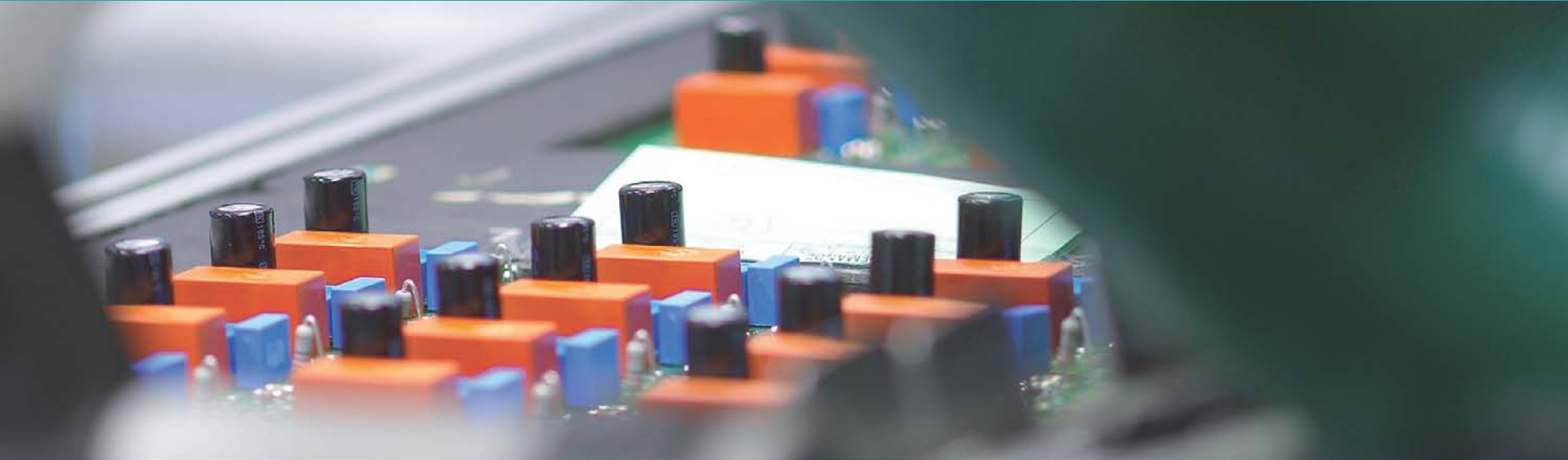


02 / 26 / 2014

# LAUNCH NOTE

## CHRONOS 2 22.5 MM



# SUMMARY

- Introduction
- New Chronos 2 Timers
  - New Models Cross-reference
  - New Chronos 2 Part Numbers
  - Reminder: Other Obsolete 22.5 mm Timers
  - Products dimensions
  - Agency Approvals
  - Good to know
- Applications
- Launch Details

## Chronos 2 Timers - 22.5mm

- The new 22.5mm is close to identical to the profile of the 17.5mm Chronos 2:
  - Same position of terminal blocks for a perfect alignment between the 17.5mm and 22.5mm timer versions.
  - Same appearance in design than the 17.5mm versions.
  - A 45mm “nose height” on the front of the product to allow the mounting of the 22.5mm versions in modular panels.
  - Slightly longer than the 17.5mm versions to allow the 2 relays SPDT 8A / 250VAC.



# New Models' Cross-reference

Obsolete Models

New Models

22.5 mm

22.5 mm

| Old P/N    | Type  | New P/N    | Type  |
|------------|-------|------------|-------|
| 88 865 175 | TQR1  | 88 866 175 | RQR1  |
| 88 865 176 | TQR6  | 88 866 176 | RQR6  |
| 88 865 215 | TA2R1 | 88 866 215 | RA2R1 |
| 88 865 300 | TU2R4 | 88 866 300 | RU2R4 |
| 88 865 303 | TU2R3 | 88 866 303 | RU2R3 |
| 88 865 305 | TU2R1 | 88 866 305 | RU2R1 |
| 88 865 385 | TX2R1 | 88 866 385 | RX2R1 |

- 7 new part numbers directly replace 7 old Chronos 2 22.5 mm models
- The nomenclature is now **88 866** instead of **88 865**

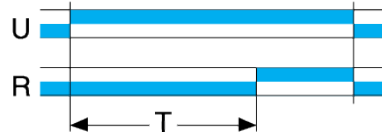
# New Chronos 2 Part Numbers

- A total of 7 redesigned timers (22.5 mm) with:
  - Same rated supply voltage as old versions
  - Same electrical specifications as old versions
- **88 865 265** (function K) will not suffer any change in nomenclature and will remain available

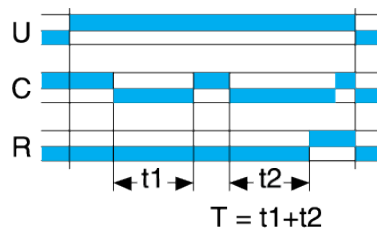
| Part Number | Type  | Functions                         | Output(s)<br>Changeover | Timing         | Supply                 |
|-------------|-------|-----------------------------------|-------------------------|----------------|------------------------|
| 88 866 175  | RQR1  | Q                                 | 1 x 8 A                 | 0.1 s to 100 h | 24 VDC / 24 to 240 VAC |
| 88 866 176  | RQR6  | Q                                 | 1 x 8 A                 | 0.1 s to 100 h | 230 to 240 VAC         |
| 88 866 215  | RA2R1 | A, At                             | 2 x 8 A                 | 0.1 s to 100 h | 24 VDC / 24 to 240 VAC |
| 88 866 300  | RU2R4 | A, At, B, C, H, Ht, Di, D, Ac, Bw | 2 x 8 A                 | 0.1 s to 100 h | 12 VAC / VDC           |
| 88 866 303  | RU2R3 | A, At, H, Ht, B, C, Di, D, Ac, Bw | 2 x 8 A                 | 0.1 s to 100 h | 12 to 240 VAC / VDC    |
| 88 866 305  | RU2R1 | A, At, H, Ht, B, C, Di, D, Ac, Bw | 2 x 8 A                 | 0.1 s to 100 h | 24 VDC / 24 to 240 VAC |
| 88 866 385  | RX2R1 | Ad, Ah, N, O, P, Pt, TL, Tt, W    | 2 x 8 A                 | 0.1 s to 100 h | 24 VDC / 24 to 240 VAC |

# Generic Functions

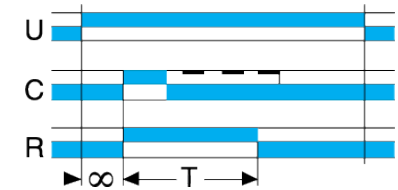
**Function A:**  
Delay on energization



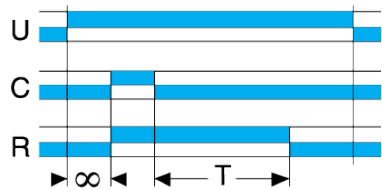
**Function At:** Timing on energization with memory



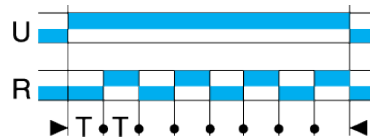
**Function B:** Timing on impulse (one shot) – Shaping (cannot be reset)



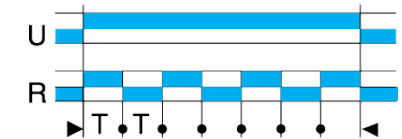
**Function C:** Timing after impulse. True delay off (with auxiliary power supply)



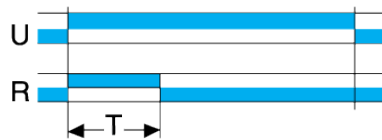
**Function D:**  
Symmetrical flashing



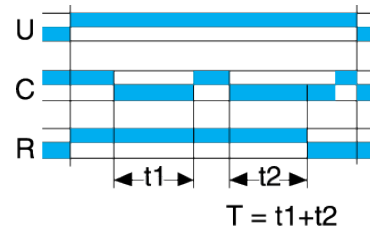
**Function Di:**  
Symmetrical flashing



**Function H:** Timing on energization – Pulse output (adjustable)



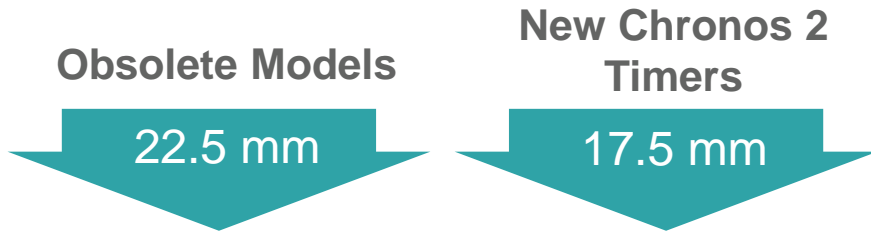
**Function Ht:** Delay on energization with memory



**Function Q:**  
“Star-delta” starting



# Reminder: Other Obsolete 22.5 mm Models



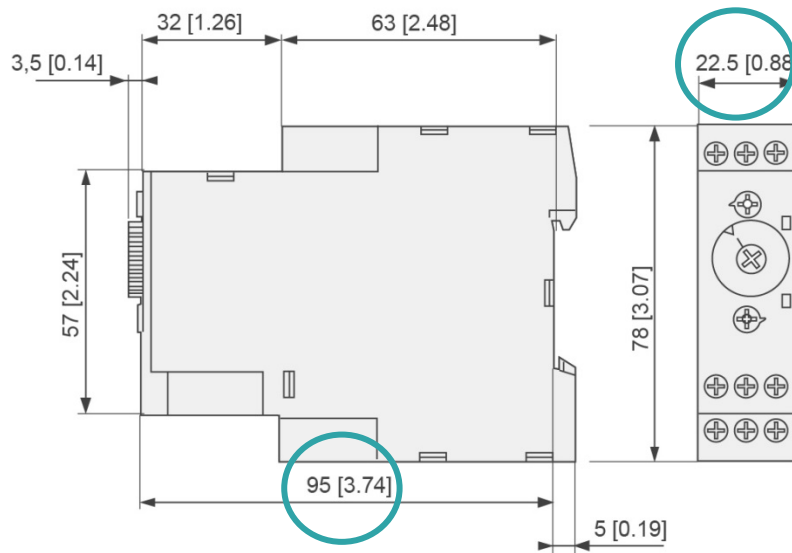
| Old P/N    | Type  | New P/N    | Type  | Power supply           | Function                          |
|------------|-------|------------|-------|------------------------|-----------------------------------|
| 88 865 105 | TUR1  | 88 827 105 | MUR1  | 24 VDC / 24 to 240 VAC | A, At, H, Ht, B, C, Di, D, Ac, Bw |
| 88 865 115 | TAR1  | 88 827 115 | MAR1  | 24 VDC / 24 to 240 VAC | A, At                             |
| 88 865 125 | TBR1  | 88 827 125 | MBR1  | 24 VDC / 24 to 240 VAC | B                                 |
| 88 865 135 | TCR1  | 88 827 135 | MCR1  | 24 VDC / 24 to 240 VAC | C                                 |
| 88 865 145 | THR1  | 88 827 145 | MHR1  | 24 VDC / 24 to 240 VAC | H, Ht                             |
| 88 865 155 | TLR1  | 88 827 155 | MLR1  | 24 VDC / 24 to 240 VAC | L, Li                             |
| 88 865 100 | TUR4  | 88 827 103 | MUR3  | 12 to 240 VAC / VDC    | A, At, H, Ht, B, C, Di, D, Ac, Bw |
| 88 865 103 | TUR3  |            |       |                        | A, At, H, Ht, B, C, Di, D, Ac, Bw |
| 88 865 503 | TURc3 | 88 827 503 | MURc3 | 12 to 240 VAC / VDC    | A, At, H, Ht, B, C, Di, D, Ac, Bw |

- These other obsolete 22.5 mm models have already been replaced with more compact Chronos 2 17.5 mm Timers since April 2013.

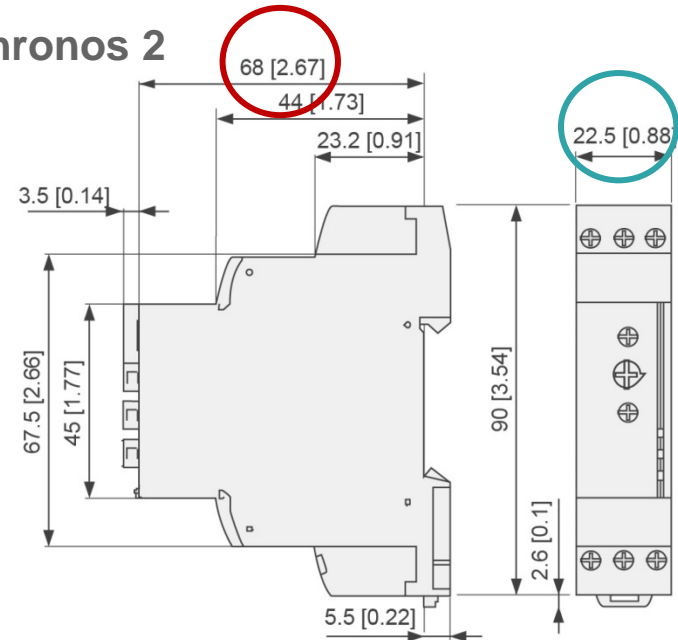
# Mechanical Dimensions

- The new 22.5 mm Chronos 2 timers offer a compact and enhanced design with same width (22.5 mm), but 27 mm less depth than the previous version.

Previous Chronos 2



New Chronos 2

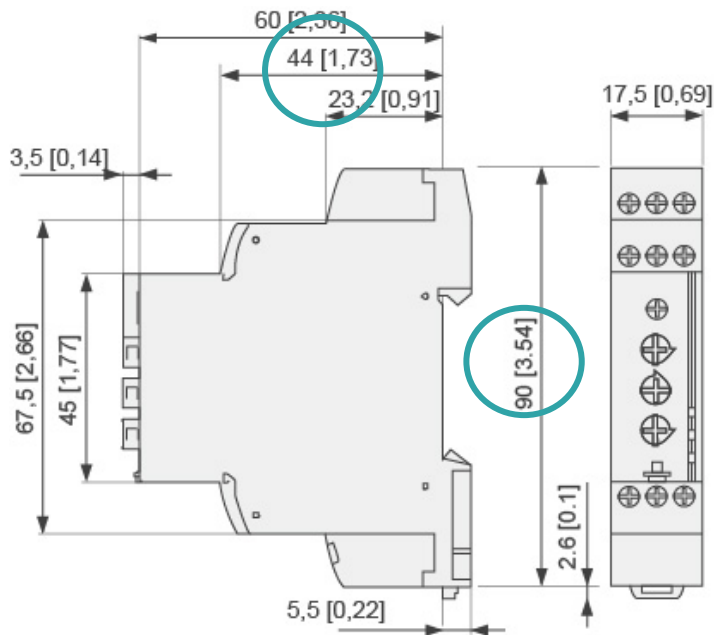




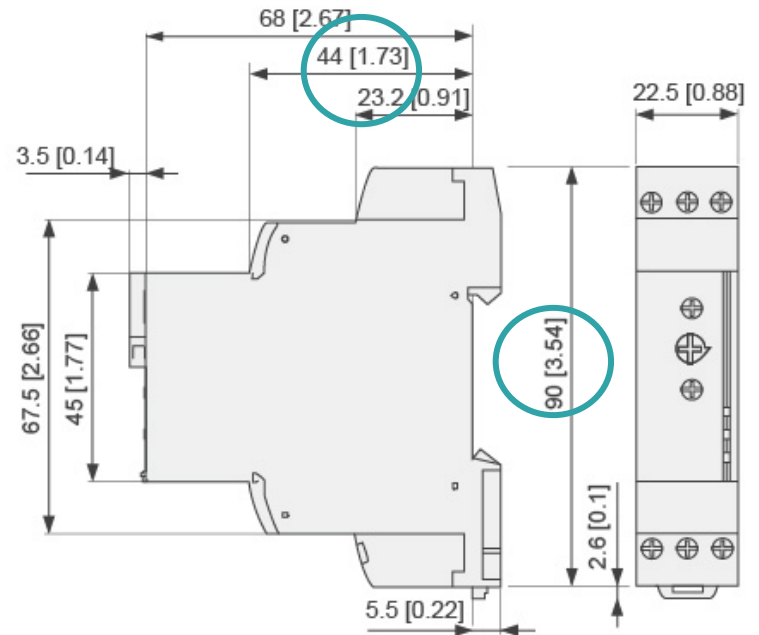
# Mechanical Dimensions (cont.)

- Designed for modular use, the new 22.5 mm Chronos 2 timers have a similar profile as the already redesigned 17.5 mm Chronos 2 Timers 88827.

**New 17.5 mm Chronos 2**



**New 22.5 mm Chronos 2**



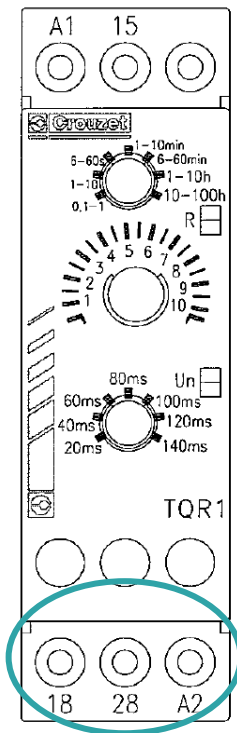
# Agency Approvals

- New 22.5 mm Chronos 2 Timers

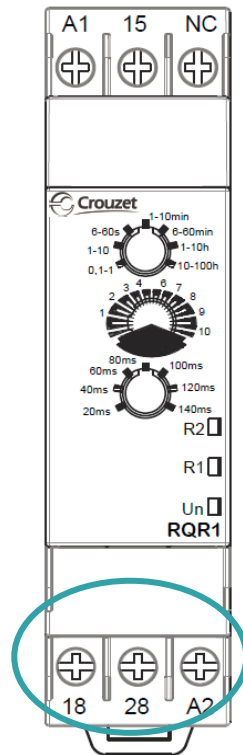
| New Timer<br>Commercial<br>Reference | CE | cUL <sup>US</sup><br>LISTED | SA <sup>®</sup> | GL<br>CERTIFIED |
|--------------------------------------|----|-----------------------------|-----------------|-----------------|
| 88 866 175                           | •  | •                           | •               | •               |
| 88 866 176                           | •  | •                           |                 |                 |
| 88 866 215                           | •  | •                           | •               | •               |
| 88 866 300                           | •  | •                           | •               | •               |
| 88 866 303                           | •  | •                           |                 | •               |
| 88 866 305                           | •  | •                           | •               | •               |
| 88 866 385                           | •  | •                           |                 | •               |

- Input & output terminals are the same for Q function.

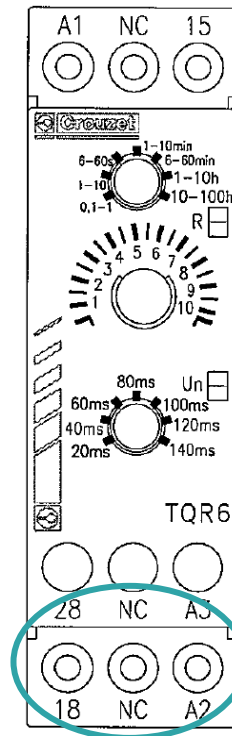
**Old P/N**  
**88 865 175**



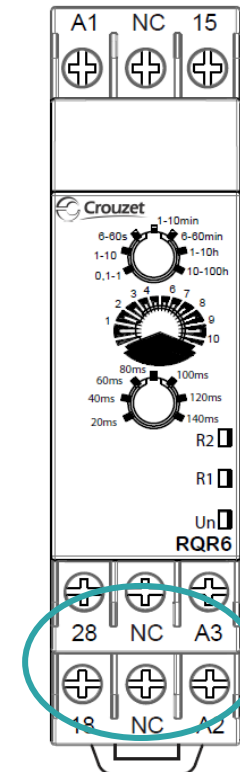
**New P/N**  
**88 866 175**



**Old P/N**  
**88 865 176**



**New P/N**  
**88 866 176**

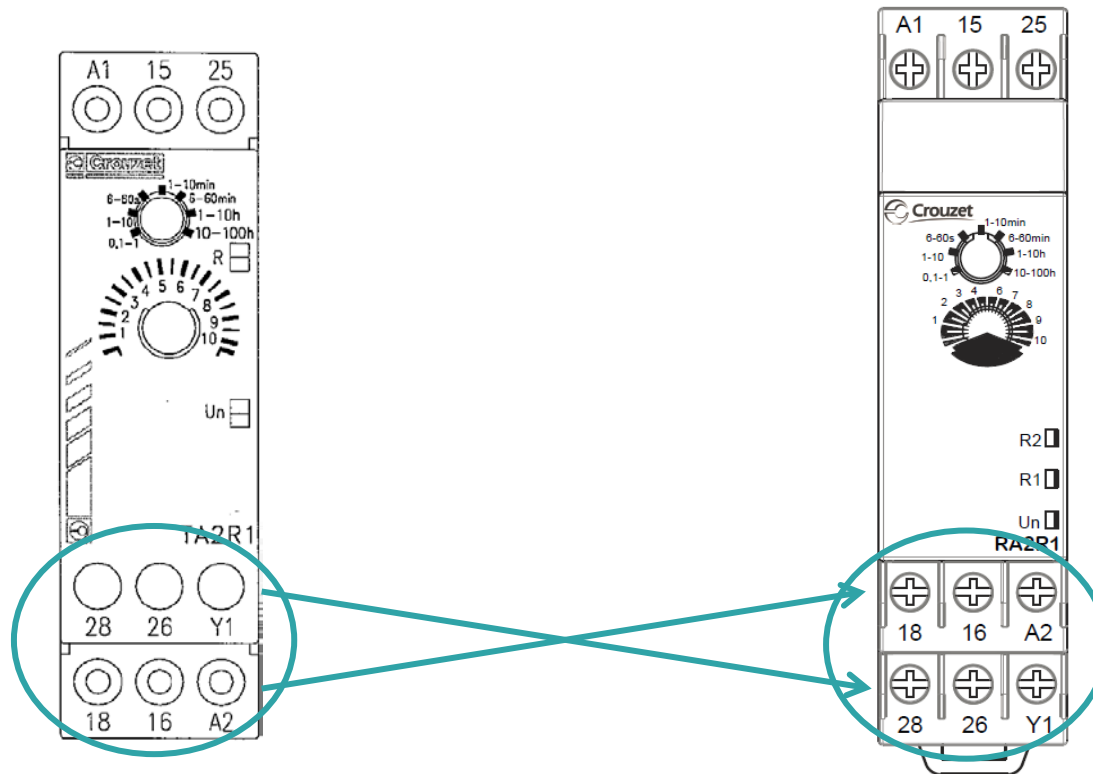


# Good to know (cont.)

- For other functions, Input & output terminals have a slight change in position, but remain on the same side of the timer.

**Old P/N 88 865 215**  
**/300/303/305/385**

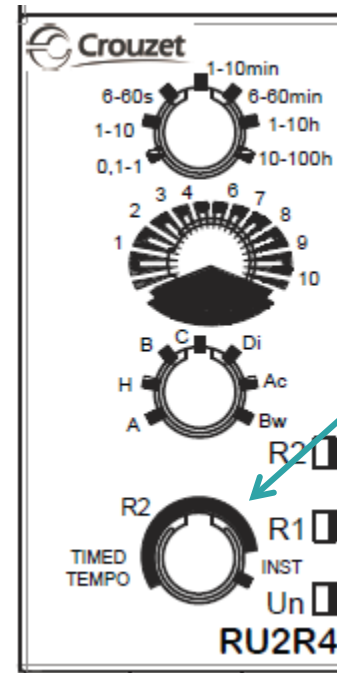
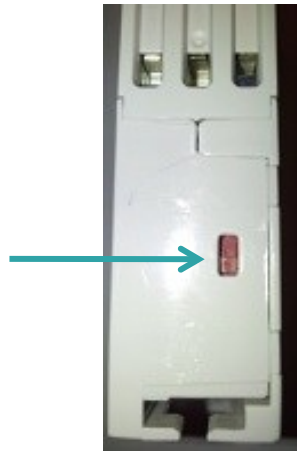
**New P/N 88 866 215**  
**/300/303/305/385**



# Good to know (cont.)

- Instantaneous switch is now on the front face instead of the side

Current  
**slide**  
switch on  
the side



New **rotary** switch on front face (same function as the slide switch)

Typical applications for Timers are with:

- OEM Industrial
- Industrial ovens
- Ice makers
- HVAC systems
- Compressors
- Plastic machinery
- Packaging equipment
- Trains
- Trucks and Buses
- Oil and Gas

## **1** NPI First Glance, February 26th

Several marketing materials are made available only to distributors and sales people to support their preparation for the day of the New Product Premiere.

## **2** New Product Premiere, March 31st

The new Chronos 2 Timers (22.5 mm) will be announced outside of the company. Product information will be available at the Crouzet website.

- Product information will be available in the Crouzet on-line catalog



Micro-control >

DIN Rail Mounted Timers >

New Chronos 2 Timers >

22.5 mm DIN Rail Mounting >





- New datasheets will be available on the website in English, German, Spanish & French

**New Chronos 2 timers**

→ 22.5 mm

- Relay or solid state output
- Multi-function or mono-function
- Multi-stage
- Multi-stage
- Remote terminals
- LED status indicator

| Part numbers | Type | Functions  | Timing         | Output       | Special setting | Connections     | Supply voltage               | Code    |
|--------------|------|--|----------------|--------------|-----------------|-----------------|------------------------------|---------|
| 80001        | 1    | A, C, D, E, H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z | 0.1 s - 1000 s | 2-pole relay | 22.5 V          | Relay terminals | 24 V / 230 V AC<br>+24 V / - | 8000001 |
| 80002        | 1    | A, C, D, E, H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z | 0.1 s - 1000 s | 2-pole relay | 22.5 V          | Relay terminals | 12 V / 230 V AC              | 8000002 |
| 80003        | 1    | A, C, D, E, H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z | 0.1 s - 1000 s | 2-pole relay | 22.5 V          | Relay terminals | 24 V / 230 V AC              | 8000003 |
| 80004        | 1    | A, C, D, E, H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z | 0.1 s - 1000 s | 2-pole relay | 22.5 V          | Relay terminals | 24 V / 230 V AC              | 8000004 |
| 80005        | 1    | A, C, D, E, H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z | 0.1 s - 1000 s | 2-pole relay | 22.5 V          | Relay terminals | 24 V / 230 V AC              | 8000005 |
| 80006        | 1    | A, C, D, E, H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z | 0.1 s - 1000 s | 2-pole relay | 22.5 V          | Relay terminals | 24 V / 230 V AC              | 8000006 |
| 80007        | 1    | A, C, D, E, H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z | 0.1 s - 1000 s | 2-pole relay | 22.5 V          | Relay terminals | 24 V / 230 V AC              | 8000007 |
| 80008        | 1    | A, C, D, E, H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z | 0.1 s - 1000 s | 2-pole relay | 22.5 V          | Relay terminals | 24 V / 230 V AC              | 8000008 |
| 80009        | 1    | A, C, D, E, H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z | 0.1 s - 1000 s | 2-pole relay | 22.5 V          | Relay terminals | 24 V / 230 V AC              | 8000009 |
| 80010        | 1    | A, C, D, E, H, I, J, K, L, M, N, O, P, R, S, T, U, V, W, X, Y, Z | 0.1 s - 1000 s | 2-pole relay | 22.5 V          | Relay terminals | 24 V / 230 V AC              | 8000010 |

**General characteristics**

|  |                                 |
|--|---------------------------------|
| Product range                                  | 80 000                          |
| Minimum order quantity (MOQ)                   | 1000                            |
| Minimum order value for international shipping | 1000 €                          |
| Minimum order value for domestic shipping      | 1000 €                          |
| Weight (kg)                                    | 0.015 (1.5 kg)                  |
| Weight (lb)                                    | 0.033 (3.3 lb)                  |
| Weight (oz)                                    | 0.528 (52.8 oz)                 |
| Weight (g)                                     | 15 (15 g)                       |
| Weight (mg)                                    | 15000 (15000 mg)                |
| Weight (ton)                                   | 0.000015 (0.000015 ton)         |
| Weight (short ton)                             | 0.0000165 (0.0000165 short ton) |
| Weight (metric ton)                            | 0.000015 (0.000015 metric ton)  |

**Dimensions (mm)**

**Connections**

**Dimensions (mm)**

**Connections**

**Curves**

- Previous Chronos 2 datasheets will remain available on the website in a new « Legacy & Obsolete » section in the on-line catalog.
- A cross-reference between previous and new part numbers will also be available.

## Europe, Middle East Africa

### Belgium

Tel.: +32 (0) 2 462 07 30  
Fax: +32 (0) 2 461 00 23  
com-be@crouzet.com

### France

Tel.: +33 (0) 4 75 80 21 01  
Fax: +33 (0) 4 75 82 89 00  
com-fr@crouzet.com

### Germany / Austria

Tel.: +49 (0) 21 03 9 80-108  
Fax: +49 (0) 21 03 9 80-250  
info-direkt@crouzet.com

### Italy

Tel.: +39 (02) 66 599 220  
Fax: +39 (02) 66 599 228  
crz-it-microcontrol@crouzet.com

### Netherlands

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

### United Kingdom

Tel.: +44 (0)1256 318 900  
Fax: +44 (0)1256 318 901  
info@crouzet.co.uk

### Spain / Portugal

Tel.: +34 (93) 484 39 70  
Fax: +34 (93) 484 39 73  
es-consultas@crouzet.es

### Switzerland

Tel.: +41(0) 62 887 30 30  
Fax: +41(0) 62 887 30 40  
info-direkt@crouzet.com

### Other Countries

Tel.: +33 (0) 475 802 102  
Fax: +33 (0) 475 448 126  
com-ex@crouzet.com

## Americas

### Brazil

Tel.: +55 (11) 2505 7500  
Fax: +55 (11) 2505 7507

### USA/Canada

Tel.: +1 (877) 502 5500  
Fax: +1 (619) 210 1590  
[customer.service@us.crouzet.com](mailto:customer.service@us.crouzet.com)

### Mexico

Tel.: +1 (222) 409 7000  
Fax: +1 (222) 409 7810  
[mexico@cstsensors.com](mailto:mexico@cstsensors.com)

### Other Countries

Tel.: +55 (11) 4195 1834  
Fax: +55 (11) 4191 9136

## Asia

### China & Hong Kong

Tel.: +86 (21) 6065 6699  
Fax: +86 (21) 6065 7749  
[china@cstsensors.com](mailto:china@cstsensors.com)

### India

Tel.: +91 (0) 80 4113 2204/05  
Fax: +91 (0) 80 4113 2206  
[india@cstsensors.com](mailto:india@cstsensors.com)

### Korea

Tel.: +82 (0)2 2629 8312  
Fax: +82 (0)2 2629 8310  
[korea@cstsensors.com](mailto:korea@cstsensors.com)

### South East Asia & Pacific

Tel.: +886 (0)2 8751 6388  
Fax: +886 (0)2 2657 8725  
[eap@cstsensors.com](mailto:eap@cstsensors.com)  
[taiwan@cstsensors.com](mailto:taiwan@cstsensors.com)

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- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
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- Работу по проектам и поставку образцов.
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- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)