Modicon X80 modules platform

X80 I/O modules

Analog input modules

Applications		Analog inputs	
Type of input		Isolated low-level inputs, voltage, thermocouples, temperature probes, resistors	
Type		Multirange	
Range	Voltage	± 40 mV, ± 80 mV, ± 160 mV, ± 320 mV, ± 640 mV, ± 1.28 V	
	Current	–	
	Thermocouple Temperature probe Resistor	Thermocouples, type B, E, J, K, L, N, R, S, T, U 2-, 3- or 4-wire temperature probes, type Pt100, JPt100, Pt1000, JPt1000, Ni100, Ni1000 (in accordance with DIN43760), and Cu 10 2-, 3- or 4-wire resistors, 400 Ω or 4000 Ω	
Modularity		4 inputs	8 inputs
Acquisition period		400 ms for the 4 inputs	400 ms for the 8 inputs
Conversion time		–	
Resolution		15 bits + sign	
Isolation	Between channels	750 V ⎓	
	Between channels and bus	1400 V ⎓	
	Between channels and ground	750 V ⎓	
Connection	Directly to the module	Via 40-way connector	Via two 40-way connectors
	Via preassembled cordsets	Cordsets with one end with color-coded flying leads BMXFCW●01S (3 or 5 m/*9.84 or 16.4 ft*)	
Compatibility with Modicon Telefast ABE7 pre-wired system *(1)*	Connection sub-base	4-channel sub-base for direct connection of 4 thermocouples plus connection and provision of cold junction compensation	
	Type of connection sub-base	ABE7CPA412	
	Type of preassembled cordsets	BMXFCA●●2 (1.5, 3, or 5 m/*4.92, 9.84, or 16.4 ft*)	
References		**BMXART0414**	**BMXART0814**

(1) For more information, please refer to the "Telefast Pre-wired system -- Modicon ABE7 IP20 connection sub-bases" catalog or visit our website www.se.com.

Analog inputs		
Isolated high-level inputs	Non-isolated high-level inputs	Isolated high-level inputs
Voltage/current		
± 10 V, 0…10 V, 0...5 V, 1..5 V, ± 5 V		
0...20 mA, 4…20 mA, ± 20 mA		
–		
4 inputs	8 inputs	
Fast: 1 + (1 x no. of declared channels) ms Default: 5 ms for the 4 channels	Fast: 1 + (1 x no. of declared channels) ms Default: 9 ms for the 8 channels	
–		
16 bits	15 bits + sign	
300 V ⎓	–	300 V ⎓
1400 V ⎓		
1400 V ⎓		
Via BMXFTB20●0 20-way caged, screw clamp, or spring-type removable terminal block	Via BMXFTB28●0 28-way caged or spring-type removable terminal block	
Cordsets with one end with color-coded flying leads BMXFTW●01S (3 or 5 m/*9.84 or 16.4 ft*)	Cordsets with one end with color-coded flying leads BMXFTW●08S (3 or 5 m/*9.84 or 16.4 ft*)	
4-channel sub-base for direct connection of 4 inputs, delivers and distributes 4 protected isolated power supplies	8-channel sub-base for direct connection of 8 current/voltage inputs	
ABE7CPA410	ABE7CPA02/03/31E	ABE7CPA02/31/31E
BMXFCA●●0 (1.5, 3, or 5 m/*4.92, 9.84, or 16.4 ft*)	BMXFTA●●0 (1.5 or 3 m/*4.92 or 9.84 ft*)	
BMXAMI0410	**BMXAMI0800**	**BMXAMI0810**

Modicon X80 modules platform

X80 I/O modules

Analog output modules and mixed I/O modules

Applications		Analog outputs		
Type of I/O		Isolated high-level outputs	Isolated high-level outputs	Non-isolated high-level outputs
Type		Voltage/current		Current
Range	Voltage	± 10 V		–
	Current	0–20 mA, 4–20 mA		
Modularity		2 outputs	4 outputs	8 outputs
Acquisition period (inputs)		–		
Conversion time (outputs)		≤ 1 ms		≤ 4 ms
Resolution	Inputs	–		
	Outputs	15 bits + sign		
Isolation		Between channels: 750 V ⎓		
		Between channels and bus: 1400 V ⎓		
		Between channels and ground: 1400 V ⎓		
Connection	Directly to the module	Via BMXFTB20●0 20-way caged, screw clamp or spring-type removable terminal block		
	Via preassembled cordsets	Cordsets with one end with color-coded flying leads BMXFTW●01S (3 or 5 m/*9.84 or 16.4 ft*)		
Compatibility with Modicon Telefast ABE7 pre-wired system *(1)*	Connection sub-base	4-channel sub-base for direct connection of 2/4 current/voltage outputs		8-channel sub-base for direct connection of 8 current/voltage inputs
	Type of connection sub-base	ABE7CPA21		ABE7CPA02
	Type of preassembled cordsets	BMXFCA●●0 (1.5, 3, or 5 m/*4.92, 9.84, or 16.4 ft*)		BMXFTA●●2 (1.5 or 3 m/*4.92 or 9.84 ft*)
References		**BMXAMO0210**	**BMXAMO0410**	**BMXAMO0802**
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(1) For more information, please refer to the "Telefast Pre-wired system -- Modicon ABE7 IP20 connection sub-bases" catalog or visit our website www.se.com.

Mixed analog I/O	
Type of I/O	Non-isolated high-level inputs and outputs
Type	Voltage/current
Range Voltage	Inputs: ± 10 V, 0…10 V, 0...5 V, 1..5 V Outputs: ± 10 V
Current	Inputs: 0–20 mA, 4–20 mA Outputs: 0–20 mA, 4–20 mA
Modularity	4 inputs and 2 outputs
Acquisition period (inputs)	Fast: 1 + (1 x no. of declared channels) ms Default: 5 ms for the 4 channels
Conversion time (outputs)	≤ 1 ms
Resolution Inputs	14…12-bit in U range 12-bit in I range
Outputs	12-bit in U range 11-bit in I range
Isolation	Between groups of input or output channels: 750 V ⎓
	Between channels and bus: 1400 V ⎓
	Between channels and ground: 1400 V ⎓
Connection Directly to the module	Via BMXFTB20●0 20-way caged, screw clamp or spring-type removable terminal block
Via preassembled cordsets	BMXFTW●01S cordsets with one end with color-coded flying leads (3 or 5 m/*9.84 or 16.4 ft*)
Compatibility with Modicon Telefast ABE7 pre-wired system *(1)* Connection sub-base	–
Type of connection sub-base	–
Type of preassembled cordsets	–
References	**BMXAMM0600**
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