

Safety Digital Output Module Specifications

Attribute	1734-OB85 Series A
Safety Output	
Outputs per module	8
Output type	Current sourcing
Output current (each output point)	1 A max
Pulse width	475 μ s
Pulse period	575 ms
Maximum field capacitance limit permitted per output	950 nF
On-state voltage drop	0.165V
Leakage current, max	0.1 mA
Short-circuit detection	Yes (short high and low and cross-circuit fault detect)
Short-circuit protection	Electronic
Aggregate current of outputs per module	8 A (4 A per terminal base) @ 40 °C (104 °F)
1734-OB85 temperature vs. current derating for both horizontal and vertical installations	
Reaction time	<6.2 ms
POINTBus	
POINTBus current, max	190 mA
Power dissipation, max ⁽¹⁾	4.5 W
Power dissipation, typical	3.02 W
Thermal dissipation, max	15.38 BTU/hr
Isolation voltage	50V (continuous), Basic Insulation Type between field side and system No isolation between individual channels Type tested at 707V DC for 60 s
Power bus, operating supply voltage	24V DC nom
Power bus, operating voltage range	19.2...28.8V DC
Power bus current (No Load), max	75 mA
Indicators	1 yellow lock status indicator 1 green/yellow power status indicator 8 I/O channel status indicators
Keyswitch positions (left and right)	Key 1 = 8 (left); Key 2 = 2 (right)
Pilot duty rating	Not rated
North America temp code	T4

Attribute	1734-OB8S Series A
IEC temp code	T4
Enclosure type rating	None (open-style)
Wiring category ⁽²⁾	2 - on signal ports
Wire size	Determined by installed terminal block
Terminal block torque	Determined by installed terminal block
Weight, approx	62.4 g (2.2 oz)
Dimensions (HxWxD), approx (without terminal block)	77 x 25 x 55 mm (3.03 x 0.98 x 2.17 in.)

- (1) Maximum power dissipation applies when using 28.8 V DC module supply and maximum power dissipated for all eight outputs in the ON state.
- (2) Use this conductor category information for planning conductor routing. See the Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

Safety Analog Input Module Specifications

Attribute	1734-IE4S Series A
Safety Analog Input	
Inputs per module	4 single-ended
Input type	Software-configurable for voltage, current, or tachometer
Input voltage mode ranges	$\pm 5V$, $\pm 10V$, $0 \dots 5V$, $0 \dots 10V$
Input current mode ranges	$0 \dots 20$ mA, $4 \dots 20$ mA
Input tachometer mode ranges	$0 \dots 24V$ with configurable ON and OFF thresholds in 1V increments
Voltage code range	Bipolar modes: -32768/+32767 Unipolar modes: 0/+32767
Current code range ($4 \dots 20$ mA mode)	-8192...+32767
Tachometer code range	$0 \dots 1000$
Voltage overrange thresholds	@ $\pm 10V$: 10.0V @ $\pm 5V$: 5.0V @ $0 \dots 10V$: 10.0V @ $0 \dots 5V$: 5.0V
Voltage underrange thresholds	@ $\pm 10V$: -10.0V @ $\pm 5V$: -5.0V @ $0 \dots 10V$: 0.5V @ $0 \dots 5V$: 0.25V
Current overrange thresholds	@ $0 \dots 20$ mA: 20.0 mA @ $4 \dots 20$ mA: 20.0 mA
Current underrange thresholds	@ $0 \dots 20$ mA: 0.5 mA @ $4 \dots 20$ mA: 4.0 mA
Tachometer frequency range	$1 \dots 1000$ Hz
Tachometer overrange threshold	1 kHz
ADC resolution	12 bits
Filter	Single-pole anti-aliasing filter: <ul style="list-style-type: none"> Filter frequency = 10 Hz Followed by four-pole digital filter Available corner frequencies, approx. <ul style="list-style-type: none"> 1 Hz 5 Hz 10 Hz 50 Hz
Step response to 63% (approx.) ⁽¹⁾	Filter frequency @ 1 Hz = 450 ms Filter frequency @ 5 Hz = 125 ms Filter frequency @ 10 Hz = 72 ms Filter frequency @ 50 Hz = 25 ms