

Never use the products for an application involving serious risk to life or property without first verifying that the system as a whole is designed to address the risks and that the Rockwell Automation product is properly rated and installed for the intended use within the overall equipment or system.

Module Identification and Dimensions

See [Table 1](#) for identification information and [Figure 1](#) for module dimensions.

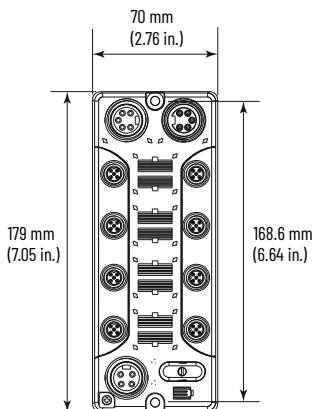
Table 1 - Module Identification

Catalog Number	Name	Safety Inputs	Test Outputs ⁽¹⁾	Safety Outputs
1732DS-IB8	Safety input module	8	8	—
1732DS-IB8XOBV4	Safety I/O module with solid-state outputs	8	8	4 bipolar pairs

(1) Each test output can be set to function as a pulse test output or a standard output pulse. Test outputs are used in combination with a safety input. Broken wires in an external indicator can be detected for terminals T3 and T7 only.

Figure 1 - Module Dimensions

1732DS-IB8XOBV4



1732DS-IB8

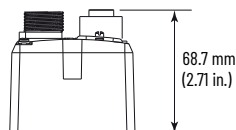
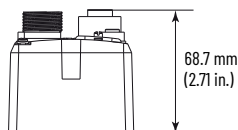
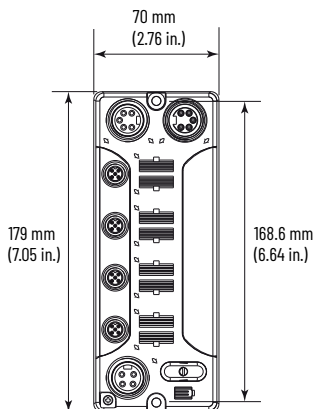


Table 10 - Configuration Lock Indicator⁽¹⁾

State	Status	Description	Recommended Action
Off	No configuration	Invalid configuration data.	None
Steady yellow	Locked	Valid configuration, locked by a network configuration tool, such as RSNetWorx™ for DeviceNet software.	None
Flashing yellow	Not locked	Valid configuration, owned by a network configuration tool, such as RSNetWorx for DeviceNet software.	None

(1) Not applicable if owned by a GuardLogix® controller.

Specifications

Technical Specifications - 1732DS-IB8X0BV4, 1732DS-IB8

Attribute	1732DS-IB8X0BV4, 1732DS-IB8
Safety Input	
Input type	Current sinking
Voltage, on-state input, min	11V DC
Current, on-state input, min	3.3 mA
Voltage, off-state input, max	5V DC
Current, off-state, max	1.3 mA
IEC 61131-2 (input type)	Type 3
Pulse Test Output	
Output type	Current sourcing
Pulse test output current	0.7 A
Residual voltage, max	1.2V
Output leakage current, max	0.1 mA
Short circuit protection	Yes
Current, max	25 mA - Current, max (to avoid fault when used as a muted lamp output)
Current, min	5 mA - Current, min (at which fault indication is generated when used as a muted lamp output)
Safety Output (1732DS-IB8X0BV4 module only)	
Output types	Current sourcing/current sinking - Bipolar pair
Output current rating	2 A max per point 8 A total module @ 40 °C (104 °F) 6 A total module @ 60 °C (140 °F)
On-state voltage drop	±0.6V

Technical Specifications - 1732DS-IB8X0BV4, 1732DS-IB8 (Continued)

Attribute	1732DS-IB8X0BV4, 1732DS-IB8
Leakage current	±1.0 mA ⁽¹⁾
Internal resistance from P to M terminal	3.25 kΩ
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 @ 40 °C (104 °F) 6 A @ 60 °C (140 °F)
Pilot duty rating	DC-14 Pilot Duty (1732DS-IB8X0BV4 module only)
Number of outputs	4 dual-channel

(1) Includes the presence of one P stuck-high or M stuck-low short.

General Specifications - 1732DS-IB8X0BV4, 1732DS-IB8

Attribute	1732DS-IB8X0BV4, 1732DS-IB8
Enclosure type rating	Meets IP64/65/66/67/69K (when product is marked)
Communication power supply voltage	11...25V DC (supplied from communication power supply)
Communication current consumption	85 mA @ 24V DC
Operating voltage range	19.2...28.8V DC (24V DC, ±20%)
Isolation voltage	50V (continuous), reinforced insulation type, I/O to DeviceNet network, I/O to power, and power to DeviceNet network, Tested @ 750V DC for 60 s

General Specifications - 1732DS-IB8X0BV4, 1732DS-IB8 (Continued)

Attribute	1732DS-IB8X0BV4, 1732DS-IB8
Product temperature versus current derating	Product temperature versus current derating (combined current from both input and output supplies)
Wiring category ⁽¹⁾	1 – on signal ports 1 – on power ports 2 – on communication ports
Weight, approx	640 g (1.41 lb)
Dimensions (HxWxD), approx	69 x 179 x 70 mm (2.7 x 7.0 x 2.8 in.)

- (1) Use this Conductor Category information for planning conductor routing. See Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

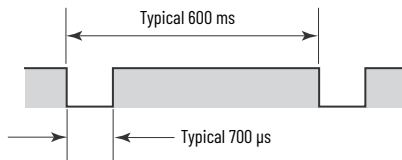
Environmental Specifications - 1732DS-IB8X0BV4, 1732DS-IB8

Attribute	1732DS-IB8X0BV4, 1732DS-IB8
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...+60 °C (-4...+140 °F)
Temperature, storage	IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat): -45...+85 °C (-49...+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

Environmental Specifications - 1732DS-IB8X0BV4, 1732DS-IB8 (Continued)

Attribute	1732DS-IB8X0BV4, 1732DS-IB8
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	CISPR 11 Group 1, Class A
ESD immunity	IEC 61000-4-2: 6 kV contact discharge 8 kV air discharge
Radiated RF immunity	IEC 61000-4-3: 10V/m with 1 kHz sine-wave 80%AM from 80...2000 MHz 10V/m with 200 Hz 50% Pulse 100%AM @ 900 MHz 10V/m with 200 Hz 50% Pulse 100%AM @ 1890 MHz 3V/m with 1 kHz sine-wave 80%AM from 2000...2700 MHz
Conducted RF immunity	IEC 61000-4-6: 10V rms with 1 kHz sine-wave 80%AM from 150 kHz...80 MHz
EFT/B immunity	IEC 61000-4-4: ±4 kV at 5 kHz on power ports ±3 kV at 5 kHz on signal ports ±2 kV at 5 kHz on communication ports
Surge transient immunity	IEC 61000-4-5: ±1 kV line-line (DM) and ±2 kV line-earth (CM) on power ports ±1 kV line-line (DM) and ±2 kV line-earth (CM) on signal ports ±2 kV line-earth (CM) on communication ports
Reaction Time	
Input reaction time, max	16.2 ms + set values of ON/OFF delays
Output reaction time, max	6.2 ms + (20 ms) relay response time (1732DS-IB8X0BV4 module)

Figure 5 - Signal Sequence



While safety outputs are in an on state, the signal sequence shown in the figure is output continuously for fault diagnosis when output pulse testing is enabled. Confirm response time of device that is connected to safety outputs so the device does not malfunction due to off pulse.

Certifications - 1732DS-IB8X0BV4, 1732DS-IB8

Certification (when product is marked) ⁽¹⁾	1732DS-IB8X0BV4, 1732DS-IB8
CE	European Union 2004/108/EC EMC Directive, compliant with: EN 61326-1; Meas./Control/Lab., Industrial Requirements. EN 61000-6-2; Industrial Immunity. EN 61000-6-4; Industrial Emissions. EN 61131-2; Programmable Controllers (Clause 8, Zone A & B).
RCM	Australian Radiocommunications Act, compliant with: AS/NZS CISPR 11; Industrial Emissions.
KCC	Korean Registration of Broadcasting and Communications Equipment, compliant with: Article 58-2 of Radio Waves Act, Clause 3 Registration KCC-REM-RAA-1732S
ODVA	ODVA conformance tested to DeviceNet specifications.
TÜV	TÜV Certified for Functional Safety up to and including Category 4 and SIL 3. ⁽²⁾

- (1) See the Product Certification link at rok.auto/certifications for Declaration of Conformity, Certificates, and other certification details.
- (2) When used with specified firmware revisions.

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation. You can view or download publications at rok.auto/literature.

Resource	Description
DeviceNet Network Configuration User Manual, publication DNET-UM004	Provides information on how to use DeviceNet modules with Logix 5000® controllers and communicate with various devices on the DeviceNet network.
Guard I/O DeviceNet Safety Modules User Manual, publication 1791DS-UM001	Provides information on how to install, wire, configure, and troubleshoot Guard I/O DeviceNet safety modules.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	Provides general guidelines for installing a Rockwell Automation industrial system.
Product Certifications website, rok.auto/certifications	Provides declarations of conformity, certificates, and other certification details.