Counter Modules Environmental Specifications

1734 Counter Modules Environmental Specifications

Operating temperature	-20...55 °C (-4...131 °F)
Nonoperating Temperature	-40...85 °C (-40...185 °F)
Relative humidity	5...95% non-condensing
Operating shock	30 g
Nonoperating shock	50 g
Vibration	5 g @ 10…500 Hz
Enclosure type rating	None (open-style)
Mounting type	DIN Rail
Certifications (when product is marked)	c-UL-us, CE, C-Tick, Ex

Safety I/O Modules

Use the POINT Guard I/O Safety Modules in the POINT I/O platform to distribute Safety I/O on a GuardLogix, Compact GuardLogix or SmartGuard system. You can configure the modules by using the network configuration tool, RSNetWorx software, or the GuardLogix programming tool, RSLogix 5000 software, version 17 or later.

GuardLogix systems are intended for the use of POINT Guard I/O modules with an EtherNet/IP adapter. SmartGuard systems are intended to use POINT Guard I/O modules with the 1734-PDN module.

Use the modules to construct a safety-control network system that meets the requirements up to Safety Integrity Level 3 (SIL 3) as defined in IEC 61508, Functional Safety of Electrical, Electronic, and Programmable Electronic Safety-related Systems, and the requirements for Safety Category 4 / Performance Level e of the EN ISO 13849-1 standard.

1734-IB8S Technical Specifications

Attribute	Value
Safety Input	
Inputs per module	8
Input type	Current sinking
Voltage, on-state input	11…30V DC
Voltage, off-state input, max	5V DC
Current, on-state input, min	3.3 mA
Current, off-state, max	1.3 mA

1734-IB8S Technical Specifications

Attribute	Value
IEC 61131-2 (input type)	Type 3
Reaction time	<16.2 ms
Pulse Test Output	
Output type	Current sourcing
Number of sources (T0, T1M, T2, T3M)	4
Test output current (each output point)	0.7 A max
Aggregate current of test outputs per module	2.8 A @ 40 °C (104 °F)
1734-IB8S temperature versus current derating for both horizontal and vertical installations	
Residual voltage, max	1.2V
Output leakage current, max	0.1 mA
Short circuit protection	Yes
Current, max (when used to control muting lamp)	25 mA (to avoid fault when used as a muted lamp output)
Current, min (when used to control muting lamp)	5 mA (at which fault indication is generated when used as a muted lamp output)

1734-IE4S – Safety Analog Input Module Specifications

Attribute	Specification
Safety Analog Input	
Inputs per module	4 single-ended
Input type	Software-configurable for voltage, current, or tachometer
Input voltage mode ranges	±5V, ±10V, 0…5V, 0…10V
Input current mode ranges	0…20 mA, 4…20 mA
Input tachometer mode ranges	0…24V with configurable ON and OFF thresholds in 1V increments

1734-IB8S, 1734-OB8S, 1734-IE4S – Technical Specifications

Attribute	1734-IB8S	1734-OB8S	1734-IE4S
POINTBus			
POINTBus current, max	175 mA	190 mA	110 mA @ 5V
Power dissipation, max	2.44 W	3.02 W	2.2 W
Thermal dissipation	8.34 BTU/hrr	10.32 BTU/hr	7.5 BTU/hr
Isolation voltage	50V (continuous), Basic Insulation Type between field side and system No isolation between individual channels Type tested @ 707V DC for 60 s		50V continuous- basic Insulation Type, I/O and field power to system Type tested @ 500V AC for 60 seconds. No isolation between individual I/O or I/O to field power.
Power bus, operating supply voltage, nom	24V DC		
Power bus, operating voltage range	19.2…28.8V DC		
Input filter time, OFF to ON[1]	0…126 ms (in 6 ms increments)		
Input filter time, ON to OFF[1]			
Terminal base screw torque	See terminal base specifications		
Indicators	1 yellow lock status indicator 1 green/yellow power status indicator 8 I/O channel status indicators		4 analog input (yellow/red) 4 sensor power (green/red) 1 power (green/yellow)

[1]   Input off-to-on filter time is the time from a valid input signal to recognition by the module. Input on-to-off time is the time from a valid input signal to recognition by the module.

1734-IB8S, 1734-OB8S, and 1734-IE4S Physical Specifications

Attribute	Value
Keyswitch positions (left and right)	1734-IB8S: Key 1 = 8 (left); Key 2 = 1 (right) 1734-OB8S: Key 1 = 8 (left); Key 2 = 2 (right) 1734-IE4S: Key 1 = 8 (left); Key 2 = 3 (right)
Terminal base unit	1734-TB, 1734-TBS, 1734-TOP, 1734-TOPS, 1734-TOP3, 1734-TOP3S
Pilot duty rating	Not rated (1734-OB8S and 1734-IE4S)
North America temp code	T4 (1734-OB8S and 1734-IB8S) T4A (1734-IE4S)
IEC temp code	T4
Enclosure type rating	None (open-style)
Wiring category[1]	2 – on signal ports (1734-IB8S, 1734-OB8S, 1734-IE4S) 1 – on power ports (1734-IE4S only)

1734-IB8S, 1734-OB8S, and 1734-IE4S Physical Specifications

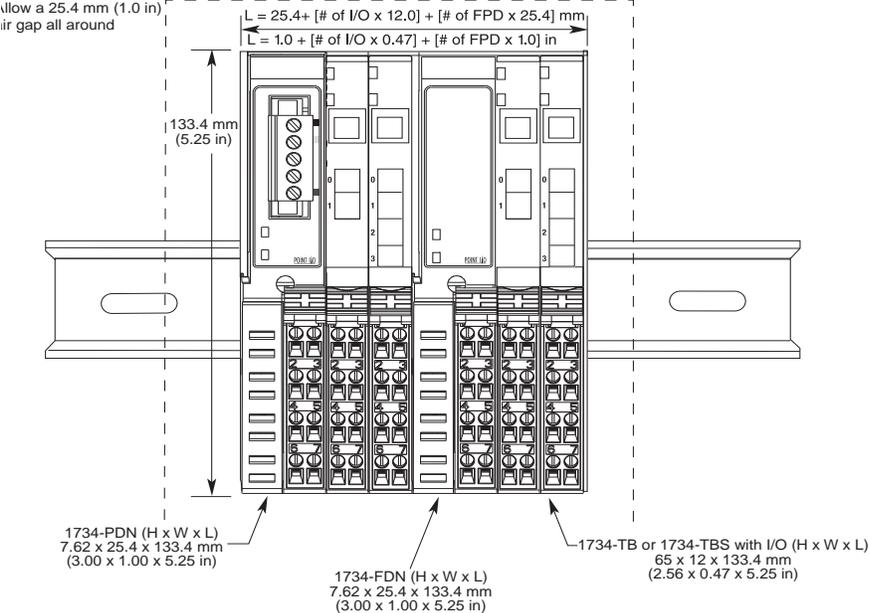| Attribute	Value
Wire size	Determined by installed terminal block.
Weight, approx.	62.4 g (2.2 oz) – 1734-IB8S and 1734-OB8S 68 g (2.4 oz) – 1734-IE4S
Dimensions (HxWxD), approx. (without terminal block)	77 x 24 x 55 mm (3.03 x 0.94 x 2.17 in.)

(1) Use this conductor category information for planning conductor routing. Refer to the Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1.

POINT I/O Accessories

POINT I/O Marker Card

The POINT I/O Marker Card is available under catalog number 1492-SM5X5. Each kit contains five 12.7 x 12.7 cm (5 x 5 in.) cards with 100 markers per card. You can enter text on the marker cards using different font sizes and text widths; you can print multiple lines on one marker card; you can even print common symbols.
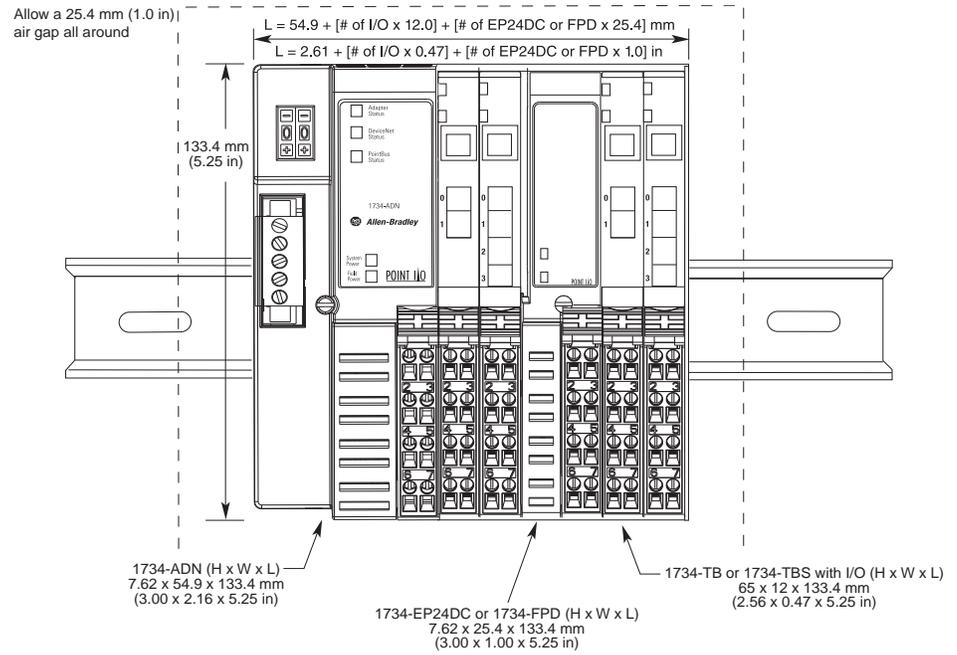
Approximate Mounting Dimensions

POINT I/O with 1734-PDN Mounting Dimensions

Allow a 25.4 mm (1.0 in)
air gap all around

L = 25.4+ [# of I/O x 12.0] + [# of FPD x 25.4] mm
L = 1.0 + [# of I/O x 0.47] + [# of FPD x 1.0] in

133.4 mm
(5.25 in)

1734-PDN (H x W x L)
7.62 x 25.4 x 133.4 mm
(3.00 x 1.00 x 5.25 in)

1734-FDN (H x W x L)
7.62 x 25.4 x 133.4 mm
(3.00 x 1.00 x 5.25 in)

1734-TB or 1734-TBS with I/O (H x W x L)
65 x 12 x 133.4 mm
(2.56 x 0.47 x 5.25 in)

IMPORTANT	When mounting the 1734-IB8S, 1734-OB8S, and 1734-IE4S modules, ensure that there is 2 in. of clearance space above the POINT rail.

POINT I/O with 1734-ADN(X), 1734-ACNR, 1734-AENT, 1734-APB Mounting Dimensions

Allow a 25.4 mm (1.0 in) air gap all around

L = 54.9 + [# of I/O x 12.0] + [# of EP24DC or FPD x 25.4] mm
L = 2.61 + [# of I/O x 0.47] + [# of EP24DC or FPD x 1.0] in

133.4 mm (5.25 in)

1734-ADN (H x W x L)
7.62 x 54.9 x 133.4 mm
(3.00 x 2.16 x 5.25 in)

1734-EP24DC or 1734-FPD (H x W x L)
7.62 x 25.4 x 133.4 mm
(3.00 x 1.00 x 5.25 in)

1734-TB or 1734-TBS with I/O (H x W x L)
65 x 12 x 133.4 mm
(2.56 x 0.47 x 5.25 in)

> **IMPORTANT** When mounting the 1734-IB8S, 1734-OB8S, and 1734-IE4S modules, ensure that there is 2 in. of clearance space above the POINT rail.