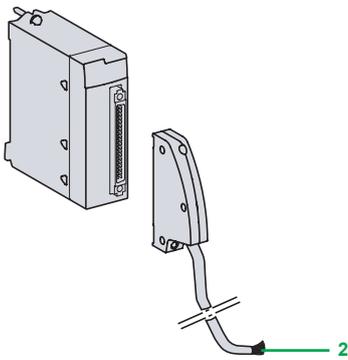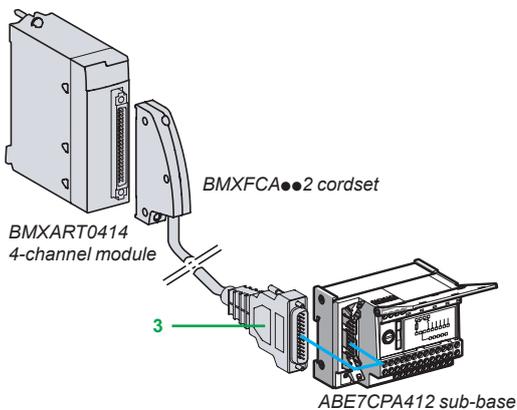**3**

BMXFTW●01S cordset
(with 20-way removable terminal block at one end and flying leads at the other)

BMXFCW●01S cordset
(with 40-way connector at one end and flying leads at the other)

BMXART0414
4-channel module

BMXFCA●●2 cordset

3

ABE7CPA412 sub-base

Connecting modules with removable terminal blocks

BMXAMI0410, BMXAMO, and BMXAMM modules with 20-way terminal block

The 20-way removable terminal blocks (**BMXFTB20●0**) are the same as those used for discrete I/O modules (screw clamp, cage clamp, or spring-type) (see page 3/9). One version of the removable terminal block is equipped with a 3 or 5 m/*9.84 or 16.40 ft* cordset with color-coded flying leads (**BMXFTW●01S**). These preassembled cordsets with reinforced shielding have color-coded flying leads at the other end **1**.

BMXAMI0800/0810 modules with 28-way terminal block

The 28-way removable terminal blocks are cage clamp-type (**BMXFTB2800**) or spring-type (**BMXFTB2820**).
One version of the removable terminal block is equipped with a 3 or 5 m/*9.84 or 16.40 ft* cordset with color-coded flying leads (**BMXFTW●08S**). These preassembled cordsets with reinforced shielding have color-coded flying leads at the other end **1**.

Connecting modules with 40-way connectors

BMXART0●14 modules with 40-way connectors

Two types of cordset are available:
■ Preassembled **cordsets with reinforced shielding** (**BMXFCW●01S**) which have color-coded flying leads at the other end **2**. Available in 3 or 5 m/*9.84 or 16.40 ft* lengths, they enable easy direct wire-to-wire connection of the analog sensors via terminal blocks.
■ Preassembled cordsets with reinforced shielding (**BMXFCA●02**) which have a 25-way SUB-D connector at the other end **3**. Available in 1.5, 3, or 5 m/*4.92, 9.84, or 16.40 ft* lengths, they enable direct connection to the Modicon Telefast **ABE7CPA412** sub-base (see below).

Use with Modicon Telefast ABE7 sub-bases

Using the Modicon Telefast ABE7 pre-wired system makes it easier to install the modules since the inputs (or outputs) can be accessed via screw terminals. 7 special sub-bases are available:

Modicon Telefast ABE7CPA410 sub-base

The Modicon Telefast **ABE7CPA410** sub-base is mainly used in conjunction with the **BMXAMI0410** voltage/current analog 4-input module. This sub-base allows you to:
■ Directly connect 4 sensors
■ Remotely locate the input terminals in voltage mode
■ Power the 4 to 20 mA conditioning units one channel at a time with a 24 V voltage, protected and limited to 25 mA, while maintaining isolation between channels
■ Help protect the current impedance matching resistors integrated in the sub-base against overvoltages
Connection is via the **BMXFCA●●0** cordset (1.5, 3, or 5 m/*4.92, 9.84, or 16.40 ft* long).

Modicon Telefast ABE7CPA412 sub-base

The Modicon Telefast **ABE7CPA412** sub-base is specially designed as a wiring interface for the **BMXART0414** and **BMXART0814** thermocouple modules. This sub-base allows you to:
■ Connect 4 thermocouple probes
■ Provide external cold junction compensation with a temperature probe integrated in the sub-base
■ Provide continuity of the shielding
The **BMXART0814** module requires two Modicon Telefast **ABE7CPA412** sub-bases. The connection with each sub-base is made via a **BMXFCA●●2** cordset (1.5, 3, or 5 m/*4.92, 9.84, or 16.40 ft* long).

Modicon Telefast ABE7CPA21 sub-base

The Modicon Telefast **ABE7CPA21** sub-base is compatible with the **BMXAMO0210** output module. This sub-base allows you to:
■ Directly connect 2 current/voltage outputs
■ Provide continuity of the shielding
Connection is via the **BMXFCA●●0** cordset **3** (1.5, 3, or 5 m/*4.92, 9.84, or 16.40 ft* long).

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Use with Modicon Telefast ABE7 sub-bases (continued)

Modicon Telefast ABE7CPA02 sub-base

The Modicon Telefast **ABE7CPA02** sub-base can be used in combination with:
■ The **BMXAMI0800/0810** analog current input modules with 8 inputs
■ The **BMXAMO0802** analog current output modules with 8 outputs
This sub-base allows you to:
■ Connect the 8 analog inputs or outputs point-to-point
■ Provide continuity of the shielding
The **BMXAMI0800/0810** modules are connected by means of the 1.5 or 3 m/*4.92 or 9.84 ft* long **BMXFTA●●0** cables.
The **BMXAMO0802** module is connected by means of the 1.5, 3, or 5 m/*4.92, 9.84, or 16.40 ft* long **BMXFTA●●2** cables.

Modicon Telefast ABE7CPA03 sub-base

The Modicon Telefast **ABE7CPA03** sub-base can be used in combination with the **BMXAMI0800** voltage/current analog 8-input module.
This sub-base allows you to:
■ Directly connect 8 analog inputs
■ Power the current inputs one channel at a time with a voltage of 24 V that is protected and limited to 25 mA
■ Provide continuity of the shielding
The **BMXAMI0800** module is connected by means of the 1.5 or 3 m/*4.92 or 9.84 ft* long **BMXFTA●●0** cables.

Modicon Telefast ABE7CPA31/31E sub-bases

The Modicon Telefast **ABE7CPA31/31E** sub-bases can be used in combination with the **BMXAMI0800/0810** voltage/current analog 8-input modules.
These sub-bases allow you to:
■ Directly connect 8 analog inputs
■ Power the current inputs one channel at a time with 24 V converters
■ Provide continuity of the shielding
The **BMXAMI0800/0810** modules are connected by means of the 1.5 or 3 m/*4.92 or 9.84 ft* long **BMXFTA●●0** cables.

Complementary characteristics

BMXART0414/0814 analog input modules

The **BMXART0414/0814** modules are multirange input modules with 4 or 8 low-level isolated inputs (15 bits + sign) respectively.
Depending on the choice made during configuration, the modules offer, for each of the inputs, the following ranges:
■ Temperature probe: Pt100, JPt100, Pt1000, JPt1000, Cu10, Ni100, or Ni1000 (in accordance with DIN43760), with open-circuit detection
■ Thermocouple: B, E, J, K, L, N, R, S, T, or U with broken wire detection
■ Resistor: 0…400 or 0…4000 Ω, 2, 3, or 4-wire
■ Voltage: ± 40 mV, ± 80 mV, ± 160 mV, ± 320 mV, ± 640 mV, ± 1.28 V

BMXAMI0410 analog input modules

The **BMXAMI0410** module is a high-level analog input module with 4 isolated inputs (16 bits).
Used with sensors or transmitters, it performs monitoring, measurement, and process control functions for continuous processes.
The module offers the following ranges for each of the inputs depending on the choice made during configuration:
■ Voltage ± 10 V, ± 5 V, 0…10 V, 0…5 V, and 1…5 V
■ Current 0−20 mA, 4−20 mA, and ± 20 mA

BMXAMI0800/0810 analog input modules

BMXAMI0800/0810 analog input modules are modules with 8 high-level isolated/non-isolated analog inputs (15 bits + sign).
The modules offer the following ranges for each of the inputs depending on the choice made during configuration:
■ Voltage: ± 10 V, 0…10 V, 0…5 V, 1…5 V, ± 5 V
■ Current: 0−20 mA and 4−20 mA

3

Complementary characteristics (continued)

BMXAMO0210 analog output module

The **BMXAMO0210** module is a module with 2 high-level isolated outputs (15 bits + sign).
The **BMXAMO0210** module offers the following ranges for each of the inputs depending on the choice made during configuration:
- Voltage: ± 10 V
- Current: 0–20 mA and 4–20 mA

BMXAMO0410/0802 analog output modules

The **BMXAMO0410/0802** analog output modules are modules with 4 or 8 high-level isolated/non-isolated analog outputs (16 bits/15 bits + sign).
The **BMXAMO0410** module offers the following ranges for each of the outputs depending on the choice made during configuration:
- Voltage: ± 10 V
- Current: 0–20 mA and 4–20 mA

The **BMXAMO0802** module offers the current ranges 0–20 mA and 4–20 mA.

BMXAMM0600 analog mixed I/O module

The **BMXAMM0600** mixed module is a non-isolated I/O module with 4 inputs (14/12 bits) and 2 outputs (12 bits).
The module offers the following ranges for each of the inputs or outputs depending on the choice made during configuration:
- Voltage: ± 10 V, 0…10 V, 0…5 V, and 1…5 V
- Current: 0–20 mA and 4–20 mA

References

Analog input modules (1)

Type of input	Input signal range	Resolution	Connection	No. of channels	Reference	Weight kg/*lb*
Isolated high-level inputs	± 10 V, 0…10 V, 0…5 V, 1…5 V, ± 5 V, 0–20 mA, 4–20 mA, ± 20 mA	16 bits	Removable terminal block, 20-way cage clamp, screw clamp, or spring-type	4 channels	**BMXAMI0410**	0.143/ *0.315*
Non-isolated high-level inputs	± 10 V, 0…10 V, 0…5 V, 1…5 V, ± 5 V, 0–20 mA	15 bits + sign	Removable terminal block, 28-way, cage clamp or spring-type	8 channels	**BMXAMI0800**	0.175/ *0.386*
Isolated high-level inputs	± 10 V, 0…10 V, 0…5 V, 1…5 V, ± 5 V, 0–20 mA	15 bits + sign	Removable terminal block, 28 way, cage clamp or spring-type	8 channels	**BMXAMI0810**	0.175/ *0.386*
Isolated low-level inputs	Temperature probe, thermocouple, ± 40 mV, ± 80 mV, ± 160 mV, ± 320 mV, ± 640 mV, ± 1.28 V	15 bits + sign	40-way connector	4 channels	**BMXART0414**	0.135/ *0.298*
				8 channels	**BMXART0814**	0.165/ *0.364*

Analog output modules (1)

Type of outputs	Output signal range	Resolution	Connection	No. of channels	Reference	Weight kg/*lb*
Isolated high-level outputs	± 10 V, 0–20 mA, 4–20 mA	16 bits	Removable terminal block, 20-way, cage clamp, screw clamp, or spring-type	2 channels	**BMXAMO0210**	0.144/ *0.317*
High-level outputs isolated	± 10 V, 0–20 mA, 4–20 mA, ± 20 mA	15 bits + sign	Removable terminal block, 20-way, cage clamp, screw clamp, or spring-type	4 channels	**BMXAMO0410**	0.175/ *0.386*
Non-isolated high-level inputs	0–20 mA, 4–20 mA	15 bits + sign	Removable terminal block, 20-way, cage clamp, screw clamp, or spring-type	8 channels	**BMXAMO0802**	0.175/ *0.386*

Analog mixed I/O module (1)

Type of I/O	Signal range	Resolution	Connection	No. of channels	Reference	Weight kg/*lb*
Mixed I/O, non-isolated	± 10 V, 0…10 V, 0…5 V, 1…5 V, 0–20 mA, 4–20 mA	14 bits or 12 bits depending on the range	Removable terminal block, 20-way, cage clamp, screw clamp, or spring-type	Inputs: 4 channels Outputs: 2 channels	**BMXAMM0600**	0.155/ *0.342*

(1) Typical consumption: See the power consumption table available on our website www.schneider-electric.com.

BMXAM●0●●0

BMXART0414

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