General Specifications

Attribute	Value
Communication rate	EtherNet/IP 10/100 Mbps Full or half-duplex 100 meter per segment

EtherNet/IP I/O Modules

Type	Catalog Number	See Page
Digital DC Combination I/O Modules	1732E-8X8M12DR	16
	1732E-12X4M12QCDR	
	1732E-12X4M12P5QCDR	
Digital DC Input Modules	1732E-IB16M12	16
	1732E-IB16M12W	
	1732E-IB16M12DR	
	1732E-IB16M12R	
	1732E-IB8M8SOER	
	1732E-IB16M12SOEDR	
Digital DC Output Modules	1732E-OB8M8SR	17
	1732E-OB16M12	
	1732E-OB16M12DR	
	1732E-OB16M12R	
Digital DC Self-configurable I/O Modules	1732E-8CFGM8R	18
	1732E-16CFGM12	
	1732E-16CFGM12W	
	1732E-16CFGM12R	
	1732E-16CFGM12QCR	
	1732E-16CFGM12QCWR	
	1732E-16CFGM12P5QCR	
	1732E-16CFGM12P5QCWR	
Analog I/O Modules	1732E-IF4M12R	20
	1732E-OF4M12R	
Thermocouple/RTD Modules	1732E-IR4IM12R	20
	1732E-IT4IM12R	

- **Selectable response to broken input sensor**. This feature provides feedback to the controller that a field device is not connected or operating properly. This allows you to specify corrective action based on the bit or channel condition.
- **Field calibration**. Modules can be recalibrated using AOP (Add-On Profiles) for RSLogix 5000 software. This allows you to improve the accuracy of the module for your application.

Analog I/O Modules

	Catalog Number	Inputs (Sink)	Outputs (Source)	Resolution	Absolute Accuracy	Conversion Rate	Current for Input Device Power per Point, Max.	Potential Aux. Current per Module, Max.	Termination Type
EtherNet/IP	1732E-IF4M12R	4 inputs configurable as voltage or current per channel	0	16 bits	0.1% Full Scale @ 25 °C (77 °F)(1)	≤ 2 ms	20 mA	4.0 A	(4) M12
	1732E-OF4M12R	0	4 outputs configurable as voltage or current per channel	16 bits	0.1% Full Scale @ 25 °C (77 °F)(1)	≤ 2 ms	–	4.0 A	(4) M12

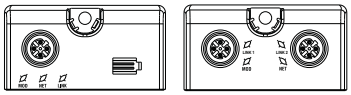
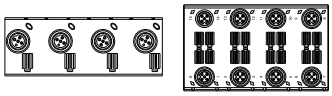
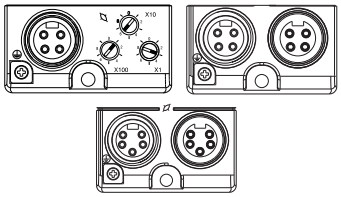
(1) Includes offset, gain, non-linearity, and repeatability error terms.

Thermocouple/RTD Modules

	Catalog Number	Inputs (Sink)	Outputs (Source)	Resolution	Absolute Accuracy	Conversion Rate	Current for Input Device Power per Point, Max.	Potential Aux. Current per Module, Max.	Termination Type
EtherNet/IP	1732E-IR4IM12R	4 inputs	0	16 bits	0.1% Full Scale @ 25 °C (77 °F)(1)	≤ 2 ms	–	4.0 A	(4) M12
	1732E-IT4IM12R	4 inputs (Type B/C/E/J/K/N/R/S/T)	0	16 bits	0.1% Full Scale @ 25 °C (77 °F)(1)	≤ 2 ms	–	4.0 A	(4) M12

(1) Includes offset, gain, non-linearity, and repeatability error terms.

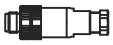
Network, I/O, and Auxiliary Power Connector Types and Quantity on Modules

Catalog Number	 Network Connectors (1 or 2)	 I/O Connectors (4 or 8)	 Auxiliary Power Connectors (1 or 2)
1732E-OB16M12	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732E-OB16M12DR	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732E-OB16M12R	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732E-8CFGM8R	D-code M12 – (2) Female	3-Pin M8 (Pico) – (8) Female	4-Pin M12 (Micro) – (1) Male and (1) Female
1732E-16CFGM12	D-code M12 – (1) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732E-16CFGM12W	D-code M12 – (1) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732E-16CFGM12R	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732E-16CFGM12QCR	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male and (1) Female
1732E-16CFGM12QCWR	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male and (1) Female
1732E-16CFGM12P5QCR	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	5-Pin Mini – (1) Male and (1) Female
1732E-16CFGM12P5QCWR	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	5-Pin Mini – (1) Male and (1) Female
1732E-12X4M12P5QCDR	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	5-Pin Mini – (1) Male and (1) Female
1732E-IF4M12R	D-code M12 – (2) Female	5-Pin M12 (Micro) – (4) Female	4-Pin M12 (Micro) – (1) Male and (1) Female
1732E-OF4M12R	D-code M12 – (2) Female	5-Pin M12 (Micro) – (4) Female	4-Pin M12 (Micro) – (1) Male and (1) Female
1732E-IR4IM12R	D-code M12 – (2) Female	5-Pin M12 (Micro) – (4) Female	4-Pin M12 (Micro) – (1) Male and (1) Female
1732E-IT4IM12R	D-code M12 – (2) Female	5-Pin M12 (Micro) – (4) Female	4-Pin M12 (Micro) – (1) Male and (1) Female

Select Network Cables

For specific catalog numbers of the cables, refer to the On-Machine Connectivity catalog, publication M117-CA001, at the chapter and page numbers listed in the table below.

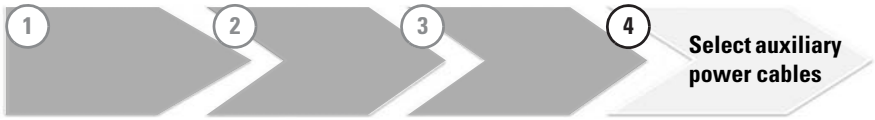
Analog I/O Connections – M12 (DC Micro)

ArmorBlock Catalog Number	 Recommended Male Cordset	 Recommended Patchcord	 Recommended Field Attachable Connector
1732E-IR4IM12R 1732E-IF4M12R 1732E-OF4M12R	889D-M4SC–[1]	889D-F4SCDM–[2]	889D-M4DC-SH
1732E-IT4IM12R	–	–	871A-TS4CJC-DM (Cold-Junction Compensation)

(1) Length in meters (2, 5, and 10 standard).

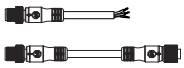
(2) Length in meters (1, 2, 3, 5, and 10 standard).

Select Auxiliary Power Cables



For specific catalog numbers of the cables, refer to the On-Machine Connectivity catalog, publication M117-CA001, at the chapter and page numbers listed in the table below.

Auxiliary Power Connections – Mini or M12 (DC Micro)

Connector Style	 Cordsets and Patchcord
Mini	See Cordsets & Patchcords, Auxiliary Power on page 6-55...58.
M12 (DC Micro)	

Select Accessories

T-Port

T-ports can be used as an alternative method to connect the I/O module to the network or power trunk line. They can also be used to provide an additional connection to daisy-chain with another I/O module. This is useful if your I/O module has only one network or auxiliary power connector. For information on how T-ports are used in a typical configuration, refer to Network Configuration Examples on page 27.

For specific catalog numbers of the accessories, refer to the On-Machine Connectivity catalog, publication M117-CA001, at the chapter and page numbers listed in the table below.

EtherNet/IP I/O Module Specifications

Analog I/O Modules

General Specifications

Attribute	1732E-IF4M12R	1732E-OF4M12R
Number of inputs	4	N.A.
Number of outputs	N.A.	4
Voltage, on-state, max	30V DC	
Voltage, on-state, min	12V DC	
Module power	12...30V DC @ 300 mA	
Power consumption	3 W @ 24V DC, typical 3.5 W, max (module unloaded)	
Isolation voltage	50V (continuous), Basic Insulation Type Type tested @ 707V DC for 60 s	
Resolution, min	16 bits	
Data format	16-bit sign magnitude	
Conversion rate	1.005 kHz per channel	≤ 2ms
Input type	Configurable as voltage or current inputs	N.A.
Notch Filter	1 kHz per channel	
Input range, current	32 mA, 275 mW	
Input range, voltage	±30V, 20 mA, 25 mW	
Input impedance	125 kΩ per channel	
Output type	N.A.	Configurable as voltage or current per channel
Output range, current		0...20 mA, 4...20 mA
Output range, voltage		±10V, 10 mW
Short circuit protection, current, max		20 mA (0...20 mA mode)
Short circuit protection, voltage, max		20 mA per channel
Accuracy	0.1% Full Scale @ 25 °C (77 °F)	
Accuracy drift with temperature, max	40 ppm % Full Scale /°C @ 25 °C (77 °F)	
Calibration required	Factory calibrated. Calibration is also supported through RSLogix 5000.	
Voltage, auxiliary power, max	30V DC	
Voltage, auxiliary power, min	12V DC	
Overload support, current	32 mA	N.A.
Overload support, voltage	30V continuous	
Enclosure type rating	Meets IP69K	
Wiring category[1]	1 – on power ports 1 – on signal ports 1 – on communication ports	
Indicators	Module status – red/green Network status – red/green Link status – green/yellow Auxiliary power – green I/O LED – red/green	

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