



Pinout Guide for ArmorPOINT Analog, Serial, Encoders/Counters

Catalog Numbers 1738-IE2CM12, 1738-IE2VM12, 1738-OE2CM12, 1738-OE2VM12, 1738-IE4CM12, 1738-OE4CM12, 1738-IR2M12, 1738-IT2IM12, 1738-232ASC12, 1738-485ASC12, 1738-VHSC24M23, 1738-IJM23, 1738-SSIM23

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Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes. Translated versions are not always available for each revision.

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Package List

Your package contains one ArmorPOINT® I/O module and these wiring instructions. For complete installation instructions, see [Table 1](#) module publication number list.

Table 1 - Module Publication Number

Publication	Catalog Number
ArmorPOINT 24V DC Analog Input Modules, Series A Installation Instructions, publication 1738-IN003	1738-IE2CM12, 1738-IE2VM12
ArmorPOINT 24V DC Analog Output Modules, Series A Installation Instructions, publication 1738-IN004	1738-OE2CM12, 1738-OE2VM12
ArmorPOINT 4-channel 24V DC Analog Input Module, Series A Installation Instructions, publication 1738-IN024	1738-IE4CM12
ArmorPOINT 4-channel 24V DC Analog Output Module, Series A Installation Instructions, publication 1738-IN025	1738-OE4CM12
ArmorPOINT RTD and Thermocouple Input Modules, Series A Installation Instructions, publication 1738-IN005	1738-IR2M12, 1738-IT2IM12
ArmorPOINT I/O RS-232 ASCII Module Installation Instructions, publication 1738-IN009	1738-232ASC12
ArmorPOINT I/O RS-485 ASCII Module Installation Instructions, publication 1738-IN010	1738-485ASC12
ArmorPOINT 24V DC Very High Speed Counter Module, Series A Installation Instructions, publication 1738-IN011	1738-VHSC24M23

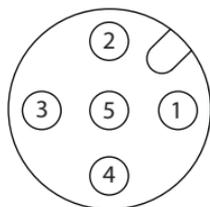


Table 1 - Module Publication Number (Continued)

Publication	Catalog Number
ArmorPOINT I/O 5V DC Encoder/Counter Module, Series A Installation Instructions, publication 1738-IN012	1738-IJM23
ArmorPOINT I/O Synchronous Serial Interface (SSI) Absolute Encoder Module, Series A Installation Instructions, publication 1738-IN013	1738-SSIM23

Connectors

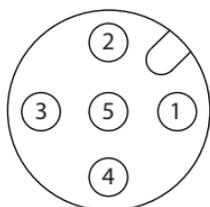
1738-IE2CM12, 1738-IE2VM12, and 1738-IE4CM12



1738-IE2CM12, 1738-IE2VM12/1738-IE4CM12

Pin 1 - 24V DC	Pin 1 - 24V DC
Pin 2 - Input 0 (M12-A)	Pin 2 - Input 0 (M12-A)
Pin 3 - Common	Pin 3 - Input 1 (M12-B)
Pin 4 - Common	Pin 4 - Input 2 (M12-C)
Pin 5 - No connect	Pin 5 - Input 3 (M12-D)
	Pin 3 - Common
	Pin 4 - Common
	Pin 5 - No connect

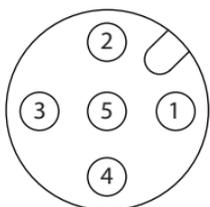
1738-OE2CM12, 1738-OE2VM12, and 1738-OE4CM12



1738-OE2CM12, 1738-OE2VM12/1738-OE4CM12

Pin 1 - Output 0 (M12-A)	Pin 1 - Output 0 (M12-A)
Pin 2 - 24V DC	Pin 1 - Output 1 (M12-B)
Pin 3 - Common	Pin 1 - Output 2 (M12-C)
Pin 4 - Common	Pin 1 - Output 3 (M12-D)
Pin 5 - No connect	Pin 2 - 24V DC
	Pin 3 - Common
	Pin 4 - Common
	Pin 5 - No connect

1738-IR2M12 and 1738-IT2M12



1738-IR2M12

Pin 1 - No Connect
Pin 2 - Input 0A (M12-A)
Pin 3 - Input 0C (M12-A)
Pin 4 - Input 0B (M12-A)
Pin 5 - No connect

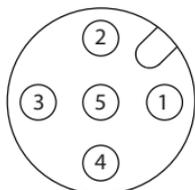
1738-IT2M12

Pin 1 - CJC +
Pin 2 - TC 0 + (M12-A)
Pin 3 - CJC -
Pin 4 - TC 0 - (M12-A)
Pin 5 - No connect

IMPORTANT

Analog and specialty modules have earth-grounded metal rings. This should be considered when choosing shielded cables and grounding techniques. For cable selection, see Ethernet Media Specifications Technical Data, publication [1585-TD001](#).

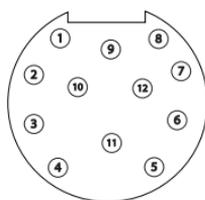
1738-232ASCM12, 1738-485ASCM12



1738-232ASCM12
 Pin 1 - No Connect
 Pin 2 - Tx +
 Pin 3 - Rx +
 Pin 4 - Common
 Pin 5 - No connect

1738-485ASCM12
 Pin 1 - Tx -
 Pin 2 - Tx +
 Pin 3 - Rx +
 Pin 4 - Rx -
 Pin 5 - No connect

1738-VHSC24M23, 1738-IJM23, and 1738-SSIM23



1738-VHSC24M23
 Pin 1 - +A
 Pin 2 - ~A
 Pin 3 - +B
 Pin 4 - ~B
 Pin 5 - +Z
 Pin 6 - ~Z
 Pin 7 - Output 0
 Pin 8 - Output 1
 Pin 9 - Return (Com)
 Pin 10 - Return (Com)
 Pin 11 - 24V DC
 Pin 12 - Chassis

1738-IJM23
 Pin 1 - +A
 Pin 2 - ~A
 Pin 3 - +B
 Pin 4 - ~B
 Pin 5 - +Z
 Pin 6 - ~Z
 Pin 7 - Chassis
 Pin 8 - Chassis
 Pin 9 - Return (Com)
 Pin 10 - Return (Com)
 Pin 11 - 24V DC^(a)
 Pin 12 - Chassis

1738-SSIM23
 Pin 1 - Data +
 Pin 2 - Data -
 Pin 3 - V +
 Pin 4 - V -
 Pin 5 - Shield
 Pin 6 - Input 0
 Pin 7 - Clock +
 Pin 8 - Clock -
 Pin 9 - Return (Com)
 Pin 10 - Return (Com)
 Pin 11 - 24V DC
 Pin 12 - Chassis

(a) Voltage is dependent on field power source. For more information, see ArmorPOINT I/O Field Potential Distributor, Series A Installation Instructions, publication [1738-IN019](#).



ATTENTION: This equipment is considered Group 1, Class A industrial equipment according to IEC/ CISPR Publication 11. Without appropriate precautions, there may be potential difficulties achieving electromagnetic compatibility in other environments due to conducted and radiated disturbance.

Specifications

Environmental Specifications

Attribute	Value
Temperature, operating	IEC60068-2-1 (Test Ad, Operating Cold), IEC60068-2-2 (Test Bd, Operating Dry Heat), IEC 60068-2-14 (Test Nb, Operating Thermal Shock): -20 °C < Ta < +60 °C (-4 °F < Ta < +140 °F)
Temperature, nonoperating	IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock): -40...+85 °C (-40...+185 °F)
Voltage, operating	11...28.8V DC ⁽¹⁾

(1) Voltage is dependent on field power source. For more information, see ArmorPOINT I/O Field Potential Distributor, Series A Installation Instructions, publication [1738-IN019](#).

Certifications

Certification (when product is marked) ⁽¹⁾	Value
CE	European Union 2014/30/EU EMC Directive, compliant with: EN 61326-1; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity EN 61131-2; Programmable Controllers (Clause 8, Zone A & B) EN 61000-6-4; Industrial Emissions European Union 2011/65/EU RoHS, compliant with: EN IEC 63000; Technical documentation
RCM	Australian Radiocommunications Act, compliant with: AS/NZS CISPR 11; Industrial Emissions
Morocco	Arrêté ministériel n° 6404-15 du 29 ramadan 1436
UKCA	2016 No. 1091 – Electromagnetic Compatibility Regulations 2012 No. 3032 – Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations

(1) See the Product Certification link at rok.auto/certifications for Declarations of Conformity, Certificates, and other certification details.

Waste Electrical and Electronic Equipment (WEEE)



At the end of life, this equipment should be collected separately from any unsorted municipal waste.

Rockwell Automation maintains current product environmental compliance information on its website at rok.auto/pec.

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For technical support, visit rok.auto/support.

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