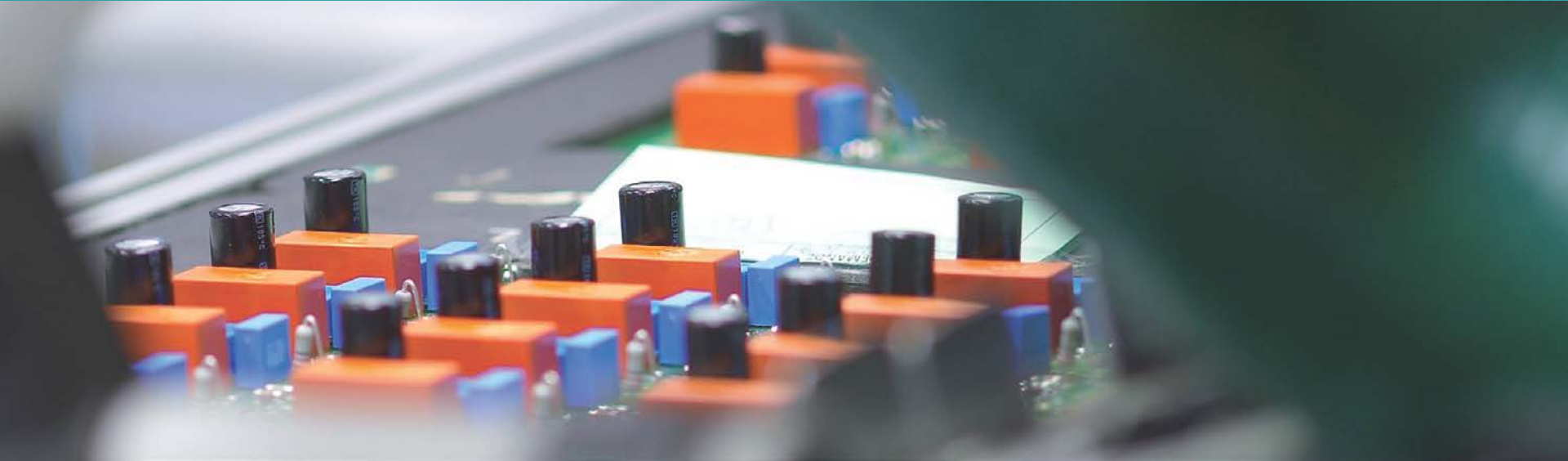


02 / 26 / 2014

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**

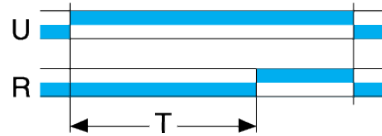
New Chronos 2 Part Numbers

- 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

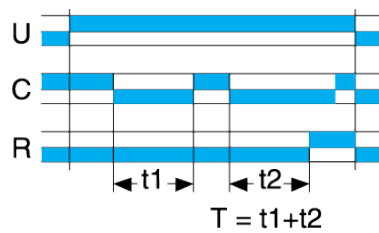
Part Number	Type	Functions	Output(s) Changeover	Timing	Supply
88 866 175	RQR1	Q	1 x 8 A	0.1 s to 100 h	24 VDC / 24 to 240 VAC
88 866 176	RQR6	Q	1 x 8 A	0.1 s to 100 h	230 to 240 VAC
88 866 215	RA2R1	A, At	2 x 8 A	0.1 s to 100 h	24 VDC / 24 to 240 VAC
88 866 300	RU2R4	A, At, B, C, H, Ht, Di, D, Ac, Bw	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

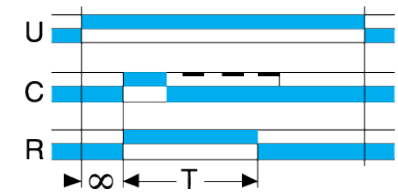
Function A:
Delay on energization



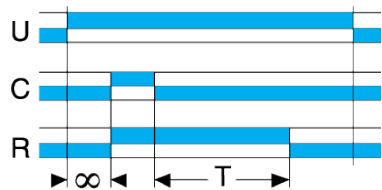
Function At: Timing on energization with memory



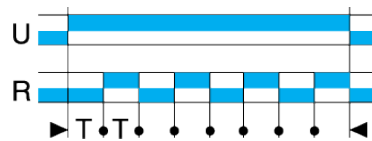
Function B: Timing on impulse (one shot) – Shaping (cannot be reset)



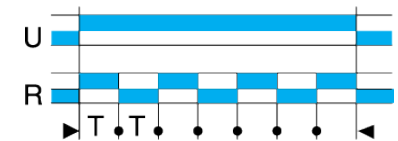
Function C: Timing after impulse. True delay off (with auxiliary power supply)



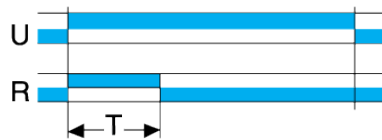
Function D:
Symmetrical flashing



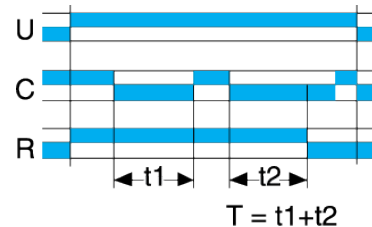
Function Di:
Symmetrical flashing



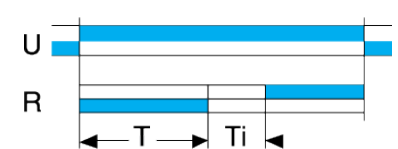
Function H: Timing on energization – Pulse output (adjustable)



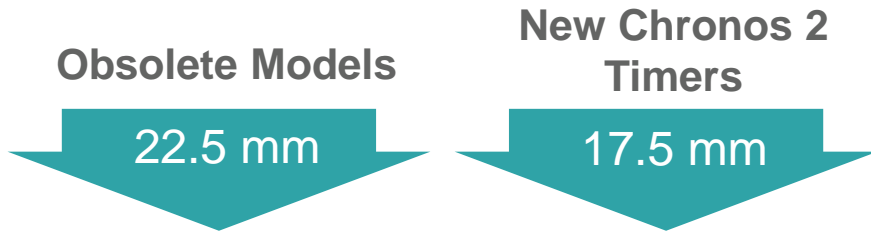
Function Ht: Delay on energization with memory



Function Q:
“Star-delta” starting



Reminder: Other Obsolete 22.5 mm Models



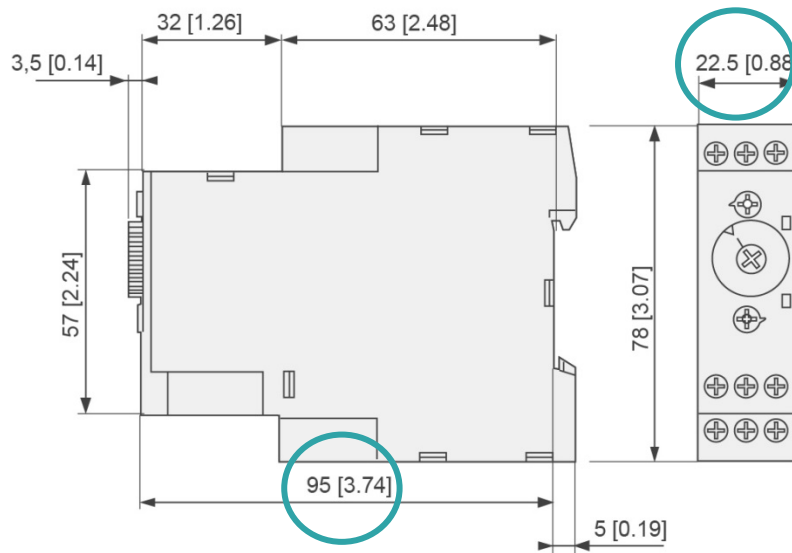
Old P/N	Type	New P/N	Type	Power supply	Function
88 865 105	TUR1	88 827 105	MUR1	24 VDC / 24 to 240 VAC	A, At, H, Ht, B, C, Di, D, Ac, Bw
88 865 115	TAR1	88 827 115	MAR1	24 VDC / 24 to 240 VAC	A, At
88 865 125	TBR1	88 827 125	MBR1	24 VDC / 24 to 240 VAC	B
88 865 135	TCR1	88 827 135	MCR1	24 VDC / 24 to 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.

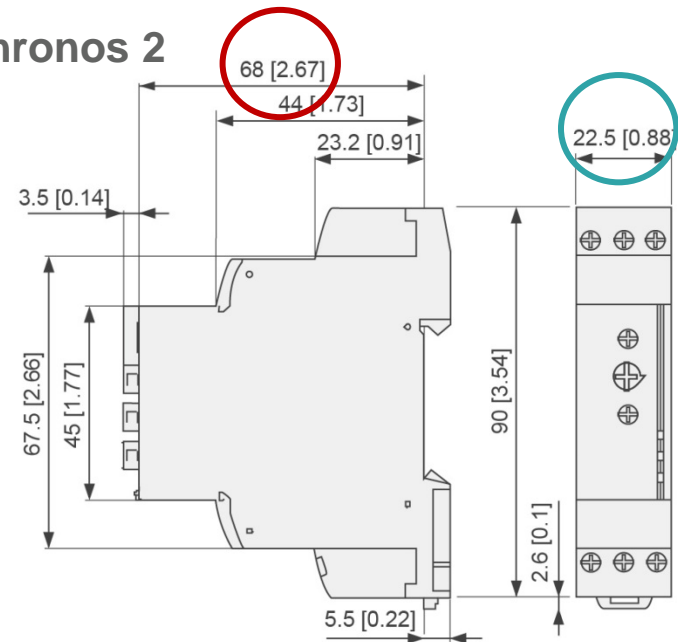
Mechanical Dimensions

- 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



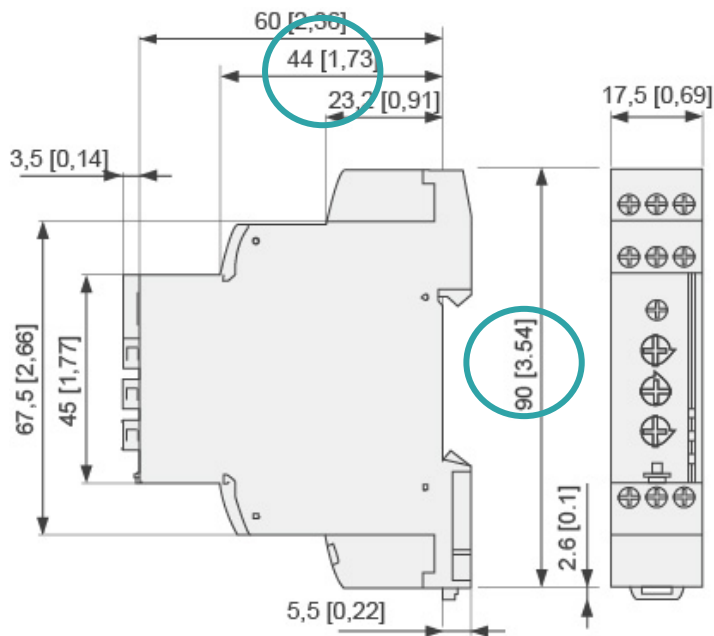
New Chronos 2



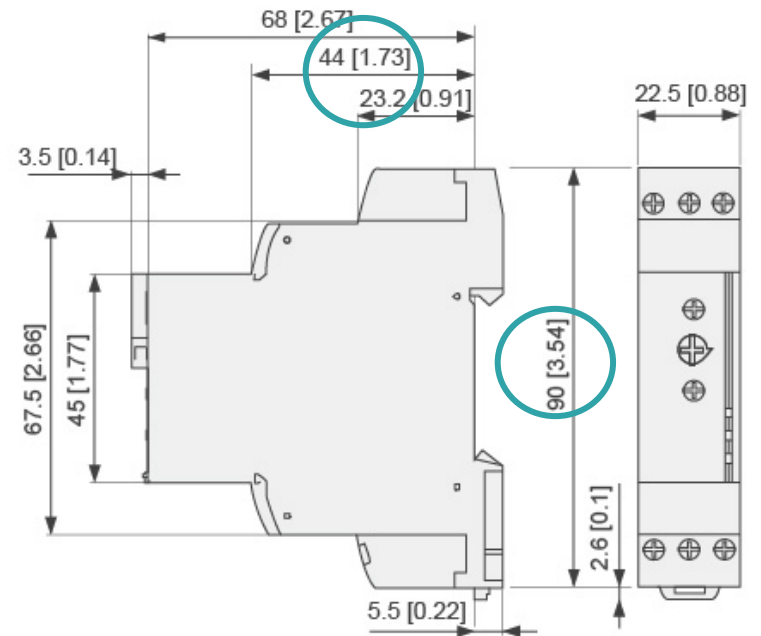
Mechanical Dimensions (cont.)

- 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



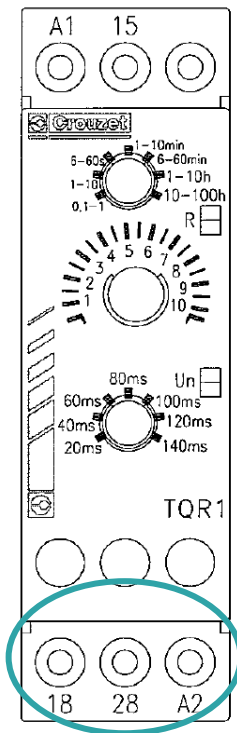
Agency Approvals

- New 22.5 mm Chronos 2 Timers

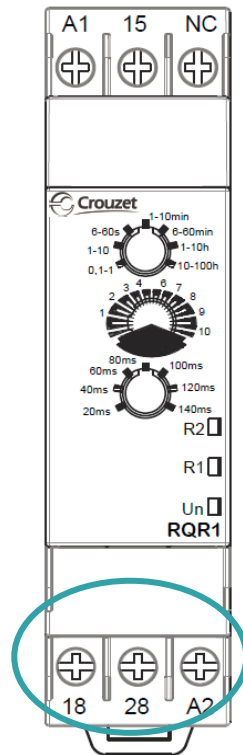
New Timer Commercial Reference				
88 866 175	•	•	•	•
88 866 176	•	•		
88 866 215	•	•	•	•
88 866 300	•	•	•	•
88 866 303	•	•		•
88 866 305	•	•	•	•
88 866 385	•	•		•

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

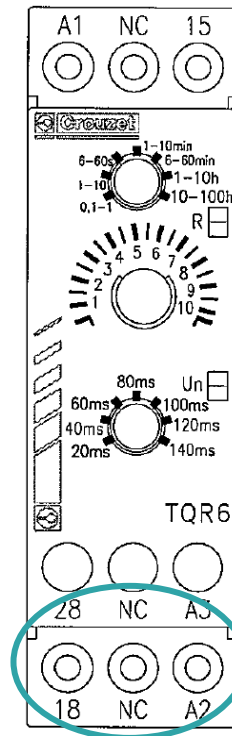
Old P/N
88 865 175



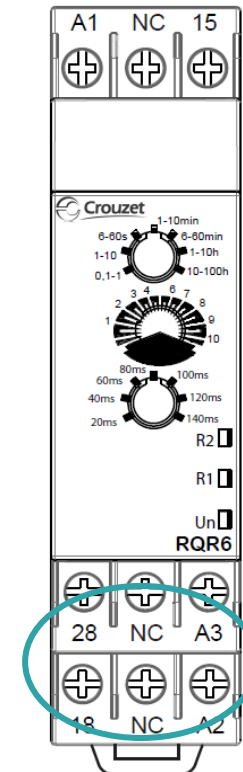
New P/N
88 866 175



Old P/N
88 865 176



New P/N
88 866 176

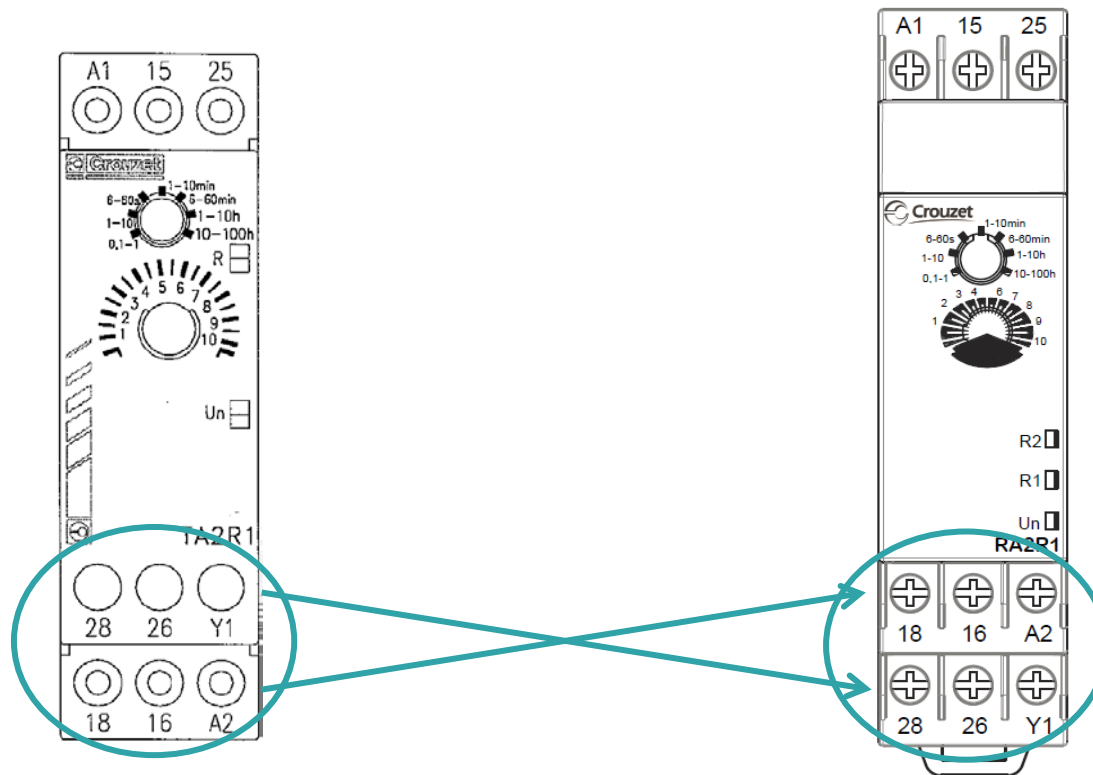


Good to know (cont.)

- 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

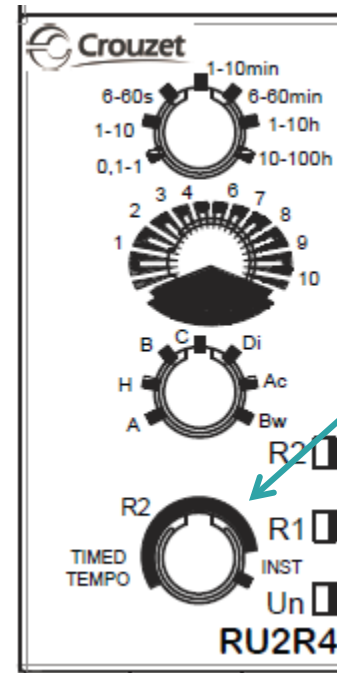
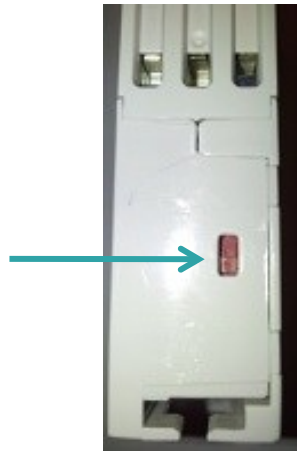
New P/N 88 866 215
/300/303/305/385



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
SD201	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-stage relay	23 V AC	Solar terminal	23 V AC 50 Hz +24 V DC	00000001
SD202	2	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-stage relay	23 V AC	Solar terminal	23 V AC 50 Hz +24 V DC	00000002
SD203	3	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-stage relay	23 V AC	Solar terminal	23 V AC 50 Hz +24 V DC	00000003
SD204	4	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-stage relay	23 V AC	Solar terminal	23 V AC 50 Hz +24 V DC	00000004
SD205	5	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-stage relay	23 V AC	Solar terminal	23 V AC 50 Hz +24 V DC	00000005
SD206	6	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-stage relay	23 V AC	Solar terminal	23 V AC 50 Hz +24 V DC	00000006
SD207	7	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-stage relay	23 V AC	Solar terminal	23 V AC 50 Hz +24 V DC	00000007
SD208	8	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-stage relay	23 V AC	Solar terminal	23 V AC 50 Hz +24 V DC	00000008
SD209	9	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-stage relay	23 V AC	Solar terminal	23 V AC 50 Hz +24 V DC	00000009
SD210	10	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-stage relay	23 V AC	Solar terminal	23 V AC 50 Hz +24 V DC	00000010

General characteristics

Power consumption	50 mW
Minimum delay between operations	100 ms
Minimum delay between stages	100 ms
Minimum delay between stages (up)	100 ms
Minimum delay between stages (down)	100 ms
Operating temperature	0 to 55 °C
Operating humidity	30 to 85% RH
Operating voltage	23 V AC 50 Hz
Operating current	10 mA
Operating power	0.23 W
Operating voltage (DC)	24 V DC
Operating current (DC)	10 mA
Operating power (DC)	0.24 W
Operating voltage (AC)	23 V AC
Operating current (AC)	10 mA
Operating power (AC)	0.23 W

Dimensions (mm)

Connections

1 channel relay output
A, Ai, N, O, P, R, S, T, U, V, W

2 channel relay output
A, Ai, N, O, P, R, S, T, U, V, W

3 channel relay output
A, Ai, N, O, P, R, S, T, U, V, W

Dimensions (mm)

Dimensions (mm)

Connections

1 channel relay output
A, Ai, N, O, P, R, S, T, U, V, W

2 channel relay output
A, Ai, N, O, P, R, S, T, U, V, W

3 channel relay output
A, Ai, N, O, P, R, S, T, U, V, W

Dimensions (mm)

Curves

Function A
Delay on energization

Function Ai
Timing after closing and opening of control circuit

Function Ai'
Timing on energization with memory

Function B
Timing on impulse one shot

Function Bi
Pulse output adjustable

Function C
Timing after impulse delay (DIF)

Function D
Flip-Flop Pulse start

Function Di
Flip-Flop Pulse start

Function E
Timing on energization

Function E'
Timing on energization with memory

Function Ai'
Bi-stable

Function Ai'
Timing on energization with memory

Function Ai'
Timing on energization with memory

Function B
Bistable

Function O
Delayed bistable

Function P
Delayed bistable pulse

- 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.

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THANK YOU

WWW.CROUZET.COM

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С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

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- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
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- Тестирование поставляемой продукции.
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- Входной контроль качества.
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- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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