



Datasheet

ENGLISH

RS Pro DIN Rail, 4PCO, Multi Voltage, Multi Time Range, Multi Function Timer

RS Stock No: **178-5029**

Features

- Din rail mounted
- Modern modular design
- Width 27mm (1.5 modules)
- Unique 4PCO
- Multi voltage 12-250VAC/DC
- Multi time range 0.1 sec to 10 days
- Eight selectable functions
- Dual LED indication
- RoHS Compliant
- CE marked

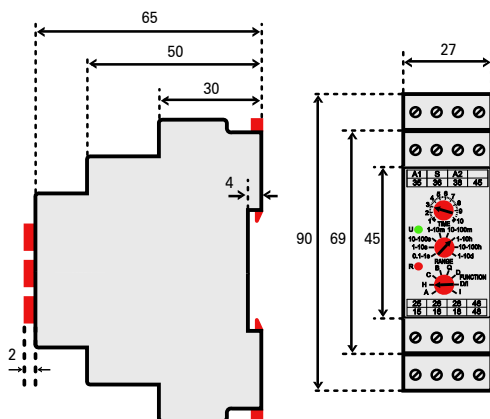


Description & Mode of Operation

An attractive modern designed multi "everything" timer in a din rail mounted modular style housing of 1.5 modules width (27mm). The timer features the facility of double deck terminals thus enabling the timer to be available uniquely as 4PCO. A selector switch is provided to select eight different time ranges from 0.1 sec to 10 days, fine time selection on a selected range is then achieved via a percentage potentiometer. A further selector switch is then used to select one of eight different functions. A green supply on LED is featured along with a red LED to indicate relay output status. All terminal details and the function selection information along with the CE mark is clearly marked on the sides of the housing.

On functions utilising the trigger input "S", this input should preferably be clean. However, within reason small loads can be connected between "S" & "A2", such as relay coils or indicator lights.

Dimensions



Specifications

Timing:

Time ranges:	0.1sec to 10 days
Repeat accuracy:	±0.5% of set value
Reset time:	Max 100mSec

Relay outputs:

Output contacts:	8Amps/250V AC1
Max breaking capacity:	2000VA
Mechanical life:	30 Million ops
Electrical life:	200K ops at max rated load

Supply voltage (A1-A2):

Supply voltage:	12-250V AC/DC
Max power consumption:	5VA / 2.8W
Insulation:	2.5KV 50Hz impulse

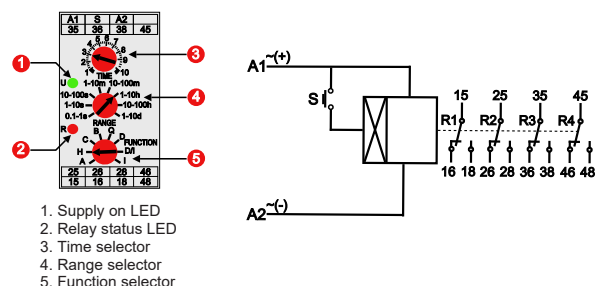
Trigger Input (S):

Max consumption:	5mA
Min input time:	25mSec
Max input time:	Continuous

General:

Operating temperature:	-20°C to +65°C
Storage temperature:	-20°C to +65°C
Max cable size:	2.5mm
RoHS Compliant:	Yes
CE marked:	Yes
In accordance with:	EN61000-6-2 EN61000-6-4 EN61010-1
Housing material:	Polycarbonate, Auto extinguishable to UL 94 V-0

Connections and Settings



1. Supply on LED
2. Relay status LED
3. Time selector
4. Range selector
5. Function selector

Continued

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Time Ranges

Position 1:	0.1 - 1 sec	Position 5:	10 - 100 mins
Position 2:	1 - 10 secs	Position 6:	1 - 10 hr
Position 3:	10 - 100 secs	Position 7:	10 - 100 hrs
Position 4:	1 - 10 mins	Position 8:	1 - 10 days

Timing Functions

Function A: On delay - initiated by supply on terminals A1 & A2, which commences timing, the relay contacts energise after the timing period. Removal of the supply after timing has been completed and the relay contacts will de-energise, if removal of the supply is before timing has been completed the remaining time will be cancelled.

Function H: Interval timer - initiated by supply on terminals A1 & A2. Relay contacts energise immediately on connection of the supply. On completion of timing relay contacts de-energise. If the supply is removed during the timing period the relay contacts will de-energise immediately.

Function C: Delay off with trigger input (trailing edge) - a permanent supply is required at all times on terminals A1 & A2, however this is not the controlling factor. The controlling factor is a trigger input from A1 onto terminal S. On an input being made to terminal S the relay contacts energise, on removal of the trigger input (trailing edge) the relay contacts time to de-energise. If the trigger input is reinstated after timing has commenced it will immediately cancel any remaining delay time and the trigger will need to be removed again for timing to commence once again. If the supply on terminals A1 & A2 is removed at any point when the relay contacts are energised irrespective of what state the trigger input is at, the relay contacts will de-energise. If the trigger input to terminal S is present before the connection of the supply to terminals A1 & A2, when the supply is connected the relay contacts will immediately energise and as above removal of S will commence timing.

Function B: Single shot timer / delay off with trigger input (leading edge) - as function "C" but the relay contacts energise and timing commences on the immediate input to terminal S (leading edge). Also unlike function "C" if the trigger is still present after timing

has been completed this will not have any effect, in all circumstances the trigger will need to be removed and reinstated for the function to happen again. If the trigger input to terminal S is present before the connection of the supply to terminals A1 & A2, when the supply is connected the relay contacts will immediately energise and timing commences.

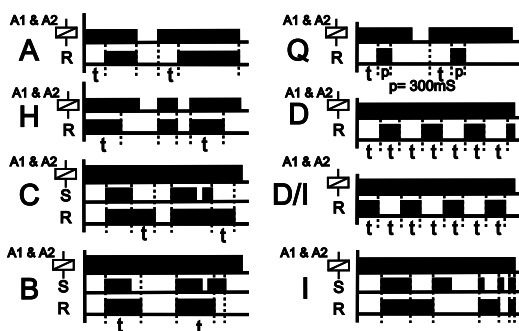
Function Q: Delayed pulse (once only) - initiated by supply on terminals A1 & A2. The relay contacts will energise (pulse) briefly after the timing period and then de-energise. For the function to happen again the supply will have to be removed and re-connected. If the supply is removed before the pulse the set time will be cancelled. The pulse length is fixed at 300mSec.

Function D: Flasher (pause first) - initiated by supply on terminals A1 & A2. Timing commences to energise relay contacts and then times to de-energise relay contacts. This cycle continues so long as the supply is connected. The time period on both energisation and de-energisation will be the same. If the supply is removed at any point within the cycle any remaining time will be cancelled and if the relay contacts are energised they will de-energise.

Function DI: Flasher (pulse first) - exactly as function "D" but on the connection of the supply to terminals A1 & A2 the relay contacts immediately energise and then time to de-energise.

Function I: Latching relay "pulse on, pulse off." Via trigger input - a permanent supply is required at all times on terminals A1 & A2, however this is not the controlling factor. The controlling factor is a trigger input from A1 onto terminal S. On an input being made to terminal S the relay contacts will immediately energise, on a new trigger input the relay contacts will immediately de-energise. In brief the unit works as a "pulse on, pulse off" relay

Function Diagrams



Installation & Setting



Installation must be carried out by qualified personnel

BEFORE INSTALLATION ISOLATE THE SUPPLY

Connect unit as required (see connection diagram)

SETTING THE UNIT

Select the 'Function' selector ① to the required function

Select the required 'Range' ② then set the required 'Time' ③ this is a % of the selected range.

Ensure the supply is removed before selecting the required function and time settings.

APPLYING THE POWER

Apply the power and the green LED ④ will illuminate

The red LED ⑤ will illuminate when the relay is energised.

Symbol	Function	Timing Triggered By
A	Delay On	Supply (A1 & A2)
H	Interval	Supply (A1 & A2)
C	Delay off (trailing edge)	Switch (A1 & S)
B	Delay off (leading edge)	Switch (A1 & S)
Q	Delayed Pulse	Supply (A1 & A2)
D	Flasher (pause first)	Supply (A1 & A2)
D/I	Flasher (pulse First)	Supply (A1 & A2)
I	Latching	Switch (A1 & S)