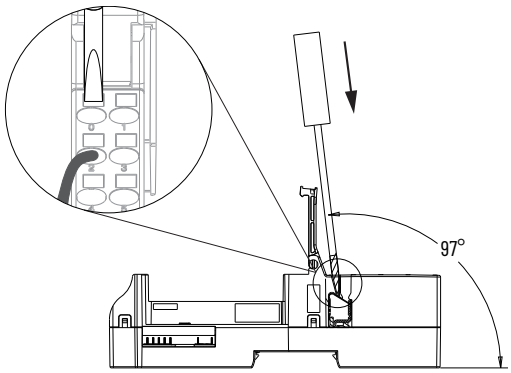
WARNING: For 1734-TOPS and 1734-TOP3S, to latch and unlatch the wire, insert a bladed screwdriver (catalog number 1492-N90 – 3 mm [0.12 in.] diameter blade) into the opening at approximately 97° (blade surface is parallel with top surface of the opening) and press in (do not push up or down).



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 RTB, if wired.

WARNING: When you insert or remove the module while backplane power is on, an electric 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. 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.

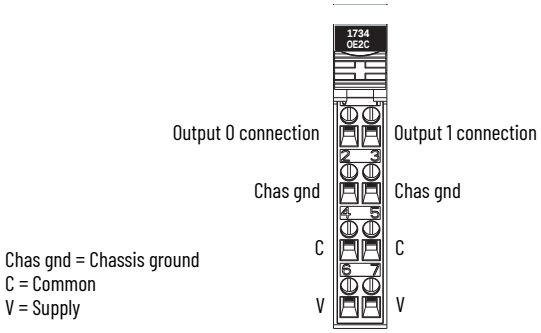
WARNING: When you connect or disconnect the removable terminal block (RTB) with field-side power applied, an electric arc can occur. This can cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding.

1. 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.

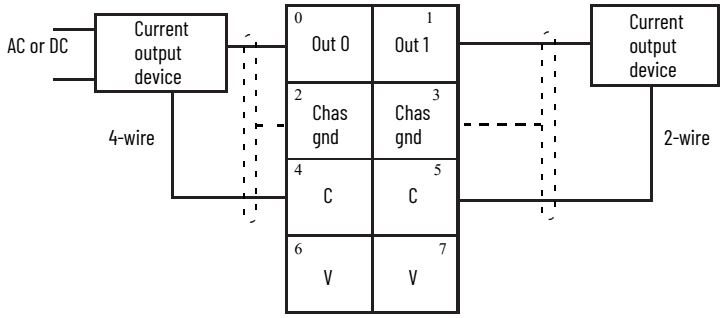
Wire the Module

WARNING: If you connect or disconnect the wiring while the field-side power is On, an electric 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.

POINT I/O Module – 1734-OE2C, 1734-OE2CK



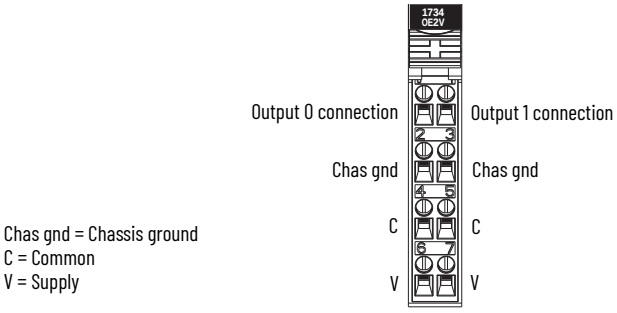
POINT I/O Module Wiring – 1734-OE2C, 1734-OE2CK



Out = Output channel
Chas gnd = Chassis ground
C= Common
V = 24V DC, nominal
Note: Not protected, 0.3 A max

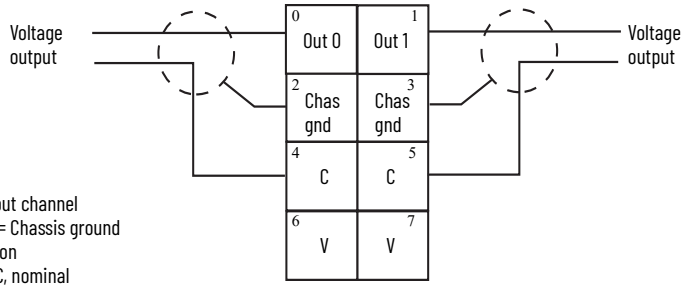
Channel	Current Output	Chassis Ground	Common	Supply
0	0	2	4	6
1	1	3	5	7
24V DC power is provided by the internal field power bus.				

POINT I/O Module – 1734-OE2V, 1734-OE2VK



Chas gnd = Chassis ground
C = Common
V = Supply

POINT I/O Module Wiring – 1734-OE2V, 1734-OE2VK



Out = Output channel
Chas gnd = Chassis ground
C = Common
V = 24V DC, nominal
Note: Not protected, 0.3 A max

Channel	Voltage Output	Chassis Ground	Common	Supply
0	0	2	4	6
1	1	3	5	7
24V DC power is provided by the internal field power bus.				

Communicate with the Module

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

These modules produce 2 bytes of input data (scanner Rx) and fault status data. These modules consume 4 bytes of output data (scanner Tx).

Default Data Map

Message size: 2 Bytes

	15	14	13	12	11	10	09	08	07	06	05	04	03	02	01	00
Produces (scanner Rx)	High Byte - Channel 1 status								Low Byte - Channel 0 status							
	Not used				HCA	LCA	CM	CF	Not used				HCA	LCA	CM	CF
Where:	CF = Channel Fault status; 0 = No error, 1 = Fault CM = Calibration Mode; 0 = Normal, 1 = Calibration mode HCA = High Clamp Alarm; 0 = No error, 1 = Fault LCA = Low Clamp Alarm; 0 = No error, 1 = Fault															

Message size: 4 Bytes

	15	14	13	12	11	10	09	08	07	06	05	04	03	02	01	00
Consumes (scanner Tx)	Output channel 0 High Byte								Output channel 0 Low Byte							
	Output channel 1 High Byte								Output channel 1 Low Byte							

Interpret Status Indicators

See Figure 3 and Table 1 for information on how to interpret the status indicators.

Figure 3 - Status Indicators for POINT I/O 2 Current Output and 2 Voltage Output Analog Modules

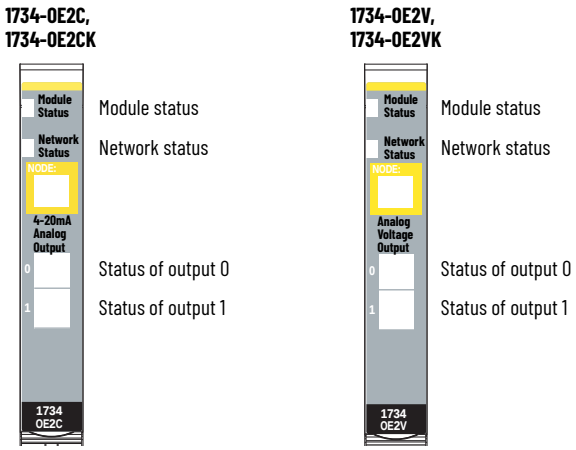


Table 1 - Status Indicator Descriptions

	Status	Description
Module status	Off	No power is applied to the device.
	Flashing green	The device needs commissioning due to missing, incomplete, or incorrect configuration.
	Steady green	The device is operating normally.
	Flashing red	A recoverable fault is present. The device did not pass the internal test.
	Steady red	An unrecoverable fault that may require device replacement.
	Flashing red/green	The device is in self-test mode.
Network status	Off	The device is not online: – The device has not completed Autobaud detection because there is no network traffic. – The device has not completed the dup_MAC_id test. – The device is not powered - Check the module status indicator.
	Flashing green	The device is online but has no connections in the established state.
	Steady green	The device is online and has connections in the established state.
	Flashing red	One or more I/O connections are in a timed-out state.
	Steady red	Critical link failure – Failed communication device. The device has detected an error that prevents it from communicating on the network.
	Flashing red/green	Communication faulted device – The device has detected a network access error and is in a communication faulted state. The device has received and accepted an Identity Communication Faulted Request – Long protocol message.

Table 1 - Status Indicator Descriptions (Continued)

	Status	Description
Output status	Off	The device is in CAL mode.
	Flashing green	The channel is being calibrated.
	Steady green	Normal operation is present with the channel actively controlling outputs.
	Flashing red	Open wire or no field power is present – **1734-OE2C, 1734-OE2CK** A low or high clamp is present – **1734-OE2V, 1734-OE2VK**
	Steady red	Not applicable – **1734-OE2C, 1734-OE2CK** No field power is present – **1734-OE2V, 1734-OE2VK**

Place Series C Analog Current Output Modules

Always install modules in accordance with their specified operating temperature ratings, as listed in Environmental Specifications on page 12, and provide a minimum of 2.54 cm (1.0 in.) clearance above the modules.

Specifications

Output Specifications

Attribute	1734-OE2C, 1734-OE2CK	1734-OE2V, 1734-OE2VK
Number of outputs	2 single-ended, non-isolated, current	2 single-ended, non-isolated, voltage
Resolution	13 bits - over 0…21 mA 2.5 µA/cnt (average value - typical range: 2.3…2.7 µA/cnt)	14 bits (13 plus sign) 1.28 mV/cnt in unipolar or bipolar mode
Output current	0 mA output until communication established 4…20 mA user configurable 0…20 mA user configurable	–
Output voltage	–	0V output until communication established 0…10V (configurable) (-0.0V under, +0.5V over) ±10V user configurable (-0.5V under, +0.5V over)
Absolute accuracy(1)	0.1% full scale @ 25 °C	
Accuracy drift with temp.	30 ppm/ °C	5 ppm/ °C
Step response to 63% of FS	24 µs	
Current load on voltage output	–	3 mA
Resistive load on current output	0…750 Ω	–
Conversion type	Digital to analog converter	
Conversion rate	16 µs	20 µs
Data format	Signed Integer	
Calibration	Factory-calibrated	

(1) Includes offset, gain, non-linearity, and repeatability error terms.

General Specifications

Attribute	1734-OE2C, 1734-OE2CK	1734-OE2V, 1734-OE2VK
Terminal base	1734-TB, 1734-TBS, 1734-TB3, 1734-TB3S, 1734-TOP, 1734-TOPS, 1734-TOP3, or 1734-TOP3S wiring base assembly	
Terminal base screw torque	0.6 N•m (7 lb•in)	
Indicators, logic side	1 green/red – Module status 1 green/red – Network status 2 green/red – Output status	
Keyswitch position	4	
POINTBus™ current, max	75 mA @ 5V DC	
Power dissipation, max	750 Ω load on each output - 1.23 W 0 Ω load on each output - 1.83 W	1.0 W
Thermal dissipation, max	750 Ω load on each output - 4.19 BTU/hr 0 Ω load on each output - 6.24 BTU/hr	3.4 BTU/hr
Isolation voltage (Continuous-voltage withstand rating)	50V Continuous Tested to withstand 2200V DC for 60 s No isolation between individual channels	
External DC power Supply voltage, nom Voltage range Supply current	24V DC 10…28.8V DC 70 mA @ 24V DC (including outputs @ 20 mA)	24V DC 10…28.8V DC 35 mA @ 24V DC (including outputs @ 3 mA)
Dimensions (H x W x D), approx.	56.6 x 12.1 x 77.5 mm (2.23 x 0.48 x 3.05 in.)	
Weight, approx	36 g (1.27 oz)	

General Specifications (Continued)

Attribute	1734-OE2C, 1734-OE2CK	1734-OE2V, 1734-OE2VK
Wire category[1] [2]	1 - on signal ports	
Wire size	0.25…2.5 mm^2 (22…14 AWG) solid or stranded copper wire rated at 75 °C (167 °F) or greater 1.2 mm (3/64 in.) insulation max	
Enclosure type rating	None (open-style)	
North American temp code	T4	T4A
UKEX/ATEX temp code	T4	
IECEx temp code	T4	

(1) Use this Conductor Category information for planning conductor routing. See the Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1.
(2) Use this Conductor Category information for planning conductor routing as described in the appropriate System Level Installation Manual.

Environmental Specifications

Attribute	1734-OE2C, 1734-OE2CK	1734-OE2V, 1734-OE2VK
Temperature, operating	IEC 60068-2-1 (Test Ad, Operating Cold), IEC 60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock): -20 °C ≤ Ta ≤ +55 °C (-4 °F ≤ Ta ≤ +131 °F)	
Temperature, surrounding air, max	55 °C (131 °F)	
Temperature, nonoperating	IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock): -40…+85 °C (-40…+185 °F)	
Relative humidity	IEC 60068-2-30 (Test Db, Unpackaged Damp Heat): 5…95% noncondensing	
Vibration	IEC 60068-2-6 (Test Fc, Operating): 5 g @ 10…500 Hz	
Shock, operating	IEC 60068-2-27 (Test Ea, Unpackaged Shock): 30 g	
Shock, nonoperating	IEC 60068-2-27 (Test Ea, Unpackaged Shock): 50 g	
Emissions	IEC 61000-6-4	
ESD immunity	IEC61000-4-2 6 kV contact discharges 8 kV air discharges	
Radiated RF immunity	IEC 61000-4-3: 10V/m with 1 kHz sine wave 80% AM from 80…6000 MHz	
EFT/B immunity	IEC 61000-4-4: ±3 kV at 5 kHz on signal ports	
Surge transient immunity	IEC 61000-4-5: ±2 kV line-earth(CM) on shielded ports	
Conducted RF immunity	IEC61000-4-6: 10V rms with 1 kHz sine wave 80% AM from 150 kHz…80 MHz	