The most complete software offer on the market

Pre-programmed application-specific functions

An open, adaptable configuration

More than a standard

Crouzet
Millenium II

the logic controller that’s flexible and adaptable to your applications

Millenium II is the only logic controller to combine flexible programming using function blocks with the added benefit of sequential flow chart blocks. Its user-oriented design simplifies the process of designing your programs.

Millenium II offers a number of solutions for your applications. It’s simpler than ever to incorporate automation control functions such as timing, counting, monitoring, temperature control, sequencing, etc.

Your open, adaptable configuration

Millenium 2 consists of a complete range with versions which are:
- user-definable from the front panel
- low-cost (no displays and parameter-setting buttons)
- bare boards for mass-production applications
- numerous extensions (I/O, communication, etc)

Your pre-programmed functions

Millenium 2 incorporates the most extensive function library on the market, which now includes application-specific functions (calculation, pump rotation, Cam timer, etc). Moreover, Crouzet will offer to design the function which is perfect for your application.

Your flexibility for programming

Millenium 2 is the only logic controller to combine flexible programming using function blocks with the added benefit of sequential flow chart blocks. Its user-oriented design simplifies the process of designing your programs.

Millenium 2 consists of a complete range with versions which are:
- user-definable from the front panel
- low-cost (no displays and parameter-setting buttons)
- bare boards for mass-production applications
- numerous extensions (I/O, communication, etc)
With Millenium 2, small machines benefit from adaptability and simplicity of installation. Exploit its communication capacities and add more functions to your devices with the greatest of ease.

**Machines**

With its pre-programmed function blocks, analogue inputs, and powerful calendar clock, Millenium 2 makes it easy to monitor your installations: heating, air conditioning, pumping, lighting, and access control (gates, management of safety devices, etc).

**Building management**

Software functions are included which simplify the design of your heating cycles. In addition, as your systems evolve, there will be a version of Millenium 2 to suit.

**Temperature control**

Positive advantages for your applications!
The most **complete** software offer on the market

The user-oriented design of Millenium 2 simplifies program creation by combining speed, performance and safety:
- pre-programmed functions
- application-specific functions
- proprietary functions
- FBD (Function Block Diagram) functions
- GRAFCET SFC (Sequential Function Chart) functions

A genuine CLS (Crouzet Logic Software) software workshop for PC:
- programming,
- simulation,
- monitoring and supervision,
- program uploading/downloading,
- customized documentation,
- automatic program compilation,
- online help.

- Large processing capacity: 128 function blocks.
- Battery backup of data in the event of a power failure: 10 years.
- Password protection.
- Automation control parameters set using buttons on the front panel.

Interactive CD-Rom
- CLS software workshop
  + tutorial
  + application library
  + promotional sales brochure
  + technical sales brochures

The points of Millenium 2

Select your function

Supervise the installation

Construct your program
Your applications already pre-programmed with our application-specific functions!

CROUZET offers you a library of application-specific functions which can be added to according to your requirements:

- **Calculation function**
  - Multiplication/Division
  - Addition/Subtraction
- **Data archiving function**
- **Cam timer function**
- **Clock function**
  - with modifiable parameters
- **Pump rotation function**
- **Up/down counter with calculation function**

**Example of application-specific function:**
**Rotation of 3 pumps**
The pump rotation function is used to manage the water level in a tank by means of 3 sensors and 3 pumps.
An open, adaptable configuration

- Power supply: 24 VDC/VAC, 100-240 VAC
- Inputs:
  - Discrete
  - 3-wire PNP IPD
  - Analogue 0-10 V
  - Full-scale potentiometer input
- Outputs:
  - Discrete including one changeover or solid state PWM (Pulse Width Modulation)
- Interface:
  - PC programming
  - Program memory cartridge
  - Modem link
- Adjacent extension: AS-I or MODBUS communication
  - Additional inputs and outputs
- Local extension: Additional solid state outputs
  - Communication between two Millennium XT20
- Parameters set via an ergonomic keypad
- Modular case: DIN rail, screw or front panel fixing
- Backlit LCD display:
  - Status indicator
  - User messages
  - Values

Improved design to suit your applications
Versions and extensions for you to construct your own solution

<table>
<thead>
<tr>
<th>Type XT</th>
<th>12 Inputs/Outputs</th>
<th>20 Inputs/Outputs</th>
<th>Extensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expandable</td>
<td></td>
<td></td>
<td>Adjacent</td>
</tr>
<tr>
<td>version</td>
<td></td>
<td></td>
<td>• 6 Inputs/Outputs</td>
</tr>
<tr>
<td>with display</td>
<td></td>
<td></td>
<td>• Communication using MODBUS or AS-i</td>
</tr>
<tr>
<td>and parameter-</td>
<td></td>
<td></td>
<td>protocol</td>
</tr>
<tr>
<td>setting buttons</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Type SA         |                   |                   | Local                                    |
| Standard        |                   |                   | • 4 solid state outputs                  |
| version         |                   |                   | • Transparent communication between two |
| with display    |                   |                   | XT20                                     |
| and parameter-  |                   |                   |                                          |
| setting buttons |                   |                   |                                          |

| Type EC         |                   |                   |                                          |
| Blind version   |                   |                   |                                          |
| without display |                   |                   |                                          |
| or parameter-   |                   |                   |                                          |
| setting buttons |                   |                   |                                          |

| Type CN         |                   |                   |                                          |
| Bare board      |                   |                   |                                          |
| version         |                   |                   |                                          |
| for mass-        |                   |                   |                                          |
| production       |                   |                   |                                          |
| applications    |                   |                   |                                          |

Example of configuration:

Communication between two Millenium XT20

Local extension XT20-XT20

Adjacent extension 6 I/O

Local extension XT20-XT20

Adjacent extension Slave MODBUS
### Technical characteristics

#### Insulation
- 7 MΩ

#### Safety class
- 0 Industrial / II domestic casing

#### Earthing
- None

#### Protection
- IP20/Terminal block IP40
- IP00 for CN12 and CN 20

#### Certification
- CE, UL, cUL

#### Compliance
- EN 60947-1
- EN 60730-1
- EN 60601-1

#### Programming method
- Function blocks/SFC

#### Program size
- 128 blocks

#### Program memory
- Flash EEPROM

#### Removable memory
- EEPROM

#### Data memory
- 256 bits/64 words backed up for 10 years

#### LCD display
- Display with 4 lines of 12 characters

#### Real-time clock
- Drift < 1 min/month at 25 °C with user-definable correction of drift
- Data retention: 10 years (lithium battery)

#### Storage temperature
- -40 -> +70 °C

#### Operating temperature
- -5 -> +45 °C

#### Relative humidity (without condensation)
- 90 -> 95 %

#### Dimensions (w x h x d)
- SA12-EC12: 72 x 90 x 60 mm
- SA20-XT-EC20: 125 x 90 x 60 mm
- CN12: 72 x 90 x 42 mm
- CN20: 125 x 90 x 42 mm

---

### Technical characteristics

#### 100 ... 240 VAC power supply

- **Operating voltage**: 100 VAC -> 240 VAC (+10 % - 15 %) 50/60 Hz
- **Operating limits**: 85 VAC -> 264 VAC
- **Immunity from micro power cuts**: 10 ms
- **Maximum inrush current**: 7 A
- **Maximum power consumption**: 6 VA SA12-EC12-CN12: 6 VA SA20-EC20-CN20: 6,5 VA XT20: 8 VA

#### 24 VAC power supply

- **Operating voltage**: 24 VAC +20 % - 15 % 50/60 Hz
- **Operating limits**: 20,4 VAC -> 28,8 VAC
- **Immunity from micro power cuts**: 10 ms
- **Maximum inrush current**: 7 A
- **Maximum power consumption**: 6 VA SA12-EC12-CN12: 6 VA SA20-EC20-CN20: 6,5 VA XT20: 8 VA

#### 24 VDC power supply

- **Operating voltage**: 24 VDC +20 % - 15 %
- **Operating limits**: 20,4 VDC -> 28,8 VDC
- **Immunity from micro power cuts**: 1 ms
- **Maximum inrush current**: 7 A
- **Maximum power consumption**: 3,5 W SA12-EC12-CN12: 3,5 W SA20-EC20-CN20: 4 W XT20: 5 W

#### Analogue inputs (24 VDC model only)
- CN12-SA12-EC12: 4 inputs from I5 to I8
- CN20-SA20-EC20-XT20: 8 inputs from I5 to I12

#### Measuring range
- (0 -> 10 V) or (0 -> Power supply V)

#### Resolution
- 8 bits

#### Conversion time
- 10 ms

#### Max. input voltage
- 28,8 VDC

#### Input impedance (kΩ)
- > 10

#### Precision
- +/- 5 %

#### Temperature drift
- +/- 3 LSB

#### Potentiometer control
- 2,2 KΩ / 0,5 W

---

### Technical characteristics

#### 100 - 240 VAC input

- **Input voltage**: 100 - 240 (+10% / -15%) VAC
- **Operating frequency**: 50/60 Hz
- **Input impedance**: 700 kΩ
- **Pull-in voltage at logic state 1**: ≥ 80 VAC
- **Drop-out voltage at logic state 0**: ≤ 40 VAC
- **Status indicator**: On LCD screen for SA12, SA20, XT20

#### 24 VAC input

- **Input voltage**: 24 (+10% / -15%) VAC
- **Operating frequency**: 50/60 Hz
- **Input impedance**: 4 kΩ
- **Pull-in voltage at logic state 1**: ≥ 15 VAC
- **Drop-out voltage at logic state 0**: ≤ 5 VAC
- **Status indicator**: On LCD screen for SA12, SA20, XT20

#### 24 VDC input

- **Input voltage**: 24 (+20% -15%) VDC
- **Input current**: 3,2 mA/5,5 mA max
- **Pull-in voltage at logic state 1**: ≥15 VDC
- **Drop-out voltage at logic state 0**: ≤ 5 VDC

#### Response time
- 10 ms

#### Sensor type
- Contact - 3-wire PNP

#### Status indicator
- On LCD screen for SA12, SA20, XT20

---

### Technical characteristics

#### Relay outputs

- **Max. voltage breaking capacity**: 250 VAC
- **Max. current breaking capacity**: 8 A
- **Service life**: 8 A / 250 VAC resistive (100 000 operations)
- **Min. load**: 10 mA / 5 VDC

#### Response time
- 10 ms

#### Status indicator
- On LCD screen for SA12, SA20, XT20

---

For further information please go to [www.crouzet.co.uk](http://www.crouzet.co.uk)
### 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.

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

<table>
<thead>
<tr>
<th>Type</th>
<th>Input</th>
<th>Output</th>
<th>Power supply</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>KIT SA 12</td>
<td>8</td>
<td>4 relay</td>
<td>24 VDC</td>
<td>88 950 070</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>4 relay</td>
<td>100 - 240 VAC</td>
<td>88 950 071</td>
</tr>
<tr>
<td>KIT SA 20</td>
<td>12</td>
<td>8 relay</td>
<td>24 VDC</td>
<td>88 950 072</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>8 relay</td>
<td>100 - 240 VAC</td>
<td>88 950 073</td>
</tr>
<tr>
<td>KIT XT 20</td>
<td>12</td>
<td>8 relay</td>
<td>24 VDC</td>
<td>88 950 074</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>8 relay</td>
<td>100 - 240 VAC</td>
<td>88 950 075</td>
</tr>
</tbody>
</table>

### 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

<table>
<thead>
<tr>
<th>Type</th>
<th>Input</th>
<th>Output</th>
<th>Power supply</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>SA 12</td>
<td>8</td>
<td>4 relay</td>
<td>24 VDC</td>
<td>88 950 041</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>4 relay</td>
<td>100 - 240 VAC</td>
<td>88 950 043</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>4 relay</td>
<td>24 VAC</td>
<td>88 950 044</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>4 solid state/4 PWM</td>
<td>24 VDC</td>
<td>88 950 042</td>
</tr>
<tr>
<td>SA 20</td>
<td>12</td>
<td>8 relay</td>
<td>24 VDC</td>
<td>88 950 051</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>8 relay</td>
<td>100 - 240 VAC</td>
<td>88 950 053</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>8 relay</td>
<td>24 VAC</td>
<td>88 950 054</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>8 solid state/6 PWM</td>
<td>24 VDC</td>
<td>88 950 052</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Type</th>
<th>Input</th>
<th>Output</th>
<th>Power supply</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>XT 20</td>
<td>12</td>
<td>8 relay</td>
<td>24 VDC</td>
<td>88 950 061</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>8 relay</td>
<td>100 - 240 VAC</td>
<td>88 950 063</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>8 relay</td>
<td>24 VAC</td>
<td>88 950 064</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>8 solid state/6 PWM</td>
<td>24 VDC</td>
<td>88 950 062</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Type</th>
<th>Input</th>
<th>Output</th>
<th>Power supply</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC 12</td>
<td>8</td>
<td>4 relay</td>
<td>24 VDC</td>
<td>88 950 021</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>4 relay</td>
<td>100 - 240 VAC</td>
<td>88 950 023</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>4 relay</td>
<td>24 VAC</td>
<td>88 950 024</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>4 solid state/4 PWM</td>
<td>24 VDC</td>
<td>88 950 022</td>
</tr>
<tr>
<td>EC 20</td>
<td>12</td>
<td>8 relay</td>
<td>24 VDC</td>
<td>88 950 031</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>8 relay</td>
<td>100 - 240 VAC</td>
<td>88 950 033</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>8 relay</td>
<td>24 VAC</td>
<td>88 950 034</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>8 solid state/6 PWM</td>
<td>24 VDC</td>
<td>88 950 032</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Type</th>
<th>Input</th>
<th>Output</th>
<th>Power supply</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN 12</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CN 20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

- For XT 20 only (1 local extension per module)
- Millenium - Millenium 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

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>XL 01</td>
<td>M2 - M2 local link (2 modules)</td>
<td>88 950 200</td>
</tr>
<tr>
<td>XL 05</td>
<td>4 solid state outputs</td>
<td>88 950 204</td>
</tr>
</tbody>
</table>

Adjacent extensions

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

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>XC 01</td>
<td>4 inputs 2 relay outputs 24 VDC</td>
<td>88 950 210</td>
</tr>
<tr>
<td></td>
<td>4 inputs 2 relay outputs 24 VAC</td>
<td>88 950 211</td>
</tr>
<tr>
<td></td>
<td>4 inputs 2 relay outputs 110 - 240 VAC</td>
<td>88 950 212</td>
</tr>
<tr>
<td>XC 02</td>
<td>AS-i exchange unit 24 VDC</td>
<td>88 950 213</td>
</tr>
<tr>
<td>XC 03</td>
<td>MODBUS exchange unit 24 VDC</td>
<td>88 950 214</td>
</tr>
</tbody>
</table>

Accessories

<table>
<thead>
<tr>
<th>Type</th>
<th>Range</th>
<th>Precision</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programming software on CD ROM</td>
<td></td>
<td></td>
<td>88 950 100</td>
</tr>
<tr>
<td>EEPROM memory module</td>
<td></td>
<td></td>
<td>88 950 101</td>
</tr>
<tr>
<td>PC-module link interface</td>
<td></td>
<td></td>
<td>88 950 102</td>
</tr>
<tr>
<td>Faceplate for front panel mounting EC 12 - SA 12</td>
<td></td>
<td></td>
<td>89 750 103</td>
</tr>
<tr>
<td>Faceplate for front panel mounting EC 20 - SA 20 - XT 20</td>
<td></td>
<td></td>
<td>89 750 109</td>
</tr>
<tr>
<td>Room temperature sensors</td>
<td>-10 -&gt; +40 °C</td>
<td>-0.2 °C +1.2 °C (-10 -&gt; +40 °C)</td>
<td>89 750 150</td>
</tr>
<tr>
<td>Ventilation duct temperature sensors</td>
<td>-10 -&gt; +60 °C</td>
<td>-0.2 °C +1.9 °C (-10 -&gt; +60 °C)</td>
<td>89 750 151</td>
</tr>
<tr>
<td>Outdoor temperature sensors</td>
<td>-10 -&gt; +40 °C</td>
<td>-0.2 °C +1.2 °C (-10 -&gt; +40 °C)</td>
<td>89 750 152</td>
</tr>
<tr>
<td>Immertion/remote probe temperature sensors</td>
<td>-10 -&gt; +150 °C</td>
<td>-0.2 °C +1.9 °C (-10 -&gt; +150 °C)</td>
<td>89 750 153</td>
</tr>
</tbody>
</table>

Dimensions

- Standard products
- Standard products, non stocked

For further information please go to [www.crouzet.co.uk](http://www.crouzet.co.uk)

60 sales outlets
Fax: +43 1 3685472
Tel: +43 1 3685471
A-1190 Wien
Hutweidengasse 22/2
Austria / Hungary
Fax: +49 21 03 9 80-2 00
Tel: +49 21 03 9 80-1 23
E-mail: info@crouzet.co.uk

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

> 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
Fax: +33 4 75 44 81 05
Tel: +33 4 75 44 86 23
Telex: 346340 F
E-mail: com-es@crouzet.com

> Germany
Crouzet GmbH
Otto-Hahn-Str. 3
D-40721 Hilden
Fax: +49 21 03 9 80-2 00
Tel: +49 21 03 9 80-1 23
E-mail: com-de@crouzet.com
Customer Service
Automation Control
Tel: +49 21 03 9 80-1 08 and 1 76
Sensing
Fax: +49 21 03 9 80-2 20
Tel: +49 21 03 9 80-2 50
Motors
Fax: +49 21 03 9 80-1 51 and 1 71
Tel: +49 21 03 9 80-2 50
Pneumatic Automation
Fax: +49 21 03 9 80-1 08 and 1 76
Tel: +49 21 03 9 80-2 50
Severe Environment
Switching
Fax: +49 21 03 9 80-1 23
Tel: +49 21 03 9 80-2 00
Gas Burner
Fax: +49 21 03 9 80-1 23
Tel: +49 21 03 9 80-2 00

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

> Italy
Crouzet Componenti s.r.l
Via Bremero, 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 Servaza, 112/B
10146 Torino
Tel: +39 011 728600
Fax: +39 011 723564
Padua
Crouzet Componenti s.r.l
Via Bachelet, 20
35010 Lmena (PD)
Tel: +39 049 8841042
Fax: +39 049 8841037
Bologna
Crouzet Componenti s.r.l
C/o Centergloss
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 Sarden n°416
San Felipe Huexotitlan C.P.
72030 - Puebla - Mexico
Tel: +52 22 24 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 1183 - 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
Sorø
Tel: +45-47 17 35 00
Fax: +45-47 17 35 43

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

Pneumatics
SR AUTOMATION A/S
Rokkenvejen 142, Postboks 406
NO - 1373 Asker
Tel: +47-66 78 77 80
Fax: +47-66 90 13 15

Finland
OEM-AUTOMATIC
Telekatu 8, Pk 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 Mägenwil
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
3327 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

Distributed by:
www.crouzet.co.uk

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. If comparative that we would be consulted on 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.