

Modicon X80 modules platform

X80 I/O modules

Discrete input modules

Applications	8-channel input modules		16-channel input modules	
	Connection via 20-way caged, screw clamp, or spring-type removable terminal block			
				
Type	~	~	---	
Voltage	200...240 V	100...120 V	24 V	48 V
Current per channel	10.4 mA (for U = 220 V to 50 Hz)	5 mA	3.5 mA	2.5 mA
Modularity (Number of channels and commons)	8 isolated inputs and 1 common	8 isolated channels and no common point	16 isolated inputs and 1 common	
Connection	Via BMXFTB20●0 20-way caged, screw clamp, or spring-type removable terminal block			
Isolated inputs	IEC/EN 61131-2 conformity	Type 2	Type 3	Type 3
	Logic	—	—	Positive (<i>sink</i>)
	Type of input	Capacitive	Capacitive	Current sink
	Sensor compatibility IEC/EN 60947-5-2	2-wire ~	2-wire ~	2-wire ---, 3-wire --- PNP any type
Sensor power supply (ripple included)	170...264 V	85...132 V (no sensor power monitoring)	19...30 V	38...60 V
Protection of inputs	Use one 0.5 A fast-blow fuse per group of channels	Use one 0.25 A fast-blow fuse per channel	Use one 0.5 A fast-blow fuse per group of channels	
Maximum dissipated power	4.73 W	2.35 W	2.5 W	3.6 W
Operating temperature	0...60 °C/32...140 °F			
Compatibility with TeSys Quickfit installation system	—			
Compatibility with Modicon Telefast ABE7 pre-wired system	Passive connection sub-bases	—		
	Adapter sub-bases with relays	—		
References	BMXDAI0805	BMXDAI0814	BMXDDI1602	BMXDDI1603
Pages	4/11			

16-channel input modules			Connection via 20-way caged, screw clamp, or spring-type removable terminal block			Connection via 40-way caged or spring-type removable terminal block			Connection via 20-way caged, screw clamp, or spring-type removable terminal block		
											
~ or ---			~			---					
24 V (~ or ---)			48 V		100...120 V	100...120 V ~		200...240 V ~		125 V	
3 mA (~ or ---)			5 mA			10.1 mA (max) at 50 Hz 11.9 mA (max) at 60 Hz		9.7 mA (max) at 50 Hz 11.5 mA (max) at 60 Hz		2.4 mA	
16 isolated inputs and 1 common						16 isolated inputs			16 isolated inputs and 1 common		
Via BMXFTB20●0 20-way caged, screw clamp, or spring-type removable terminal block						Via BMXFTB40●0 40-way caged or spring-type removable terminal block			Via BMXFTB20●0 20-way caged, screw clamp, or spring-type removable terminal block		
Type 1 (~)			Type 3			Type 1		Non-type at 50 Hz Type 1 at 60 Hz		Type 1	
Negative (source) (---)			–						Positive (sink)		
Resistive			Capacitive						Current sink		
2-wire ---/~, 3-wire --- PNP or NPN any type			2-wire ~			2-wire			–		
19...30 V --- 20...26 V ~			40...52 V		85...132 V	100...120 V ~		200...240 V ~		88...150 V	
Use one 0.5 A fast-blow fuse per group of channels						Use one 0.25 A fast-blow fuse per channel		Use one 0.5 A fast-blow fuse per group of channels			
3 W		4 W	3.8 W		4.3 W				8.5 W (at 40 °C/104 °F)		
0...60 °C/32...140 °F									-25...70 °C/-13...158 °F		
–											
–											
–											
BMXDAI1602			BMXDAI1603		BMXDAI1604	BMXDAI1614		BMXDAI16142		BMXDAI1615	
										BMXDDI1604T	

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Modicon X80 modules platform
X80 I/O modules
Discrete input and mixed I/O modules

Applications		32-channel high-density input modules		32-channel input modules	
		Connection via 40-way connectors with preassembled cordsets		Connection via 40-way caged or spring-type removable terminal block	
				 	
Type		---		---	
Voltage		24 V		48 V	
Current per channel	Inputs	2.5 mA	3.3 mA	2.3 mA	
	Outputs	—			
Modularity (Number of channels and commons)		32 isolated inputs and 2 commons			
Connection		Via one 40-way connector		Via BMXFTB40●0 40-way caged or spring-type removable terminal block	
Isolated inputs	IEC/EN 61131-2 conformity	Type 1		Type 3	
	Logic	Positive (<i>sink</i>)		Positive (<i>sink</i>) / Negative (<i>source</i>)	
	Type of input	Current sink		Current sink	
		2-wire ---, 3-wire --- PNP any type		2-wire ---, 3-wire --- PNP/NPN any type	
Sensor power supply (ripple included)		19...30 V		38...60V	
Protection of inputs		Use one 0.5 A fast-blow fuse per group of channels			
Isolated outputs	Fallback	—			
	IEC/EN 61131-2 conformity	—			
	Protection	—			
	Logic	—			
Preactuator power supply (ripple included)		—			
Output fuse protection		—			
Maximum dissipated power		3.9 W	4.7 W	6 W	
Operating temperature		0...60 °C/32...140 °F			
Compatibility with TeSys Quickfit installation system		LU9 G02 splitter boxes (8 motor starters) and BMXFCC●●1/●●3 preassembled cordsets (see pages 4/9 and 4/13)		—	
Compatibility with Modicon Telefast ABE7 pre-wired system (1)	Passive connection sub-bases	Depending on model, 8- or 16-channel passive sub-bases, with or without LED, with common or 2 terminals per channel		—	
	Adapter sub-bases with relays	Depending on model, active sub-bases with solid state or electromagnetic relays (fixed or removable), 16 channels, with common or 2 terminals per channel (screw clamp or spring-type connection)		—	
References		BMXDDI3202K		BMXDDI3232	BMXDDI3203
Pages		4/12		9/6	

(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.

64-channel high-density input modules Connection via 40-way connectors with preassembled cordsets		16- or 32-channel mixed I/O modules Connection via 20-way caged, screw clamp, or spring-type removable terminal block		Connection via 40-way connector with preassembled cordsets	
					
---		---		--- and ~ (outputs only)	
24 V		Inputs: 24 V Solid-state outputs: 24 V		Inputs: 24 V --- Relay outputs: 24 V --- or 24...240 V ~	
1 mA		3.5 mA		3.5 mA	
-		0.5 A		2 A (--- or ~)	
64 isolated inputs and 4 commons		8 isolated inputs and 1 common, 8 isolated outputs and 1 common		16 isolated inputs and 1 common, 16 isolated outputs and 1 common	
Via two 40-way connectors		Via BMXFTB20●0 20-way caged, screw clamp, or spring-type removable terminal block		Via one 40-way connector	
Non-type		Type 3		Type 1	
Positive (sink)		-		Positive (sink)	
Current sink					
-		2-wire ---, 3-wire --- PNP any type			
19...30 V		19...30 V			
Use one 0.5 A fast-blow fuse per group of channels		Use one 0.5 A fast-blow fuse per group of channels			
-		Configurable output fallback, continuous monitoring of output control, and resetting of outputs in case of internal detected fault			
-		Yes			
-		Protected		Not protected	
-		Positive		-	
-		19...30 V		19...30 V --- 24...240 V ~	
-		Use a 2 A fast-blow fuse		Use a 12 A fast-blow fuse	
4.3 W		3.7 W		3.1 W	
0...60 °C/32...140 °F		0...60 °C/32...140 °F			
LU9 G02 splitter boxes (8 motor starters) and BMXFCC●●1/●●3 preassembled cordsets (see pages 4/9 and 4/13)		-		LU9 G02 splitter boxes (8 motor starters) and BMXFCC●●1/●●3 preassembled cordsets (see pages 4/9 and 4/13)	
Depending on model, 8- or 16-channel passive sub-bases, with or without LED, with common or 2 terminals per channel		-		Depending on model, 8- or 16-channel passive sub-bases, with or without LED, with common or 2 terminals per channel	
Depending on model, active sub-bases with solid state or electromagnetic relays (fixed or removable), 16 channels, with common or 2 terminals per channel (screw clamp or spring-type connection)		-		Depending on model, active sub-bases with solid state or electromagnetic relays (fixed or removable) 16 channels, with common or 2 terminals per channel (screw clamp or spring-type connection)	
BMXDDI6402K		BMXDDM16022		BMXDDM16025	
				BMXDDM3202K	

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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.

Modicon X80 modules platform
X80 I/O modules
Discrete output modules

Applications		32- or 64-channel high-density output modules	
		Connection via 40-way connectors with preassembled cordsets	
			
Type		--- transistor	
Voltage		24 V	
Current per channel		0.1 A	
Modularity (Number of channels and commons)		32 protected outputs and 2 commons	64 protected outputs and 4 commons
Connection		Via one 40-way connector	Via two 40-way connectors
Outputs	Fallback	Configurable output fallback, continuous monitoring of output control, and resetting of outputs in case of internal detected fault	
	IEC/EN 61131-2 conformity	Yes	
	Protection	Yes	
	Logic	Positive	
Preactuator power supply (ripple included)		19...30 V ---	
Output fuse protection		Use one 2 A fast-blow fuse per group of channels	
Maximum dissipated power		3.6 W	6.85 W
Operating temperature		0...60 °C/32...140 °F	
Compatibility with TeSys Quickfit installation system		LU9 G02 splitter boxes (8 motor starters) and BMXFCC●●1/●●3 preassembled cordsets (see pages 4/9 and 4/13)	
Compatibility with Modicon Telefast ABE7 pre-wired system (1)	Passive connection sub-bases	Depending on model, passive sub-bases with 8- or 16 channels, with or without LED, with common or with 2 terminals per channel	
	Adapter sub-bases with relays	Depending on model, active sub-bases with solid state or electromagnetic relays (fixed or removable). 16 channels with 1 common or 2 terminals per channel, screw clamp or spring-type connection	
References		BMXDDO3202K	BMXDDO6402K
Pages		4/12	

(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.

8- or 16-channel output modules									
Connection via caged, screw clamp, or spring-type removable terminal block									
									
--- transistor		~ triac		--- relay		---/~ relay			
24 V		100...240 V		24...240 V		100...150 V		24 V ---, 24...240 V ~	
0.5 A		0.6 A		3 A		0.3 A (lth)		2 A (lth)	
16 protected outputs and 1 common		16 non-protected outputs and 4 commons		16 isolated outputs		8 non-protected outputs, without common		8 normally open isolated relay outputs	
Via BMXF TB20●0 20-way caged, screw clamp, or spring-type removable terminal block				Via BMXF TB40●0 40-way caged or spring-type removable terminal block		Via BMXF TB20●0 20-way caged, screw clamp, or spring-type removable terminal block			
Via BMXF TB40●0 40-way caged or spring-type removable terminal block									
Configurable output fallback, continuous monitoring of output control, and resetting of outputs in case of internal detected fault		Configurable output fallback							
Yes		—							
Yes		—							
Positive (source)		Negative (sink)		—					
19...30 V		100...240 V		24...240 V		100...150 V		19...30 V --- 24...240 V ~	
Use one 6.3 A fast-blow fuse per group of channels		Use one 3 A fast-blow fuse per group of channels		Use one 4 A fast-blow fuse per channel or per group of channels		Use one 0.5 A, 250 V DC fast-blow fuse on each relay		Use one 3 A fast-blow fuse on each channel	
4 W		2.26 W		—		3.17 W		2.7 W	
0...60 °C/32...140 °F				—		-25...70 °C/ -13...158 °F		0...60 °C/32...140 °F	
—									
—									
—									
BMXDDO1602		BMXDDO1612		BMXDAO1605		BMXDAO1615		BMXDRA0804T	
BMXDRA0805		BMXDRA0815		BMXDRA1605		BMXDRC0805			
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