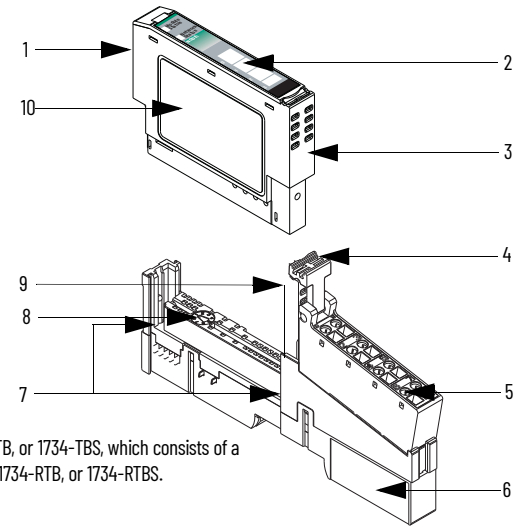
Before You Begin

You can use these Series C POINT I/O™ Input modules with DeviceNet® and PROFIBUS adapters. If you are using Studio 5000 Logix Designer® application version 20 or higher, you can also use the modules with ControlNet® and EtherNet/IP™ adapters. See Figure 1 to identify the external features of the module.

Figure 1 - POINT I/O Input Module with 1734-TB or 1734-TBS Base



The wiring base assembly includes terminal base, 1734-TB, or 1734-TBS, which consists of a mounting base, 1734-MB, and removable terminal block, 1734-RTB, or 1734-RTBS.

	Description		Description
1	Module locking mechanism	6	1734-TB or 1734-TBS mounting base
2	Slide-in writable label	7	Interlocking side pieces
3	Insertable I/O module	8	Mechanical keying (orange)
4	Removable terminal block (RTB) handle	9	DIN rail locking screw (orange)
5	Removable terminal block with screw (1734-RTB) or spring clamp (1734-RTBS)	10	Module wiring diagram

Install the Mounting Base

To install the mounting base on the DIN rail, proceed as follows:

1. Position the mounting base vertically above the installed units (adapter, power supply, or existing module).
2. Slide the mounting base down allowing the interlocking side pieces to engage the adjacent module or adapter.
3. Press firmly to seat the mounting base on the DIN rail. The mounting base snaps into place. Be sure that the orange DIN rail locking screw is in the horizontal position and that it has engaged the DIN rail.

Install the Module

The module can be installed before or after base installation. Make sure that the mounting base is correctly keyed before installing the module into the mounting base. In addition, make sure that the mounting base locking screw is positioned horizontal referenced to the base.

ATTENTION: When you insert or remove the module while backplane power is on, an electrical arc can occur. This could cause an explosion in hazardous location installations.
Be sure that power is removed or the area is non-hazardous before proceeding. Repeated electrical arcing causes excessive wear to contacts on both the module and its mating connector. Worn contacts may create electrical resistance that can affect module operation.

1. Using a bladed screwdriver, rotate the keyswitch on the mounting base clockwise until the number required for the type of module being installed aligns with the notch in the base.
2. Verify that the DIN rail locking screw is in the horizontal position. You cannot insert the module if the locking mechanism is unlocked.
3. Insert the module straight down into the mounting base.
4. Press to secure. The module locks into place.

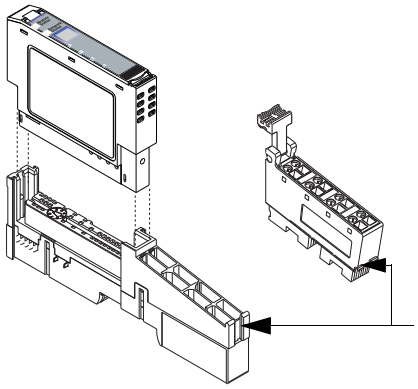
ATTENTION: Do not discard the end cap. Use this end cap to cover the exposed interconnections on the last mounting base on the DIN rail. Failure to do so could result in equipment damage or injury from electric shock.

Install the Removable Terminal Block

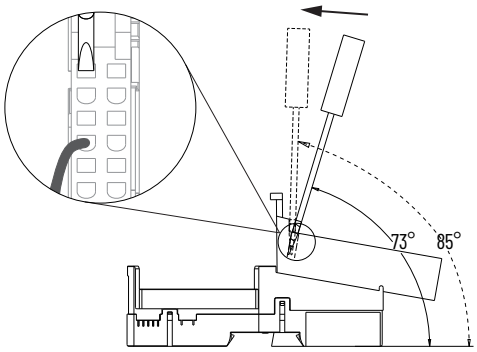
A Removable Terminal Block (RTB) is supplied with your wiring base assembly. To remove, pull up on the RTB handle. This allows the mounting base to be removed and replaced as necessary without removing any of the wirings. To reinsert the Removable Terminal Block, proceed as follows.

WARNING: When you connect or disconnect the Removable Terminal Block (RTB) with field-side power applied, an electrical arc can occur. This can cause an explosion in hazardous location installations.
Be sure that power is removed or the area is nonhazardous before proceeding.

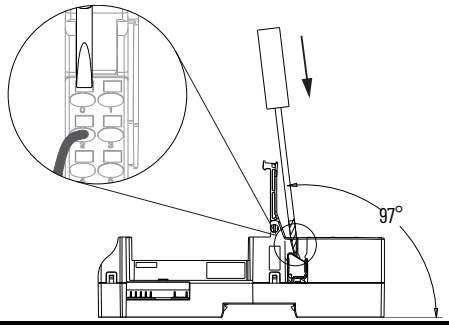
1. Insert the end opposite the handle into the base unit. This end has a curved section that engages with the wiring base.
2. Rotate the terminal block into the wiring base until it locks itself in place.
3. If an I/O module is installed, snap the RTB handle into place on the module.



WARNING: For 1734-RTBS and 1734-RTB3S, to latch and unlatch the wire, insert a bladed screwdriver (catalog number 1492-N90 – 3 mm diameter blade) into the opening at approximately 73° (blade surface is parallel with top surface of the opening) and push up gently.



WARNING: For 1734-TOPS and 1734-TOP3S, to latch and unlatch the wire, insert a bladed screwdriver (catalog number 1492-N90 – 3 mm diameter) into the opening at approximately 97° (blade surface is parallel with top surface of the opening) and press in (do not push up or down).



Remove a Mounting Base

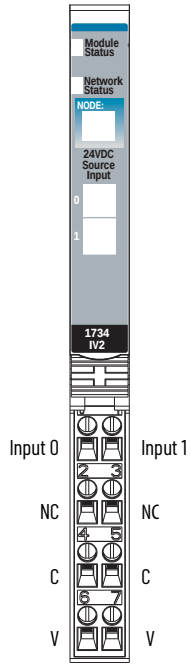
To remove a mounting base, you must remove any installed module and the module that is installed in the base to the right. Remove the removable terminal block, if wired.

1. Unlatch the RTB handle on the I/O module.
2. Pull on the RTB handle to remove the removable terminal block.
3. Press the module lock on the top of the module.
4. Pull on the I/O module to remove from the base.
5. Repeat steps 1, 2, 3 and 4 for the module to the right.
6. Use a small bladed screwdriver to rotate the orange base locking screw to a vertical position. This releases the locking mechanism.
7. Lift straight up to remove.

Wire the Module

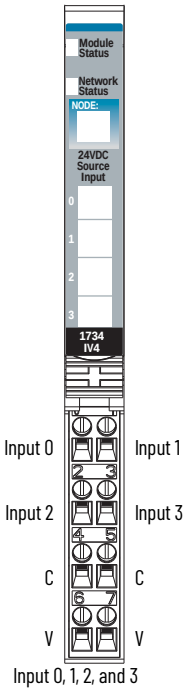
To wire the module, see the diagrams and tables.

1734-IV2



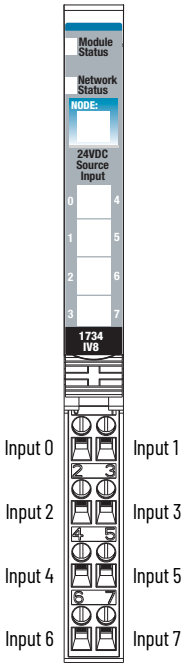
Input = 0 and 1
NC = No connection (2 and 3)
C = Common (4 and 5)
V = Supply (6 and7)

1734-IV4



Input 0, 1, 2, and 3
C = Common (4 and 5)
V = Supply (6 and7)

1734-IV8, 1734-IV8K

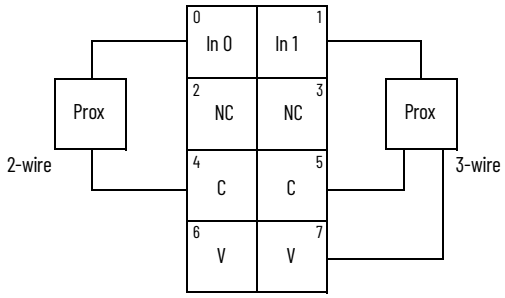


Input 0, 1, 2, 3, 4, 5, 6, and 7

Note: V and C are daisy chained from either the adapter, 1734-FPD, 1734-EP24DC, or from a user supplied auxiliary terminal block.

WARNING: If you connect or disconnect wiring while the field-side power is on, an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding.

Figure 2 - POINT I/O Source Input Module Wiring – 1734-IV2

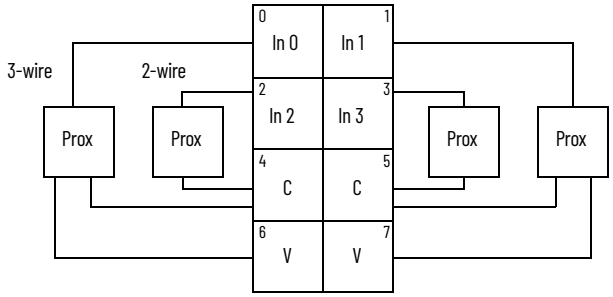


C = Common
V = 12/24V DC supply
Note: Not protected, 0.3A max

Channel	Input Terminal	Common Terminal	Power
0	0	4	6
1	1	5	7

Connect power on 3-wire proximity switches.
12/24V DC is provided by the internal field power bus.

Figure 3 - POINT I/O Source Input Module Wiring – 1734-IV4

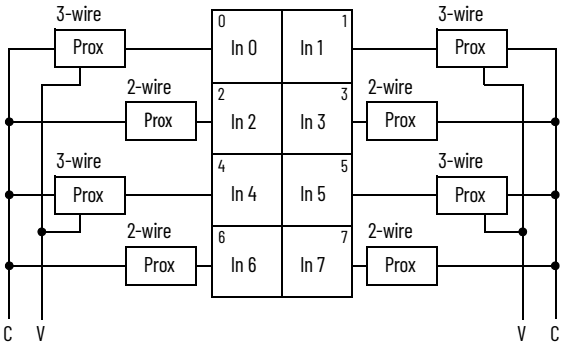


C = Common
V = 12/24V DC supply
Note: Not protected, 0.3A max

Channel	Input Terminal	Common Terminal	Power
0	0	4	6
1	1	5	7
2	2	4	6
3	3	5	7

Connect power on 3-wire proximity switches.
12/24V DC is provided by the internal field power bus.

Figure 4 - POINT I/O Source Input Module Wiring – 1734-IV8, 1734-IV8K



C = Common
V = 12/24V DC supply

Channel	Input Terminal	Channel	Input Terminal
0	0	4	4
1	1	5	5
2	2	6	6
3	3	7	7

Daisy chain common and power connections from 1734 adapter, 1734-FPD, 1734-EP24DC, or from user supplied external auxiliary terminal block.

Figure 5 - Wiring Example of 1734-IV8, 1734-IV8K Using 2-Wire Proximity Switches

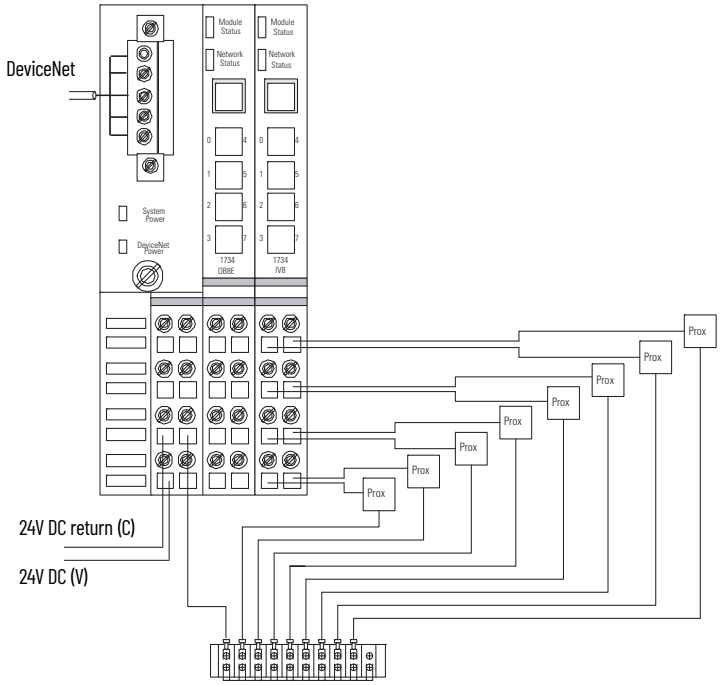
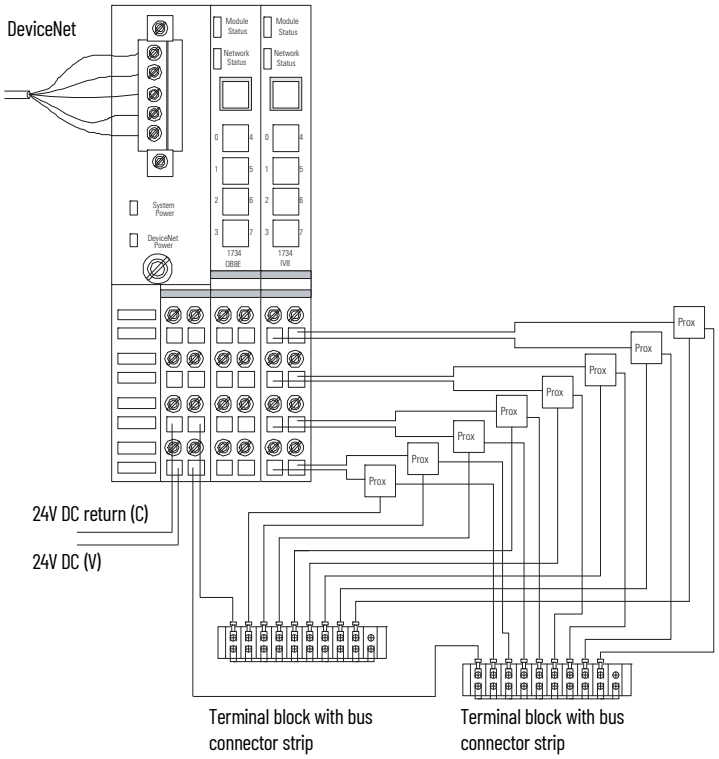


Figure 6 - Wiring Example of 1734-IV8, 1734-IV8K Using 3-Wire Proximity Switches



Communicate with the Module

POINT I/O modules send (produce) and receive (consume) I/O data (messages). You map this data into the memory of the processor.

The 1734-IV2, 1734-IB4, and 1734-IV8 modules produce 1 byte of input data (scanner Rx). The modules do not consume I/O data (scanner Tx).

Message Size: 1 Byte

	7	6	5	4	3	2	1	0
Produces (Rx)							I1	I0
Consumes (Tx)	No consumed data							
Where:	I0 = Channel 0, I1 = Channel 1							

Message Size: 1 Byte

	7	6	5	4	3	2	1	0
Produces (Rx)					I3	I2	I1	I0
Consumes (Tx)	No consumed data							
Where:	I0 = Channel 0, I1 = Channel 1, I2 = Channel 2, I3 = Channel 3							

Message Size: 1 Byte

	7	6	5	4	3	2	1	0
Produces (Rx)	I7	I6	I5	I4	I3	I2	I1	I0
Consumes (Tx)	No consumed data							
Where:	I0 = Channel 0, I1 = Channel 1, I2 = Channel 2, I3 = Channel 3, I4 = Channel 4, I5 = Channel 5, I6 = Channel 6, I7 = Channel 7							

Interpret Status Indicators

See Figure 7 and Table 1 for information on how to interpret the status indicators.

Figure 7 - Status Indicators for POINT I/O 2 Current Output and 2 Voltage Output Analog Modules