

**Sealed DIL Version w/ up to 4.25 kVDC Breakdown Voltage Option**



**DESCRIPTION**

Several pin out options are possible with the 14 pin DIL series. Suitable for telecommunication applications where breakdown voltages up to 4.25 kVDC is required.

**FEATURES**

- 2 Form C available
- High resistance available
- 2 Form A switches available
- Magnetic shield available
- 4.25 kVDC breakdown voltage available
- High power switching available

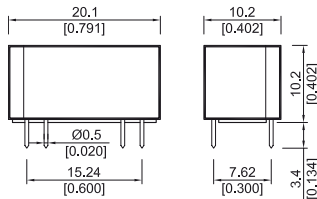
**CHARACTERISTICS**

- Compatible with DIL socket
- Coil resistance up to 11 kΩ
- Diode option

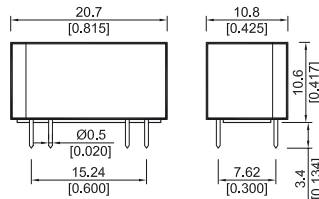
**DIMENSIONS**

All dimensions in mm [inches]

Without magnetic shield



With magnetic shield



**ORDER INFORMATION**

Series	Nominal Voltage	Contact Form	Switch Model	Pin Out	Option ( ) Version with magnetic Shield	Version
DIL	XX -	XX	XX -	XX	X	XX
Options	05, 12, 24	1A	66, 72, 75	13*, 15	L(M), D(Q), E(R) <sup>1</sup> , F(S) <sup>1</sup>	HR, L
		2A	66, 72, 75	21		L
	05, 12	1C	90	51*		HR, L
	05, 12, 24	2C	90	62, 63		L
* When HR is selected, 24 V coil is not available. L = No Option.					<sup>1</sup> Not available with Pin out 62, 63.	

**Part Number Example**

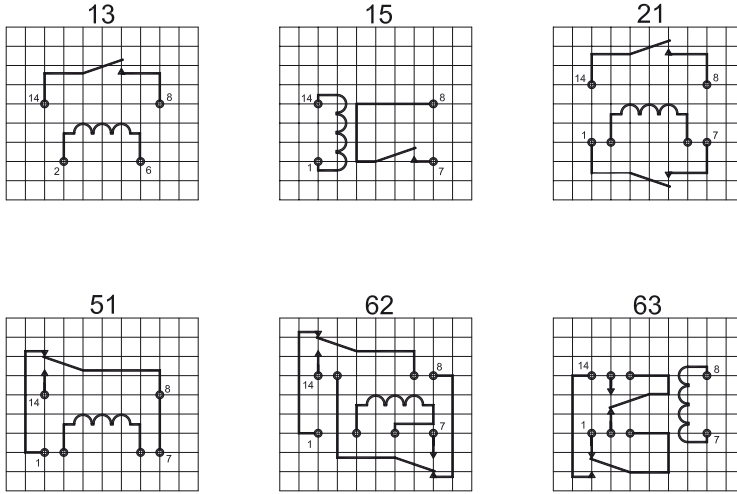
DIL12 - 1A72 - 10LHR

12 is the nominal voltage  
 1A is the contact form  
 72 is the switch model  
 13 is the pin out  
 L is the option  
 HR is the high resistance version

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**PIN OUT**

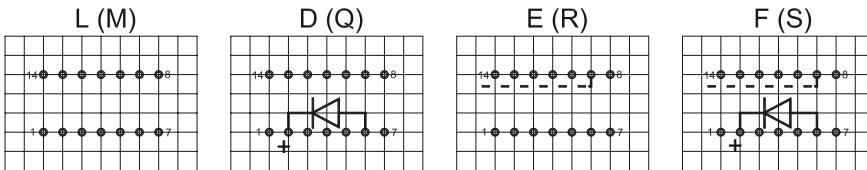
View from top of component  
2.54mm [0.10"] pitch grid



**OPTIONS**

( ) Versions with magnetic shield

View from top of component  
2.54mm [0.10"] pitch grid



Please note: Any option can affect the coil resistance, the breakdown voltage or other electrical data. Please contact us.

Special performance: The following special options are available on request:

- Other pinning layouts
- Other coil resistance values
- Other switches available

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### RELAY DATA

All Data at 20° C	Switch Model → Contact Form →	Switch 66 Form A			Switch 72 Form A			Units
		Min.	Typ.	Max.	Min.	Typ.	Max.	
Switching Power	Any DC combination of V & A not to exceed their individual max.'s.			10			15	W
Switching Voltage	DC or peak AC			200			200	V
Switching Current	DC or peak AC			0.5			1.0	A
Carry Current	DC or peak AC			1.25			1.25	A
Static Contact Resistance	w/ 0.5 V & 50mA			150			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50mA , 1.5 ms after closure			200			200	mΩ
Insulation Resistance (100 Volts applied)	Across Contact Contact to coil	10 <sup>10</sup> 10 <sup>12</sup>			10 <sup>12</sup> 10 <sup>12</sup>			Ω
Breakdown Voltage	Across Contact Contact to coil	225 1.5*			250 1.5*			VDC kVDC
Operate Time incl. Bounce	With nominal voltage			0.5			0.7	ms
Release Time	Measured w/ no coil suppression			0.1			0.1	ms
Capacitance	Across Contact Contact to coil		0.2 4.0			0.2 4.0		pF
<b>Life Expectancies</b>								
Switching 5V - 10 mA	DC <10 pF stray cap.		1000				1000	10 <sup>6</sup> Cycles
For other load requirements, see the life test section on P. 112.								
<b>Environmental Data</b>								
Shock Resistance	1/2 sine wave duration for 11 ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	max. 10°C/ minute allowable	-20		70	-20		130	°C
Storage Temperature	max. 10°C/ minute allowable	-25		85	-55		130	°C
Soldering Temperature	5 sec. dwell			260			260	°C
* 4.25 kVDC / 3.0 kVRMS for Pin-outs 13 and 15.								

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**RELAY DATA**

All Data at 20° C	Switch Model → Contact Form →	Switch 75 Form A			Switch 90 Form C			Units
		Min.	Typ.	Max.	Min.	Typ.	Max.	
<b>Contact Ratings</b>	<b>Conditions</b>							
Switching Power	Any DC combination of V & A not to exceed their individual max.'s.			10			10	W
Switching Voltage	DC or peak AC			500			175	V
Switching Current	DC or peak AC			0.5			0.5	A
Carry Current	DC or peak AC			1.0			1.0	A
Static Contact Resistance	w/ 0.5 V & 50mA			200			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50mA , 1.5 ms after closure			200			250	mΩ
Insulation Resistance (100 Volts applied)	Across Contact Contact to coil	10 <sup>10</sup> 10 <sup>12</sup>			10 <sup>9</sup> 10 <sup>12</sup>			Ω
Breakdown Voltage	Across Contact Contact to coil	1500 1.5*s			200 1.5			VDC kVDC
Operate Time incl. Bounce	With nominal voltage			0.5			0.7	ms
Release Time	Measured w/ no coil suppression			0.1			1.5	ms
Capacitance	Across Contact Contact to coil		0.4 4.0			1.0 4.0		pF
<b>Life Expectancies</b>								
Switching 5V - 10 mA	DC <10 pF stray cap.		500			100		10 <sup>6</sup> Cycles
For other load requirements, see the life test section on P. 112.								
<b>Environmental Data</b>								
Shock Resistance	1/2 sine wave duration for 11 ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	max. 10°C/ minute allowable	-20		70	-20		70	°C
Storage Temperature	max. 10°C/ minute allowable	-25		85	-25		85	°C
Soldering Temperature	5 sec. dwell			260			260	°C
* 4.25 kVDC / 3.0 kVRMS for Pin-outs 13 and 15.								

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### COIL DATA

Contact Form	Switch Model	Coil Voltage		Coil Resistance			Pull-in Voltage	Drop-Out Voltage	Nominal Coil Power
All Data at 20 °C		VDC		Ω			VDC	VDC	mW
		Nom.	Max.	Min.	Typ.	Max.	Max.	Min.	Typ.
1A	66 72 75	5	7.5	405	450	495	3.5	0.75	55
		12	16	1620	1800	1980	8.4	1.8	80
		24	30	4050	4500	4950	16.8	3.6	130
2A	66 72 75	5	7.5	180	200	220	3.5	0.75	125
		12	16	621	680	748	8.4	1.8	210
		24	30	1800	2000	2200	16.8	3.6	290
1C	90	5	7.5	180	200	220	3.5	0.75	125
		12	16	900	1000	1100	8.4	1.8	145
		24	30	2700	3000	3300	16.8	3.6	190
2C		5	7.5	145	150	165	3.5	0.75	165
		12	16	612	680	748	8.4	1.8	210
		24	30	1800	2000	2200	16.8	3.6	290

The pull-in, drop-out voltages and coil resistance will change at the rate of 0.4 % per °C.