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

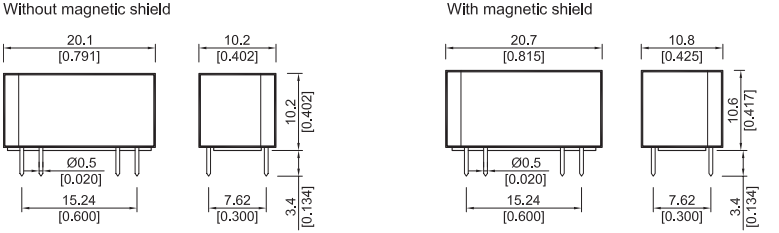
- 2 Form C available
- High resistance available
- 2 Form A switches available
- Magnetic shield available
- 4.25 kVDC breakdown voltage available
- High power switching available

CHARACTERISTICS

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

DIMENSIONS

All dimensions in mm [inches]



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)[t], F(S)[tt]	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.

[t] Not available with Pin out 62, 63.

Part Number Example

DIL12 - 1A72 - 10LHR

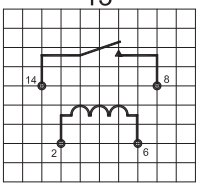
12 is the nominal voltage
1A is the contact form
72 is the switch model
13 is the pin out
L is the option
HR is the high resistance version

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

PIN OUT

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

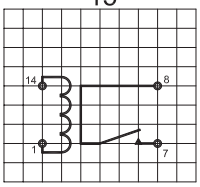
13



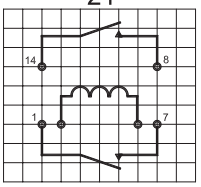
UP

ONLY WHEN USING A MERCURY WETTED (88) SWITCH

15



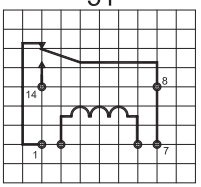
21



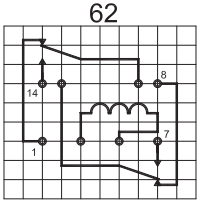
UP

ONLY WHEN USING A MERCURY WETTED (88) SWITCH

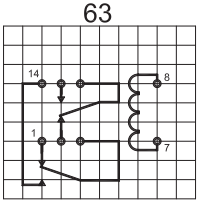
51



62



63

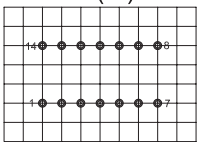


OPTIONS

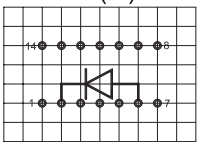
( ) Versions with magnetic shield

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

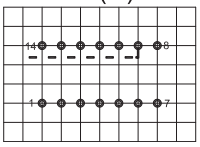
L (M)



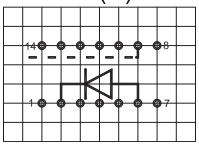
D (Q)



E (R)



F (S)



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

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

RELAY DATA

All Data at 20° C	Switch Model → Contact Form →	Switch 66 Form A			Switch 72 Form A			
Contact Ratings	**Conditions**	**Min.**	**Typ.**	**Max.**	**Min.**	**Typ.**	**Max.**	**Units**
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^{10} 10^{12}			10^{12} 10^{12}			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
Life Expectancies								
Switching 5V - 10 mA	DC <10 pF stray cap.		1000			1000		10^6 Cycles
For other load requirements, see the life test section on P. 112.								
Environmental Data								
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	-35		95	°C
Soldering Temperature	5 sec. dwell			260			260	°C

* 4.25 kVDC / 3.0 kVRMS for Pin-outs 13 and 15.

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

RELAY DATA

All Data at 20° C	Switch Model → Contact Form →	Switch 75 Form A			Switch 90 Form C			
Contact Ratings	**Conditions**	**Min.**	**Typ.**	**Max.**	**Min.**	**Typ.**	**Max.**	**Units**
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^{10} 10^{12}			10^{9} 10^{12}			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
Life Expectancies								
Switching 5V - 10 mA	DC <10 pF stray cap.		500			100		10^{6} Cycles
For other load requirements, see the life test section on P. 112.								
Environmental Data								
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.								

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

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 resisitance will change at the rate of 0,4 % per °C.