## DZD 92 L

## Multi-Function - Multi-domain time relay

- Mono voltage
- 8 Functions
- Setting range 0.05 s to 100 h subdivided into 7 time domains
- 1 immediate-action and 1 time contact or 2 time contacts (adjustable)



red LED, lit in presence
of the excitation
B2 red LED, lit in presence of the excitation for additive operation
K red LED, lit upon the toggling of the time contact
$s ; m ; h$ red LEDs for the domain indicator; the lit section indicates the set time domain and flashes when the time elapses

日日. 3-digit LED indicator for the set target value (and or - during the countdown - indication of the actual value

## Time domains

Setting range 0.05 s to 100 h subdivided in:


## Function

The setting of the functions and the time domains as well as the fitting with contacts occurs via a dual in-line switch on the rear of the device (see Settings).
The infinitely adjustable time setting within a domain is made with the aid of the transparent knob.
The set target value is indicated digitally, with a three-digit (7-Segment) LED indicator.
The respective actual value is indicated during the time elapse in analog mode (with 11 LEDs above the scale numbers) and also digitally (with the LED indicator).

Functions:

- Response delay
(AV)
- Power-off delay
(RV)
- Switch-on wiper
(EW)
- Switch-off wiper
(AW)
- Response and fallback delay
- Impulse former
- Pulse relay beginning with pause(TP)
- Pulse relay beginning with impulse(TI)

|  | Accessories |  |
| :--- | :--- | :--- |
|  |  |  |
| Bushing plate | B 5 | for installation and setup |
| Plug-in socket | B 7 1 | for installation |
| Cover | DA 1 | for switchboard cut-out |
| Recloseable cap | V4 |  |
| Seal | Z1 | for switchboard installation |



Function diagrams

## DZD 92 L

FD 127/1
supply voltage excitation variable, LED (B1) red additive mode, LED (B2) red
delayed time element, LED (K) red immediate changer
$t_{A}=$ set expiny time
Program switch
(1 immediate and 1 time changer)

| A1/A2 Sup | supply volage |
| :---: | :---: |
| B1 ex | excitation variable, LED (B1) red |
| B 2 ad | additive mode, LED (B2) red |
| $\begin{aligned} & 15 / 18,(25 / 28) \\ & 15 / 16,(25 / 26) \end{aligned}$ | delayed time element, LED (K) red |
| $\begin{aligned} & 21 / 24 \\ & 21 / 22 \end{aligned}$ | immediate changer |
| $\mathrm{t}_{\mathrm{A}}=$ set expiry fime | me $\quad t_{A}=\sum_{1}^{n} t_{A x}$ |
| Program switch (1 immediate and 1 | 1 time changer) |





Clock generator starting with impulse (T)



FD 127/13
A1/A2
BI
15/18, (25/2 $15 / 16,(25 / 26)$ ) delayed time element, LED (K) red 21/24
$21 / 22$
$I_{1}=$ Impulse time

## $t_{p}=$ Pause time

Program switch
(1 immediate and 1 time changer)

A1/A2
B1
B2
15/18, (25/28) $15 / 16$, (25/26)
$21 / 24$
$21 / 22$
$\begin{aligned} & t_{1}=\text { Impulse time } \\ & t_{p}=\text { Pause time }\end{aligned} t_{1}=\sum_{1}^{n} t_{1 x}=t_{p}=\sum_{1}^{n} t_{p x}$
Program switch
(1 immediate and 1 time changer)
supply voltage excitation variable, LED (B1) red additive mode, LED (B2) red immediate changer

FD 127/14
supply voltage excitation variable, $L E D(B 1)$ red additive mode, LED (B2) red
delayed time element, LED (K) red immediate changer

FD 127/15

## A1/A2

## BI

B2
15/18, (25/28) 15/16, (25/26) (25/ayed time element, LED (K) red $21 / 24 \quad$ immediate changer
$21 / 22$
$t_{1}=$ Impulse time $\mathrm{t}_{\mathrm{p}}=$ Pause time
Program switch
(1 immediate and 1 time changer)

Function diagrams
DZD 92 L
FD 127/16
supply vollage excitation variable, LED (B1) red addifive mode, LED (B2) red
delayed time element, LED (K) red immediate changer $t_{1}=$ Impulse time
$t_{p}=$ Pause time
$t_{1}=\sum_{1}^{n} t_{t x}=t_{p}=\sum_{1}^{n} t_{p x}$
Program switch
(1 immediate and 1 time changer)

$\mathrm{I}_{3}=$ switch-on time must be $>$ minimum switch-on duration

## Settings

The setting of the functions, the time domains and the contact assembly occurs via a dual-in-line switch (equipped with 10 On/Off switches) on the rear of the device.


Switch position


## Function



Switch position: . ON (cam at top)
Switch, 8 to +0 available

## Technical Data

## DZD 92 L

Function type according to IEC 60050 (445)

## Function check

## Supply circuit

Nominal voltage $U_{N}$
Rated output at 50 Hz and $U_{N}(A C)$
Rated output DC
Nominal frequency
Operating voltage range
Nominal current of the energizing quantity (B1)
Timing circuit
Time setting/Number of time domains
Available setting range
Operate time of the energizing quantity (B1)
Fallback interval of the energizing quantity (B1)
Standby reactivation interval
Minimum power-on time
Fallback value
Parallel consumer loads permissible
Internal one-way rectification direction
Mean value of the fault
Scatter
Influence of energizing, supply voltage
Influence of the ambient temperature
Output circuit
Contact allocation
Contact material
Switching nominal voltage $U_{n}$
max. steady current $I_{n}$
Usage category according to EN 60947-5-1:1991
Permissible frequency of operation
Mechanical service life
Operate time
Fallback time
General Data
Air and creep sections between the electric circuits
Rated surge voltage
Over-voltage category
Degree of contamination
Rated voltage
Testing voltage $\mathrm{U}_{\text {eff }} 50 \mathrm{~Hz}$ according to DIN VDE 0110-1, Table A. 1
Safety class for casing / terminals according to DIN VDE 0470 Section

## 1:11.92

Interference resistance according to IEC 61000-4
Ambient temperature, work area
Weight
Accessories
Approvals

Analog-adjustable MultiFunction relay for Mono voltage

- Response-delayed time relay
- Fallback-delayed time relay with supply voltage
- Power- on interval time relay
- Power-off interval time relay
- Response and fallback delayed time relay
- Impulse former
- Pulse relay

6 LED red, 3-digit LED indicator, red, digit height: 7.6 mm
see Device overview
4.7 VA / 4.6 W
2.6 W

50 to 60 Hz
0.8 to $1.1 \times U_{N}$

8 mA
analog/7
s. Table "Time domains"
$20 \mathrm{~ms} ; 2 \mathrm{~ms}$ at 24 VDC
$20 \mathrm{~ms} ; 3 \mathrm{~ms}$ at 24 V DC
$40 / 60 \mathrm{~ms} ; 40 / 10 \mathrm{~ms}$ at 24 V DC
40 ms ; 5 ms at 24 V DC
$15 \% U_{N}$
yes
no
$1 \%$ Hf 10 ms
Hf $0.5 \%$ + Hf 10 ms
$0.005 \% / \% \Delta U_{N}$
0.005 \% / K

1 immediate-action and 1 time changer or 2 time changers
Ag alloy; gold-plated
$250 / 300$ V AC/DC
5 A
AC-15: U, $230 \vee$ AC, 1.2 A
DC-13: Ue 24 V DC, I 22 A
$\leq 6000$ switching cycles/h
$30 \times 10^{\circ}$ switching cycles
approx. 10 ms
approx. 10 ms
according to DIN VDE 0110-1:04.97
4 kV
III
3 exterior, 2 interior
250 V AC
2.21 kV

IP 30 / IP 20
Test acuity 3
-20 to $+60^{\circ} \mathrm{C}$
0.4 kg

B 5, B 7, DA 1, V 4, Z1

| Type <br> DZD 92L | Time delay | Rated voltage | Order number |
| :---: | :---: | :---: | :---: |
|  | s. Table "Time domains" | DC 24 V | R2.054.0349.1 |
|  |  | AC $24 \mathrm{~V} 50-60 \mathrm{~Hz}$ | R2.054.0329.1 |
|  |  | AC $42 \mathrm{~V} 50-60 \mathrm{~Hz}$ | R2.054.0339.1 |
|  |  | AC $115 \mathrm{~V} 50-60 \mathrm{~Hz}$ | R2.054.0309.1 |
|  |  | AC 230 V 50-60 Hz | R2.054.0319.1 |

