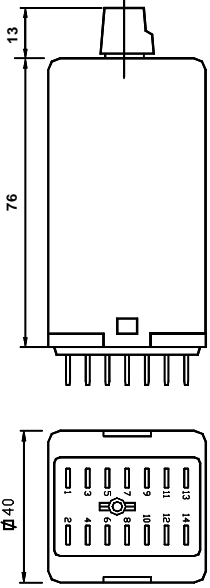

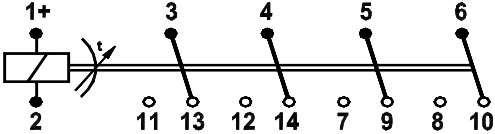
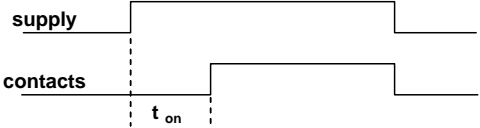


TIME DELAY RELAY						
<b>Product</b> TDB4 series 4 pole delay-on timer relay			<b>Country of origin</b> The Netherlands			
<b>Dimensions</b>			<b>Company</b>			
			 <p>P.O. Box 7023 3502 KA Utrecht The Netherlands T +31 (0)30-288 13 11 F +31 (0)30-289 88 16 E sales@nieaf-smitt.nl I www.nieaf-smitt.nl</p>			
<b>Connection Diagram</b>						
						
<b>Description</b>						
<p>Electronic plug-in timer-relay with four change-over contacts.          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)          The TDB4-relays are suitable for standard D- relay bases.</p>						
<b>Coil Data AC/DC</b>				<b>Timing diagram</b>		
Type	$U_{nom}$ (V)	$U_{min}$ (V)	$U_{max}$ (V)			
TDB4-24-xx	24	19.2	28.8			
TDB4-48-xx	48	38.4	57.6			
TDB4-60-xx	60	48	72			
TDB4-110-xx	110	88	132			
TDB4-125-xx	125	100	150			
TDB4-220-xx	220	176	264			
<b>Nom. powerconsumption</b>				during delay time: < 0.5 W		
				after switching on: < 2.2 W		
<b>Pull-in time</b> Depending on pull-in time setting (xx)						
<b>Time ranges, adjustable</b>	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
<b>Adjustment accuracy</b>		< 10%				
<b>Repeat accuracy</b>		± 0.5 %				
<b>Time variation vs voltage variation</b>				± 0.05 %/ % $U_{nom}$		
<b>vs temperature variation</b>				± 0.02 % / K		
<b>Recovery time</b>		< 0.2 s				
<b>Release time</b>		< 40 ms				

Contact data			
Max. make current	16 A	Material	Ag
Nom. current	10 A (AC1 ; IEC 60947)	Contactgap	0.7 mm
Max. breaking capacity		Insulation between open contacts	2.5 kV, 50 Hz, 1 min
	DC 110 V, 1A AC 440 V	Contactforce	> 200 mN
Min. contact continuity	12V/ 10 mA		
Max. contact resistance	15 mΩ ( initial )		
Maximum switching capacity: see graph			
<p style="text-align: center;">Max switching capacity</p> <p>The graph plots switching capacity in Watt/VA per contact against voltage in Volts. It shows four curves: AC-r (red), AC-i (purple), DC-r (orange), and DC-i (green). A dashed line represents the maximum current Imax = 10 A. The AC-r curve shows the highest capacity, increasing from approximately 1500 at 20V to 4000 at 1000V. The AC-i curve increases from about 500 at 20V to 1000 at 1000V. The DC-r curve is relatively flat around 400-500. The DC-i curve is the lowest, starting at 100 at 20V and rising to about 200 at 1000V.</p>			
General Data			
Dielectric strength			
	Pole-Pole Cont-Coil	IEC 60255-5	4 kV, 50 Hz, 1 min 2 kV, 50 Hz, 1 min
Insulation class		IEC 60255-5	serie C 380 V 50 Hz/ 450 VDC
Pulse withstanding		IEC 60255-5	5 kV ( 1.2/50 μs )
EMC according to			EMC directive
Vibration		IEC 60068-2-6	5 g at 50 Hz 2 g at 10 - 150 Hz
Shock		IEC 60068-2-27	5 g at 50 Hz
Mechanical life			30*10 <sup>6</sup> ops
Max. switching frequency			1200 ops/h
Weight			125 g
Temperature		T <sub>amb,max</sub>	+55 °C
			1 cm detached
		T <sub>amb,min</sub>	-25 °C
Humidity			90%, condensation not permitted
Protection			IP 40
Materials			Makrolon Polyester
Options			
E	Gold plated contacts		
K	Special dust protection ( Only for fixed time settings )		
B	Magnetic arc blow out		
Q	Coil protection with double zener		

**Australian Distributor**



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