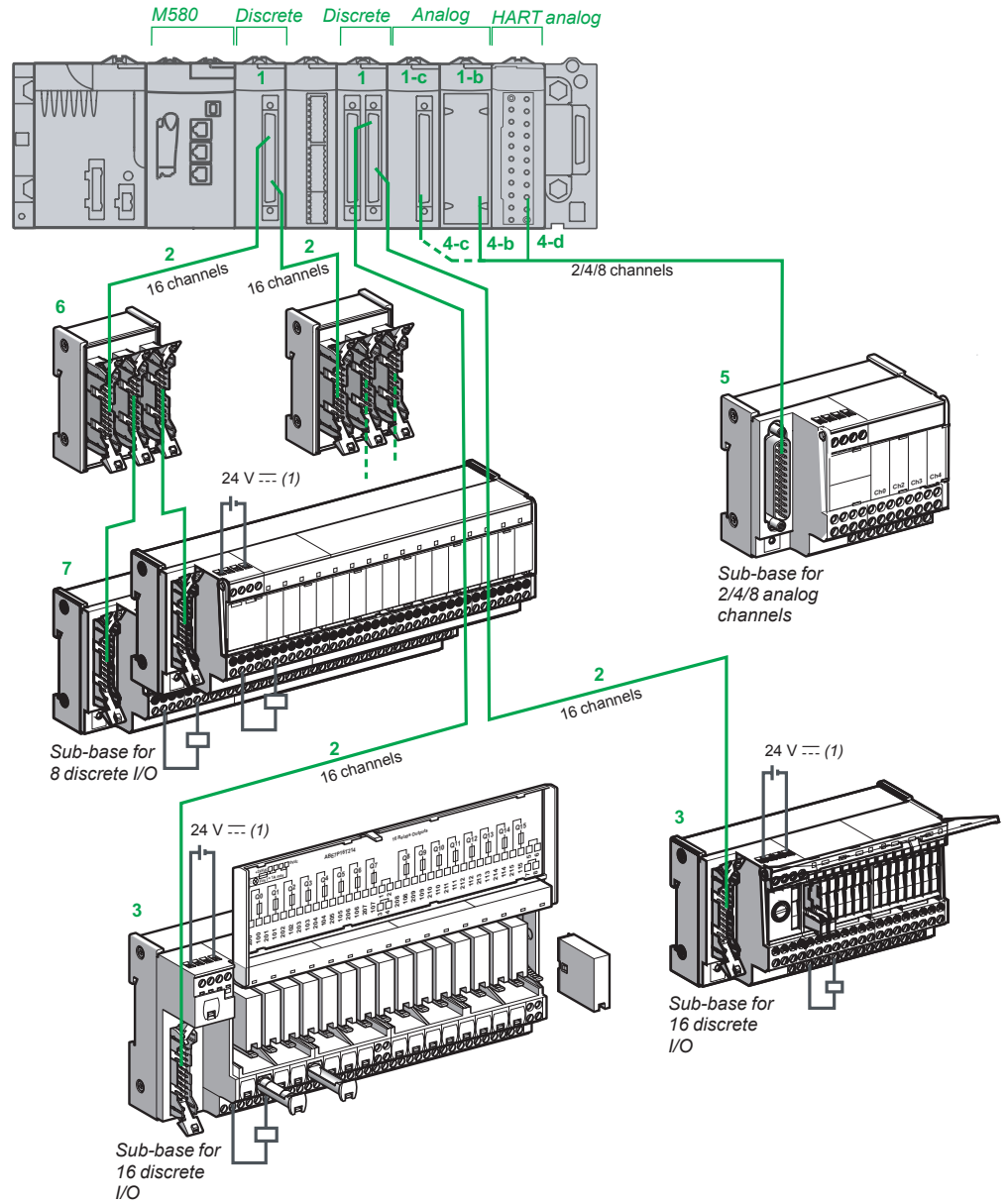


# Connection interfaces

## Modicon Telefast ABE7 pre-wired system

### ABE7 interfaces with Modicon X80 I/O modules



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(1) Connection of the 24 V AC power supply is only possible using Modicon Telefast ABE7 sub-bases. The 0 V AC connections must be equipotential.

# Connection interfaces

## Modicon Telefast ABE7 pre-wired system

### ABE7 interfaces with Modicon X80 I/O modules

#### Presentation

##### I/O modules on the Modicon X80 platform

- 1 Discrete input modules (BMXDDI●●02K), discrete output modules (BMXDDO●●02K) and discrete mixed I/O modules (BMXDDM3202K) equipped with one or two 40-way FCN connectors. The modularity of each module (●●) is 32 or 64 channels.
  - 1-b Analog input or output modules:
    - Analog inputs: **BMXAMI0410** (4 channels), **BMXAMI0800** (4 channels) and **BMXAMI0810** (8 channels)
    - Analog outputs: **BMXAMO0210** (2 channels), **BMXAMO0410** (4 channels) and **BMXAMO0802** (8 channels)
  - 1-c Analog input modules **BMXART0414** (4 channels) and **BMXART0814** (8 channels)
  - 1-d HART analog I/O modules **BMEAHI0812** (8 channels) and **BMEAHO0412** (4 channels)
- 2 2 types of cordset are available depending on the type of discrete module connected to the sub-base (for combinations, see page 6/10). These cordsets are available in 0.5, 1, 2, 3, 5 or 10 m/1.640, 3.281, 6.562, 9.843, 16.404, 32.808 ft lengths:
  - **BMXFCC●●●1** cordsets with one 20-wire sheath (AWG 22) equipped with one 40-way FCN connector and one HE 10 moulded connector on the Telefast sub-base end
  - **BMXFCC●●●3** cordsets with two 20-wire sheaths (AWG 22) equipped with one common 40-way FCN connector on the module end and two HE 10 moulded connectors on the Telefast sub-base end
- 3 16-channel Modicon Telefast ABE7 Optimum or Universal passive connection sub-bases or adaptor sub-bases.
- 4 4 types of cordset are available depending on the type of analog module connected to the sub-base (for combinations, see page 6/11).
  - 4-b: Connection to analog module with 20-way or 28-way removable terminal block:
    - **BMXFCA●●●0** cordsets with a 20-way removable terminal block on the module end and a 25-way SUB-D connector on the Telefast sub-base end. Cordsets available in 1.5 or 3m/4.92 or 9.84 ft lengths.
    - **BMXFCA●●●2** cordsets with a 20-way removable terminal block on the module end and a 25-way SUB-D connector on the Telefast sub-base end. Cordsets available in 1.5 or 3m/4.92 or 9.84 ft lengths.
    - **BMXFCA●●●0** cordsets with a 28-way removable terminal block on the module end and a 25-way SUB-D connector on the Telefast sub-base end. Cordsets available in 1.5 or 3m/4.92 or 9.84 ft lengths.
  - 4-c: Connection to analog module with 40-way FCN connector:
    - **BMXFCA●●●2** cordsets with a 40-way FCN connector on the module end and a 25-way SUB-D connector on the Telefast sub-base end. Cordsets available in 1.5 or 3m/4.92 or 9.84 ft lengths.
  - 4-d: Connection to HART analog input module:
    - **BMXFCA1522/3022** cordsets with a 20-way removable terminal block on the module end and a 25-way SUB-D connector on the Telefast sub-base end. Cordsets available in 1.5 or 3m/4.92 or 9.84 ft lengths.
 For connection to HART analog output module:
    - **BMXFCA●●●0** (see description in section 4-b)
- 5 Modicon Telefast ABE7CPA analog and application-specific connection sub-bases (for combinations, see pages 6/11):
  - **ABE7CPA410** allows connection on a screw terminal block of 4 current/voltage inputs, with provision and distribution of 4 isolated power supplies for the current loop inputs
  - **ABE7CPA412** allows connection on a screw terminal block of 4 thermocouple inputs, with cold-junction compensation supplied for these inputs
  - **ABE7CPA21** allows connection on a screw terminal block of 4 current/voltage outputs
  - **ABE7CPA02** allows connection on a screw terminal block of 8 current/voltage I/O
  - **ABE7CPA03** allows connection on a screw terminal block of 8 inputs, with provision and distribution of the power supply (with limitation of each current loop) for the current/voltage outputs of the **BMXAMO0210** analog module
  - **ABE7CPA31**, **ABE7CPA31E** allows connection on a screw terminal block (**ABE7CPA31**) or a spring-type terminal block (**ABE7CPA31E**) of 8 inputs, with provision and distribution of the power supply (limited to 25 mA per input)
- 6 **ABE7ACC02** sub-base for splitting 16 into 2 x 8 channels, allowing connection of 8-channel sub-bases.
- 7 8-channel Modicon Telefast ABE7 Optimum or Universal passive connection sub-bases or adaptor sub-bases.

#### Combinations of discrete inputs/outputs on the Modicon X80 platform with ABE7 sub-bases

(items 1...7), see Presentation on page 6/8

#### Discrete I/O modules on the Modicon X80 platform

#### Reference for 24 V DC discrete I/O modules (item 1)

Inputs		Outputs		Inputs/outputs
2 x 16 I	4 x 16 I	2 x 16 Q	4 x 16 Q	1 x 16 I, 1 x 16 Q
BMXDDI3202K	BMXDDI6402K	BMXDDO3202K	BMXDDO6402K	BMXDDM3202K

#### Required cordsets

Preassembled cordsets (at both ends)	BMXFCC●●1, BMXFCC●●3 (item 2) (1)	BMXFCC●●3 (item 2) (1)	Quantities to be ordered		
	Yes	No	1	2	1
	Yes	No	1	2	1
	Yes	No	1	2	1

#### Passive connection sub-bases

Optimum 16 channels (item 3)	ABE7H34E●00 "economy" (2)					
	ABE7H16C●● "miniature"					
Universal 8 channels (item 7)	ABE7H08R●●	(3)	(3)	(3)	(3)	(3)
	ABE7H08S21	(3)	(3)	(3)	(3)	(3)
Universal 16 channels (item 3)	ABE7H16R1●●					
	ABE7H16R50●					
	ABE7H16R2●●					
	ABE7H16S21●					
	ABE7H16R3●					
	ABE7H16R23					
	ABE7H16S43					
ABE7H16F43						

#### Input adaptor sub-bases with solid state relays

Universal 16 channels (item 3)	ABE7S16E2●●●					
	Fixed solid state relays, removable terminal blocks					
	ABE7P16F31●					
	Plug-in solid state relays					

#### Output adaptor sub-bases with fixed relays, removable terminal blocks

Optimum & Universal 8 channels (item 7)	ABE7S08S2B●●			(3)	(3)	(3)
	Solid state relays			(3)	(3)	(3)
	ABE7R08S111●, ABE7R08S21●●			(3)	(3)	(3)
	Electromechanical relays					
Optimum & Universal 16 channels (item 3)	ABE7S16S●B●●					
	Solid state relays					
	ABE7R16S111●, ABE7R16S210●, ABE7R16S212					
	Electromechanical relays					

#### Output adaptor sub-bases with plug-in relays

Universal 8 channels (item 7)	ABE7P08T330●			(3)	(3)	(3)
	Solid state relays					
Optimum & Universal 16 channels (item 3)	ABE7R16T●●●, ABE7R16M111					
	Electromechanical relays					
	ABE7P16T●●●					
	Solid state and/or electromechanical relays					

#### Sub-bases for analog I/O

4 channels (item 5)	ABE7CPA410					
	ABE7CPA412					
2 channels (item 5)	ABE7CPA21					
8 channels (item 5)	ABE7CPA02					
	ABE7CPA03					
	ABE7CPA31, ABE7CPA31E					

Compatible

Not compatible

(1) References for cordsets: to be completed, see page 3/13.

(2) ABE7H34E●00 "economy" sub-bases: the cordset is supplied.

(3) Via the splitter sub-base 6 ABE7ACC02 used to separate 16 channels into 2 x 8 channels

## Combinations of analog inputs/outputs on the Modicon X80 platform with ABE7 sub-bases

(items 1...7), see Presentation on page 6/8

		Analog I/O modules on the Modicon X80 platform									
		Reference for analog I/O modules (item 1-b, 1-c and 1-d)									
		Inputs						Outputs			
		4 I	4 I	2 x 4 I	8 I	8 I	8 I	2 Q	4 Q	8 Q	4 Q
		BMX AMI 0410	BMX ART 0414	BMX ART 0814	BMX AMI 0800	BMX AMI 0810	BME AHI 0812	BMX AMO 0210	BMX AMO 0410	BMX AMO 0802	BME AHO 0412
<b>Required cordsets</b>											
Preassembled cordsets (at both ends)	BMXFCA●●0 (item 4-b) (1)	Yes	No	No	No	No	No	Yes	Yes	No	Yes
	BMXFCA●●2 (item 4-c) (1)	No	Yes	Yes	No	No	No	No	No	No	No
	BMXFTA●●0 (item 4-c) (1)	No	No	No	Yes	Yes	No	No	Yes	No	No
	BMXFTA●●2 (item 4-c) (1)	No	No	No	No	No	No	No	No	Yes	No
	BMXFTA●●22 (item 4-d) (1)	No	No	No	No	No	Yes	No	No	No	No
Quantities to be ordered		1	1	2	1	1	1	1	1	1	1
<b>Passive connection sub-bases</b>											
Optimum 16 channels (item 3)	ABE7H16C●● “miniature”										
Universal 8 channels (item 7)	ABE7H08R●●										
	ABE7H08S21										
Universal 16 channels (item 3)	ABE7H16R1●●										
	ABE7H16R50●										
	ABE7H16R2●●										
	ABE7H16S21●										
	ABE7H16R3●										
	ABE7H16R23										
	ABE7H16S43										
ABE7H16F43											
<b>Input adaptor sub-bases with solid state relays</b>											
Universal 16 channels (item 3)	ABE7S16E2●●● Fixed solid state relays, removable terminal blocks										
	ABE7P16F31● Plug-in solid state relays										
<b>Output adaptor sub-bases with fixed relays, removable terminal blocks</b>											
Optimum & Universal 8 channels (item 7)	ABE7S08S2B●● Solid state relays										
	ABE7R08S111●, ABE7R08S21●● Electromechanical relays										
Optimum & Universal 16 channels (item 3)	ABE7S16S●B●● Solid state relays										
	ABE7R16S111●, ABE7R16S210●, ABE7R16S212 Electromechanical relays										
<b>Output adaptor sub-bases with plug-in relays</b>											
Universal 8 channels (item 7)	ABE7P08T330● Solid state relays										
Optimum & Universal 16 channels (item 3)	ABE7R16T●●●, ABE7R16M111 Electromechanical relays										
	ABE7P16T●●● Solid state and/or electromechanical relays										
<b>Sub-bases for analog I/O</b>											
4 channels (item 5)	ABE7CPA410										
	ABE7CPA412										
2 channels (item 5)	ABE7CPA21										
8 channels (item 5)	ABE7CPA02										
	ABE7CPA03										
	ABE7CPA31										
	ABE7CPA31E										

Compatible  
Not compatible

(1) References for cordsets: to be completed, see page 3/23.