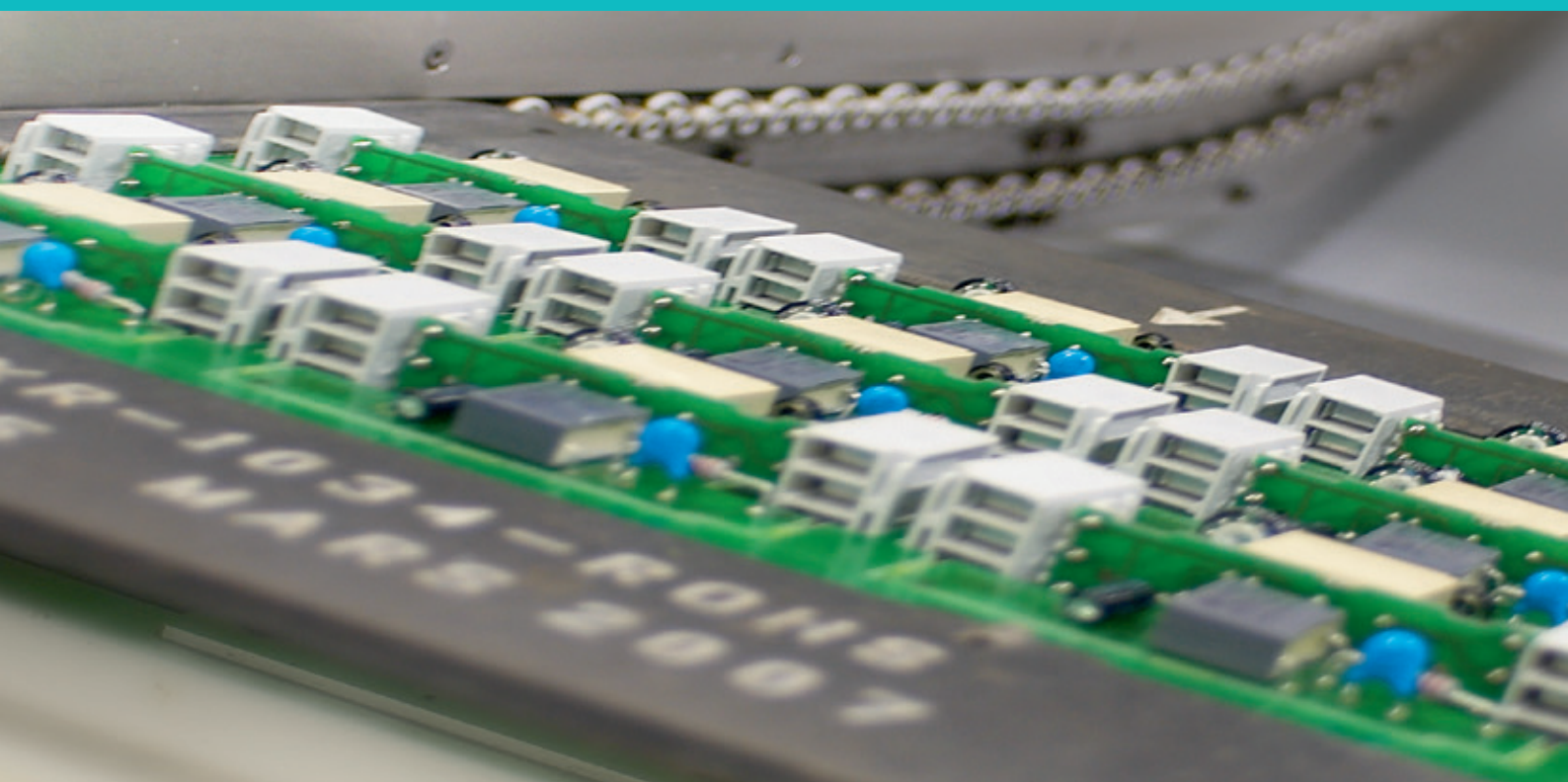


CROUZET CONTROL SELECTION GUIDE



- › Timers
- › Monitoring relays
- › Counters and Ratemeters
- › Temperature Controllers
- › Safety relays
- › Pneumatic Products

ABOUT CROUZET CONTROL

Expert in the design of efficient and innovative monitoring & control products, Crouzet Control, supported by an experienced worldwide team, offers a broad range of industry standard and application specific adapted products in timing, control relays and counting functions.

Crouzet Control is a brand of InnoVista Sensors™.

OUR STRENGTHS

ANALYSIS OF CUSTOMER REQUIREMENTS

- › Understanding how applications work.
- › Integrating environmental constraints and quality requirements.
- › Proposing technical and economic solutions which fully meet the needs of customers.

PRODUCTION

- › Meeting all needs, standard or specific, small-scale or mass production, thanks to the strengths of Crouzet Control's factories.
- › Guaranteeing the quality and reliability of products: all Crouzet Control's production sites are certified to ISO 9001 and ISO 14001, and use quality processes such as 6 Sigma.
- › Integrating eco-design into manufacturing processes to minimise the environmental impact of products throughout their life cycle.

LOGISTICS AND AFTER-SALES SERVICES

- › Providing an optimum service level and guaranteeing a prompt delivery schedule, whatever the type of order: small-scale or mass production, standard or adapted products.

OUR VALUES

- › Offer a comprehensive range of control products for time management: timers and counters
- › Experts in environmental, electrical, and time measurement
- › Global presence with our sales and Customer Relations service

EXPERTISE AND TECHNOLOGY BEHIND EVERY PROJECT

With over 65 years of experience, and with production sites and sales offices worldwide, Crouzet Control offers unrivaled excellence in quality, innovation, reliability and customer service.

Our wide range of practical and easy to use control products is manufactured according to international and environmental standards including : UL, CSA, GL, CCC, TUV, CE, RoHS and REACH.



Discover all the Crouzet Control products
on the website: www.crouzet-control.com

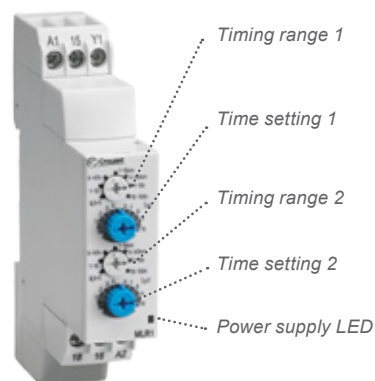


TIMERS



SIMPLE AND RELIABLE:

- Available in **single** or **multifunction** versions to meet the specific needs of each application
- A range of power supplies from 12 to 240 V \sim
- Recognised **quality** and **reliability** ensures the correct operation of equipment



	Supply	Function(s)	Output(s)	Part number	Type
DIN rail modular housing 17.5 mm					
	24 V \sim / 24 \Rightarrow 240 V \sim	A/At/B/C/H/ Ht/Di/D/Ac/Bw	8A Changeover	88 827 105	MUR1
	12 \Rightarrow 240 V \sim	A/At/B/C/H/ Ht/Di/D/Ac/Bw	8A Changeover	88 827 103	MUR3
	24 V \sim / 24 \Rightarrow 240 V \sim	A/At	8A Changeover	88 827 115	MAR1
	24 V \sim / 24 \Rightarrow 240 V \sim	L/Li	8A Changeover	88 827 155	MLR1
	24 V \sim / 24 \Rightarrow 240 V \sim	Ad/Ah/N/O/P/Pt/TL/Tt/W	8A Changeover	88 827 185	MXR1
	24 \Rightarrow 240 V \sim	A/At/B/C/H/ Ht/Di/D/Ac/Bw	0.7A Static	88 827 004	MUS2
DIN rail modular housing 22.5 mm					
	24 V \sim / 24 \Rightarrow 240 V \sim	A/At/B/C/H/ Ht/Di/D/Ac/Bw	2 x 8A Changeover	88 866 305	RU2R1
	24 V \sim / 24 \Rightarrow 240 V \sim	A/At	2 x 8A Changeover	88 866 215	RA2R1
Analogue panel mounted					
	12 \Rightarrow 240 V \sim / 24 \Rightarrow 240 V \sim	A/B/C/W/G/Ac/Bw	2 x 5A Changeover	88 886 016	TMR 48U
Digital panel mounted					
	8-pin base: 24 V \sim / 110 \Rightarrow 240 V \sim	A/B/C/D/Di/H	8A Changeover	88 857 005	Timer 814
	11-pin base : 24 V \sim / 110 \Rightarrow 240 V \sim	A/B/C/D/Di/H	8A Changeover	88 857 105	Timer 814
	8-pin base : 24 V \sim / 220 \Rightarrow 240 V \sim	A/B/C/D/Di/H	8A Changeover	88 857 601	Timer 816
	8-pin base connector 25 622 130 din rail mounting 11-pin base connector 25 622 080 din rail mounting				

Discover all the timers on the website: www.crouzet-control.com



FUNCTION DIAGRAMS :

Function A Delay on energisation



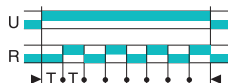
Function B Timing on impulse - Shaping (cannot be reset)



Function C Timing after impulse True delay off



Function D Symmetrical flashing



Function H Timing on energisation - Pulse output



Function Tt Timed impulse relay



U : Supply - T : Timing - Y : Command - ∞ : Infinity - R : Output relay or load

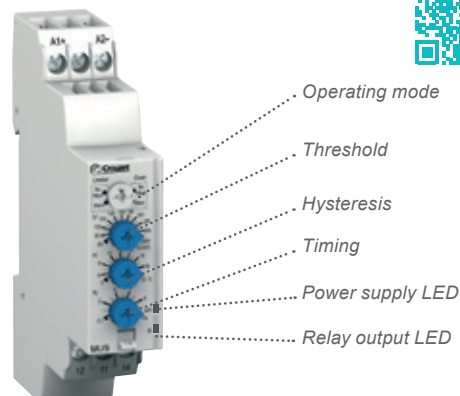


MONITORING RELAYS



RELIABLE AND SECURE :

- › **Positive logic output** to protect installations in the event of a power failure
- › **True RMS measurement** guaranteed regardless of interference on the electrical supply
- › A range of power supplies from 24 240 V \sim in one unit



Housing (mm)	Function(s)	Output(s)	Part number	Type
Phase control				
Modular 17.5	Phase sequence and failure 183-528 V \sim	8A Changeover	84 873 029	MWS
Modular 22.5	Phase sequence and failure 200-460 V \sim	2 x 8A Changeover	84 873 034	EWS2
Voltage control				
Modular 17.5	Over / Undervoltage 65-260 V \sim	5A Changeover	84 872 142	MUS
Modular 35	Over / Undervoltage 15-600 V \sim	2 x 5A Changeover	84 872 130	HUH
Housing (mm)	Function(s)	Measurement range	Part number	Type
Level control				
Modular35	Filling and emptying + anti-wave timing	From 250 Ohms to 1 M Ω	84 870 700	HNM
Modular 22.5	Filling and emptying	From 5 K Ω to 100 K Ω	84 870 200	ENR
Modular 22.5	Filling and emptying + anti-wave timing	From 250 Ω to 1 M Ω	84 870 210	ENRM
Current control				
Modular 17.5	Over and undercurrent	2-20 A built-in CT	84 871 122	MIC
Modular 35	Over and undercurrent	0.1-10 A Adjustable hysteresis	84 871 130	HIH

Discover all the monitoring relays on the website : www.crouzet-control.com

Electrode holder for 1 probe



S3 79696014

Protected electrode

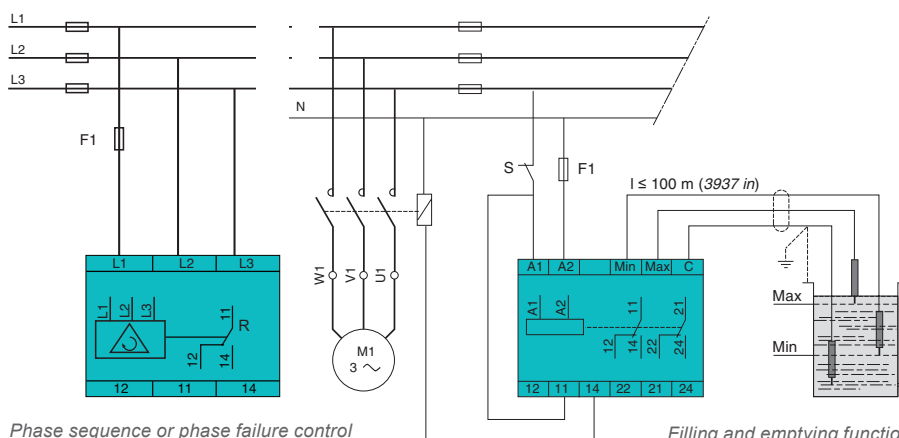


S7 79696043

Electrode holder for 3 probes



S8 79696044



Phase sequence or phase failure control

Filling and emptying function



COUNTERS AND RATEMETERS



ACCURATE AND EASY TO READ :

- › For fast count applications, a high-speed counting frequency: **up to 50 kHz**
- › A **two-colour or backlit LCD dual display** for ease of reading
- › Considerable space saving due to dual-function electro-mechanical and electronic ranges



	Function(s)	Housing	Supply	Part number	Type
Without preselection counters					
	Totalizer/ Ratemeter Hour counter LED	24 x 48	10 ⇒ 30 V $\overline{\text{---}}$	87 623 570	CTR24L
	Hour counter LCD	24 x 48	Lithium battery	87 622 162	CTR24
	Hour counter orange backlit	24 x 48	Lithium battery	87 622 182	CTR24
Multifunction counter with preselection					
	Ratemeter chronometer multi-totaliser, two-colour red / green	48 x 48	10 ⇒ 30 V $\overline{\text{---}}$	87 621 211	CTR48
	Ratemeter chronometer multi-totaliser Orange backlit	48 x 48	10 ⇒ 30 V $\overline{\text{---}}$	87 621 111	CTR48
Electromechanical counters					
	Energy and hour counter, dual display	48 x 48	230 V \sim	99 780 714	CEM48
	Impulse and hour counter, dual display	48 x 48	187-264 V \sim	99 779 714	CMM48
	Hour counter	48 x 48	187-264 V \sim	99 772 714	CHM48
	Hour counter	24 x 48	187-264 V \sim	99 782 714	CHM24
	Hour counter	24 x 48	20-30 V \sim	99 782 710	CHM24
	Hour counter	DIN rail 35mm	10-27 V \sim	99 793 810	CHMDR
Impulse counters					
	Impulse counter	15 x 32	230 V \sim - 50/60Hz	99 778 714	CIM15
	Impulse counter	15 x 32	24 V $\overline{\text{---}}$	99 778 810	CIM15
	Impulse counter	24 x 48	230 V \sim - 50/60Hz	99 777 714	CIM24
	Impulse counter	24 x 48	24 V $\overline{\text{---}}$	99 777 810	CIM24
	Impulse counter	36 x 37	230 V \sim - 50/60Hz	99 776 601	CIM36 x 37
	Impulse counter	36 x 37	24 V $\overline{\text{---}}$	99 776 607	CIM36 x 37

Discover all the counters and ratemeters on the website : www.crouzet-control.com



APPLICATIONS

The different ranges of Crouzet Control products meet the demanding needs of applications such as :

- › Building automation
- › Industrial automation
- › Agrifood industry
- › Street lighting
- › Lifting and Handling
- › HVAC

FUNCTIONS



- › Delay on energisation
- › Flashing single cycle
- › Symmetrical flashing
- › Delay on de-energisation
- › Timed impulse relay
- › Star-Delta starting



- › Phase control for 3-phase supply
- › Current control (over and undercurrent)
- › Voltage control (over and undervoltage)
- › Speed control (over and under speed)
- › Level control (filling and emptying)
- › Motor temperature control



- › Totaliser counter
- › Hour counter or ratemeter
- › Dual counter preselection
- › Impulse counter
- › Impulse and hour counter
- › Hour and Energy counter



- › Heating control
- › Cooling control
- › PID with Auto-tune control
- › PID with adaptive tune control
- › One or two configurable alarms



- › Emergency stop
- › Safety guard monitoring
- › Zero speed control
- › Two-hand control
- › Re-levelling zone control

ABOUT

INNOVISTA SENSORS™

InnoVista Sensors™ : your trusted partner of choice to face industrial challenges of today and tomorrow.

InnoVista Sensors™ is a worldwide industrial specialist of sensors, controllers and actuators for automated systems.

Through its brands, Crouzet Aerospace, Crouzet Automation, Crouzet Control, Crouzet Motors, Crouzet Switches and Systron Donner Inertial, InnoVista Sensors™ offers a wide range of reliable, efficient and customizable components dedicated to the Aerospace & Defence, Transportation and Industrial market and segments.

Thanks to the recognized expertise of its teams and a strong innovation policy, InnoVista Sensors™ brings performance enhancing solutions to its customers worldwide.



210 M\$



1500 employees



140 countries

DESIGNS AND MANUFACTURES



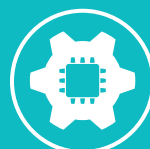
Sensors

- › Microswitches
- › Position sensors
- › Proximity Switches
- › Circuit breakers and panels
- › Grips and flight control



Controls

- › Monitoring relays and measurement
- › Timers
- › Counters
- › Temperature Controllers
- › Logic Controllers
- › Nano-PLC



Actuators

- › Brush DC Motors
- › Brushless Motors (BLDC)
- › Electronic controls
- › Synchronous motors and stepper
- › Linear motors

AMERICAS

CANADA

InnoVista Sensors™
Tel.: +1 (800) 677 5311
Fax: +1 (800) 677 3865
americas.custserv@crouzet.com

MEXICO

InnoVista Sensors™
Tel.: +1 (800) 677 5311
Fax: +1 (800) 677 3865
americas.custserv@crouzet.com

USA

InnoVista Sensors™
Tel.: +1 (800) 677 5311
Fax: +1 (800) 677 3865
americas.custserv@crouzet.com

COUNTRIES NOT LISTED

InnoVista Sensors™
Tel.: +1 (800) 677 5311
Fax: +1 (800) 677 3865
americas.custserv@crouzet.com

EUROPE / MIDDLE EAST / AFRICA

BELGIUM

InnoVista Sensors™
Tel.: +32 (0) 2 462 07 30
Fax: +32 (0) 2 461 00 23
klantenservice@crouzet.com

FRANCE

InnoVista Sensors™
Tel.: +33 (0) 475 802 101
Fax: +33 (0) 475 828 900
relationclient@crouzet.com

GERMANY / AUSTRIA / SWITZERLAND

InnoVista Sensors™
Tel.: +49 (0) 2103/980-0
Fax: +49 (0) 2103/980-222
kundenservice@crouzet.com

ITALY

InnoVista Sensors™
Tel.: +39 (02) 66 599 211
Fax: +39 (02) 66 599 218
assistenzaclienti@crouzet.com

SPAIN / PORTUGAL

InnoVista Sensors™
Tel.: +34 (93) 484 39 70
Fax: +34 (93) 484 39 73
atencionalcliente@crouzet.com

THE NETHERLANDS

InnoVista Sensors™
Tel.: +31 (0) 71-581 20 30
Fax: +31 (0) 71-541 35 74
klantenservice@crouzet.com

UNITED KINGDOM

InnoVista Sensors™
Tel.: +44 (0) 1202 416 172
Fax: +44 (0) 1202 416 198
customer.relation@crouzet.com

COUNTRIES NOT LISTED

InnoVista Sensors™
Tel.: +33 (0) 475 802 102
Fax: +33 (0) 475 828 900
customer.relation@crouzet.com

ASIA / PACIFIC

CHINA

InnoVista Sensors™
Tel.: +86 (21) 8025 7166
Fax: +86 (21) 6107 1771
china@crouzet.com

INDIA

InnoVista Sensors™
Tel.: +91 (80) 4113 2204/05
Fax: +91 (80) 4113 2206
india@crouzet.com

SOUTH KOREA

InnoVista Sensors™
Tel.: +82 (2) 2679 8312
Fax: +82 (2) 2679 9888
korea@crouzet.com

EAST ASIA PACIFIC

InnoVista Sensors™
Tel.: +86 (21) 8025 7177
Fax: +86 (21) 6107 1771
eap@crouzet.com

WWW.CROUZET-CONTROL.COM



WWW.INNOVISTASENSORS.COM



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 SAS 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.



TEMPERATURE CONTROLLERS



A temperature controller is an electronic device which is used to **monitor and control** a temperature according to a set point.



48x48 digital

Auto-tune and adaptive tune PID	3-wire Pt100 or Thermocouple J, K, L, N	100 \Rightarrow 240 V \sim	89 421 118	CTD43
Auto-tune and adaptive tune PID Load break monitoring	3-wire Pt100 or Thermocouple J, K, R, S, T, L, N or voltage or current	100 \Rightarrow 240 V \sim	89 422 018	MIC48

Discover all the temperature controllers on the website: www.crouzet-control.com



SAFETY RELAYS



A safety relay is an automation component which is part of a machine's safety system, thus contributing to the **safety of people** around it (EN ISO 13849-1 and CEI/EN 62061).

Function(s)	Output contact	Supply	Part number	Type
Safety machine				
Emergency stop and safety guard monitoring	3 x NO plus 1 NC	230 V \sim	85 102 435	KNE3-YS
Two-hand control	3 x NO plus 1 NC	24 V \sim	85 102 631	KZH3-YS



Discover all the safety relays on the website: www.crouzet-control.com



PNEUMATIC PRODUCTS



Crouzet's Pneumatic expertise provides you with an offer to meet all your automation system requirements, including systems for **explosive atmospheres**. The quality of the Pneumatic components is based on a rigorous organisation which meets all current **European and international directives, standards and approvals**.

Discover the whole pneumatic range on the website: www.crouzet-control.com



Position detectors



Pneumatic logic components



Electro-pneumatic range