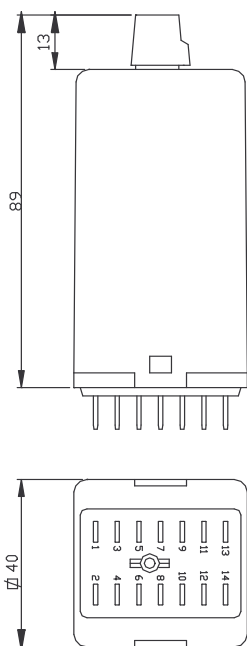


TIME DELAY RELAY

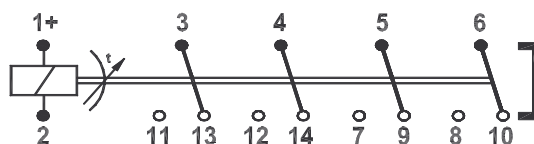
Product TDB4-U200 series 4 pole delay-on timer relay	Country of origin: The Netherlands
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Dimensions	Company
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Connection diagram

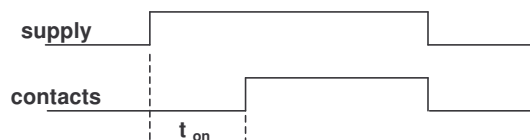


Description

Electronic plug-in railway timer-relay with four change-over contacts with magnetic arc blow-out. Equipped with two LEDs that indicate the presence of supply and the energizing of the contacts. The delay time is adjustable with a lockable knob. The relay can also be supplied with a fixed time delay (No knob). TDB4 relays are suitable for standard D-U200 relay bases

Coil data (DC)	Timing diagram
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Type	U _{nom} (V)	U _{min} (V)	U _{max} (V)
TDB4-U201-xx	24	16.8	30
TDB4-U202-xx	48	33.6	60
TDB4-U203-xx	72	50.4	90
TDB4-U204-xx	110	77.0	138
TDB4-U205-xx	96	67.2	120
TDB4-U207-xx	36	25.2	45



Nom. powerconsumption	during delay time: < 0.5 W
	after switching on: < 2.2 W

Pull-in time	Depending on pull-in time setting (xx)
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Adjustable time ranges	0.1-1 s	0.3 - 3 s	0.6 - 6 s	1 - 10 s	3 - 30 s	6 - 60 s
		0.3 - 3 min	0.6 - 6 min	1 - 10 min	3 - 30 min	6 - 60 min

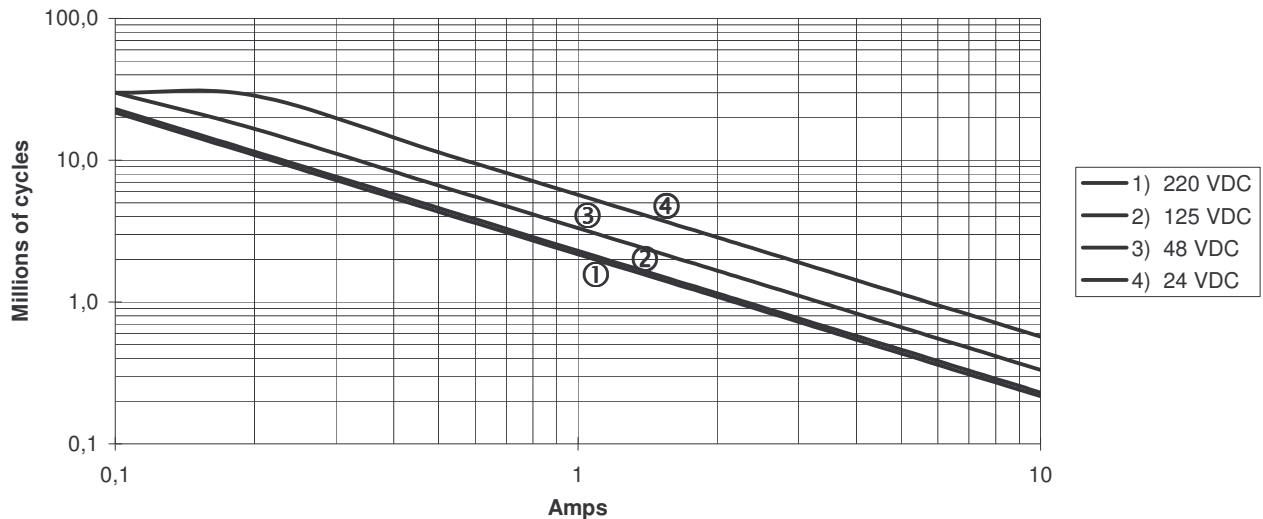
Adjustment accuracy	< 10%
Repeat accuracy	± 0.5 %

Time variation vs voltage variation	± 0.05 % / % U _{nom}
vs temperature variation	± 0.02 % / K

Recovery time	< 0.2 s
Release time	< 40 ms
Max permissible ripple	50%

Contact data			
Max. make current	16A (200A, 10ms)	Material	Ag
Max. cont. current	10 A (AC1 ; IEC 60947)	Contactgap	0.7 mm
Max. switching voltage	250VDC, 440VAC	Insulation between open contacts	2.5 kV; 50 Hz; 1 min
Min. switching voltage	12 V, 10mA		
Max. contact resistance	15 mΩ (initial)	Contactforce	> 200 mN
Max. breaking capacity	DC 110 V, 10A (L/R<=15ms) AC 230 V, 10A (cos φ >=0.7)		

DC resistive current breaking capacity [D-U200-series relays]



Other contact data on request

General data			
Dielectric strength	Pole-Pole	IEC 60055-5	4 kV, 50 Hz, 1 min
	Cont-Coil	IEC 60077	2 kV, 50 Hz, 1 min
Insulation class	IEC 60255-5	serie C 380 V 50 Hz/ 450 VDC	
EMC	acc. to	EMC directive EN 50121-3-2	
Vibration	IEC 60077 IEC 60571-1 IEC 60068-2-6	5 g at 50 Hz 2 g at 10 - 150 Hz	
Shock	IEC 60077	5 g at 50 Hz	
Mechanical life		30*10 ⁶ ops	
Max. switching frequency		1200 ops/h	
Weight		140 g	
Temperature	T _{amb,max}	+70 °C	
	T _{amb,min}	- 25 °C	
Humidity		90%, condensation not permitted	
Protection		IP 40	
Materials		Makrolon Polyester	

Options	
C	- 40 °C Maximum contact current 8A
E	gold plated contacts
K	special dust protection (only for fixed time setting)
N	no magnetic arc blow-out