

CPF11

Versatile time relay with DC solid state output,
3 time functions for pulse shaping applications, 5 ... 600 ms
DIN Rail mounting according to DIN 43 880

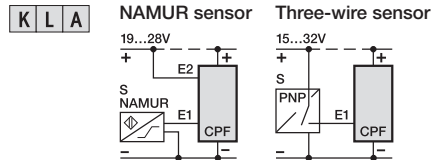


Type: CPF11/DC24V R

Pulse shaper. DC solid state output, short circuit proof. DC 24 V operating voltage.
Very suitable as PLC-interface for contact- and sensor signals (NAMUR, 3 – wire)
but also for inductive- or lamp loads. Selectable free wheeling diode built in.
Adjustable input filter time. LED state indicators for output and control input.
Also suitable for panel mounting 2 x M4

Maximum output load 2 A / 32 V

Time functions and related connection diagrams (Function diagrams: refer to page 114)



Logical input setting E, $\bar{E}$: With $\bar{E}$ the output becomes high when the input is low.

When set the shortest time and function A, the device can be used as a switching amplifier.

Time data

2 partial time ranges, t_{max} (DIP switch) 60 , 600 ms
Fine adjustment range (rotary knob) $t_{min} \dots t_{max}$, 0.5 ... 6
Time range tolerance t_{min} : -30 % ... +0 % / t_{max} : -0 % ... +30 %
Repetition accuracy $\pm 0.5 \%$ or 2 ms
Min. trigger pulse width on input B1 1 ms / 5 ms selectable
Reset time B1 $\leq 5 \text{ ms}$ / $\leq 25 \text{ ms}$

Output

Type: Power MOS FET High side switch
Rated operational current, $T_a = 60^\circ\text{C}$ 0.7 A 100% duty cycle
Rated operational current, $T_a = 50^\circ\text{C}$ 0.8 A 100% duty cycle
Operational pulse current 2 A when $t_{ON} \leq t_{OFF}$, $t_{ON} \leq 5 \text{ s}$
Short circuit current $\leq 7 \text{ A}$
Max. switching voltage 32 V
Leakage current (without free wheeling diode) $\leq 1 \mu\text{A}$
Inductive switch-off voltage protection Selectable free wheeling diode

Power supply and control input

Nominal voltage DC 24 V
Operating voltage range normal operation 15 ... 32 V
Operating voltage range NAMUR operation (DIN 19234) 19 ... 28 V
Power consumption $\leq 0.6 \text{ W}$
Trigger threshold voltage E1 $\leq 10 \text{ V}$
Trigger threshold voltage E2 $\leq 15 \text{ V}$

General Specifications

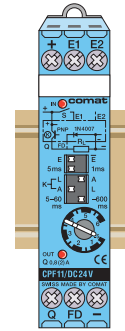
Ambient temperature storage / operation $-40 \dots 80^\circ\text{C}$ / $-25 \dots 60^\circ\text{C}$
Conductor cross section Stranded wire 2.5 mm^2 , $2 \times 1 \text{ mm}^2$
Ingress Protection degree Housing: IP 40, terminals: IP 20
Max. Screw torque 0.4 Nm
Housing material / Weight Lexan / 60 g

Standard types

CPF11/DC24V R

Accessories

Label plate: (replacement) BZS-DIN 17.5



Connection diagram

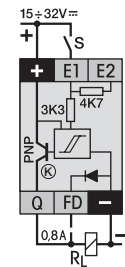


Fig. 1 Derating Curve

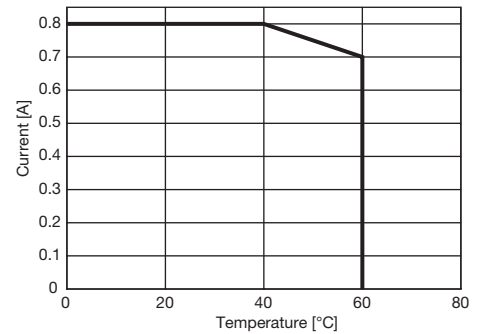
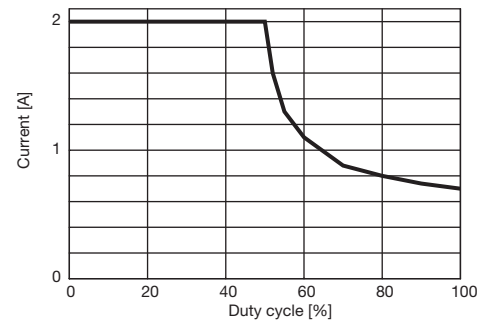
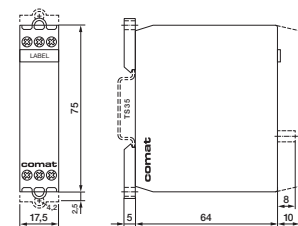


Fig. 2 Current vs. duty cycle



Dimensions [mm]



Technical approvals, conformities

