

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 Millennium 2
- a PC/Millennium 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

For further information please go to www.crouzet.co.uk



▶ 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

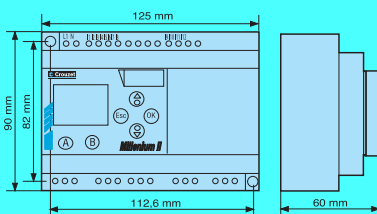


Type	Description	Code
XC 01	4 inputs 2 relay outputs 24 VDC	88 950 210 3932394
	4 inputs 2 relay outputs 24 VAC	88 950 211
	4 inputs 2 relay outputs 110 - 240 VAC	88 950 212 3932412
XC 02	AS-i exchange unit 24 VDC	88 950 213
XC 03	MODBUS exchange unit 24 VDC	88 950 214

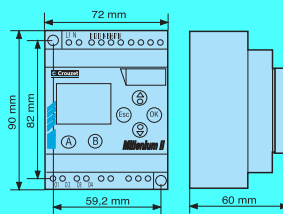
Accessories

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/remot probe temperature sensors	-10 → +150 °C	-0,2 °C +1,9 °C (-10 → +150 °C)	89 750 153

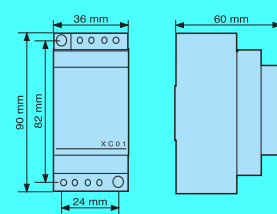
Dimensions



Size 20



Size 12



XC extensions

- Standard products
- Standard products, non stocked





2000 sales outlets worldwide
12 subsidiaries - 7 production sites
1970 employees

> Belgium

Ets Crouzet SA
40 Avenue Roi Albert I
1780 Wemmel
Tel: +32 02-462 07 30
Fax: +32 02-461 00 23
E-mail: com-be@crouzet.com

12 sales outlets

> France

Crouzet Automatismes SA
2 rue du docteur Abel - BP 59
26902 Valence cedex 9 - France
Tel: +33 4 75 44 88 44
Fax: +33 4 75 55 98 03
E-mail: com-fr@crouzet.com

Customer Service
Technical and sales
information

N° Indigo 0 825 333 350

Price Appeal Local
Fax N° Azur 0 810 610 102

3 production sites
400 sales outlets

> Germany

Crouzet GmbH
Otto-Hahn-Str. 3
D-40721 Hilden
Postfach 203
D-40702 Hilden
Tel: +49 21 03 9 80-0
Fax: +49 21 03 9 80-2 00
E-mail: com-de@crouzet.com

Customer Service

Automation Control
Tel: +49 21 03 9 80-1 08 and 1 76
Fax: +49 21 03 9 80-2 50

Sensing
Tel: +49 21 03 9 80-1 51 and 1 71
Fax: +49 21 03 9 80-2 50

Motors
Tel: +49 21 03 9 80-1 51 and 1 71
Fax: +49 21 03 9 80-2 50

Pneumatic Automation
Tel: +49 21 03 9 80-1 08 and 1 76
Fax: +49 21 03 9 80-2 50

Severe Environment
Switching
Tel: +49 21 03 9 80-1 23
Fax: +49 21 03 9 80-2 00

Gas Burner
Control Units
Tel: +49 21 03 9 80-1 23
Fax: +49 21 03 9 80-2 00

Austria / Hungary
Hutweidengasse 22/2
A-1190 Wien
Tel: +43 1 3685471
Fax: +43 1 3685472

60 sales outlets

> Hong Kong

Crouzet Asia Ltd
Suite 4512, 45/F, Tower 2,
Metro Plaza
223 Hing Fong Road,
Kwai Chung, N.T. - Hong Kong
Tel: +852 2418 2118
Fax: +852 2424 7978
E-mail: com-hk@crouzet.com

14 sales outlets

> Italy

Crouzet Componenti s.r.l.
Via Brembo, 23
20139 Milano
Tel: +39 02 57 306 611
Fax: +39 02 57 306 723
E-mail: com-it@crouzet.com

Subsidiaries

• **Turin**
Crouzet Componenti s.r.l.
Via Servais 112/B
10146 Torino
Tel: +39 011 728600
Fax: +39 011 723564

• **Padua**
Crouzet Componenti s.r.l.
Via Bachelet, 20
35010 Limena (PD)
Tel: +39 049 8841042
Fax: +39 049 8841037

• **Bologna**
Crouzet Componenti s.r.l.
c/o Centergross
Blocco 1A n°222
40050 Funo di Argelato
(Bologna)
Tel: +39 051 862 550
Fax: +39 051 862 810

3 sales offices
116 sales outlets

> Mexico

Crouzet Mexicana SA,
Aguiles Serdan n°416
San Felipe Hueyotlipan C.P
72030 - Puebla - Mexico
Tel: +52 22 24 20 29 / 24 20 30
Fax: +52 22 24 21 47
E-mail: com-mx@crouzet.com

1 production site
35 sales outlets

> Spain

Crouzet, S.A.
Rambla de Catalunya, 123
E-08008 Barcelona
Tel: +34 93 415 38 15
Fax: +34 93 415 16 08
E-mail: com-es@crouzet.com

Customer Service
Technical and sales
information

Tel. +34 93 292 21 44
Fax: +34 93 415 16 08

1 production site
92 sales outlets

> Sweden

Crouzet AB
Malmgårdsvägen 63
Box 11183 - SE. 100 61
Stockholm
Tel: +46-8 556 02 200
Fax: +46-8 556 02 229
E-mail: crouzet@crouzet.se

Denmark

• **OEM-AUTOMATIC A/S**
Frydensbergvej 20,
Postboks 63 - DK- 3660
Stenløse
Tel: +45-47 17 35 00
Fax: +45-47 17 35 43

Norway

Electronics -
Impulse Relays and Motors
• **OEM-AUTOMATIC A/S**
Tomtegata 20, Postboks 564
Brakerøya - NO - 3002 Drammen
Tel: +47-32 89 72 70
Fax: +47-32 89 72 80

Pneumatics

• **SR AUTOMATIC A/S**
Roykenveien 142, Postboks 406
NO - 1373 Asker
Tel: +47-66 78 77 80
Fax: +47-66 90 13 13

Finland

• **OEM-AUTOMATIC**
Telekatu 8, PI 9 - FI- 20101 Turku
Tel: +358-2 4120 40
Fax: +358-2 4120 499

212 sales outlets

> Switzerland

Crouzet AG
Gewerbepark - Postfach 56
CH-5506 Magenwil
Tel: +41 62 / 887 30 30
Fax: +41 62 / 887 30 40
E-mail: com-ch@crouzet.com

3 sales outlets

> Netherlands

Crouzet BV
Industrieweg 17
2382 NR Zoeterwoude
Tel: +31 71-581 20 30
Fax: +31 71-541 35 74
E-mail: com-nl@crouzet.com

86 sales outlets

> United Kingdom

Crouzet Ltd
Intec 3 - Wade Road
Basingstoke - Hampshire
RG24 8NE
Tel: +44 (0)1256 318 900
Fax: +44 (0)1256 318 901
E-mail: info@crouzet.co.uk

40 sales outlets

> United States

Crouzet Corporation
3237 Commander Drive
Carrollton, Texas 75006
Tel: +1 972 447-6700
Fax: +1 972 447-6786
E-mail: com-us@crouzet.com

406 sales outlets

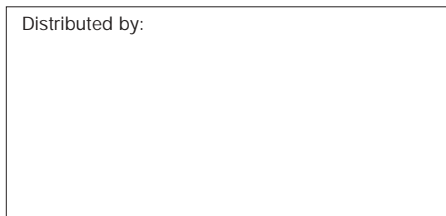
> Other countries

Crouzet Automatismes SA
2 rue du docteur Abel - BP 59
26902 Valence cedex 9 - France
Tel: +33 4 75 44 86 23
Fax: +33 4 75 44 81 05
Telex: 346340 F
E-mail: com-ex@crouzet.com

480 sales outlets

Warning:
The product information contained in this catalogue is given purely as information and does not constitute a representation, warranty or any form of contractual commitment. CROUZET Automatismes and its subsidiaries reserve the right to modify their products without notice. It is imperative that we should be consulted over any particular use or application of our products and it is the responsibility of the buyer to establish, particularly through all the appropriate tests that the product is suitable for the use or application. Under no circumstances will our warranty apply, nor shall we be held responsible for any application (such as any modification, addition, deletion, use in conjunction with other electrical or electronic components, circuits or assemblies, or any other unsuitable material or substance) which has not been expressly agreed by us prior to the sale of our products.

Distributed by:



Multi-technology
Know-how

www.crouzet.co.uk

More
than a standard

