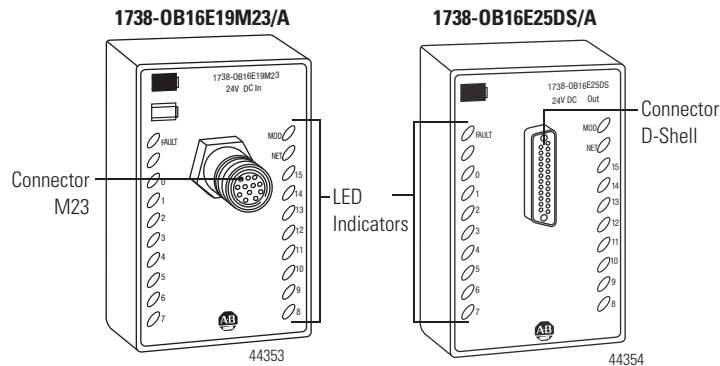


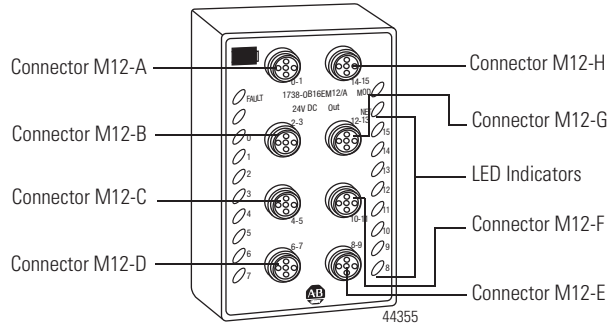
**About the Modules**

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.

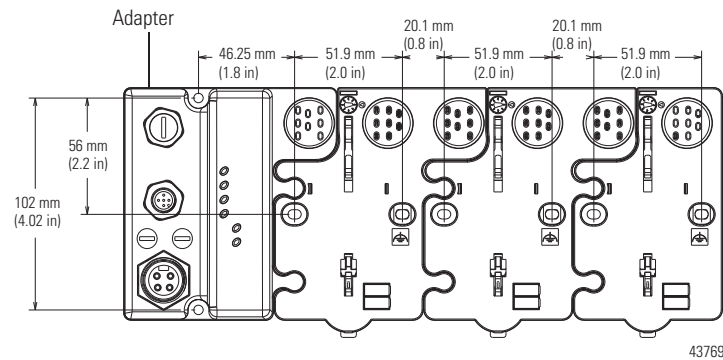
### Mount the I/O Base

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 <sup>(1)</sup> OFF to ON / ON to OFF	0.5 ms hardware + (0...63 ms selectable)
Input point density	16

<sup>(1)</sup> 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 <sup>(1)</sup>	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

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

**Environmental Specifications**

<b>Attribute</b>	<b>Value</b>
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

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### Certifications

Certification (when product is marked) <sup>(1)</sup>	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

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