover Cable

T-568B Standard



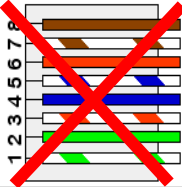
Crossover End



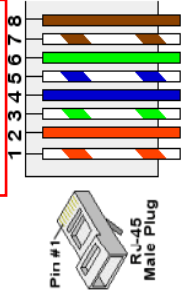
Pin #	Standard 568B End	Crossover End
1	White with orange stripe	White with green stripe
2	Orange with white stripe or solid orange	Green with white stripe or solid
3	White with green stripe	White with orange stripe
4	Blue with white stripe or solid blue	Blue with white stripe or solid blue
5	White with blue stripe	White with blue stripe
6	Green with white stripe or solid	Orange with white stripe or solid orange
7	White with brown stripe	White with brown stripe
8	Brown with white stripe or solid brown.	Brown with white stripe or solid brown.

RJ-45 Color Code

T-568A Standard



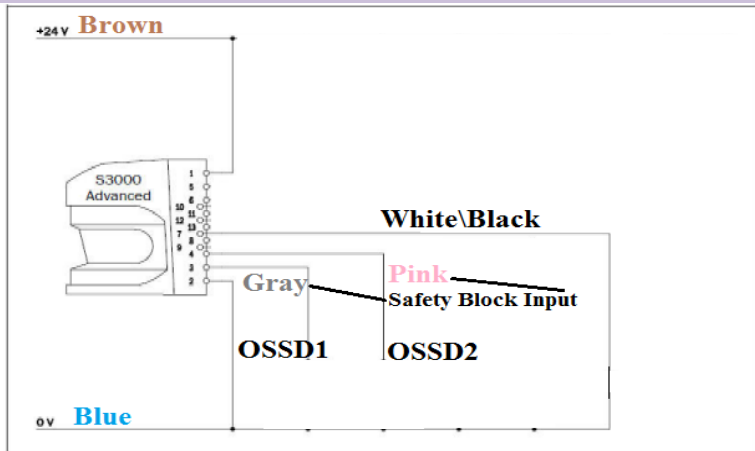
T-568B Standard



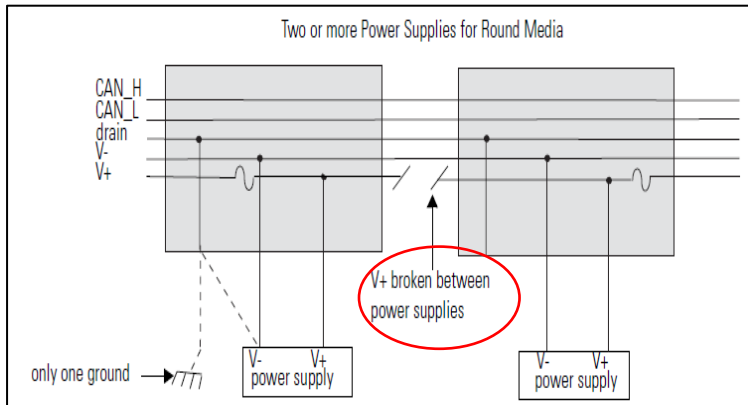
EIA/TIA 568A	Ethernet 10BASE-T 100BASE-TX	EIA/TIA 568B or AT&T 258A
White with green stripe	Transmit +	White with orange stripe
Green with white stripe or solid green	Transmit -	Orange with white stripe or solid orange
White with orange stripe	Receive +	White with green stripe
Blue with white stripe or solid blue	N/A	Blue with white stripe or solid blue
White with blue stripe	N/A	White with blue stripe
Orange with white stripe or solid orange	Receive -	Green with white stripe or solid green
White with brown stripe	N/A	White with brown stripe
Brown with white stripe or solid brown	N/A	Brown with white stripe or solid brown

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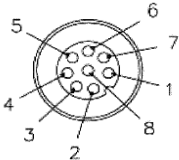
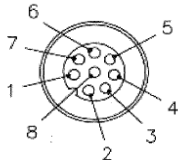
Sick S3000 to Safety Block I/O



D-Net Dual Power Supply Connections



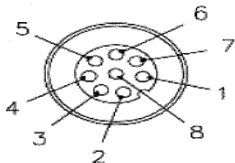
Banner To STI Wiring Connections - 1

FEMALE END VIEW				MALE END VIEW			
							
DEE2R-81D-85637							
1	BROWN	1	BROWN	FUNCTION			
2	ORANGE / BLACK	2	BLUE	+V			
3	ORANGE	3	GREEN / YELLOW	DC COMMO			
4	WHITE	4	WHITE	GND			
5	BLACK	5	VIOLET	OSSD			
6	BLUE	6	ORANGE	RESET			
7	GREEN / YELLOW	7	ORANGE / BLACK	EDM			
8	VIOLET	8	BLACK	EDM			
				OSSD			

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Banner To STI Wiring Connections - 2

FEMALE END VIEW



STI / OMRON FLYING LEAD CORDSET

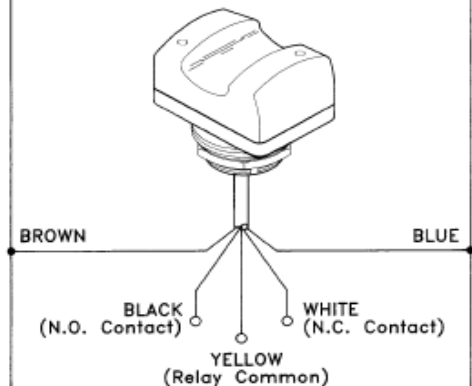
N

- | | |
|---|--------|
| 1 | BROWN |
| 2 | BLUE |
| 3 | GREEN |
| 4 | WHITE |
| 5 | YELLOW |
| 6 | RED |
| 7 | PINK |
| 8 | BLACK |



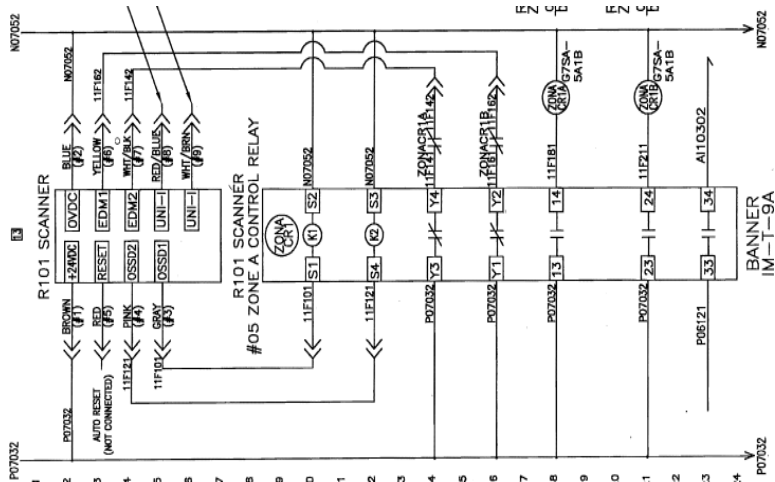
Banner OTVBR81L Finger Switch

OTBVR81 models: 20 to 30V ac or dc*



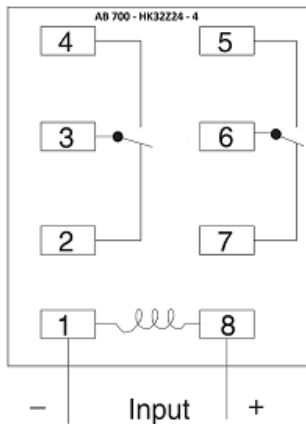
Cable ONLY!
No Connector

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AB 700-HK32Z24-4



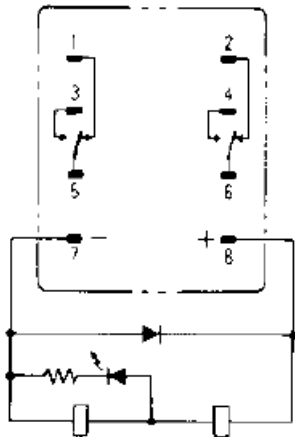
4 & 5 N.O.

3 & 6 COMMON

7 & 2 N.C.

1 = NEG. & 8= POS.

OMRON LY2N-D2



3 & 4 N.O.

5 & 6 COMMON

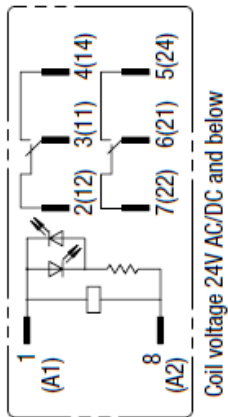
1 & 2 N.C.

7 = NEG. & 8= POS.

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IDEC

RJ2S-CL-D24



4 & 5 N.O.

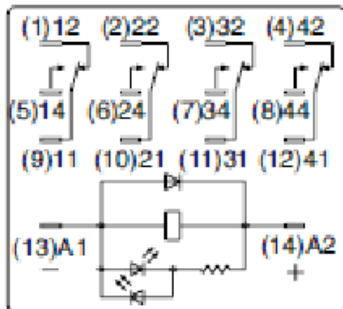
3 & 6 COMMON

2 & 7 N.C.

1 & 8 = COIL

IDEC

RU4S-CD-D24



1,2,3 & 4 N.C.

5,6,7, & 8 N.O.

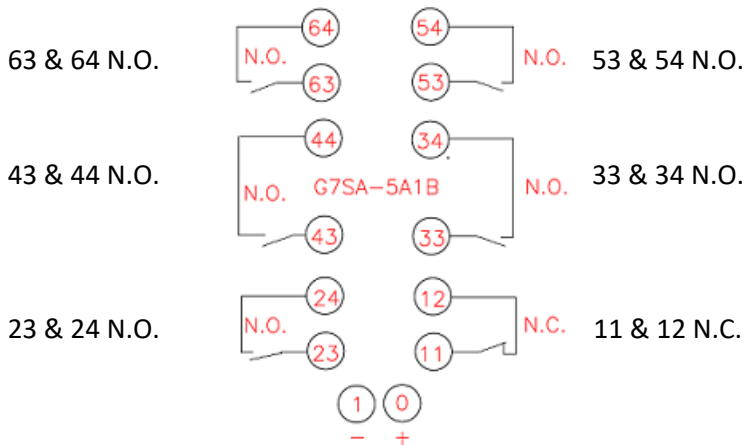
9,10,11, & 12 COMMON

13 = NEG. & 14= POS.

24V DC coil or less

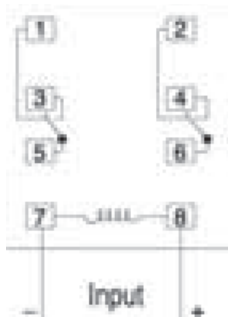
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OMRON G7SA-5A1B



AB

700-HF32Z24-4



1 & 2 N.O.

3 & 4 N.C.

5 & 6 COMMON

7 = NEG. & 8= POS.

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