

Programmable digital relay PDR-2/A, PDR-2/B

3M

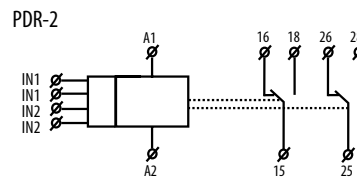
TIME RELAYS



- multifunction programmable digital relay with 4 digit red LED display
- control and setting is done by 4 buttons, user-friendly menu, absolute accuracy in timer setting, time countdown on a display
- galvanically separated START and STOP control inputs with UNI supply
- thanks to its complexity it is possible to program also more demanding time functions by using 2 independent times
- 2 independent times, with combination of 2 inputs and 2 outputs
- PDR-2/A: 16 functions, choice of functions of the other relay, 20 memory places for most frequently used times
- PDR-2/B: 10 functions, 1 output of 10 functions can be assigned to each relay = 2 relays in one device
- 2 independent times in range: 0.01 s - 100 hrs
- supply voltage AC/DC 12 - 240 V or AC 230 V
- 3-MODULE, DIN rail mounting

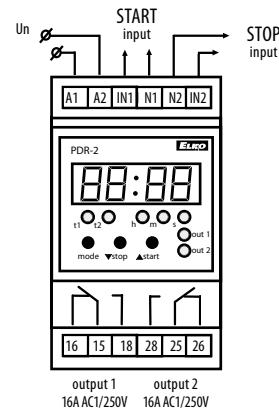
Technical parameters	PDR-2
Function:	16 (PDR-2/A), 10 (PDR-2/B)
Supply terminals:	A1 - A2
Supply voltage:	UNI AC/DC 12 - 240 V (AC 50 - 60 Hz)
Consumption:	AC 0.5 - 2.5 VA / DC 0.4 - 2.5 W
Supply voltage:	230 AC 230 V / 50 - 60 Hz
Consumption (apparent/loss):	AC max. 16 VA / 2.5 W
Supply voltage tolerance:	-15 %; +10 %
Time ranges:	0.01 s - 100 h
Repeat accuracy:	0.2 % - set value stability
Temperature coefficient:	0.01 % / °C, at = 20 °C
Output	
Number of contacts:	2x changeover (AgNi)
Rated current:	16 A / AC1
Breaking capacity:	4000 VA / AC1, 384 W / DC
Inrush current:	30 A / <3 s
Switching voltage:	250 V AC1 / 24 V DC
Min. breaking capacity DC:	500 mW
Output indication:	red LED
Mechanical life:	3x10 ⁷
Electrical strength (AC1):	0.7x10 ⁵
Control	
Control input consumption:	AC 0.01 - 0.25 VA (UNI), AC 0.25 VA (AC 230 V)
Load between S-A2:	Yes (UNI, AC 230 V)
Glow lamps:	No (UNI), No (AC 230 V)
Control. impulse length:	min. 1 ms / max. unlimited
Reset time:	max. 200 ms
Display - colour:	red
Number and height of digits:	4 positions with separating colon, height 10 mm
Luminance:	2200 - 3800 ucd
Light wavelength:	635 nm
Brightness setting:	range 20 - 100 % in 10 steps adjustable
Memory - memory locations:	20 (PDR-2/A) / 30 (PDR-2/B) for times ranges + service function
Data stored for:	min. 10 years
Other information	
Operating temperature:	-20.. +55 °C
Storage temperature:	-30.. +70 °C
Electrical strength:	4 kV (supply - output)
Operating position:	any
Mounting/DIN rail:	DIN rail EN 60715
Protection degree:	IP 40 from front panel
Overvoltage category:	III.
Pollution degree:	2
Max. cable size (mm ²):	solid wire max. 1x 2.5 or 2x1.5/ with sleeve max. 1x1.5
Dimensions:	90 x 52 x 65 mm, see page 90-92
Weight:	(UNI) - 143 g, (230) - 134 g
Standards:	EN 61812-1, EN 61010-1

Symbol

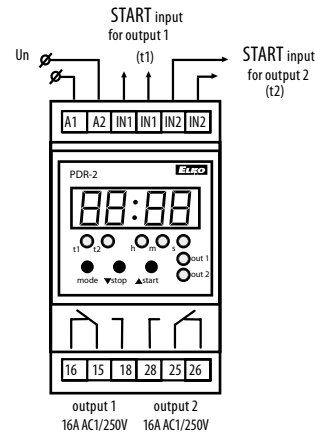


Connectin

PDR-2/A



PDR-2/B



Function

Functions for PDR-2/A and PDR-2/B

Function	Supply voltage	Timing Diagram
1. Delay on	A1-A2 15-18	[Diagram: Supply voltage pulse, output delay t1]
2. Delay off	15-18	[Diagram: Supply voltage pulse, output delay t1]
3. Delay on after break of control. contact	START 15-18	[Diagram: Control contact pulse, output delay t1]
4. Delay on at make of control. contact	START 15-18	[Diagram: Control contact pulse, output delay t1]
5. Delay off after break of output contact	START 15-18	[Diagram: Control contact pulse, output delay t1]
6. Delay off at make of output contact	START 15-18	[Diagram: Control contact pulse, output delay t1]
7. Delay off at break of control. contact with instant output	START 15-18	[Diagram: Control contact pulse, output delay t1]
8. Delay off at make of control. contact with delayed output	START 15-18	[Diagram: Control contact pulse, output delay t1]
9. Cyclus beginning with impulse	15-18	[Diagram: Pulse sequence with t1 intervals]
10. Cyclus beginning with pause	15-18	[Diagram: Pulse sequence with t1 intervals]

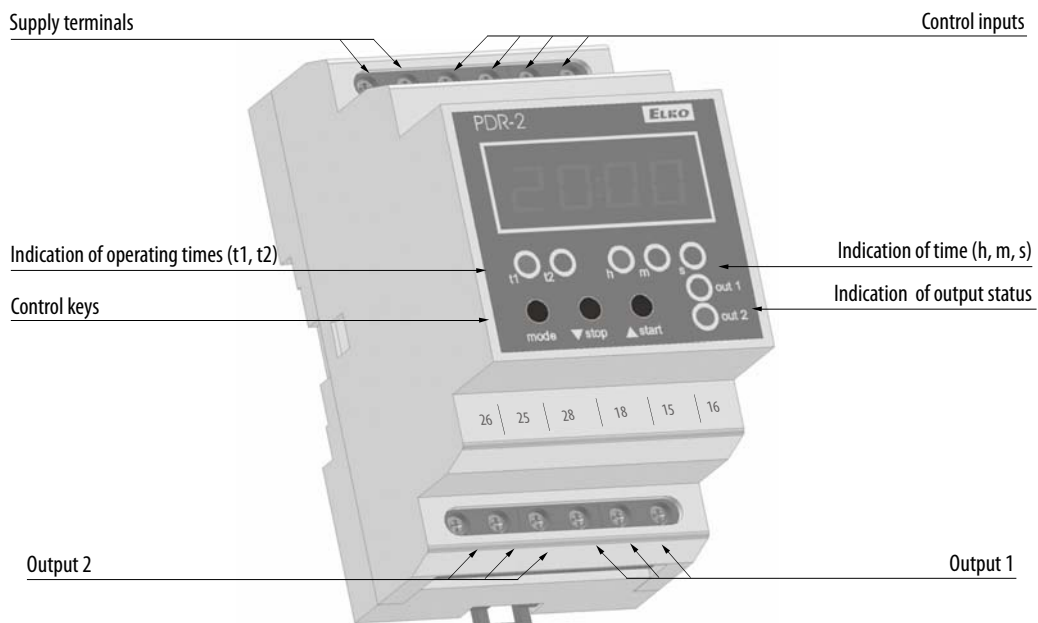
Functions for PDR-2/A

Function	Supply voltage	Timing Diagram
11. Cyclus beginning with impulse with variable interval	A1-A2 15-18	[Diagram: Pulse sequence with t1 and t2 intervals]
12. Cyclus beginning with pause with variable interval	15-18	[Diagram: Pulse sequence with t1 and t2 intervals]
13. Generator of impulse	START 15-18	[Diagram: Control contact pulse, output pulse with t1 and t2 intervals]
14. Changeover star/delta	15-18 25-28	[Diagram: Pulse sequence with t1 and t2 intervals]
15A. Shift of pulse by 2 times	START 15-18	[Diagram: Control contact pulse, output pulse with t1 and t2 intervals]
15B. Shift of impulse by 2 times	START 15-18	[Diagram: Control contact pulse, output pulse with t1 and t2 intervals]
16A. Extended impulse by 2 times	START 15-18	[Diagram: Control contact pulse, output pulse with t1 and t2 intervals]
16B. Extended impulse by 2 times	START 15-18	[Diagram: Control contact pulse, output pulse with t1 and t2 intervals]

Recommendation:

PDR-2/B is replaced by 2 simple time relays = 2 in one.

Description



Time data

Time range:	0.01 s - 99 h 59 min 59 sec 99 ss
Minimal time step:	0.01 s
Time deviation:	0.01 % of set value
Setting error:	0 %
Setting, reset accuracy:	100 %
Digital places:	selected via program