

Digital DC Self-configurable Modules

General Specifications

Attribute	1732E-16CFGM12, 1732E-16CFGM12W	1732E-16CFGM12R	1732E-16CFGM12QCR, 1732E-16CFGM12QCWR, 1732E-16CFGM12P5QCR 1732E-16CFGM12P5QCWR	1732E-8CFGM8R
Digital Inputs				
Number of inputs	16, Sink, self-configuring			8, Sink, self-configuring, unprotected
Inputs type	Powered by auxiliary power, with sensor source short circuit protection.			Powered by auxiliary power, sensor source unprotected against short circuit.
Voltage, input, off-state, range	0...5V DC			
Voltage, input, on-state, range	11...30V DC	12...30V DC		11...30V DC
Current, input, off-state, range	0...1.5 mA			0...90 μA
Current, input, on-state, range	2...5 mA			180 μA...5 mA
Voltage, sensor source, range	11...30V DC	10...30V DC		
Current per input, sensor source, max	50 mA			
Current per module, sensor source, max	800 mA			400 mA
Input delay time ⁽¹⁾ OFF to ON ON to OFF	0...16000 μs	0, 1, 2, 4, 8, 16 ms		0 ms (default), 2 ms, 4 ms, 8 ms, 16 ms
Digital Outputs				
Number of outputs	16, Source, self-configuring, electronically fused by point			8, Source, self-configuring, unprotected)
Outputs type	Powered by auxiliary power, with output short circuit protection.			Powered by auxiliary power, unprotected against short circuit.
Current, output, on-state, range	1...500 mA			
Current per module, max (all outputs)	8 A			4 A
Current leakage, output, off-state, max	50 μA			
Surge current per output, max	3.2 A for 10 ms, repeatable	1.2 A for 10 ms, repeatable every 2 s		
Auxiliary Power				
Current, auxiliary power, max	8 A		10 A	4 A
Voltage, auxiliary power, range	12...30V DC			
General Information				
Isolation voltage	50V (continuous), basic insulation type, outputs and output power to network, inputs and sensor power to network No isolation between individual inputs or outputs or between outputs and output power Type tested @ 707V DC for 60 s			
Pilot duty rating	DC-14	Not rated		DC-14

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Enclosure type rating	Meets IP65/66/67/69K and Type 4X/6P with receptacle dust caps or cable termination.		Meets IP65/66/67/69K and Type 4X with receptacle dust caps or cable termination	Meets IP65/66/67/69K with receptacle dust caps or cable termination and NEMA Type1
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 status – yellow			
Publication	1732E-IN002	1732E-IN004	1732E-IN010	1732E-IN007

(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.

Environmental Specifications – 1732E-16CFGM12, 1732E-16CFGM12W, 1732E-16CFGM12R, 1732E-16CFGM12QCR, 1732E-16CFGM12QCWR, 1732E-16CFGM12P5QCR, 1732E-16CFGM12P5QCWR, 1732E-8CFGM8R

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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, nonoperating	IEC 60068-2-1 (Test Ab, Un-packaged Non-operating Cold), IEC 60068-2-2 (Test Bb, Un-packaged Non-operating Dry Heat), IEC 60068-2-14 (Test Na, Un-packaged Non-operating Thermal Shock): -40...85 °C (-40...185 °F)			
Temperature, ambient, max	—		60 °C (140 °F)	
Temperature, surrounding air, max	60 °C (140 °F)		—	
Relative humidity	IEC 60068-2-30 (Test Db, Un-packaged Damp Heat): 5...95% non-condensing			
Vibration	IEC60068-2-6 (Test Fc, Operating): 5 g @ 10...500 Hz			
Shock, operating	IEC60068-2-27 (Test Ea, Unpackaged Shock): 30 g			
Shock, nonoperating	IEC60068-2-27 (Test Ea, Unpackaged Shock): 50 g			
Emissions	IEC 61000-6-4			
ESD immunity	IEC 61000-4-2: 8 kV contact discharges 8 kV air discharges	IEC 61000-4-2: 6 kV contact discharges 8 kV air discharges		