

### Complementary characteristics

The following characteristics complement those introduced in the selection guide on pages 3/2 to 3/7.

#### DC input modules BMXDDI16●●/1604T/3202K/6402K and BMXDAI1602

- Input impedance at nominal voltage: 6.4 to 19.2 k $\Omega$ , depending on model
- Reverse polarity: Protection for modules BMXDDI1602/1603/3202K
- Paralleling of inputs (1): Yes, for modules BMXDDI1602/1603
- Dielectric strength between groups of channels: 500 V  $\overline{\text{---}}$  for modules BMXDDI3202K/6402K
- Temperature derating for module BMXDDI1604T: No derating up to 40°C/104°F, a maximum of 25% of inputs at state 1 at 70°C/158°F

#### AC input modules BMXDAI16●●/08●●

- Input frequency: 47 to 63 Hz
- Current peak on activation at nominal voltage: 5 to 240 mA depending on model
- Input impedance at nominal voltage and F = 55 Hz: 6 to 21 k $\Omega$ , depending on model

#### Triac output modules BMXDAO1605

- Current via common: 2.4 A
- Current for the 4 commons together: 4.8 A

#### DC transistor output modules BMXDDO16●●/3202K/6402K

- Dielectric strength between groups of channels: 500 V  $\overline{\text{---}}$  for modules BMXDDO3202K/6402K

#### Relay output modules BMXDRA080●●/1605

- Protection against AC inductive overvoltage: Use an RC circuit or ZNO surge limiter appropriate to the voltage in parallel on each output.
- Protection against DC inductive overvoltage: Use a discharge diode on each output.

#### Mixed I/O relay module BMXDDM16025

- Input impedance at nominal voltage: 6.8 k $\Omega$
- Dielectric strength between groups of inputs: 500 V  $\overline{\text{---}}$

#### DC mixed I/O modules BMXDDM16022/3202K

- Input impedance at nominal voltage: 6.8 to 9.6 k $\Omega$ , depending on model
- Reverse polarity on the inputs: Protection
- Paralleling of outputs: Yes, for a maximum of 2 outputs for module BMXDDM16022 and a maximum of 3 outputs for module BMXDDM3202K

(1) This characteristic allows several inputs to be wired in parallel on the same module or on different modules for input redundancy.



# Modicon X80 I/O platform

## Discrete I/O modules

### Input modules and output modules



BMXDDI160●●  
BMXDAI●●●●



BMXDDI3202K



BMXDDI6402K

### References

#### Discrete input modules (1)

Type of current	Input voltage	Connection via (2)	IEC/EN 61131-2 conformity	No. of channels (common)	Reference	Weight kg/lb
⎓	24 V (positive logic)	Screw or spring-type 20-way removable terminal block	Type 3	16 isolated inputs (1 x 16)	BMXDDI1602	0.115/0.254
		One 40-way connector	Type 3	32 isolated inputs (2 x 16)	BMXDDI3202K	0.110/0.243
		Two 40-way connectors	Non-IEC	64 isolated inputs (4 x 16)	BMXDDI6402K	0.145/0.320
⎓	24 V (negative logic)	Screw or spring-type 20-way removable terminal block	Non-IEC	16 isolated inputs (1 x 16)	BMXDAI1602	0.115/0.254
		Screw or spring-type 20-way removable terminal block	Type 1	16 isolated inputs (1 x 16)	BMXDDI1603	0.115/0.254
		Screw or spring-type 20-way removable terminal block	Type 3	16 isolated inputs (1 x 16)	BMXDDI1604T	0.144/0.317
~	24 V	Screw or spring-type 20-way removable terminal block	Type 1	16 isolated inputs (1 x 16)	BMXDAI1602	0.115/0.254
		Screw or spring-type 20-way removable terminal block	Type 3	16 isolated inputs (1 x 16)	BMXDAI1603	0.115/0.254
		Screw or spring-type 20-way removable terminal block	Type 3	16 isolated inputs (1 x 16)	BMXDAI1604	0.115/0.254
		Screw or spring-type 20-way removable terminal block	Type 2	8 isolated inputs (1 x 8)	BMXDAI0805	0.152/0.335
		Screw or spring-type 20-way removable terminal block	Type 3	8 isolated inputs (8 x 1)	BMXDAI0814	0.115/0.254



BMXDDO16●2



BMXDRA0805/1605



BMXDDO3202K



BMXDDO6402K

#### Discrete output modules (1)

Type of current	Output voltage	Connection via (2)	IEC/EN 61131-2 conformity	No. of channels (common)	Reference	Weight kg/lb
⎓ transistor	24 V/0.5 A (positive logic)	20-way removable terminal block, screw or spring-type	Yes	16 protected outputs (1 x 16)	BMXDDO1602	0.120/0.265
		20-way removable terminal block, screw or spring-type	–	16 protected outputs (1 x 16)	BMXDDO1612	0.120/0.265
		One 40-way connector	Yes	32 protected outputs (2 x 16)	BMXDDO3202K	0.110/0.243
⎓ transistor	24 V/0.1 A (positive logic)	Two 40-way connectors	Yes	64 protected outputs (4 x 16)	BMXDDO6402K	0.150/0.331
		20-way removable terminal block, screw or spring-type	–	16 outputs (4 x 4)	BMXDAO1605	0.140/0.309
⎓ relay	100...150 V ⎓/0.3 A	20-way removable terminal block, screw or spring-type	Yes	8 non-protected outputs	BMXDRA0804T	0.178/0.392
⎓ or ~ relay	24 V ⎓/2 A 24...240 V ~/2 A	20-way removable terminal block, screw or spring-type	Yes	8 non-protected outputs (without common)	BMXDRA0805	0.145/0.320
		20-way removable terminal block, screw or spring-type	Yes	16 non-protected outputs (2 x 8)	BMXDRA1605	0.150/0.331

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

(2) 64-channel modules have 2 connectors and therefore require 2 connection cables.