
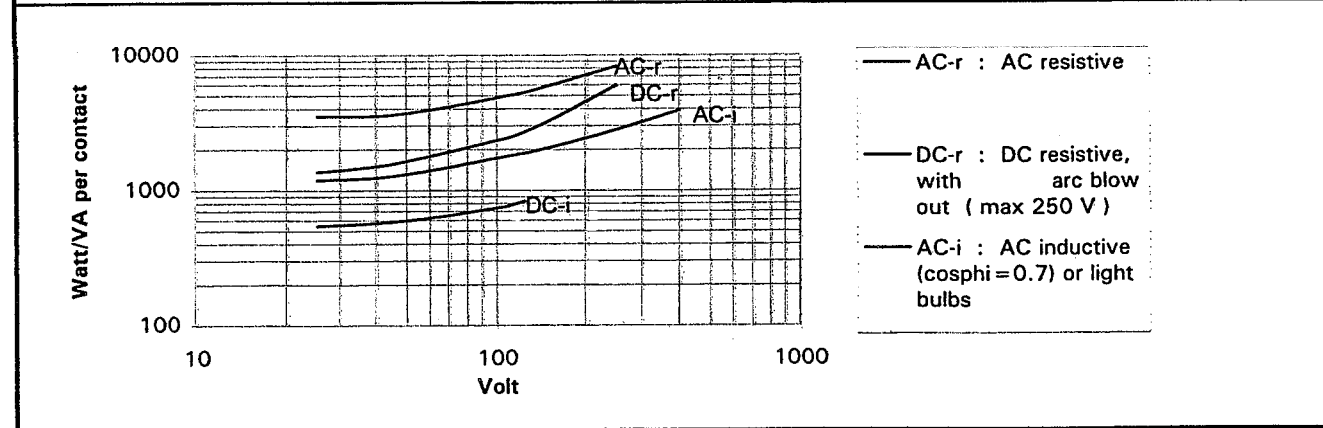


<b>Datasheet</b>		
<b>Options for D relays</b>		<b>Brand name</b> SMITT <b>Country of Origin</b> Holland
<b>Index:</b>	E Gold plated contacts B Magnetic arc blow-out T Test button A Trip indicator S Position indicator R Ultra rapid relay C Low temperature	 Po Box 7023 3502 KA Utrecht, Holland Tel: +31(0)30-2881311 Fax: +31(0)30-2898816

<b>Option</b> Gold plated contacts		
<b>Type code</b> D-E		
<b>Description</b> Gold contacts ensure low contact resistance and good resistivity against corrosive atmosphere. Suitable for switching low level, dry circuit loads.		
<b>Coil data</b>	<b>Dimensions</b>	<b>Contact data</b>
As standard D relay	As standard D relay	Min. switching cap. 1 $\mu$ A, 1 $\mu$ V Max. switching cap. 60 V, 400 mA At higher rating gold will evaporate, then standard contact rating is valid.

<b>Option</b> Magnetic arc blow-out			
<b>Type code</b> D-B			
<b>Description</b> Magnetic arc blow-out ensures a high DC breaking capacity and long contact life.			
<b>Coil Data</b>	<b>Dimensions</b>	<b>Contact data</b>	
As standard D relay	As standard D relay	See hereunder and annex	
<b>Contact data</b>			
<b>Max. Make Current</b>	16 A	<b>Material</b>	Ag
<b>Max. Cont. Current</b>	10 A (AC1)	<b>Contactgap</b>	0.8 mm
<b>Max. Switching Voltage</b>	DC 110 V, 7 A	<b>Isolation between open contacts</b>	2.5 kV; 50 Hz; 1 min
	AC 440 V		
<b>Min. Switching Voltage</b>	12 V	<b>Contactpressure</b>	> 200 mN
<b>Max. Contact Resistance</b>	15 m $\Omega$		



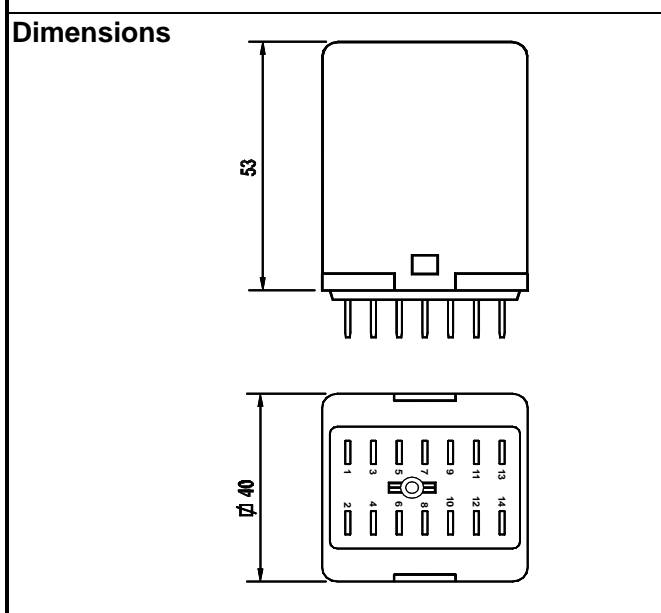
<b>Option</b> Test button	
<b>Type code</b> D-T	

<b>Description</b>			
D relay with push tot test button which mechanically operates the contacts			
<b>Coil data</b> As standard D relay		<b>Dimensions</b> As standard D relay	
		<b>Contact data</b> As standard D relay	
<b>Option      Trip indicator</b>			
<b>Type code</b>		D-A	
<b>Description</b>			
D relay with trip indicator which indicates if the relay has been energized.			
<b>Coil data</b> As standard D relay		<b>Dimensions</b> As standard D relay	
		<b>Contact data</b> As standard D relay	
<b>Option      Position indicator</b>			
<b>Type code</b>		D-S	
<b>Description</b>			
D relay with mechanical ON/OFF indicator. Indicates if the contacts are closed.			
<b>Coil data</b> As standard D relay		<b>Dimensions</b> As standard D relay	
		<b>Contact data</b> As standard D relay	
<b>Option      Ultra rapid relay</b>			
<b>Type code</b>		D-R	
<b>Description</b>			
D relay with very short operating times. Especially suitable for energie controlling installations.			
<b>Coil data</b>			
<b>Operating times at nominal voltage</b>			
pull-in time	5 ms	release time	10 ms
bounce time NO contacts	6 ms	bounce time NC contacts	8 ms
Coil consumption on energizing hold-up	25 W/ VA 1 W/ VA		
Min. Hold-up voltage	DC: 0.1; AC: 0.3 at $U_{nom}$		
	<b>Dimensions</b> As standard D relay	<b>Contact data</b> Three CO contacts as standard.	
<b>Option      Low temperature</b>			
<b>Type code</b>		D-C	
<b>Description</b>			
D relay with low temperature features.			
Low temperature	-40 °C		
Max. cont. Current	8 A (AC 1)		
<b>Coil data</b> As standard D relay		<b>Dimensions</b> As standard D relay	
		<b>Contact data</b> As standard D relay	

**Datasheet INSTANTANEOUS RELAY**

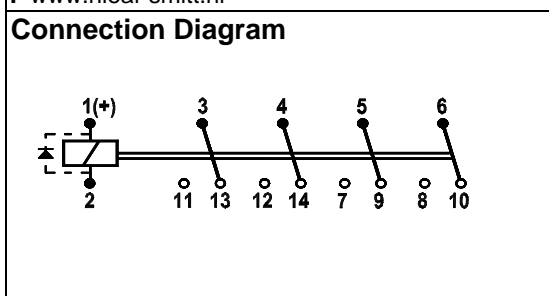
**Product** D relays

**Country of Origin:** The Netherlands



**SMITT RELAYS**

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**Description**

Plug-in relay with four change-over contacts.  
Equipped with LED indication and DC-types with back EMF protection.

**Coil data**

**Operating times at nominal voltage**

Pull-in time	20 ms DC / 10ms AC	Release time	18 msDC/ 5msAC
Bounce time NO contacts	4 ms	Bounce time NC contacts	8 ms
Coil consumption	2 W/VA at $U_{nom}$	Inductance	Energized 11 ms
Min. Hold-up Voltage	DC 0.1 $U_{nom}$	L/R at $U_{nom}$	Released 8 ms
	AC 0.3 $U_{nom}$		

**Nominal voltages DC**

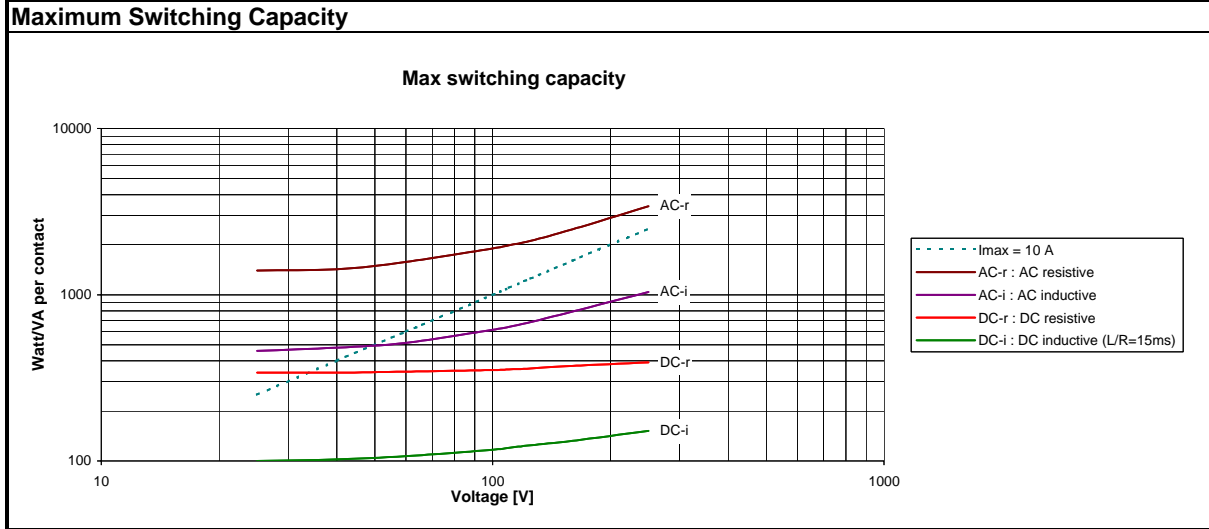
Type code	$U_{nom}$	$U_{pull\ in}$	$U_{hold\ up}$	$U_{max\ (40\ ^\circ C)}$	$R_{coil}$
D 12 VDC	12 V	9.6 V	1.2 V	13.2 V	72 $\Omega$
D 24 VDC	24 V	19.2 V	2.4 V	26.4 V	290 $\Omega$
D 48 VDC	48 V	38.4 V	4.8 V	52.8 V	1150 $\Omega$
D 60 VDC	60 V	48.0 V	6.0 V	66.0 V	1840 $\Omega$
D 110 VDC	110 V	88.0 V	11.0 V	121.0 V	6500 $\Omega$
D 120/125 VDC	125 V	96.0 V	12	137.5 V	8400 $\Omega$
D 220 VDC	220 V	176.0 V	22.0 V	242.0 V	25000 $\Omega$

**Nominal voltages AC 50 Hz**

Type code	$U_{nom}$	$U_{pull\ in}$	$U_{hold\ up}$	$U_{max\ (40\ ^\circ C)}$	$R_{coil}$
D 12 V/ 50 Hz	12 V	9.6 V	3.6 V	13.2 V	10 $\Omega$
D 24 V/ 50 Hz	24 V	19.2 V	7.2 V	26.4 V	44 $\Omega$
D 42 V/ 50 Hz	42 V	33.6 V	12.6 V	46.2 V	133 $\Omega$
D 115 V/50 Hz	115 V	92.0 V	34.5 V	126.5 V	1140 $\Omega$
D 220 V/ 50 Hz	220 V	176.0 V	66.0 V	242.0 V	4400 $\Omega$
D 230 V/ 50 Hz	230 V	184.0 V	69.0 V	259.0 V	4800 $\Omega$
D 380 V/ 50 Hz	380 V	304.0 V	114.0 V	420.0 V	12500 $\Omega$

**Other voltages on request**

Contact data			
Max. Make Current	16 A	Material	silver
Max. Cont. 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, 1 A AC 440 V	Contactforce	> 200 mN
Min. Switching Voltage	12 V, 10 mA		
Max. Contact Resistance	15 mΩ		



General Data			
Dielectric strength	Pole-Pole	IEC 60255-5	4 kV, 50 Hz, 1 min
	Cont-Coil		2.5 kV, 50 Hz, 1 min
Insulation Class		IEC 60255-5	serie C 380 V 50Hz/450 VDC
Pulse Withstanding		IEC 60255-5	5 kV (1.2/50 μs)
Vibration		IEC 60068-2-2	5 g at 50 Hz 2 g, 10-150 Hz
Shock		IEC 60068-2-2	15 g, 11 ms
Mechanical life			DC : 30*10 <sup>6</sup> ops AC : 10*10 <sup>6</sup>
Max. Switching Frequency			1200 ops/h
Weight			125 g
Temperature	T <sub>amb,max</sub>		+40 °C +55 °C, 1 cm detached Higher T on request
	T <sub>amb,min</sub>		-25 °C
Humidity			90%, temporary permitted condensation
Protection			IP 40
Materials			Makrolon Polyester
Electronic Components			LED
			Back EMF protection diode (DC-types)

**Australian Distributor**



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