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	

Digital DC Combination I/O Modules

	Catalog Number	Inputs (Sink)	Outputs (Source)	Continuous Output Current Rating per Point/ Module, Max.	Surge/Inrush Output Current Rating per Point, Max.	Current for Input Device Power per Point, Max.	Potential Aux. Current per Module, Max.	Network Current Draw	I/O Connectors
DeviceNet	1732D-8I8O1212D	8 (1 on each connector)	8 (1 on each connector and powered by network)	0.5 A/4.0 A	1.2 A	5 mA @ 25V DC	–	0.1 A + I/O (1.0 A max.)	(8) M12
	1732D-8X81212D	8 (2 each on 4 connectors)	8 (2 each on 4 connectors)	0.5 A/4.0 A	1.2 A	5 mA @ 25V DC	4.0 A	0.1 A + I/O (1.0 A max.)	(8) M12
	1732D-8X81212HD	8 (2 each on 4 connectors)	8 (2 each on 4 connectors)	1.4 A/8.0 A	3.1 A	5 mA @ 25V DC	8.0 A		

	Catalog Number	Inputs (Sink)	Outputs (Source)	Continuous Output Current Rating per Point/ Module, Max.	Surge/Inrush Output Current Rating per Point, Max.	Current for Input Device Power per Point, Max.	Potential Aux. Current per Module, Max.(1)	Dual-port Support	I/O Connectors
EtherNet/IP	1732E-8X8M12DR	8 inputs with diagnostics	8 outputs with diagnostics	0.5 A/4.0 A	1.2 A for 10 ms, repeatable every 2 s	5 mA @ 30V DC	4.0 A	2 EtherNet/IP ports(2)	(8) M12
	1732E-12X4M12QCDR / 1732E-12X4M12P5QCDR	12 inputs with diagnostics	4 outputs with diagnostics	0.5 A/2.0 A	1.2 A for 10 ms, repeatable every 2 s	5 mA @ 30V DC	2.0 A	2 EtherNet/IP ports(2)(3)	(8) M12

(1) Pins 2, 3 for sensor source and module power plus pins 1, 4 for output loads.

(2) Configured as embedded switch. Supports star, tree, linear, and ring topologies.

(3) Supports QuickConnect. Refer to publication ENET-AT001 for more information.

Digital DC Input Modules

	Catalog Number	Inputs (Sink)	Outputs (Source)	Continuous Output Current Rating per Point/ Module, Max.	Surge/Inrush Output Current Rating per Point, Max.	Current for Input Device Power per Point, Max.	Potential Aux. Current per Module, Max.	Network Current Draw	I/O Connectors
DeviceNet	1732D-IB8M8	8 Sink	0	–	–	5 mA @ 30V DC	0.45 A	100 mA	(8) M8
	1732D-IB8M12								(4) M12
	1732D-IB16M12M12	16 Sink	0	–	–	5 mA @ 30V DC	0.9 A	75 mA	(8) M12
	1732D-IB16M12MINI								
	1732D-IBDPM12MND	16 powered by network	0	–	–	5 mA @ 25V DC	0.8 A	75 mA + I/O (0.5 A max.)	(8) M12
	1732D-IB161212D	16 powered by network	0	–	–	5 mA @ 25V DC	0.8 A	75 mA + I/O (0.5 A max.)	(8) M12
	1732D-IB161212W	16 Sink	0	–	–	5 mA @ 25V DC	0.9 A	75 mA	(8) M12

Verify Number and Type of Connectors on Module

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)
DeviceNet Modules			
1732D-8I8O1212D	M12 (Micro) – (1) Female and (1) Male	5-Pin M12 (Micro) – (8) Female	– (I/O powered by network)
1732D-8X81212D	M12 (Micro) – (1) Female and (1) Male	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732D-8X81212HD	M12 (Micro) – (1) Female and (1) Male	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732D-IB8M8	M12 (Micro) – (1) Female and (1) Male	3-Pin M8 (Pico) – (8) Female	4-Pin M12 (Micro) – (1) Male
1732D-IB8M12	M12 (Micro) – (1) Female and (1) Male	5-Pin M12 (Micro) – (8) Female	4-Pin M12 (Micro) – (1) Male
1732D-IB16M12M12	M12 (Micro) – (1) Female and (1) Male	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732D-IB16M12MINI	Mini – (1) Female and (1) Male	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732D-IBDPM12MND	Mini – (1) Male	5-Pin M12 (Micro) – (8) Female	–
1732D-IB161212D	M12 (Micro) – (1) Female and (1) Male	5-Pin M12 (Micro) – (8) Female	–
1732D-IB161212W	M12 (Micro) – (1) Female and (1) Male	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732D-OB8EM8	M12 (Micro) – (1) Female and (1) Male	3-Pin M8 (Pico) – (8) Female	4-Pin M12 (Micro) – (1) Male
1732D-OB8EM12	M12 (Micro) – (1) Female and (1) Male	5-Pin M12 (Micro) – (4) Female	4-Pin M12 (Micro) – (1) Male
1732D-OB16M12M12	M12 (Micro) – (1) Female and (1) Male	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732D-OB16M12MINI	Mini – (1) Female and (1) Male	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732D-8CFGM8	M12 (Micro) – (1) Female and (1) Male	5-Pin M12 (Micro) – (8) Female	4-Pin M12 (Micro) – (1) Male
1732D-8CFGM12	M12 (Micro) – (1) Female and (1) Male	5-Pin M12 (Micro) – (4) Female	4-Pin M12 (Micro) – (1) Male
1732D-16CFGM12M12	M12 (Micro) – (1) Female and (1) Male	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732D-16CFGM12MN	Mini – (1) Female and (1) Male	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732D-16CFG1212W	M12 (Micro) – (1) Female and (1) Male	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
EtherNet/IP Modules			
1732E-8X8M12DR	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732E-12X4M12QCDR	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male and (1) Female
1732E-IB16M12	D-code M12 – (1) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732E-IB16M12W	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732E-IB16M12DR	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732E-IB16M12R	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732E-IB8M8SOER	D-code M12 – (2) Female	3-Pin M8 (Pico) – (8) Female	4-Pin M12 (Micro) – (1) Male and (1) Female
1732E-IB16M12SOEDR	D-code M12 – (2) Female	5-Pin M12 (Micro) – (8) Female	4-Pin Mini – (1) Male
1732E-OB8M8SR	D-code M12 – (2) Female	3-Pin M8 (Pico) – (8) Female	4-Pin M12 (Micro) – (1) Male and (1) Female

Digital DC Combination I/O Modules

General Specifications

Attribute	1732E-12X4M12QCDR, 1732E-12X4M12P5QCDR	1732E-8X8M12DR
Number of inputs	12	8
Number of outputs	4	8
Voltage, off-state, max	5V DC	
Voltage, on-state, max	30V DC	
Voltage, on-state, min	12V DC	11V DC
Voltage, on-state, nom	24V DC	
Voltage, sensor source, max	30V DC	
Voltage, sensor source, min	10V DC	
Voltage drop, output, on-state, max	0.5V DC	
Voltage blocking, off-peak, min	30V DC	
Voltage, auxiliary power, max	30V DC	
Voltage, auxiliary power, min	12V DC	
Isolation voltage	50V (continuous), Basic Insulation Type, I/O to Ethernet, Power to Ethernet Type tested @ 707V DC for 60 s	50V (continuous), Basic Insulation Type, Inputs and Sensor Power to Network No isolation between individual Inputs or between Network channels Type tested @ 707V DC for 60 s
Current, input, off-state, max	1.5 mA @ 5V DC	
Current, input, on-state, max	5 mA @ 30V DC	
Current, output, on-state, max	0.5 A	
Current per module, max (all outputs)	2 A	4 A
Current per input, sensor source, max	50 mA	
Current per connector, sensor source, max	100 mA	
Current per module, output, auxiliary power, max	2 A	4 A
Current, Ethernet system power, max	1 A	0.8 A
Current leakage, output, off-state, max	50 μA	
Surge current per output, max	1.2 A for 10 ms, repeatable every 2 s	
Input delay time[1] OFF to ON ON to OFF	0, 1, 2, 4, 8, 16 ms	0...16000 μs
Pilot duty rating	N.A.	DC-14
Enclosure type rating	Meets IP65/66/67/69K	
Wiring category[2]	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 – yellow/red	

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

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