



Electronic Multi-Function Relays

DZD 92 L for single voltage

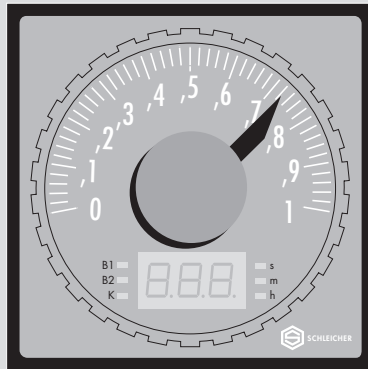
8 functions: ON-delay (AV), OFF-delay (RV), repeat cycle (TP) starting with OFF, repeat cycle (TI) starting with ON, ON-delay and OFF-delay (ARV), interval ON (EW), interval OFF (AW), one shot (IF)

1 setting range: 0,05 s to 100 h divided into 7 time ranges

Contact equipment : DZD 92 L = 1 timed + 1 instantaneous or 2 timed changeover (selectable)

DZD 92 L

72 x 72



Function

AV, RV, TP, TI, ARV, EW, AW, IF (see page D 3/3).

The selection of the functions, time ranges and contact configuration, is done by setting the DIP switches, situated at the rear of the item (see Setting Diagram).

Infinitely variable time setting within a range is carried out with the aid of a transparent rotary knob.

The selected set value is digitally indicated on a 3-element LED display (with 7 segments).

The corresponding actual value is displayed analog (with 11 LEDs above the scale values) and also digitally (on a LED display).

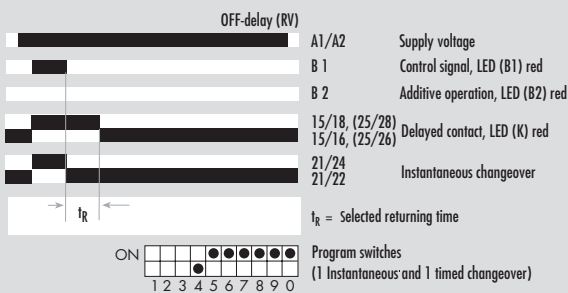
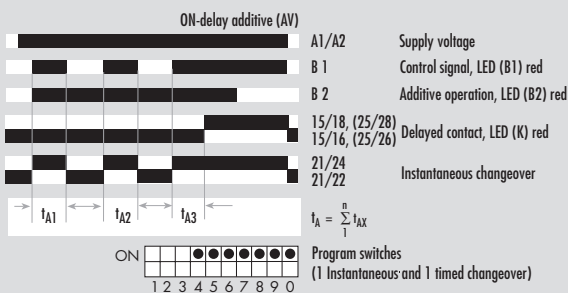
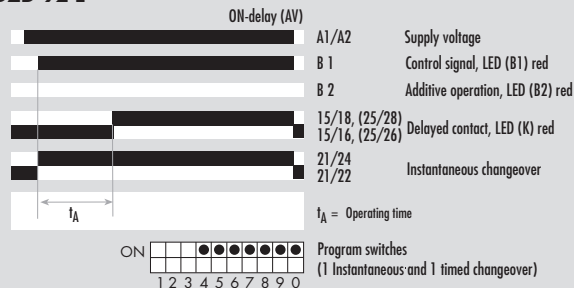
DZD 92 L functions:

ON-delay	(AV)
OFF-delay	(RV)
Interval ON	(EW)
Interval OFF	(AW)
ON-delay and OFF-delay	(ARV)
One shot	(IF)
Repeat cycle starting with OFF	(TP)
Repeat cycle starting with ON	(TI)

Function Diagram

FD 127/1 to 16

DZD 92 L



Continued on the next page

Product Description

The electronic multi-function relays DZD 92 L, ... are available in 1 setting range, divided into 7 time ranges.

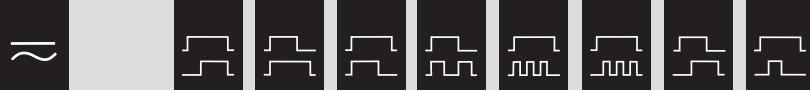
Setting Range	Time Range
0,05 s to 100 h divided into:	0,05 s to 1 s
	0,5 s to 10 s
	3 s to 1 min
	30 s to 10 min
	3 min to 1 h
	30 min to 10 h
	5 h to 100 h

Type	Standard voltage	Special voltage	Price Code
DZD 92 L 100 h	24 V DC 24 V AC 42 V AC 115 V AC 230 V AC 50 to 60 Hz	–	D 3/7.1

Accessories

Socket connector	B 5 for panel- and surface mounting
Pin holder	B 7 for panel mounting
Cover	DA 1 for panel cutout
Lockable cover	V 4
Seal	Z 1

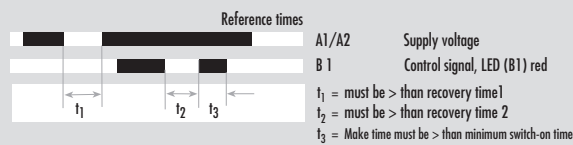
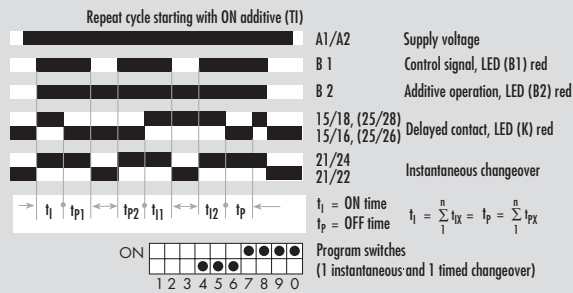
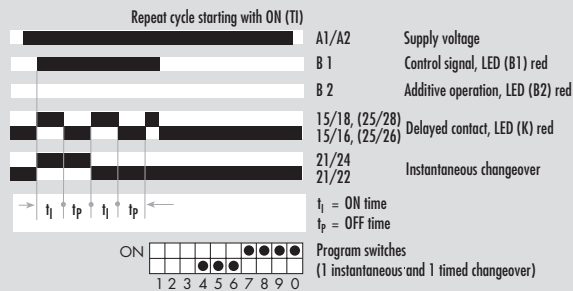
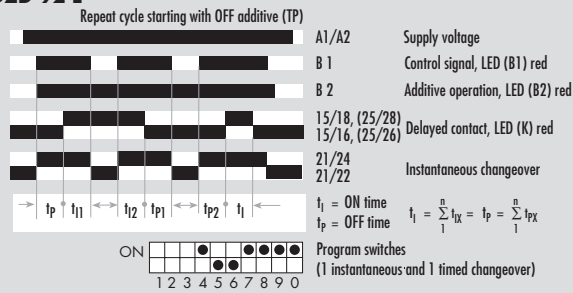
Price code for accessories (see page D 3/79).



Function Diagram

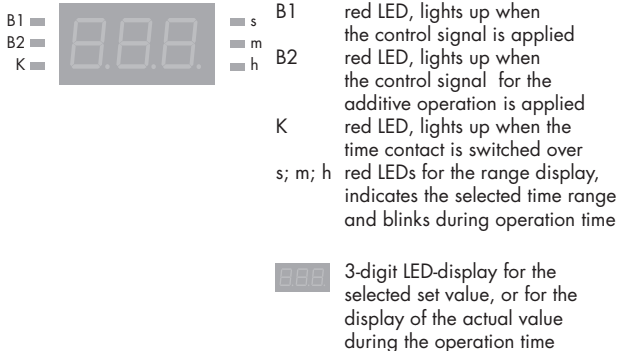
FD 127/1 to 16

DZD 92 L



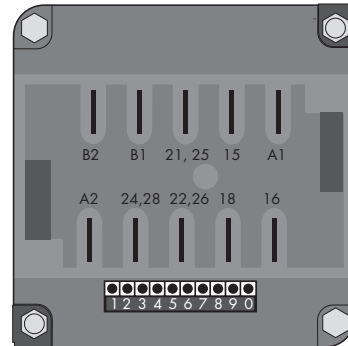
Note:
 These Function Diagrams also apply for the DZDH 92 L (with semiconductor output) device. However, the function for the "Instantaneous changeover" must be omitted. The respective switching state can be found in the diagram, "Delayed contact" 15/18.

Optical Display



Settings

The setting of the functions, the time ranges, as well as the contact configuration is done on a Dual-in-line switch with 10 ON/OFF Dip switches, which is located on the rear side of the item.



Position of the switches	1	2	3	4	5	6	7	8	9	0
Time Range										
0,05 s to 1 s			x	x	x					
0,5 s to 10 s			o	x	x					
3 s to 1 min			x	o	x					
30 s to 10 min			o	o	x					
3 min to 1 h			x	x	o					
30 min to 10 h			o	x	o					
5 h to 100 h			x	o	o					

Function	1	2	3	4	5	6	7	8	9	0
ON delay				x	x	x				
OFF delay				o	x	x				
Interval ON				x	o	x				
Interval OFF					o	o	x			
ON delay and OFF delay				x	x	o				
One shot				o	x	o				
Repeat cycle starting with OFF				x	o	o				
Repeat cycle starting with ON					o	o	o			

Contacts	1	2	3	4	5	6	7	8	9	0
1 timed changeover + 1 instantan. changeover										x
2 timed changeover									o	

Position of the switch: x = ON (cam lever up)
 Switches 8 to 0 are not used.



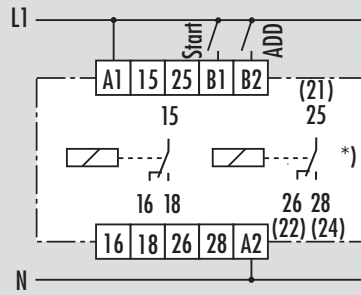


Electronic Time Relays

Conection Diagram

DZD 92 L

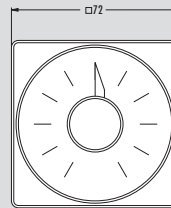
KS 0323/1



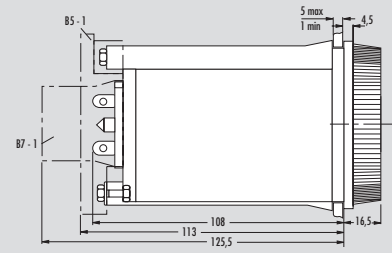
*) Instantaneous contacts have different terminal designations (e.g. 21 instead of 25)

Dimensions

D 1-30



Panel cutout $\square 68^{+0,7}$





TECHNICAL DATA

FUNCTION according to DIN VDE 0435 Part 1 110:04.89

	Point 3.12
	Point 3.16
	Point 3.4
	Point 3.5
	Point 3.7
	Point 3.9
Function display	
Function diagram	

POWER SUPPLY

Rated voltage U_N	V AC
Rated voltage U_N	V DC
Rated consumption at 50 Hz and U_N (AC)	VA
Rated consumption at 50 Hz and U_N (AC)	W
Rated consumption DC	W
Rated frequency	Hz
Operating voltage range	
Rated current of the energizing quantity (B1)	mA

TIME CIRCUIT

Time setting/Number of time ranges	
Available setting range	
	s
	s/min
	min/h
	h
Response time of the control signal (B1)	ms
Release time of the control signal (B1)	ms
Recovery time 1/2	ms
Minimum switch-ON time	ms
Release value	% U_N
Permissible parallel load	
Internal rectifier	yes
Average of the error	%
Dispersion	% ± 10 ms
Influence of the energizing quantity or supply voltage	%/% ΔU_N
Influence of the ambient temperature	%/K

OUTPUT CIRCUIT

Contact equipment	
Contact material	
Switching voltage U_n	V AC/DC
Maximum continuous current I_n	A
Application category according to EN 60947-5-1:1991	
Permissible switching frequency	switching cycles/h
Mechanical service life	switching cycles
Response time	ms
Release time	ms

GENERAL DATA

Creepage and clearance distances between circuits acc. to DIN VDE 0110-1:04.97: Rated surge voltage	kV
Over voltage category	III
Contamination level	3 outside, 2 inside
Design voltage	V AC
Test voltage U_{eff} 50 Hz acc. to DIN VDE 0110-1, Table A.1	kV
Protection class: Housing front panel/housing rear panel/flat pin terminal	
Radiated noise	
Noise immunity	
Ambient temperature, working range	°C
Dimensions	
Connection diagram	
Weight	kg
Accessories	

Approvals

GENERAL TECHNICAL SPECIFICATIONS

DZD 92 L

Analog adjustable multi-function relay for single voltage
 ON delay time relay
 OFF delay time relay with auxiliary supply
 Interval ON relay
 Interval OFF relay
 ON and OFF delay time relay
 One shot
 Repeat cycle timer
 6 red LEDs, 3-digit LED-display red, digit size 7,6 mm
 FD 0127/1 to 16

	24	42	115	230
24				
	4,7	4,7	4,7	4,7
	4,6	4,6	4,6	4,6
	2,6			
	50 to 60			
	0,8 to 1,1 x U_N			
	8			

analog/7
 0,05 s to 100 h
 divided into:
 0,05 to 1; 0,5 to 10;
 3 s to 1 min; 30 s to 10 min;
 3 min to 1 h; 30 min to 10 h;
 5 to 100
 ≤ 20 ; ≤ 2 at 24 V DC
 ≤ 20 ; ≤ 3 at 24 V DC
 $\leq 40/\leq 60$; $\leq 40/\leq 10$ at 24 V DC
 ≤ 40 ; ≤ 5 at 24 V DC
 ≥ 15
 yes
 no
 $\leq 1 \pm 10$ ms
 $\leq \pm 0,5$
 $\leq 0,005$
 $\leq 0,005$

1 timed and 1 instant. or 2 changeover
 Ag-alloy; gold-plated
 250/300
 5
 AC-15 U_e 230 V AC, I_e 2 A
 DC-13 U_e 24 V DC, I_e 2 A
 6000
 30×10^6
 ca. 10
 ca. 10

2
 III
 3 outside, 2 inside
 250
 2,21
 IP 50/IP 20/IP 00
 EN 50081-1:03.93, -2:03.94
 EN 50082-2:1995

-20 to + 60
 D 1-30
 KS 0323/1
 0,4
 cover DA 1, sealable cover V 4,
 seal Z 1, socket connector B 5,
 pin holder B 7
 page i.4

page i.5