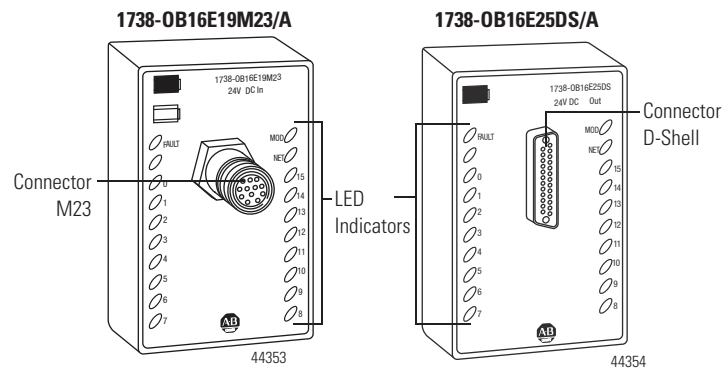


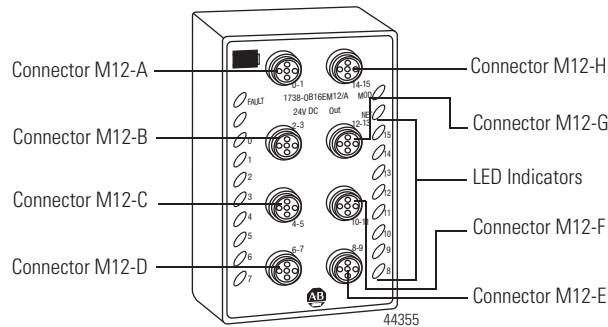
About the Modules

The ArmorPoint I/O family consists of modular I/O modules. The sealed IP67 housing of these modules requires no enclosure when used with IP67 certified cables. (Note that environmental requirements other than IP67 may require an additional appropriate housing.) I/O connectors are sealed DB25, M12 (micro) or M23 styles. The mounting base ships with the module. The 1738-OB16E19M23, 1738-OB16EM12, 1738-OB16E25DS and 1738-IB16DM12 are shown below.

1738-OB16E19M23, 1738-OB16EM12, 1738-OB16E25DS, 1738-IB16DM12 Modules



1738-OB16EM12/A and 1738-IB16DM12/A*



* 1738-IB16DM12/A is represented here by the 1738-OB16EM12/A. They have identical connectors and LED indicators.

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Mount the I/O Base

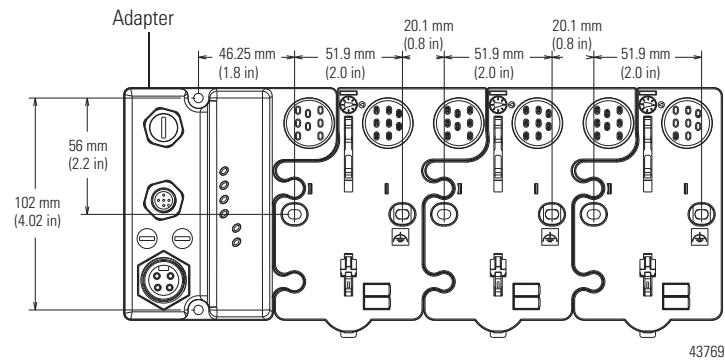
To mount the base on a wall or panel, use the screw holes provided in the base.

IMPORTANT

The module must be mounted on a grounded metal mounting plate or other conductive surface.

Refer to the Drilling Dimensions illustration of the base with an adapter to help you mount the base.

Drilling Dimensions



ATTENTION



You can only use the 1738-EP24DC expansion power unit with the 1738 ArmorPoint I/O adapters.

Specifications

ArmorPoint 24V DC Input Module, Series A - 1738-IB16DM12

Attribute	Value
Inputs per module	1 group of 16, nonisolated
On-state voltage	10V DC minimum 24V DC nominal 28.8V DC maximum
On-state current	2 mA minimum 4 mA @ 24V DC nominal 5 mA maximum
Off-state voltage	5V DC
Off-state current	1.5 mA
Current, sensor source, per input	50 mA maximum
Current, sensor source, per module	800 mA maximum
Field power supply voltage range	10...28.8V DC
Input delay time ⁽¹⁾ OFF to ON / ON to OFF	0.5 ms hardware + (0...63 ms selectable)
Input point density	16

⁽¹⁾ Input OFF to ON or ON to OFF delay is time from a valid input signal to recognition by the module.

16 ArmorPoint 24V DC 16 Point Input and Output Modules, Series A

General Specifications

Attribute	Value
Power dissipation	1738-OB16E19M23, 1738-OB16EM12, 1738-OB16E25DS – 3.0W @ 28.8V DC 1738-IB16DM12 – 2.7W @ 28.8V DC maximum
Thermal dissipation	1738-OB16E19M23, 1738-OB16EM12, 1738-OB16E25DS – 10.3 BTU/hr @ 28.8V DC 1738-IB16DM12 – 9.2 BTU/hr @ 28.8V DC maximum
Isolation voltage	50V (continuous), Reinforced Insulation Type, field-side to system Type tested at 1000V DC for 60 s, field-side to system No isolation between individual channels
Dimensions (HxWxD), approx.	120 x 72 x 42 mm 4.72 x 2.83 x 4.25 in including I/O and mounting base
Weight	290 g (10.24 oz)
LED indicators	16 yellow input/output status, logic side 1 green/red network status, logic side 1 green/red module status, logic side 1 red fault status, logic side
PointBus current	1738-OB16E19M23, 1738-OB16EM12, 1738-OB16E25DS – 150 mA @ 5V DC maximum 1738-IB16DM12 – 75 mA @ 5V DC maximum
Wiring category ⁽¹⁾	1 - on signal ports
Keyswitch position	1
Enclosure type rating	Meets IP65/66/67/69K (when marked)
Mounting base screw torque	#8 screw 0.85 Nm (7.5 lb-in) in Aluminum 1.81 Nm (16 lb-in) in Steel

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

Environmental Specifications

Attribute	Value
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): -40...85 °C (-40...185 °F)
Relative humidity	IEC 60068-2-30 (Test Db, Unpackaged Damp Heat): 5...95% non-condensing
Shock, operating	IEC 60068-2-27 (Test Ea, Unpackaged Shock): 30g
Shock, non-operating	IEC 60068-2-27 (Test Ea, Unpackaged Shock): 50g
Vibration	IEC 60068-2-6 (Test Fc, Operating): 5g @ 10...500 Hz
Emissions	CISPR 11: Group 1, Class A
ESD immunity	IEC 61000-4-2: 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...2000 MHz 10V/m with 200 Hz 50% Pulse 100%AM at 900 MHz 10V/m with 200 Hz 50% Pulse 100%AM at 1890 MHz 3V/m with 1 kHz sine-wave 80%AM from 2000...2700 MHz
EFT/B immunity	IEC 61000-4-4: ±3kV at 5 kHz on signal ports
Surge transient immunity	IEC 61000-4-5: ±1 kV line-line (DM) and ±2 kV line-earth (CM) on signal ports
Conducted RF immunity	IEC 61000-4-6: 10V rms with 1 kHz sine-wave 80%AM from 150 kHz...80 MHz

18 ArmorPoint 24V DC 16 Point Input and Output Modules, Series A

Certifications

Certification (when product is marked) ⁽¹⁾	Value
CE	European Union 2004/108/EC EMC Directive, compliant with: EN 61326; 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)
C-Tick	Australian Radiocommunications Act, compliant with: AS/NZS CISPR 11; Industrial Emissions

⁽¹⁾ See the Product Certification link at <http://www.ab.com> for Declaration of Conformity, Certificates, and other certification details.