+24VDC

SLC Receiver

0VDC

RESTART
(optional)
green
3
1
white
READY
(optional)

TEST INPUT
(optional)
yellow
4
5
gray
OSSD1
MPCE 1

6
pink
OSSD2
MPCE 2

24 VDC
brown
2

7
blue
0 VDC

8
red

SLC Transmitter

24 VDC
brown
1

3
blue
0 VDC

4
black

Note: Numbers shown refer to pin #'s on M12 connector

Typical SLC Wiring to MPCEs using Relay Monitor Option (/129)

SLC Receiver
w/ Relay Monitor Option (/129)

+24VDC

0VDC

RESTART
(optional)

3 green

1 white READY
(optional)

MPCE1 MPCE2

RELAY MONITOR

4 yellow

5 gray **OSSD1** | MPCE1* |

6 pink **OSSD2** | MPCE2* |

24 VDC

2 brown

7 blue **0 VDC**

8 red

SLC Transmitter

24 VDC brown

1

3 blue **0 VDC**

4 black

Note: Numbers shown refer to
pin #'s on M12 connector
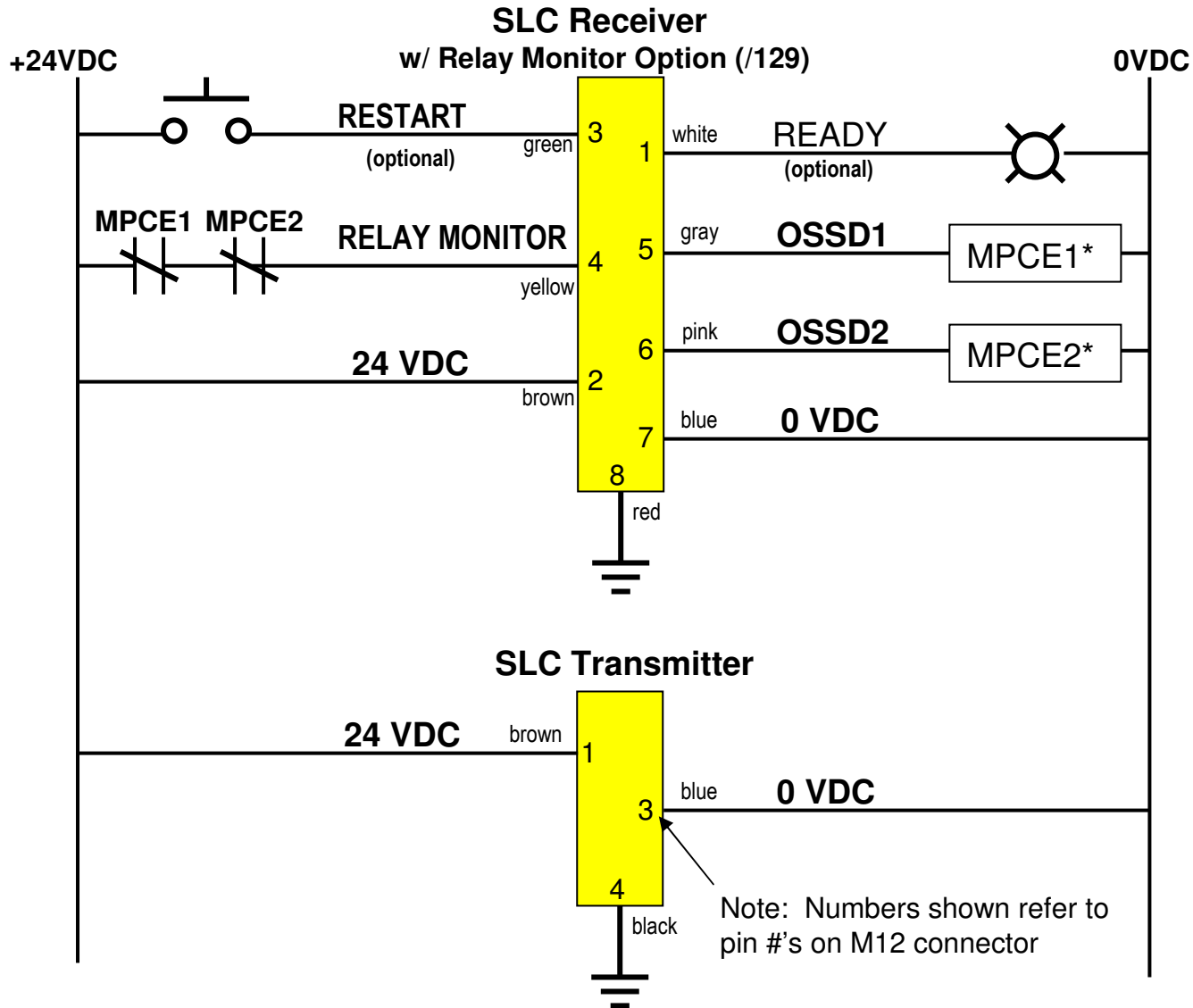
* To meet Control Reliability and Category 4 requirements, MPCE1 and MPCE2 should be positively-driven (force-guided) contact devices. (MPCE = Machine Primary Control Element.) MPCE monitoring can be accomplished by wiring normally-closed contacts from each device in series into the Relay Monitor input of the light curtain.
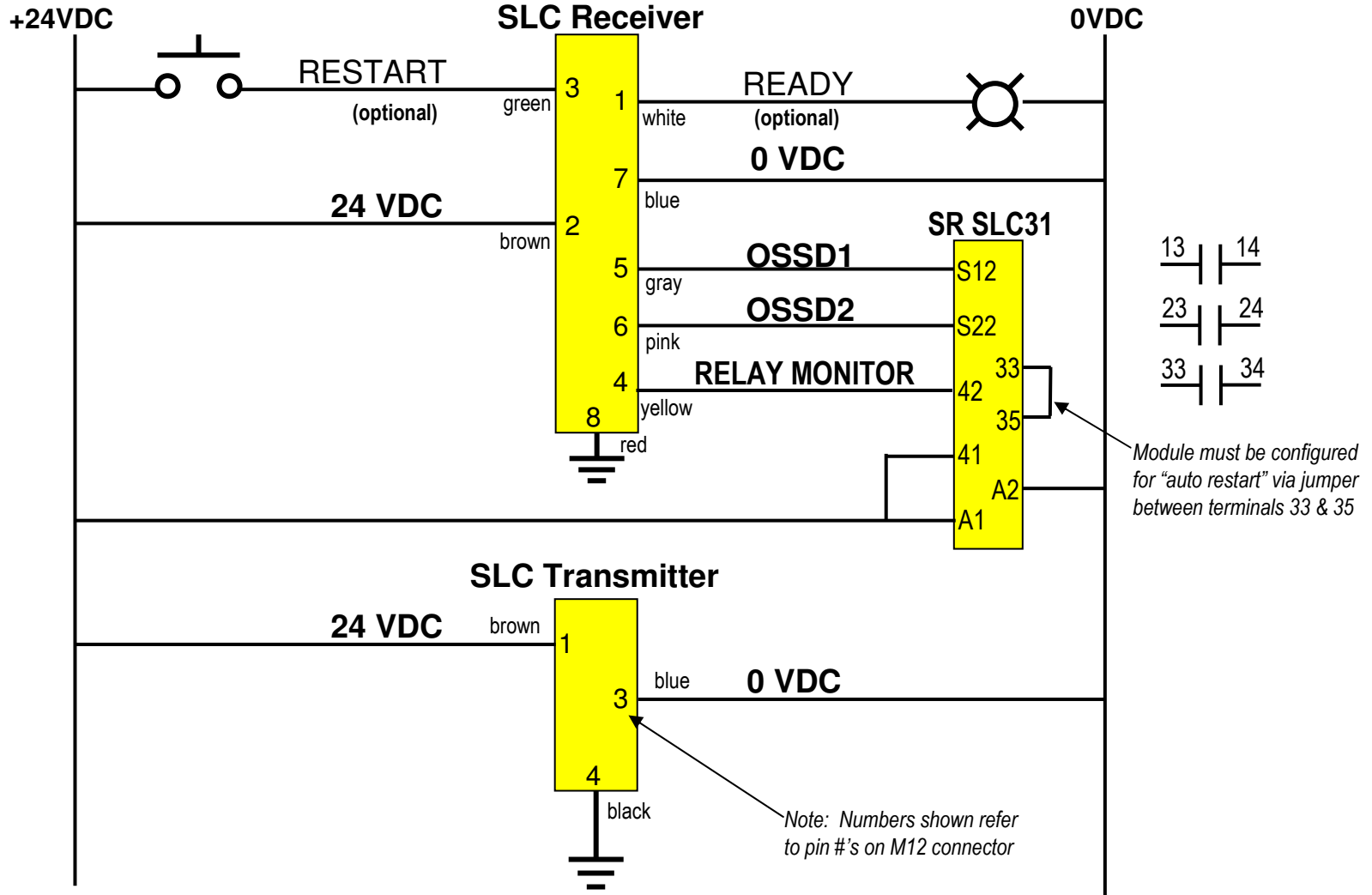
Typical SLC Wiring to SR SLC31 <u>Monitored</u> Safety Relay
(SLC Relay Monitor Option not required)
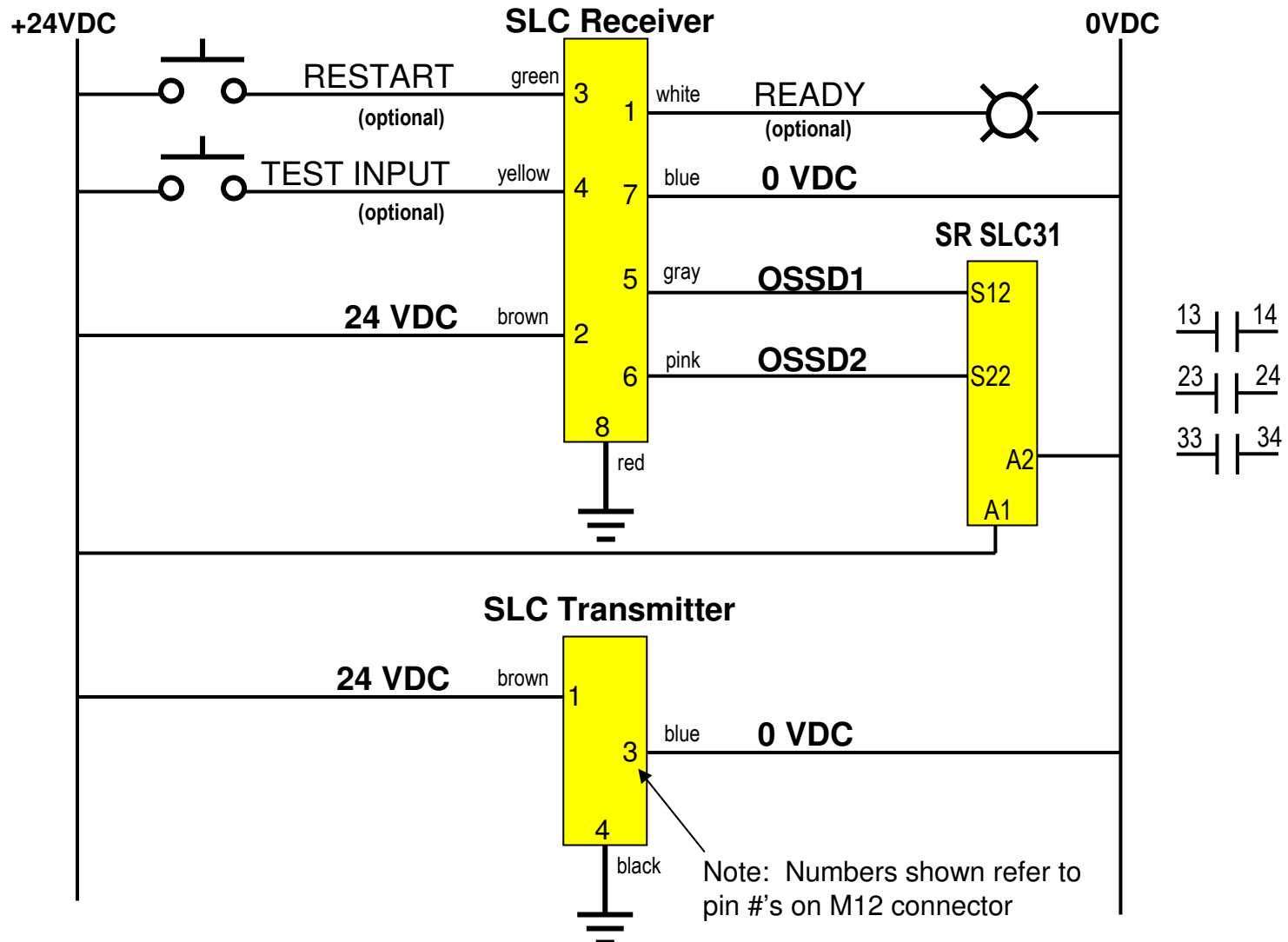
+24VDC

SLC Receiver

0VDC

RESTART green 3 1 white READY
(optional) (optional)

TEST INPUT yellow 4 7 blue **0 VDC**
(optional)

SR SLC31

5 gray **OSSD1** S12

24 VDC brown 2

6 pink **OSSD2** S22

13	14
23	24
33	34

8

red A2

A1

SLC Transmitter

24 VDC brown 1

3 blue **0 VDC**

4

black

Note: Numbers shown refer to pin #'s on M12 connector

* The SR SLC31 is a <u>self-monitored</u> safety relay module, thus SLC Receiver relay monitoring (Option "/129") is not necessary to meet Category 4. The SR SLC31 has internally redundant and monitored circuitry -- should a fault occur within its logic or safety outputs (including a welded contact), it will fail to safety (outputs OPEN) and prevent subsequent operation until the failure is corrected.

Typical SLC Wiring to SR SLC31 <u>Monitored</u> Safety Relay
(using SLC with Relay Monitor Option /129)

+24VDC

SLC Receiver

0VDC

RESTART
(optional)

3
green

1
white

READY
(optional)

0 VDC

7
blue

24 VDC

2
brown

SR SLC31

5
gray

OSSD1

S12

6
pink

OSSD2

S22

4
yellow

RELAY MONITOR

42

33

8
red

35

41

A2

A1

13 | 14

23 | 24

33 | 34

Module must be configured for "auto restart" via jumper between terminals 33 & 35

SLC Transmitter

24 VDC

brown

1

3
blue

0 VDC

4
black

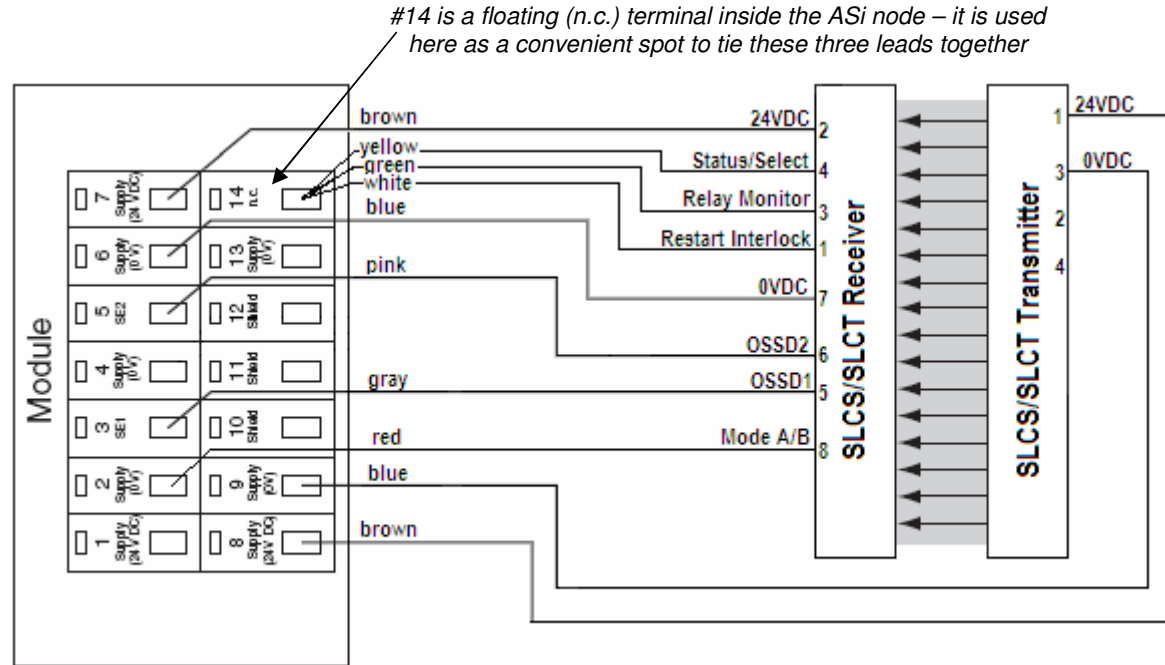*Note: Numbers shown refer to pin #'s on M12 connector*

• The SR SLC31 is a <u>self-monitored</u> safety relay module, thus SLC Receiver relay monitoring (Option "/129") is not necessary to meet Category 4. The SR SLC31 has internally redundant and monitored circuitry -- should a fault occur within its logic or safety outputs (including a welded contact), it will fail to safety (outputs OPEN) and prevent subsequent operation until the failure is corrected.

• If SLC light curtains WITH Option /129 are being used, the RELAY MONITOR input (Pin 4) on the SLC Receiver must be connected to the NC status outputs from the SR SLC31 module as shown above. Module must also be configured for "auto restart" via jumper between terminals 33 and 35.

SLCS/SLCT is configured for
• **Auto Restart**
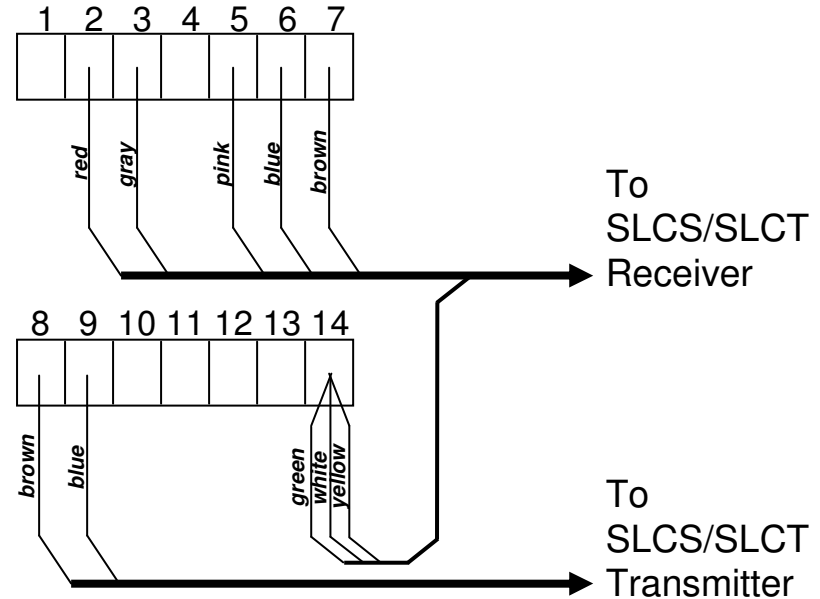• **Relay Monitor Disabled**
• **Beam Code "A"**

#14 is a floating (n.c.) terminal inside the ASi node – it is used here as a convenient spot to tie these three leads together

Wiring into the VA-2E-G4-SE Safety Node:

SLCS/SLCT is configured for
• **Auto Restart**
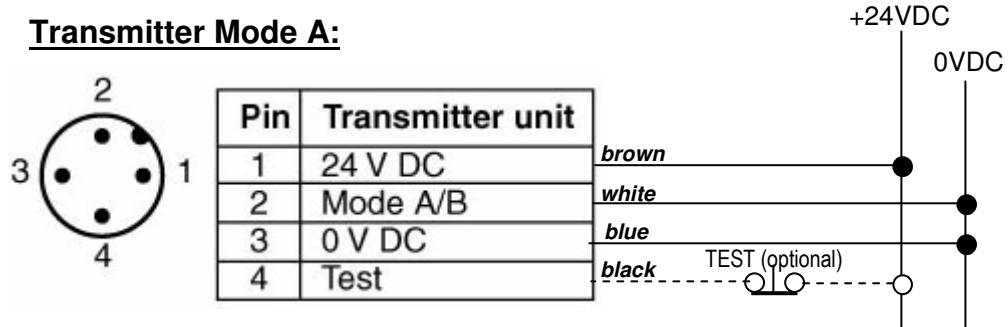• **Relay Monitor Disabled**
• **Beam Code "A"**

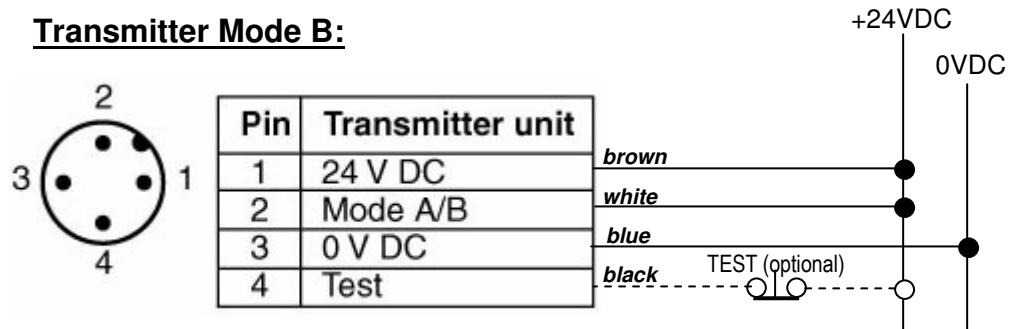Wiring into the Terminal Strip on the ASi Demo Case:

SLCS and SLCT Optional Feature Selection – Wiring Examples:

Transmitter Mode A:

+24VDC

0VDC

Pin	Transmitter unit
1	24 V DC
2	Mode A/B
3	0 V DC
4	Test

brown
white
blue
black

TEST (optional)

Transmitter Mode B:

+24VDC

0VDC

Pin	Transmitter unit
1	24 V DC
2	Mode A/B
3	0 V DC
4	Test

brown
white
blue
black

TEST (optional)

SLCS and SLCT Optional Feature Selection – Wiring Examples:

Receiver, Auto Restart, RM Enabled, Mode A:

+24VDC

0VDC

Pin	Receiver unit
1	Restart (RI)
2	24 V DC
3	Relay monitor (EDM)
4	Status, Select RI, EDM
5	OSSD1
6	OSSD2
7	0 V DC
8	Mode A/B

white
brown
green
yellow
gray
pink
blue
red

K1 K2

Status Lamp (Optional)

K1
K2
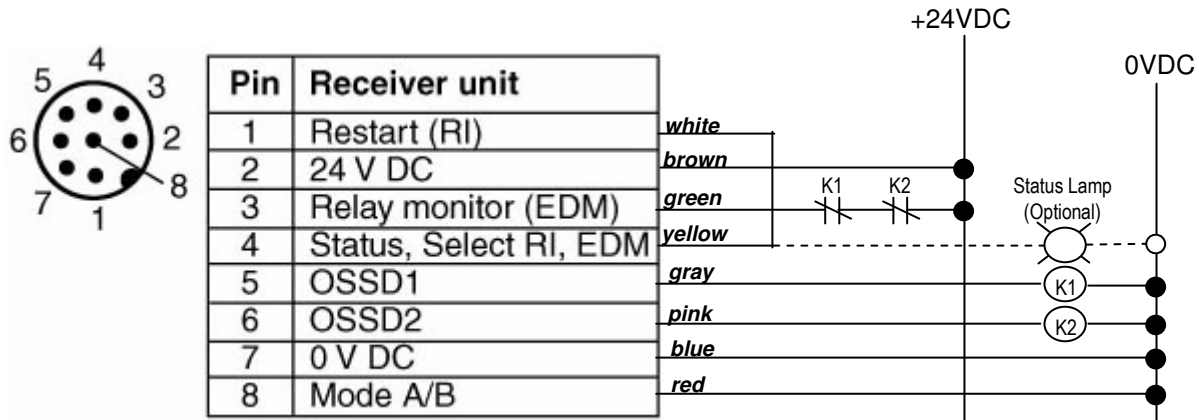
Receiver, RI Enabled, RM Enabled, Mode B:

+24VDC

0VDC

Pin	Receiver unit
1	Restart (RI)
2	24 V DC
3	Relay monitor (EDM)
4	Status, Select RI, EDM
5	OSSD1
6	OSSD2
7	0 V DC
8	Mode A/B

white
brown
green
yellow
gray
pink
blue
red

RESTART

K1 K2

Status Lamp (Optional)

K1
K2
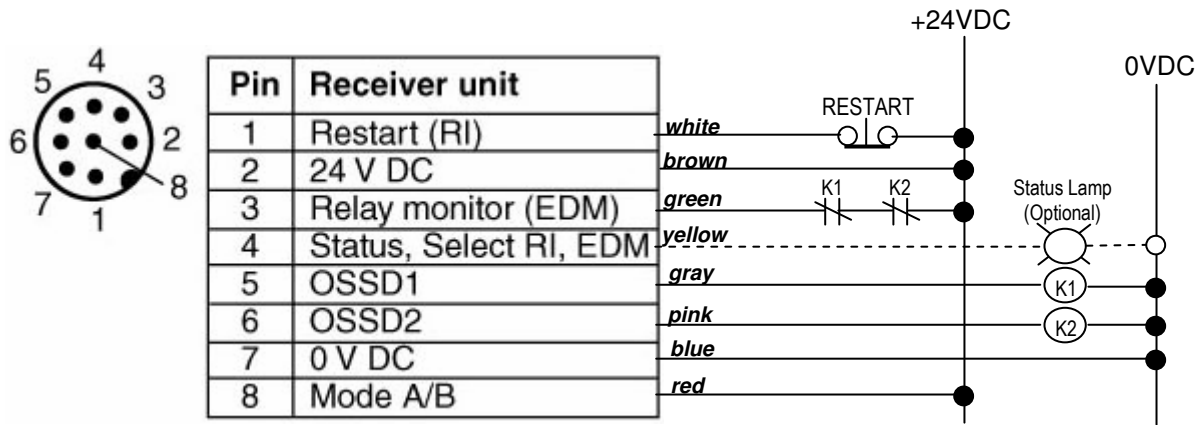
SLCS and SLCT Optional Feature Selection – Wiring Examples:

Receiver, Auto Restart, RM Disabled, Mode A:

+24VDC

0VDC

Pin	Receiver unit
1	Restart (RI)
2	24 V DC
3	Relay monitor (EDM)
4	Status, Select RI, EDM
5	OSSD1
6	OSSD2
7	0 V DC
8	Mode A/B

white
brown
green
yellow
gray
pink
blue
red

Status Lamp
(Optional)

K1
K2
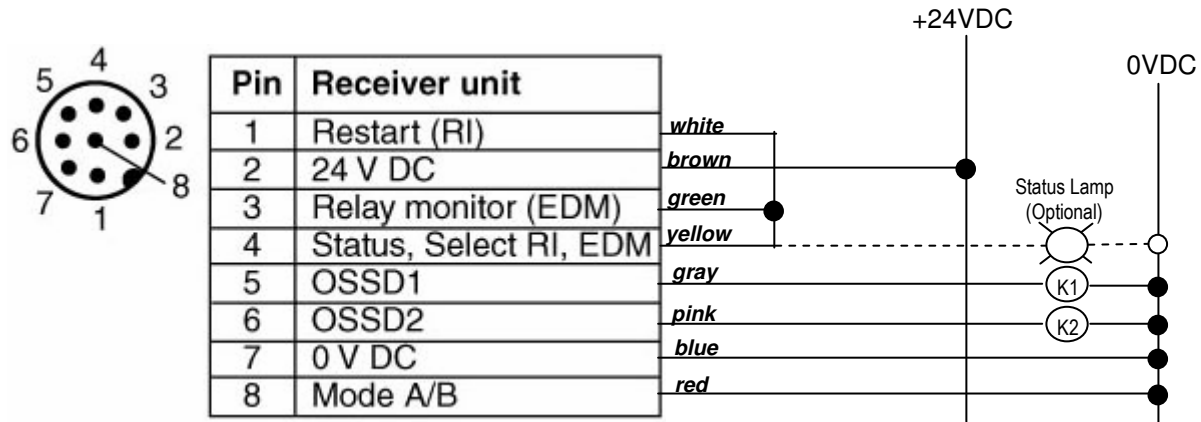
Receiver, RI Enabled, RM Disabled, Mode B:

+24VDC

0VDC

Pin	Receiver unit
1	Restart (RI)
2	24 V DC
3	Relay monitor (EDM)
4	Status, Select RI, EDM
5	OSSD1
6	OSSD2
7	0 V DC
8	Mode A/B

white
brown
green
yellow
gray
pink
blue
red

RESTART

Status Lamp
(Optional)

K1
K2