

Discrete/PWM solid state outputs (24 VDC model only)

| | |
|---------------------------|---|
| PWM solid state outputs | SA12-EC12-CN12: 01 to 04 SA20-XT20-EC20-CN20: 01 to 06 |
| Voltage breaking capacity | 5-28,8 VDC |
| Current breaking capacity | 0,7 A / 5-28,8 VDC |
| Min. load | 1 mA |
| Max. inductive load | 0,7 A |
| Max. incandescent load | 0,1 A |
| Off-state leakage | 0,1 mA / 24 VDC |

| | |
|-------------------------|-------------------------------------|
| Response time | 1ms |
| Isolated | no |
| PWM frequency | 120 Hz to 1 920 Hz (user-definable) |
| PWM Cyclic ratio | 0 to 100 % (256 steps) |
| PWM precision at 120 Hz | < 5 % (15 % to 85 %) load at 10 mA |
| PWM precision at 500 Hz | < 10 % (20 % to 80 %) load at 10 mA |
| Status indicator | On LCD screen for SA12, SA20, XT 20 |

▶ Starter kit

■ Each kit includes:

- a standard or expandable Millenium 2
- a PC/Millenium 2 link interface
- an interactive CD-Rom including the software workshop, tutorial, application library and technical brochures.



| Type | Input | Output | Power supply | Code | |
|-----------|-------|---------|---------------|------------|---------|
| KIT SA 12 | 8 | 4 relay | 24 VDC | 88 950 070 | 3932424 |
| | 8 | 4 relay | 100 - 240 VAC | 88 950 071 | 3932436 |
| KIT SA 20 | 12 | 8 relay | 24 VDC | 88 950 072 | 3932448 |
| | 12 | 8 relay | 100 - 240 VAC | 88 950 073 | 3932450 |
| KIT XT 20 | 12 | 8 relay | 24 VDC | 88 950 074 | 3932310 |
| | 12 | 8 relay | 100 - 240 VAC | 88 950 075 | 3932333 |

▶ Standard versions

- Preconfigured
- Intuitive programming via function block (FBD) or grafcet (SFC)
- Function: timing, counting, etc
- Application-specific functions: rotation, cam timers, calculation, etc
- Discrete, analogue or potentiometer inputs
- Relay, solid state or PWM outputs
- Indicator on backlit LCD display
- Program protected by a password
- Calendar program clock
- User-definable from the front panel



| Type | Input | Output | Power supply | Code | |
|-------|-------|---------------------|---------------|------------|---------|
| SA 12 | 8 | 4 relay | 24 VDC | 88 950 041 | 3932345 |
| | 8 | 4 relay | 100 - 240 VAC | 88 950 043 | 3932369 |
| | 8 | 4 relay | 24 VAC | 88 950 044 | |
| | 8 | 4 solid state/4 PWM | 24 VDC | 88 950 042 | |
| SA 20 | 12 | 8 relay | 24 VDC | 88 950 051 | 3932382 |
| | 12 | 8 relay | 100 - 240 VAC | 88 950 053 | 3932400 |
| | 12 | 8 relay | 24 VAC | 88 950 054 | |
| | 12 | 8 solid state/6 PWM | 24 VDC | 88 950 052 | |

- Standard products
- Standard products, non stocked



▶ Expandable version

- Expandable: communication, inputs/outputs, etc
- Intuitive programming via function block (FBD) or grafcet (SFC)
- Function: timing, counting, etc
- Application-specific functions: rotation, cam timers, calculation, etc
- Discrete, analogue or potentiometer inputs
- Relay, solid state or PWM outputs
- Indicator on backlit LCD display
- Program protected by a password
- Calendar program clock
- User-definable from the front panel
- Can take an XC adjacent extension and an XL local extension



| Type | Input | Output | Power supply | Code |
|-------|-------|---------------------|---------------|---------------------------|
| XT 20 | 12 | 8 relay | 24 VDC | 88 950 061 3932278 |
| | 12 | 8 relay | 100 - 240 VAC | 88 950 063 3932291 |
| | 12 | 8 relay | 24 VAC | 88 950 064 |
| | 12 | 8 solid state/6 PWM | 24 VDC | 88 950 062 |

▶ Blind versions

- No display or parameter-setting buttons
- Intuitive programming via function block (FBD) or grafcet (SFC)
- Function: timing, counting, etc
- Application-specific functions: rotation, cam timers, calculation, etc
- Discrete, analogue or potentiometer inputs
- Relay, solid state or PWM outputs
- Program protected by a password
- Calendar program clock



| Type | Input | Output | Power supply | Code |
|-------|-------|---------------------|---------------|---------------------------|
| EC 12 | 8 | 4 relay | 24 VDC | 88 950 021 3932266 |
| | 8 | 4 relay | 100 - 240 VAC | 88 950 023 3932280 |
| | 8 | 4 relay | 24 VAC | 88 950 024 |
| | 8 | 4 solid state/4 PWM | 24 VDC | 88 950 022 |
| EC 20 | 12 | 8 relay | 24 VDC | 88 950 031 3932308 |
| | 12 | 8 relay | 100 - 240 VAC | 88 950 033 3932321 |
| | 12 | 8 relay | 24 VAC | 88 950 034 |
| | 12 | 8 solid state/6 PWM | 24 VDC | 88 950 032 |

▶ Bare board versions

- For mass-production applications
- Intuitive programming via function block (FBD) or grafcet (SFC)
- Function: timing, counting, etc
- Application-specific functions: rotation, cam timers, calculation, etc
- Discrete, analogue or potentiometer inputs
- Relay, solid state or PWM outputs
- Program protected by a password
- Calendar program clock



| Type | |
|-------|---|
| CN 12 | For mass-production applications: please consult us |
| CN 20 | For mass-production applications: please consult us |

- Standard products
- Standard products, non stocked

Local extensions

- For XT 20 only (1 local extension per module)
- Millenium - Millenium local link
- Doubles the hardware and software capacities
- Transparent communication between 2 XT 20
- Max. distance between 2 XT 20: 10 metres
- Cable type: screened twisted pair



| Type | Description | Code |
|-------|--------------------------------|---------------------------|
| XL 01 | M2 - M2 local link (2 modules) | 88 950 200 3932357 |
| XL 05 | 4 solid state outputs | 88 950 204 3932370 |

Adjacent extensions

- For XT 20 only (one adjacent extension per module)
- Communication using MODBUS or AS-i protocol (Slave module)
- 6 additional inputs/outputs

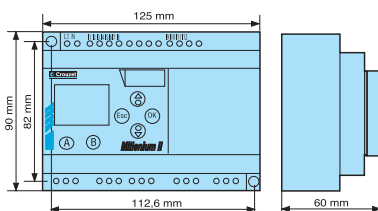


| Type | Description | Code |
|-------|---|---------------------------|
| XC 01 | 4 inputs 2 relay outputs 24 VDC | 88 950 210 3932394 |
| | 4 inputs 2 relay outputs 24 VAC | 88 950 211 |
| | 4 inputs 2 relay outputs 110 - 240 VAC | 88 950 212 3932412 |
| XC 02 | AS-i exchange unit 24 VDC | 88 950 213 |
| XC 03 | MODBUS exchange unit 24 VDC | 88 950 214 |

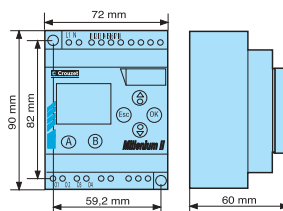
Accessories

| Type | Range | Precision | Code |
|--|---------------|---------------------------------|---------------------------|
| Programming software on CD ROM | | | 88 950 100 3932461 |
| EEPROM memory module | | | 88 950 101 3932473 |
| PC-module link interface | | | 88 950 102 3932485 |
| Faceplate for front panel mounting EC 12 - SA 12 | | | 89 750 103 |
| Faceplate for front panel mounting EC 20 - SA 20 - XT 20 | | | 89 750 109 4114264 |
| Room temperature sensors | -10 → +40 °C | -0,2 °C +1,2 °C (-10 → +40 °C) | 89 750 150 |
| Ventilation duct temperature sensors | -10 → +60 °C | -0,2 °C +1,9 °C (-10 → +60 °C) | 89 750 151 |
| Outdoor temperature sensors | -10 → +40 °C | -0,2 °C +1,2 °C (-10 → +40 °C) | 89 750 152 |
| Immersion/remote probe temperature sensors | -10 → +150 °C | -0,2 °C +1,9 °C (-10 → +150 °C) | 89 750 153 |

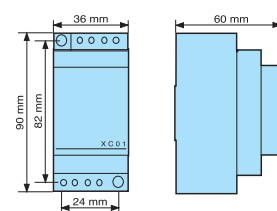
Dimensions



Size 20



Size 12



XC extensions

- Standard products
- Standard products, non stocked



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