Modicon Quantum automation platform

Catalog

November 2015



Schneider Electric

Modicon Quantum automation platform

Analog I/O modules

Current/voltage, temperature probe, thermocouple inputs

Type	Analog input modules, 8 channels and 16 channels			RTD analog input modules, 8 channels	TC analog input modules, 8 channels
					
Number of channels	8 differential	16 differential or 16 with common point	8 differential	8	8
Input range	4…20 mA 1…5 V	0…25 mA 0…20 mA 4…20 mA	0…20 mA, ± 20 mA, 4…20 mA 0…10 V, ± 10 V 0…5 V, ± 5 V 1…5 V	2, 3 or 4-wire RTD temperature probe, types: ■ IEC platinum: □ Pt 100, Pt 200, Pt 500, Pt 1000: - 200...+ 850°C ■ US platinum: □ Pt 100, Pt 200, Pt 500, Pt 1000: - 100...+ 450°C ■ Nickel: □ Ni 100, Ni 200, Ni 500, Ni 1000: - 60...+ 180°C	TC thermocouple types: ■ J: - 210...+ 760°C ■ K: - 270...+ 1370°C ■ E: - 270...+ 1000°C ■ T: - 270...+ 400°C ■ S: - 50...+ 1665°C ■ R: - 50...+ 1665°C ■ B: - 130...+ 1820°C ■ mV: - 100...+ 100 mV, - 25...+ 25 mV
Resolution	12 bits	0...25 mA: 0…25,000 points 0...20 mA: 0…20,000 points 4...20 mA: 0…16,000 points (default) 4...20 mA: 0...4095 points	14/15/16 bits depending on range	0.1°C	1°C (default) 0.1°C 1°F 0.1°F
I/O addresses	9 input words	17 input words	9 input words	9 input words	10 input words
Isolation between channels (max.)	30 V ⎓		200 V ⎓ 135 V ∿ rms	300 V peak	220 V ∿ at 47…63 Hz or 300 V ⎓ max.
Bus current required	240 mA	360 mA	280 mA	200 mA	280 mA
Maximum dissipated power	2 W	5 W	2.2 W	1 W	1.5 W
External power supply (U_s)	Not required			–	
External fuse	–			–	
Online modification of configuration *(1)*	Yes			Yes	
Functional safety certification	–	Non-interfering	–	–	
Approvals	UL 508, CSA 22.2-142, CE, FM Class 1 Div. 2, ATEX Zone 2/22 *(2)*			UL 508, CSA 22.2-142, CE, FM Class 1 Div. 2	
Type of module	**140ACI03000**	**140ACI04000**	**140AVI03000**	**140ARI03010**	**140ATI03000**
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(1) For online modification of configuration, see page 2/37.
(2) Only Conformal Coating versions, depending on model, are ATEX Zone 2/22 certified. For more information, see pages 8/2 to 8/9.

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