

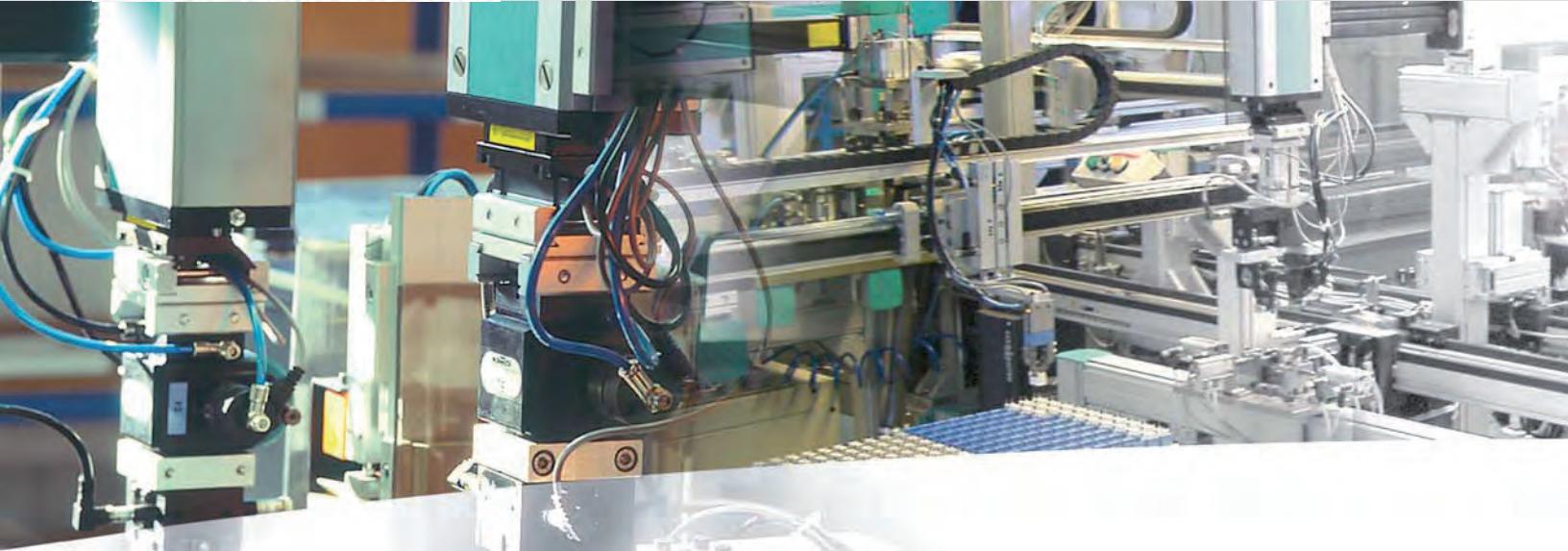
# DURAKOOL

Electromechanical  
relays  
& contactors



miniature relays  
industrial relays  
automotive relays  
interface relays  
definite purpose contactors

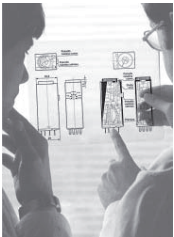
[www.durakoolrelays.com](http://www.durakoolrelays.com)



Established in 1935 to manufacture switching devices for power generation

Durakool is a renowned manufacturer of switching and sensing components

used in industrial and power automation, power electronics, industrial electronics, automotive and telecommunications applications.



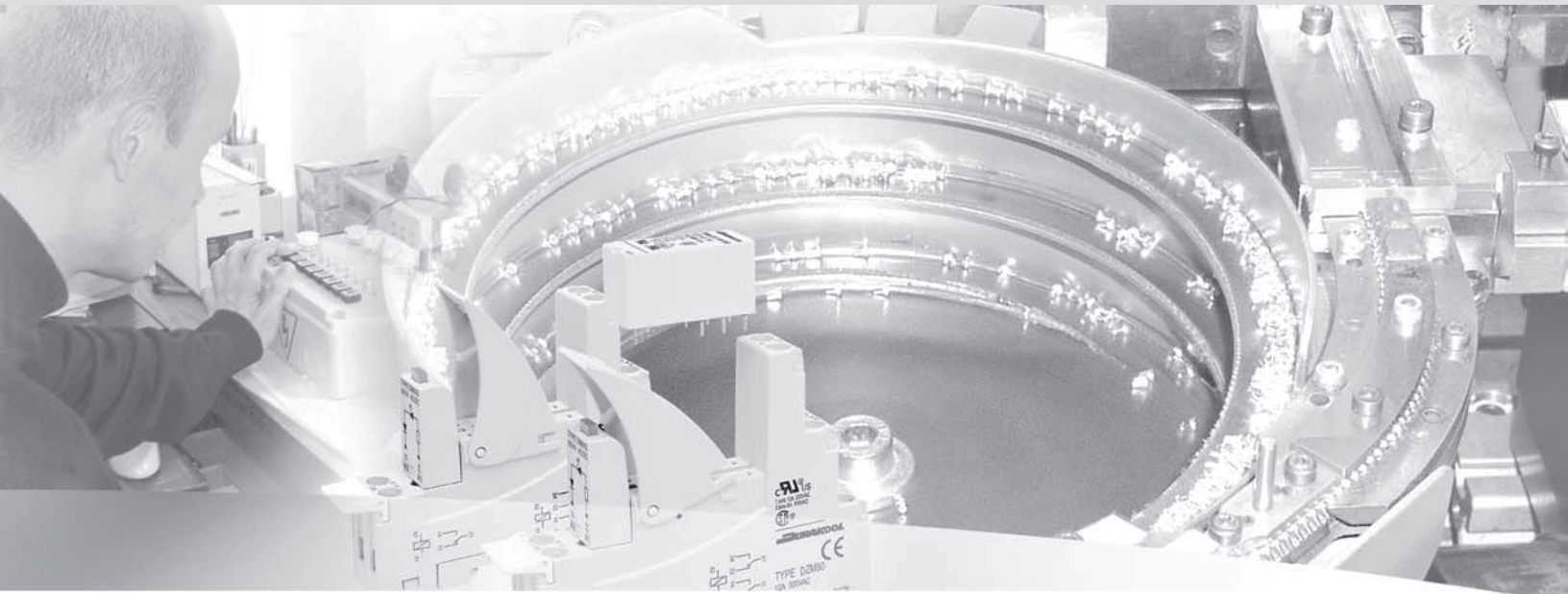
American Electronic Components and Durakool provide their partners technical consultation based upon extensive application knowledge and experience.

After many years of development and innovation, we understand that **quality is paramount** and we pursue a policy of continuous improvement.

For in depth information and data sheets, visit our web site at [www.durakoolrelays.com](http://www.durakoolrelays.com) or [www.aecensors.com](http://www.aecensors.com)

Due to our very wide product range, **please consult us or your distributor for non-standard items.**





**Controlling electricity for over 75 years!**

American Electronic Components and Durakool

offer an extensive range of:

**ELECTROMECHANICAL RELAYS AND CONTACTORS**

**RELAY SOCKETS**

**MERCURY RELAYS AND CONTACTORS**

**TILT AND TIP OVER SWITCHES**

**FLOAT SWITCHES**

**LIQUID LEVEL SENSORS**

**PROXIMITY SENSORS**

**G-FORCE SENSORS AND SWITCHES**

**HERMETIC SEALS, FEED THRU'S AND SIGHT GLASSES**

### Series

DTC0 / DTC0B

DTC1

DTC2

Click on photograph for data sheet



Dimensions L x W x H

16 x 11 x 11.5 mm  
0.63 x 0.43 x 0.45 in

12.7 x 7.6 x 10 mm  
0.5 x 0.3 x 0.40 in

21 x 10 x 11.6 mm  
0.83 x 0.4 x 0.46 in

Features & Applications

Sub-miniature  
DIL pitch, Two styles  
5A / 24V DC rating

Ultra-Miniature  
High sensitivity  
SMD type available

Sub-miniature  
DIL pitch  
Telecom Relay

### Contacts

Contact form

SPDT

SPDT

DPDT

Contact materials

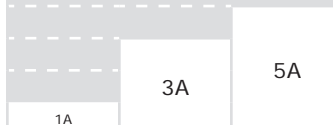
AgNi 0.15, AgNi 0.15+Au

AgNi 0.15+Au (0.2µm)

Ag + Au (2µm)

Max. switching current

16A  
10A  
8A  
5A  
3A  
2A  
1A



2A

1A / 2A

Max. switching voltage

120V AC / 24V DC

120V AC / 60VDC

120V AC / 24V DC

Max. switching power

240VA / 48W

120VA / 48W

Rated load (resistive)

3A 120V AC / 24V DC,  
5A 120V AC / 24V DC

2A 120V AC / 24V DC

1A 120V AC / 2A 24V DC

### Coil

Rated voltage

DC 3...24V

DC 3...24V

DC 3...48V

Rated nominal power consumption

0.36W, 0.45W

0.15W

0.2W, 0.36W

### General data

Dielectric strength  
(between coil and contacts)  
(between contact poles)

1,250VRMS

1,000VRMS

1,000VRMS

-

-

1,000VRMS

Ambient temperature (operating)

-25...+55°C

-30...+70°C

-30...+80°C

Operate/release time (typical)

5 / 5 ms

4 / 3 ms

8 / 4 ms

Electrical life (operations)

1 x 10<sup>5</sup>

1 x 10<sup>5</sup>

1 x 10<sup>5</sup>

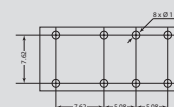
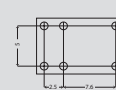
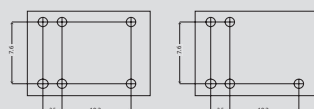
Mechanical life (operations)

1 x 10<sup>7</sup>

1 x 10<sup>7</sup>

1 x 10<sup>7</sup>

PC Board layout



Terminal type

PCB

PCB & SMT

PCB

Recognitions, directives, approvals

RoHS

RoHS

RoHS





Cross references

Omron: G2E  
Tyco: OUAZ  
P&B: T81

Omron: G5V-1  
Panasonic: HY

Omron: G5V-2  
Panasonic: DS

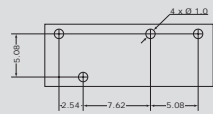
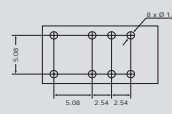
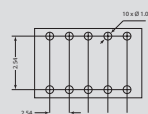
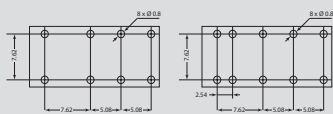
miniature pcb relays

DTC3	DTC4	DTC5	DG6D
			
20.2 x 10.2 x 10.6 mm 0.79 x 0.40 x 0.42 in	14 x 9 x 5 mm 0.55 x 0.3 x 0.2 in	15 x 7.5 x 8.4 mm 0.6 x 0.3 x 0.33 in	17.5 x 6.5 x 12.5 mm 0.69 x 0.26 x 0.49 in
Sub-miniature Latching coils option Sensitive coils	Sub-miniature, low profile Surface mount options Latching coils option	Ultra - miniature Surface mount option Latching coil option	Miniature 5A Power Relay

DPDT	DPDT	DPDT	SPST-NO
Ag + Au (2µm)	AgPd + Au (0.2µm)	Ag Alloy	Ag Alloy
1A / 2A	1A	2A	5A
125V AC / 30V DC	250V AC / 220V DC	220V DC	30V DC / 250V AC
125VA / 60W	62.5VA / 30W	60W	1,250VA / 150W
1A 125V AC / 2A 30V DC	0.5A 125V AC / 1A 30V DC	2A / 30V DC	5A / 30V DC, 250V AC

DC 3...48V DC 3...24V (latching)	DC 3...24V DC 3...24V (latching)	DC 3...24V DC 3...24V (latching)	DC 5...24V
0.075W, 0.15W, 0.2W	0.1W, 0.14W, 0.2W	0.1W, 0.14W	0.2W

1,000VRMS	1,000VRMS	2,000VRMS	3,000VRMS
1,000VRMS	1,000VRMS	1,000VRMS	-
-30...+85°C	-30...+85°C	-40...+85°C	-25...+75°C
4 / 3 ms	2 / 1 ms	4 / 4 ms	10 / 5 ms
1 x 10 <sup>5</sup>	2 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>
1 x 10 <sup>8</sup>	1 x 10 <sup>8</sup>	1 x 10 <sup>8</sup>	2 x 10 <sup>7</sup>



PCB	PCB & SMT	PCB & SMT	PCB
RoHS	RoHS	RoHS	RoHS
Omron: G5V-2 Panasonic: DS2Y	Omron: G6H, G6H2F Panasonic: TQ	Fujitsu: FTR-C1 Panasonic: TX	Omron: G6D

### Series

DG18

DM05

DG31

Click on photograph for data sheet



Dimensions L x W x H

15.7 x 12.3 x 14 mm  
0.62 x 0.48 x 0.55 in

20.5 x 10.6 x 15.3 mm  
0.8 x 0.42 x 0.6 in

18.7 x 15.4 x 15.6 mm  
0.74 x 0.6 x 0.61 in

Features & Applications

Miniature low cost power relay

Small PCB footprint  
Good isolation - 4kV  
Sensitive 200mW coil

Industry standard style  
Low cost  
DC Motor Control / Lamps

### Contacts

Contact form

SPST-NO / SPDT

SPST-NO / SPDT

SPST-NO / SPDT

Contact materials

Ag Alloy

Ag Alloy

AgCdO / AgSnO<sub>2</sub>

Max. switching current

16A  
10A  
8A  
5A  
3A  
2A  
1A

5A

10A  
(SPST-NO)

10A

Max. switching voltage

240V AC / 28V DC

277V AC / 30V DC

250V AC / 30V DC

Max. switching power

840VA / 400W

1,250VA / 150W

1,750VA / 280W

Rated load (resistive)

5A 240V AC  
20A 14V DC

10A 250V AC (UL)  
5A 250V AC / 30V DC

12A 120VAC  
7A 250V AC / 10A 28V DC

### Coil

Rated voltage

DC 6...24V

DC 3...24V

DC 3...48

Rated nominal power consumption

0.6W / 0.8W

0.2W / 0.45W

0.36W

### General data

Dielectric strength  
(between coil and contacts)  
(between contact poles)

500V<sub>RMS</sub>

4,000V<sub>RMS</sub>

1,500V<sub>RMS</sub>

Ambient temperature (operating)

-55...+70°C

-40...+70°C

-40...+70°C

Operate/release time (typical)

10 / 5 ms

8 / 5 ms

8 / 5 ms

Electrical life (operations)

1 x 10<sup>5</sup>

1 x 10<sup>5</sup>

1 x 10<sup>5</sup>

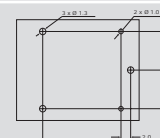
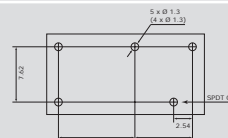
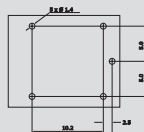
Mechanical life (operations)

1 x 10<sup>6</sup>

1 x 10<sup>7</sup>

1 x 10<sup>7</sup>

PC Board layout



Terminal type

PCB

PCB

PCB

Recognitions, directives, approvals

RoHS

RoHS

RoHS





Cross references

Tyco: T78

Omron: G5Q  
Panasonic: JQ  
Fujitsu: JY

Omron: G5LA  
Tyco: T7N

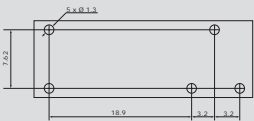
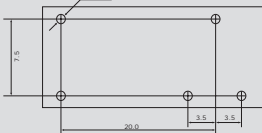
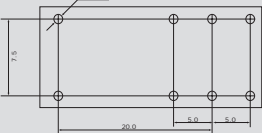
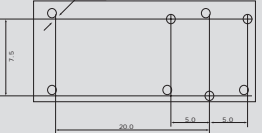




miniature pcb relays

DG6L	DM41	DM42	DM43
			
28.5 x 10.1 x 12.3 mm 1.12 x 0.4 x 0.48 in	29 x 13 x 25.3 mm 1.14 x 0.51 x 1.00 in	29 x 13 x 25.3 mm 1.14 x 0.51 x 1.00 in	29 x 13 x 25.3 mm 1.14 x 0.51 x 1.00 in
8A switching capability 5kV coil to contact isolation Low height	Industry Standard 10A switching capability 5kV coil to contact isolation	Industry Standard 5A switching capability 5kV coil to contact isolation	Industry Standard 16A switching capability 5kV coil to contact isolation




SPST-NO / SPDT	SPST-NO / SPST-NC / SPDT	DPST-NO / DPDT	SPST-NO / SPDT
AgCdO	AgCdO / AgSnO <sub>2</sub>	AgCdO / AgSnO <sub>2</sub>	AgCdO / AgSnO <sub>2</sub>
8A	10A	5A	16A
440V AC / 125V DC	240V AC / 28V DC	240V AC / 28V DC	240V AC / 28V DC
2,000VA / 150W	2,400VA / 280W	1,250VA / 150W	4,000VA / 450W
8A 250V AC 5A 30V DC	10A 240V AC 10A 28V DC	5A 240V AC 5A 28V DC	16A 240V AC 16A 28V DC

DC 5...60	DC 5...110 AC 12...220	DC 5...110 AC 12...220	DC 3...110 AC 12...220
0.22W / 0.25W	0.53W / 1.0VA	0.53W / 1.0VA	0.53W / 1.0VA

5,000VRMS	5,000VRMS	5,000VRMS	5,000VRMS
-	-	1,000VRMS	-
-40...+85°C	-55...+75°C	-55...+70°C	-55...+70°C
7 / 3 ms	20 / 10 ms	20 / 10 ms	20 / 10 ms
1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>
1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>

			
PCB	PCB	PCB	PCB
RoHS 	RoHS 	RoHS 	RoHS 
Omron: G6RN Tyco: RYII	Omron: G2R1 Tyco: RPII/1	Omron: G2R2 Tyco: RPII/2	Omron: G2R1-AE Tyco: RPII/1

### Series

	DM84	DM85	DM87
Click on photograph for data sheet			
Dimensions L x W x H	29 x 12.7 x 15.7 mm 1.14 x 0.5 x 0.62 in	29 x 12.7 x 15.7 mm 1.14 x 0.5 x 0.62 in	29 x 12.7 x 15.7 mm 1.14 x 0.5 x 0.62 in
Features & Applications	DPDT 8A switching capability Low Profile 12.7mm Reduced current coil	SPDT 16A Low Profile 12.7mm Reduced current coil	SPDT 12A Low Profile 12.7mm Reduced current coil

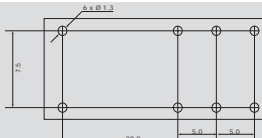
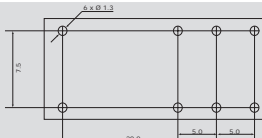
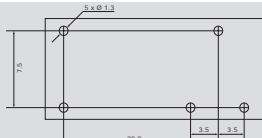









### Contacts

Contact form	DPST-NO / DPDT	SPST-NO / SPDT	SPST-NO / SPDT
Contact materials	AgNi / AgNi+Au5mm / AgSnO <sub>2</sub>	AgNi / AgNi+Au5mm / AgSnO <sub>2</sub>	AgNi / AgNi+Au5mm / AgSnO <sub>2</sub>
Max. switching current	8A	16A	12A
Max. switching voltage	400V AC / 300V DC	400V AC / 300V DC	400V AC / 300V DC
Max. switching power	2,000VA / 192W	4,000VA / 385W	3,000VA / 280W
Rated load (resistive)	8A 250V AC 8A 24V Dc	16A 250V AC 16A 24V DC	12A 250V AC 12A 24V DC

### Coil




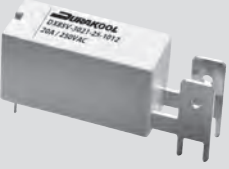
Rated voltage	DC 3...110 AC 12...240	DC 3...110 AC 12...240	DC 3...110 AC 12...240
Rated nominal power consumption	0.4...0.48W / 0.75VA	0.4...0.48W / 0.75VA	0.4...0.48W / 0.75VA

### General data

Dielectric strength (between coil and contacts)	5,000VRMS	5,000VRMS	5,000VRMS
(between contact poles)	2,500VRMS	-	-
Ambient temperature (operating)	-40...+70°C	-40...+70°C	-40...+70°C
Operate/release time (typical)	7 / 3 ms	7 / 3 ms	7 / 3 ms
Electrical life (operations)	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>
Mechanical life (operations)	3 x 10 <sup>7</sup>	3 x 10 <sup>7</sup>	3 x 10 <sup>7</sup>
PC Board layout			
Terminal type	PCB & SMT	PCB & SMT	PCB & SMT
Recognitions, directives, approvals	RoHS   	RoHS   	RoHS   
Cross references	Tyco: RT Omron: G2RL	Tyco: RT Omron: G2RL	Tyco: RT Omron: G2RL



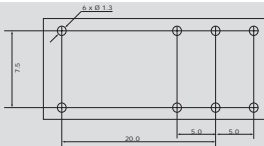
miniature pcb relays

DX84	DX85	DX87	DX85V
			
29 x 12.7 x 15.7 mm 1.14 x 0.5 x 0.62 in	29 x 12.7 x 15.7 mm 1.14 x 0.5 x 0.62 in	29 x 12.7 x 15.7 mm 1.14 x 0.5 x 0.62 in	41 x 12.7 x 15.7 mm 1.6 x 0.5 x 0.62 in
DPDT 8A switching capability Low Profile 12.7mm Reduced current coil	SPDT 16A Low Profile 12.7mm Reduced current coil	SPDT 12A Low profile 12.7mm Sensitive 250mW coil option	Fast-on power terminals High temperature 125°C 20A switching capability

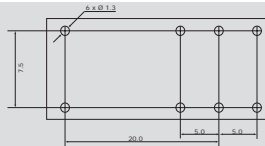
DPDT	SPDT	SPDT	SPST-NO
AgNi / AgSnO <sub>2</sub>	AgNi / AgSnO <sub>2</sub>	AgNi / AgSnO <sub>2</sub>	AgSnO <sub>2</sub>
8A	16A	10A / 12A	20A
440V AC / 125V DC	440V AC / 125V DC	440V AC / 125V DC	440V AC / 125V DC
2,000VA / 240W	4,000VA / 480W	3,000VA / 290W	5,000VA
8A 250V AC 8A 30V DC	16A 250V AC 16A 30V DC	12A 250V AC 12A 24V DC	20A 250V AC 20A 30VDC

DC 5...110	DC 5...110	DC 5...110	DC 5...110
0.4W	0.4W	0.25 / 0.4W	0.4W

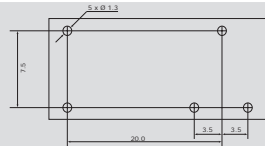
5,000VRMS	5,000VRMS	5,000VRMS	5,000VRMS
2,500VRMS	-	-	-
-40...+85°C	-40...+85°C	-40...+85°C	-40...+125°C
15 / 8 ms	15 / 8 ms	15 / 8 ms	15 / 8 ms
1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>
1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>



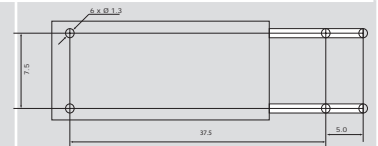
PCB



PCB



PCB



PCB

RoHS 

RoHS 

RoHS 

RoHS 

Tyco: RT  
Omron: G2RL

Tyco: RT  
Omron: G2RL

Tyco: RT  
Omron: G2RL

Tyco: RF

**Series**

DG34

DG38

DG38L

Click on photograph for data sheet



Dimensions L x W x H

31.7 x 26.9 x 19.1 mm  
1.25 x 1.06 x 0.75 in

32.5 x 27 x 20.5 mm  
1.27 x 1.06 x 0.81 in

32.2 x 27.5 x 28 mm  
1.27 x 1.08 x 1.10 in

Features & Applications

30A High Current  
Open, sealed and chassis  
ideal for heavy loads

High Current - up to 40A  
PCB mounting  
ideal for heavy loads

High Current - up to 45A  
Heavy loads - 10800VA  
Magnetic arc quench

**Contacts**

Contact form

SPST-NO, SPDT

SPST-NO, SPST-NC, SPDT

SPST-NO, SPDT

Contact materials

AgCdO, AgSnOInO, AgSnO<sub>2</sub>

AgCdO, AgSnO<sub>2</sub>

AgCdO, AgSnOInO

Max. switching current

100A  
80A  
60A  
40A  
30A  
20A  
10A

30A

30 / 40A

45A

Max. switching voltage

277V AC / 30V DC

240V AC / 110V DC

240V AC / 28V DC

Max. switching power

7,200VA / 900W

7,200VA / 1,100W

10,800VA / 1,260W

Rated load (resistive)

30A 277V AC  
30A 30V DC

40A 240V AC  
40A 14V DC

45A 240V AC  
45A 28VDC

**Coil**

Rated voltage

DC 5...110V

DC 3...110V  
AC 12...220V

DC 5...110V

Rated nominal power consumption

0.9W / 1.0W

0.6W / 0.9W / 2VA

0.9W

**General data**

Dielectric strength  
(between coil and contacts)  
(between contact poles)

1,500VRMS

4,000VRMS

1,500VRMS

-

-

-

Ambient temperature (operating)

-55...+85°C

-55...+125°C

-55...+85°C

Operate/release time (typical)

15 / 15 ms

15 / 10 ms

15 / 10 ms

Electrical life (operations)

1 x 10<sup>5</sup>

1 x 10<sup>5</sup>

1.5 x 10<sup>4</sup>

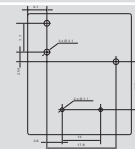
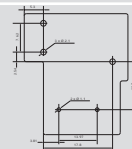
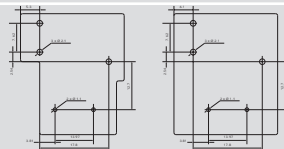
Mechanical life (operations)

1 x 10<sup>7</sup>

1 x 10<sup>7</sup>

1 x 10<sup>7</sup>

PC Board layout



Terminal type

PCB, Fast-on & PCB+Fast-on

PCB

PCB+Fast-on

Recognitions, directives, approvals

RoHS

RoHS

RoHS

Cross references

Tyco: T9A  
Omron: G8P

Tyco: T9A  
Omron: G8P

automotive relays

Series

DG17

DG19

DG20

Click on photograph for data sheet



Dimensions L x W x H

16 x 13.2 x 19.7 mm  
0.63 x 0.52 x 0.78 in

26.5 x 21.5 x 21.5 mm  
1.04 x 0.85 x 0.85 in

12.9 x 12 x 9.9 mm  
0.50 x 0.47 x 0.39 in

Features

6 different contact configurations  
Open frame or sealed

Open or enclosed options.  
USA & Europe styles  
DC motor control, flashers

Ultra Miniature  
Extremely light weight  
High current - 30A

Contacts

Contact form

SPST-NO, SPST-NC, SPDT,  
SPST-NO-DM, SPST-NC-DB,  
SPST-DB-DM

SPST-NO, SPST-NC, SPDT

SPST-NO, SPDT

Contact materials

AgNi0.15, AgNi, AgSn0In0, AgCdO

AgNi0.15, AgNi, AgSn0In0, AgCdO

AgNi0.15, AgSn0In0

Max. switching current

100A  
80A  
60A  
40A  
30A  
20A  
10A

15A (100A inrush)

45A (180A inrush)

30A (100A inrush)

Max. switching voltage

16V DC

30V DC

16V DC

Max. switching power

1,200W

2,160W

1,200W

Rated load (resistive)

NO: 15A / NC: 10A

NO: 45A / NC: 30A

NO: 30A / NC: 25A

Coil

Rated voltage

DC 6, 12, 24V

DC 6, 12, 24

DC 6, 10, 12

Rated nominal power consumption

1.1W

1.5W

0.55W

General data

Dielectric strength  
(between coil and contacts)  
(between contact poles)

500V<sub>RMS</sub>

500V<sub>RMS</sub>

500V<sub>RMS</sub>

Ambient temperature (operating)

-40...+85°C

-40...+125°C

-40...+105°C

Operate/release time (typical)

3 / 1.5 ms

5 / 3 ms

3 / 1.5 ms

Electrical life (operations)

2 x 10<sup>5</sup>

2 x 10<sup>5</sup>

1 x 10<sup>5</sup>

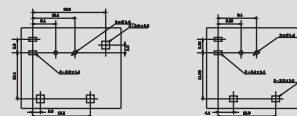
Mechanical life (operations)

1 x 10<sup>7</sup>

1 x 10<sup>7</sup>

1 x 10<sup>7</sup>

PC Board layout



Terminal type

PCB

PCB

PCB

Recognitions, directives, approvals

RoHS

RoHS

RoHS

Cross references

Tyco: Mini K (V23072)  
P&B: VKM

Tyco: K (V23076)  
P&B: VKP  
Omron: G8PE

Tyco: Micro K (V23086)

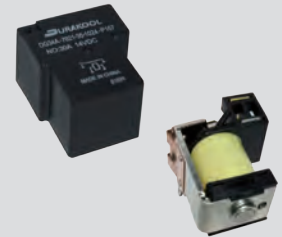
### Series

DG27

DG31A

DG34A

Click on photograph for data sheet



Dimensions L x W x H

23.5 x 12.9 x 9.5 mm  
0.93 x 0.51 x 0.37 in

19 x 15.5 x 15 mm  
0.75 x 0.61 x 0.59 in

31.7 x 26.9 x 19.1 mm  
1.25 x 1.06 x 0.75 in

Features & Applications

Sub-miniature 2 x DG20  
up to 2 x 30A switching  
ideal for DC motor reversing

Low cost  
Industry standard footprint  
20A switching capability

Low cost  
30A switching capability  
Optimised for DC

### Contacts

Contact form

2 x SPST-NO, 2 x SPDT

SPST-NO, SPDT

SPST-NO, SPST-NC, SPDT

Contact materials

AgNi0.15, AgSn0In0

AgNi0.15, AgNi, AgSn0In0, AgCdO

AgNi0.15, AgNi, AgSn0In0, AgCdO

Max. switching current

100A  
80A  
60A  
40A  
30A  
20A  
10A

30A (100A inrush)

20A

30A (60A inrush)

Max. switching voltage

16V DC

16V DC

75V DC

Max. switching power

1,200W

320W

360W

Rated load (resistive)

NO: 30A / NC: 25A

20A

NO: 30A / NC: 15, 20A

### Coil

Rated voltage

DC 6, 10, 12V

DC 6, 12, 24V

DC 6, 12, 24V

Rated nominal power consumption

0.55W

0.8W

0.9W, 1W

### General data

Dielectric strength  
(between coil and contacts)  
(between contact poles)

500V<sub>RMS</sub>

1,000V<sub>RMS</sub>

500V<sub>RMS</sub>

-

-

-

Ambient temperature (operating)

-55...+105 °C

-40...+85 °C

-40...+125 °C

Operate/release time (typical)

3 / 1.5 ms

10 / 5 ms

9 / 7 ms

Electrical life (operations)

1 x 10<sup>5</sup>

1 x 10<sup>5</sup>

2 x 10<sup>5</sup>

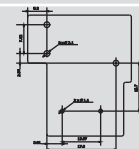
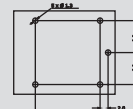
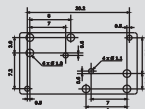
Mechanical life (operations)

1 x 10<sup>7</sup>

1 x 10<sup>7</sup>

1 x 10<sup>7</sup>

PC Board layout



Terminal type

PCB

PCB

PCB

Recognitions, directives, approvals

RoHS

RoHS

RoHS

Cross references

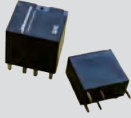



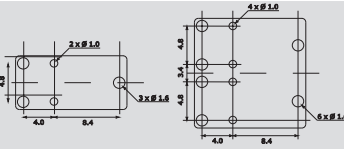
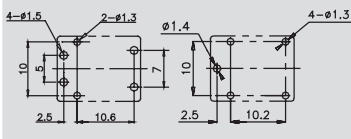
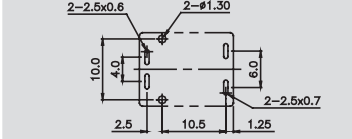
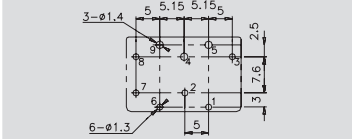
Tyco: Double Micro K (V23086)

Tyco: T72M  
Panasonic: CQ  
Omron: G8SN

Tyco: T91 / T9AR  
Panasonic: JT-N



automotive relays

DG60	DG81	DG81C	DG08
			
14.3 x 7.5 x 13.8 mm (single) 14.3 x 14.7 x 13.8 mm (twin)	15.7 x 12.3 x 13.7 mm 0.62 x 0.48 x 0.54 in	15.7 x 12.3 x 13.8 mm 0.62 x 0.48 x 0.54 in	24.3 x 15.8 x 14.0 mm 0.96 x 0.62 x 0.55 in
Ultra miniature Twin & single relay types	High current capabilities Extended temperature 125°C Double make configurations	High current 2 x 35A 1 Form U contact	2 x DG81 High current switching Ideal for DC motor control
SPDT, 2 x SPDT	SPST-NO, SPST-NC, SPDT, SPST-NO-DM	SPST-NO-DM	2 x SPDT
AgSnO <sub>2</sub>	AgNi0.15, AgSnOInO, AgCdO	AgNi0.15, AgSnOInO, AgCdO	AgNi0.15, AgNi, AgSnOInO, AgCdO
25A	30A (60A inrush)	2 x 30A (35A inrush)	2 x 35A (60A inrush)
16V DC	16V DC	16V DC	16VDC
300W	360W	2 x 360W (2 min)	420W (10 min)
25A	35A / 2 x 10A	2 x 30A	2 x 35A (10 min)
DC 12V	DC 6...24V	DC 6...12V	DC 6...24V
0.64W, 0.8W, 1.1W	0.6W, 0.8W	0.85W	0.6W, 0.8W
500V <sub>RMS</sub>	500V <sub>RMS</sub>	500V <sub>RMS</sub>	500V <sub>RMS</sub>
-	-	-	-
-40...+105°C	-40...+125°C	-40...+85°C	-30...+85°C
2.5 / 1.2 ms	10 / 5 ms	10 / 5 ms	10 / 5 ms
1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>
1 x 10 <sup>6</sup>	1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>
			
PCB	PCB	PCB	PCB
RoHS	RoHS	RoHS	RoHS
Omron: G8N, G8ND, G8NW	Fujitsu: FBR51 / FBR52 Panasonic: JJM Omron: G8QN	Fujitsu: FBR53ND10-Y-HW Panasonic: JJM-DM Omron: G8SE	Fujitsu: FBR510-520

### Series

Series	DG82	DG90	DG56A
Click on photograph for data sheet			
Dimensions L x W x H	23.7 x 15.7 x 26.0 mm 0.93 x 0.62 x 1.02 in (exc. terminals)	22.5 x 15.2 x 15.7 mm 0.89 x 0.60 x 0.62 in (exc. terminals)	26 x 26 x 24 mm 1.02 x 1.02 x 0.94 in (exc. terminals)
Features & Applications	Micro - ISO style 40A continuous current PCB mounting option	Micro-ISO style Reduced height 20A continuous current	Mini-ISO style 40A continuous current Plug-in, PCB & Bracket

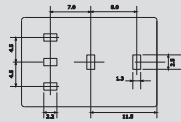
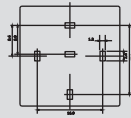
### Contacts

Contact form	SPST-NO, SPST-NC, SPDT	SPST-NO	SPST-NO, SPDT
Contact materials	AgNi0.15, AgNi, AgSn0In0, AgCdO	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>
Max. switching current	100A 80A 60A 40A 30A 20A 10A		
	40A (120A inrush)	20A (40A inrush)	40A (120A inrush)
Max. switching voltage	16V DC (current dependent)	16V DC	30V DC (current dependent)
Max. switching power	1,440W	240W	1,440W
Rated load (resistive)	NO: 40A / NC: 30A	20A	NO: 40A / NC: 30A





### Coil

Rated voltage	DC 6, 12, 24V	DC 12	DC 6, 12, 24
Rated nominal power consumption	1.2W, 1.5W	1.2W	1.6W

### General data

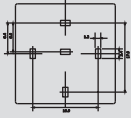
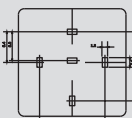
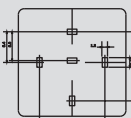
Dielectric strength (between coil and contacts) (between contact poles)	500V <sub>RMS</sub> -	500V <sub>RMS</sub> -	500V <sub>RMS</sub> -
Ambient temperature (operating)	-55...+125°C	-40...+120°C	-40...+85°C
Operate/release time (typical)	39 / 7 ms		7 / 5 ms
Electrical life (operations)	2 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>
Mechanical life (operations)	1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>
PC Board layout		See Durakool Socket Catalogue for suitable sockets	
Terminal type	PCB & Plug-in	Plug-in only	PCB & Plug-in
Recognitions, directives, approvals	RoHS	RoHS	RoHS
Cross references	Tyco: Micro A Tyco: VFM		Tyco: VF4 (V23134)

automotive relays

DG56B	DG4F	DG85A	DG85B
			
26 x 26 x 24 mm 1.02 x 1.02 x 0.94 in (exc. terminals)	36 x 25.2 x 21 mm 1.42 x 0.99 x 0.83 in (exc. terminals)	28 x 28 x 25 mm 1.10 x 1.10 x 1 in (exc. terminals)	28 x 28 x 25 mm 1.10 x 1.10 x 1 in (exc. terminals)
Mini-ISO style 60A continuous current Plug-in, PCB & Bracket	Mini ISO style Integrated Auto Fuse Holder Plug-in with Bracket option	Mini-ISO style 40A continuous current Plug-in, PCB & Bracket	Mini-ISO style 60A continuous current Plug-in, PCB & Bracket

SPST-NO, SPDT	SPST-NO	SPST-NO, SPDT	SPST-NO, SPDT
AgSnO <sub>2</sub>	AgSnOInO	AgCdO, AgNi0.15, AgNi 90/10, AgSnOInO	AgCdO, AgNi0.15, AgNi 90/10, AgSnOInO
60A ( 120A inrush)	30A	40A (120A inrush)	60A (120A inrush)
30V DC (current dependent)	14V DC	30VDC (current dependent)	30VDC (current dependent)
1,440W	420W	1440W	1440W
NO: 60A / NC: 40A	30A	NO: 40A / NC: 30A	NO: 60A / NC: 40A

DC 6, 12, 24	DC 6, 12, 24	DC 6, 12, 24	DC 6, 12, 24
1.6W	1.8W	1.6W	1.6W

500V <sub>RMS</sub>	550V <sub>RMS</sub>	500V <sub>RMS</sub>	500V <sub>RMS</sub>
-	-	-	-
-40...+85°C	-40...+125°C	-40...+125°C	-40...+125°C
7 / 5 ms	7 / 5 ms	7 / 2 ms	7 / 2 ms
1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>
1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>
	See Durakool Socket Catalogue for suitable sockets		
PCB & Plug-in	Plug-in only	PCB & Plug-in	PCB & Plug-in
RoHS	RoHS	RoHS	RoHS
Tyco: F7 (V23134)		Tyco: VF4 (V23134) Panasonic: CB	Tyco: VF4 Omron: G8JN

### Series

DG85C

DG85D

DG85F

Click on photograph for data sheet



Dimensions L x W x H

28 x 28 x 25 mm  
1.10 x 1.10 x 1 in (exc. terminals)

28 x 28 x 25 mm  
1.10 x 1.10 x 1 in (exc. terminals)

28 x 28 x 25 mm  
1.10 x 1.10 x 1 in (exc. terminals)

Features & Applications

Mini-ISO style  
80A continuous current  
Plug-in, PCB & Bracket

Mini-ISO style  
100A continuous current  
Plug-in, PCB & Bracket

Mini-ISO style  
Optimised for 24V DC  
60A continuous current

### Contacts

Contact form

SPST-NO, SPDT

SPST-NO

SPST-NO, SPDT

Contact materials

AgCdO, AgNi0.15, AgNi 90/10, AgSn0InO

AgCdO, AgNi0.15, AgNi 90/10, AgSn0InO

AgCdO, AgNi0.15, AgNi 90/10, AgSn0InO

Max. switching current

100A  
80A  
60A  
40A  
30A  
20A  
10A

80A ( 240A inrush)

100A (240A inrush)

60A (120A inrush)

Max. switching voltage

30VDC (current dependent)

30VDC (current dependent)

24VDC

Max. switching power

2,880W

2,880W

1,440W

Rated load (resistive)

NO: 80A / NC: 60A

100A

60A

### Coil

Rated voltage

DC 6, 12, 24V

DC 6, 12, 24V

DC 6, 12, 24V

Rated nominal power consumption

1.6W

1.6W

2.3W

### General data

Dielectric strength  
(between coil and contacts)  
(between contact poles)

500V<sub>RMS</sub>

500V<sub>RMS</sub>

500V<sub>RMS</sub>

Ambient temperature (operating)

-40...+125°C

-40...+125°C

-40...+125°C

Operate/release time (typical)

7 / 2 ms

7 / 2 ms

7 / 2 ms

Electrical life (operations)

1 x 10<sup>5</sup>

1 x 10<sup>5</sup>

5 x 10<sup>4</sup>

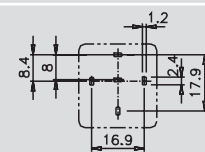
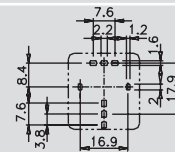
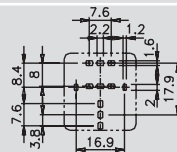
Mechanical life (operations)

1 x 10<sup>7</sup>

1 x 10<sup>7</sup>

5 x 10<sup>5</sup>

PC Board layout



Terminal type

PCB & Plug-in

PCB & Plug-in

PCB & Plug-in

Recognitions, directives, approvals

RoHS

RoHS

RoHS

Cross references

Tyco: VF7



## industrial relays

### Series

D2

D3

D4

Click on photograph for data sheet



Dimensions L x W x H

27.5 x 21.2 x 35.6 mm  
1.08 x 0.83 x 1.4 in

27.5 x 21.2 x 35.6 mm  
1.08 x 0.83 x 1.4 in

27.5 x 21.2 x 35.6 mm  
1.08 x 0.83 x 1.4 in

Features & Applications

12A switching  
Test lever and LED  
Industry standard pin relay

10A switching  
Test lever and LED  
Industry standard pin relay

6A switching  
Test lever and LED  
Industry standard relay

### Contacts

Contact form

DPDT

3PDT

4PDT

Contact materials

AgNi, AgNi/Au 0.2µm, AgNi/Au 5µm

AgNi, AgNi/Au 0.2µm, AgNi/Au 5µm

AgNi, AgNi/Au 0.2µm, AgNi/Au 5µm

Max. switching current

35A  
30A  
25A  
20A  
15A  
10A  
5A

12A

10A

6A

Max. switching voltage

250V AC, 250V DC

250V AC, 250V DC

250V AC, 250V DC

Max. switching power

3,000VA / 288W

2,500VA / 240W

1,500VA / 145W

Rated load (resistive)

12A 250V AC  
12A 24V DC

10A 250V AC  
10A 24V DC

6A 250V AC  
6A 24V DC

### Coil

Rated voltage

DC 5...220V  
AC 6...240V

DC 5...220V  
AC 6...240V

DC 5...220V  
AC 6...240V

Rated nominal power consumption

DC 0.9W, AC 1.6VA

DC 0.9W, AC 1.6VA

DC 0.9W, AC 1.6VA

### General data

Dielectric strength  
(between coil and contacts)  
(between contact poles)

2,500V AC

2,500V AC

2,500V AC

2,500V AC

2,500V AC

2,500V AC

Ambient temperature (operating)

AC: -40...+55°C  
DC: -40...+70°C

AC: -40...+55°C  
DC: -40...+70°C

AC: -40...+55°C  
DC: -40...+70°C

Operate/release time (typical) AC

AC: 10 / 8, DC: 13 / 3 ms

AC: 10 / 8, DC: 13 / 3 ms

AC: 10 / 8, DC: 13 / 3 ms

Electrical life (operations)

1 x 10<sup>5</sup>

1 x 10<sup>5</sup>

1 x 10<sup>5</sup>

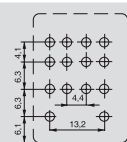
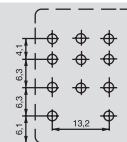
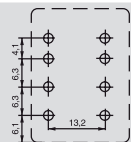
Mechanical life (operations)

2 x 10<sup>7</sup>

2 x 10<sup>7</sup>

2 x 10<sup>7</sup>

PC Board layout



Terminal type

Plug-in, PCB

Plug-in, PCB

Plug-in, PCB

Recognitions, directives, approvals

RoHS

RoHS




RoHS

Cross references

Omron: MY2

Omron: MY4

### Series

	DX2	DX4	DY
Click on photograph for data sheet			
Dimensions L x W x H	27 x 21 x 36.5 mm 1.06 x 0.83 x 1.44 in	27 x 21 x 36.5 mm 1.06 x 0.83 x 1.44 in	28 x 21 x 36 mm 1.1 x 0.83 x 1.42 in
Features Applications	Industry standard relay 10A switching LED and test lever	Industry standard relay 5A switching, 3PDT option LED & Test Lever	16A SPDT / 10A DPDT General purpose relay Industry standard style

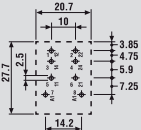

### Contacts

Contact form	DPDT	4PDT	SPDT, DPDT
Contact materials	AgNi	AgNi	AgCdO
Max. switching current	35A 30A 25A 20A 15A 10A 5A		
Max. switching voltage	240V AC / 28V DC	240V AC / 28V DC	277V AC / 28V DC
Max. switching power	2,400VA / 280W	1,200VA / 140W	3,840VA / 450W
Rated load (resistive)	10A 240VAC 10A 28V DC	5A 240V AC 5A 28V DC	16A 240V AC 16A 28V DC





### Coil

Rated voltage	DC 6...220V AC 6...380V	DC 6...220V AC 6...380V	DC 6...220V AC 6...380V
Rated nominal power consumption	0.9W / 1.2VA	0.9W / 1.2VA	0.9W / 1.2VA

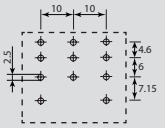
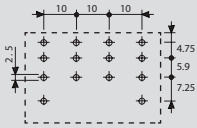





### General data

Dielectric strength (between coil and contacts)	1,500V <sub>RMS</sub>	1,500V <sub>RMS</sub>	1,500V <sub>RMS</sub>
(between contact poles)	1,000V <sub>RMS</sub>	1,000V <sub>RMS</sub>	1,000V <sub>RMS</sub>
Ambient temperature (operating)	-55...+70°C	-55...+70°C	-40...+70°C
Operate/release time (typical)	20 / 20 ms	20 / 20 ms	20 / 20 ms
Electrical life (operations)	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>
Mechanical life (operations)	1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>
PC Board layout	See Durakool Socket Catalogue for suitable PCB sockets	See Durakool Socket Catalogue for suitable PCB sockets	
Terminal type	Plug-in	Plug-in	PCB, Plug-in
Recognitions, directives, approvals	RoHS	RoHS	RoHS 
Cross references	Omron: MY2	Omron: MY4	Omron: LY1 & LY2 Tycos: PCLH

industrial relays

DY	DY	DY2	D15
			
28 x 31 x 36 mm 1.1 x 1.22 x 1.42 in	28 x 41 x 36 mm 1.1 x 1.61 x 1.42 in	27.5 x 21.1 x 34.5 mm 1.08 x 0.83 x 1.36 in	35 x 35 x 54.4 mm 1.38 x 1.38 x 2.14 in
10A 3PDT PCB & Plug-in styles Industry standard relay	10A 4PDT PCB & Plug-in styles Industry standard realy	12A DPDT Plug-in and chassis mounting 2.5 kV isolation	10A DPDT & 3PDT Octal & 11 pin LED & Test lever

3PDT	4PDT	DPDT	DPDT, 3PDT
AgCdO	AgCdO	AgNi, AgCdO	AgNi, AgNi/Au 0.2µm, AgNi/Au 5µm
10A	10A	12A	10A
277V AC / 28V DC	277V AC / 28V DC	250V AC / 250V DC	250V AC / 250V DC
2,400VA / 280W	2,400VA / 280W	3,000VA / 360W	2500VA / 240W,
10A 240V AC 10A 28V DC	10A 240V AC 10A 28V DC	12A 250V AC 12A 30V DC	10A 250V AC 10A 24V DC
DC 6...220V AC 6...380V	DC 6...220V AC 6...380V	DC 5...220V AC 6...240V	DC 6...220V AC 6...240V
0.9W / 1.2VA	0.9W / 1.2VA	0.9W / 1.6VA	1.5W / 2.8VA

1,500V <sub>RMS</sub>	1,500V <sub>RMS</sub>	2,500V <sub>RMS</sub>	2,500V <sub>RMS</sub>
1,000V <sub>RMS</sub>	1,000V <sub>RMS</sub>	2,500V <sub>RMS</sub>	2,000V <sub>RMS</sub>
-40...+70°C	-40...+70°C	-40...+55°C	-40...+55°C
20 /20 ms	20 /20 ms	15 / 10 ms	AC: 12 / 10 ms DC: 18 / 7 ms
1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	2 x 10 <sup>5</sup>
1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>	1 x 10 <sup>7</sup>	2 x 10 <sup>7</sup>
		See Durakool Socket Catalogue for suitable sockets	See Durakool Socket Catalogue for suitable sockets
PCB, Plug-in	PCB, Plug-in	Plug-in	Plug-in
RoHS 	RoHS 	RoHS 	RoHS  
Omron: LY3	Omron: LY4	Omron: LY2 Tycos: PCLH	Omron: MK Tycos: MT

### Series

D15 4P

DX15

DA

Click on photograph for data sheet



Dimensions L x W x H

35 x 42.5 x 54.5 mm  
1.38 x 1.67 x 2.14 in

35 x 35 x 54.4 mm  
1.38 x 1.38 x 2.14 in

35.5 x 35.5 x 42 mm  
1.4 x 1.4 x 1.65 in

Features & Applications

10A 4PDT  
Optional LED & test feature  
Plug-in

10A DPDT & 3PDT  
Octal & 11 pin  
LED & Test lever

Compact 16A DPDT relay  
Chassis or PCB mounting  
3mm contact gap

### Contacts

Contact form

4PDT

DPDT, 3PDT

DPDT, DPST-NO, DPST-NC

Contact materials

AgCdO, AgCdO/Au 0.2µm, AgCdO/Au 5µm

AgNi

AgNi

Max. switching current

35A  
30A  
25A  
20A  
15A  
10A  
5A

10A

10A

16A

Max. switching voltage

250V AC / 250V DC

250V AC / 30V DC

400V AC / 30V DC

Max. switching power

2,500VA / 240W

2,500VA / 300W

4,000VA

Rated load (resistive)

10A 250V AC  
10A 24V DC

10A 250V AC  
10A 24V DC

16A 250V AC  
16A 24V DC

### Coil

Rated voltage

DC 6...220V  
AC 6...240V

DC 6...220V  
AC 6...240V

DC 6...110V  
AC 6...230V

Rated nominal power consumption

1.5W / 2.8VA

2W / 3.5AV

1.3W / 2.2VA

### General data

Dielectric strength  
(between coil and contacts)  
(between contact poles)

2,500V<sub>RMS</sub>

1,500V<sub>RMS</sub>

3,000V<sub>RMS</sub>

2,000V<sub>RMS</sub>

1,200V<sub>RMS</sub>

2,500V<sub>RMS</sub>

Ambient temperature (operating)

-40...+55°C

-40...+70°C

Operate/release time (typical)

AC: 12 / 10 ms DC: 18 / 7 ms

20 / 20 ms

10 ms / 12 ms

Electrical life (operations)

2 x 10<sup>5</sup>

1 x 10<sup>5</sup>

1 x 10<sup>5</sup>

Mechanical life (operations)

2 x 10<sup>7</sup>

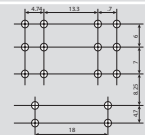
1 x 10<sup>7</sup>

5 x 10<sup>6</sup>

PC Board layout

See Durakool Socket  
Catalogue for suitable  
sockets

See Durakool Socket  
Catalogue for suitable  
sockets



Terminal type

Plug-in

Plug-in

PCB, Plug-in

Recognitions, directives, approvals

RoHS

RoHS


RoHS

Cross references

Omron: MK  
Tyco: MT



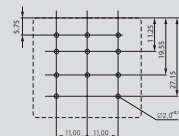
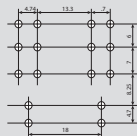
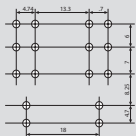
industrial relays





DA	DA	DB16	DUC
			
35.5 x 35.5 x 42 mm 1.4 x 1.4 x 1.65 in	35.5 x 35.5 x 42 mm 1.4 x 1.4 x 1.65 in	42 x 44 x 66 mm 1.65 x 1.73 x 2.6 in	38.6 x 36.1 x 45.5 mm 1.52 x 1.42 x 1.79 in
Compact 20A SPST relay Custom versions >3mm contact gap	Compact 30A SPST-NO relay Custom versions Chassis or PCB mounting	16A 3PDT chassis mounting Suitable for 3 phase Compact style	16A SPDT, DPDT & 3PDT Industry standard style 3mm contact gap option

SPST-NC, SPST-NO+SPST-NC	SPST-NO	SPDT, DPDT, 3PDT SPST-NO, DPST-NO, 3PST-NO	SPDT, 3PDT, DPST-NO, 3PST-NO, 3mm Gap DPST-NO, 3PST-NO
AgNi	AgNi	AgNi	AgNi, AgCdO
20A	30A	16A	16A
400V AC / 30V DC	400V AC / 30V DC	400V AC	400V AC / 400V DC
5,000VA	7,500VA	4,000VA	4,000VA
20A 250V AC 20A 24V DC	30A 250V AC 30A 24V DC	16A 250V AC 16A 24V DC	16A 250V AC, 10A 380V AC 16A 24V DC




DC 6...110V AC 6...230V	DC 6...110V AC 6...230V	DC 6...110V AC 6...400V	DC 6...110V AC 6...380V
1.3W / 2.2VA	1.3W / 2.2VA	2W / 3.9VA	

4,000V <sub>RMS</sub>	4,000V <sub>RMS</sub>	2,500V <sub>RMS</sub>	2,500V <sub>RMS</sub>
2,500V <sub>RMS</sub>	2,500V <sub>RMS</sub>	2,500V <sub>RMS</sub>	2,500V <sub>RMS</sub>
-40...+70°C	-40...+70°C	-10...+55°C	-40...+70°C
10 ms / 12 ms	10 ms / 12 ms	15 ms / 12 ms	AC: 12 / 10, DC: 12 / 7 ms
1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>
5 x 10 <sup>6</sup>	5 x 10 <sup>6</sup>	1 x 10 <sup>6</sup>	1 x 10 <sup>7</sup>



PCB, Plug-in	PCB, Plug-in	Fast-on Terminals	PCB, Plug-in
RoHS 	RoHS 	RoHS 	RoHS 
			Tyco (Schrack): RM Tyco (P&B):

### Series

Series	DB30	DG36	DLR
Click on photograph for data sheet			
Dimensions L x W x H	42 x 44 x 66 mm 1.65 x 1.73 x 2.6 in	52.3 x 34.5 x 30.5 mm 2.06 x 1.36 x 1.2 in	52.5 x 33.5 max x 53 mm 2.07 x 1.32 max x 2.09 in
Features & Applications	Up to 30A 3PDT 3 phase power switching Chassis mounting	30A DPST-NO PCB or Chassis mounting 4kV isolation	Up to 30A switching Screw terminals, PCB or Socket mounting

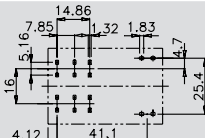
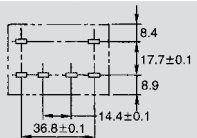



### Contacts

Contact form	SPST-NO, DPST-NO, 3PST-NO SPDT, DPDT, 3PDT	DPST-NO, DPDT	SPST-NO, DPST-NO
Contact materials	AgNi	AgCdO, AgSnO <sub>2</sub>	AgCdO
Max. switching current	35A 30A 25A 20A 15A 10A 5A	30A (DPST-NO)	20/25A 30A (SPST-NO)
Max. switching voltage	400V AC	277V AC	250V AC
Max. switching power	7,500VA	7,500VA	4,400VA...6,600VA
Rated load (resistive)	30A 250V AC 30A 24V DC	30A 277V AC (DPST-NO) 20A 28V DC (DPST-NO)	20A...30A 220V AC



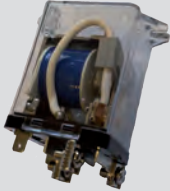
### Coil

Rated voltage	DC 6...110V AC 6...400V	DC 6...110V AC 24...277V	DC 6...100V AC 6...240V
Rated nominal power consumption	2W / 3.9VA	1.7W / 4VA	1.9W / 2VA

### General data

Dielectric strength (between coil and contacts) (between contact poles)	2,500V <sub>RMS</sub>	4,000V <sub>RMS</sub>	4,000V <sub>RMS</sub>
	2,500V <sub>RMS</sub>	2,000V <sub>RMS</sub>	2,000V <sub>RMS</sub>
Ambient temperature (operating)	-10...+55°C	DC: -55...+85°C	-20...+85°C
Operate/release time (typical)	15 / 12 ms	15 / 10 ms	30 / 30 ms
Electrical life (operations)	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>
Mechanical life (operations)	1 x 10 <sup>6</sup>	5 x 10 <sup>6</sup>	5 x 10 <sup>6</sup>
PC Board layout			
Terminal type	Fast-On Terminals	PCB, Fast-On Terminals	PCB, Fast-On, Screw Terminals
Recognitions, directives, approvals	RoHS 	RoHS 	RoHS 
Cross references		Tyco P&B: T92	Omron: G7L

industrial relays

DT	HHC71-4	HHC71C	HHC71E
			
60 x 48 x 70 mm 2.36 x 1.89 x 2.75 in	60 x 53.5 x 67.5 mm 2.4 x 2.1 x 2.65 in	40 x 46 x 60.2 mm 1.57 x 1.81 x 2.37 in	47 x 54 x 67 mm 1.85 x 2.1 x 2.64 in
High Voltage (5kV) Ceramic Body Suitable for defibrillators	80A 3PDT Chassis mounting DC motor control	50A SPDT Chassis mounting Low cost & reliable	80A DPDT Chassis mounting Screw terminals

SPST-NO, DPST-NO, DPDT	SPST-NO, SPST-NC, SPDT 3PST-NO, 3PST-NC, 3PDT	SPST-NO, SPST-NC, SPDT	SPST-NO, SPST-NC, SPDT DPST-NO, DPST-NC, DPDT
AgSnO <sub>2</sub>	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>	AgSnO <sub>2</sub>
	80A	50A	80A
10A			
5,000V AC	250V AC / 24V DC	250V AC / 24V DC	250V AC / 24V DC
5,000VA	20,000VA / 1920W	12,500VA / 1200W	20,000VA / 1920W
10A 500VAC	80A 250V AC 80A 24V DC	50A 250V AC 50A 24V DC	80A 250V AC 80A 24V DC

DC 6...110V AC 12...400V	DC 6...110V AC 6...380V	DC 6...110V AC 6...220V	DC 6...110V AC 6...380V
5.5W		2W / 6.5VA	3.6W

8,000V <sub>RMS</sub>	2,500V <sub>RMS</sub>	2,500V <sub>RMS</sub>	2,500V <sub>RMS</sub>
2,000V <sub>RMS</sub>	1,500V <sub>RMS</sub>	1,500V <sub>RMS</sub>	1,500V <sub>RMS</sub>
-10...+50°C	-40...+70°C	-40...+70°C	-40...+70°C
40 / 20 ms	25 / 25 ms	25 / 25 ms	25 / 25 ms
1 x 10 <sup>5</sup>	2 x 10 <sup>4</sup>	5 x 10 <sup>4</sup>	2 x 10 <sup>4</sup>
5 x 10 <sup>5</sup>	1 x 10 <sup>6</sup>	1 x 10 <sup>6</sup>	1 x 10 <sup>6</sup>
Fast-On Terminals	Solder Tag Terminals	Screw Terminals	Screw Terminals
RoHS 	RoHS 	RoHS 	RoHS 

### Series

HHC71F

HHC71G

HHC71G-2

Click on photograph for data sheet



Dimensions L x W x H

59 x 64 x 62 / 86 x 68 x 65.5 mm  
2.3 x 2.5 x 2.4 / 3.4 x 2.7 x 2.6 in

48 x 48.5 x 64.5 mm  
1.89 x 1.91 x 2.54 in

47.5 x 60 x 68 mm  
1.87 x 2.36 x 2.68 in

Features & Application

Up to 100A switching  
Fully enclosed  
Contactor alternative

Up to 60A / 250VAC  
DIN rail or chassis mounting  
Screw terminals

Up to 40A DPDT  
DIN rail or chassis mounting  
Solder tags

### Contacts

Contact form

SPST-NO, SPST-NC, SPDT  
DPST-NO, DPST-NC, DPDT

SPST-NO, SPST-NC, SPDT

DPST-NO, DPST-NC, DPDT

Contact materials

AgSnO<sub>2</sub>

AgSnO<sub>2</sub>

AgSnO<sub>2</sub>

Max. switching current

100A  
80A  
60A  
40A  
30A  
20A  
10A

80A DPST, DPDT  
100A SPST, SPDT

60A

40A

Max. switching voltage

250V AC / 24V DC

250V AC / 24V DC

250V AC / 24V DC

Max. switching power

25,000VA / 2,400W

15,000VA / 1,440W

10,000VA / 960W

Rated load (resistive)

SPST: 100A / DPST: 80A

60A / 250V AC  
60A / 24V DC

40A / 250V AC  
40A / 24V DC

### Coil

Rated voltage

DC 6...110V  
AC 6...360V

DC 6...110V  
AC 6...220V

DC 6...110V  
AC 6...220V

Rated nominal power consumption

2W / 17.5VA

2W / 6.5VA

2W / 6.5VA

### General data

Dielectric strength  
(between coil and contacts)  
(between contact poles)

2,500V<sub>RMS</sub>

2,500V<sub>RMS</sub>

2,500V<sub>RMS</sub>

1,500V<sub>RMS</sub>

1,500V<sub>RMS</sub>

1,500V<sub>RMS</sub>

Ambient temperature (operating)

-40...+70°C

-40...+70°C

-40...+70°C

Operate/release time (typical)

25 / 25 ms

25 / 25 ms

25 / 25 ms

Electrical life (operations)

2 x 10<sup>4</sup>

5 x 10<sup>4</sup>

5 x 10<sup>4</sup>

Mechanical life (operations)

5 x 10<sup>6</sup>

1 x 10<sup>6</sup>

1 x 10<sup>6</sup>

Terminal type

Screw Terminals

Screw Terminals

Solder Tags

Recognitions, directives, approvals

RoHS





RoHS

RoHS

Cross references




industrial interface relays

D2RS	DP6-1P	DP6-1T	DP6-OC
			
	80 x 6.2 x 93.8 mm 3.15 x 0.24 x 3.69 in	80 x 6.2 x 93.8 mm 3.15 x 0.24 x 3.69 in	80 x 6.2 x 93.8 mm 3.15 x 0.24 x 3.69 in
DIN Rail Mounting Relay with blade terminals Integral LED and test feature	DIN Rail Mounting Only 6.2mm wide LED & screw terminals	DIN Rail Mounting Only 6.2mm wide AC Solid-state output	DIN Rail Mounting Only 6.2mm wide DC solid-state output

SPDT, DPDT		SPDT	SPST-NO	SPST-NO
AgNi		AgSnO <sub>2</sub> , AgSnO <sub>2</sub> / Au 3µm	TRIAC	TRANSISTOR
10A				
5A				
4A				
3A	5A DPDT	6A		
2A	10A SPDT			
1A				
			1.2A	0.5A
250V AC / 30V DC		250V AC / 220V DC	400V AC	70V DC
1250VA 150W / 2,500VA 300W		1,500VA / 144W	480VA	35W
5A / 250V AC // 10A / 250VAC 5A / 30V DC // 10A / 30V DC		6A / 250V AC 6A / 24V DC	1.2A / 400V AC	0.5A / 70V DC

DC 6...115V AC 6...230V	DC 12...230V AC 24...230V	DC 5-32V Control AC 24-230V Control	DC 5-32V Control AC 24-230V Control
0.53W /	0.3...1.6W / 0.35...2.2VA	0.3...1.6W / 0.3...1.6VA	0.3...1.0W / 0.3...1.0VA

5,000V <sub>RMS</sub>	4,000V <sub>RMS</sub>	4,000V <sub>RMS</sub>	3,000V <sub>RMS</sub>
1,000V <sub>RMS</sub>	1,000V <sub>RMS</sub>	Not Applicable	Not Applicable
-40...+65°C	-40...+40/50/60°C	-40...+55°C	-40...+55°C
20 / 10 ms	AC: 7/15 ms DC: 6/10 ms	10ms / 10ms	
1 x 10 <sup>5</sup>	1 x 10 <sup>5</sup>		
1 x 10 <sup>7</sup>	2 x 10 <sup>7</sup>	Not Applicable	Not Applicable
See Data Sheet for suitable DIN Rail sockets			
Plug-in only	Screw Terminals	Screw Terminals	Screw Terminals
RoHS	RoHS 	RoHS	RoHS

### Series

30C20

30C25

30C30

30C40

Click on photograph for data sheet



Dimensions L x W x H

83.8 x 53.3 x 76.2 (max) mm  
3.3 x 2.1 x 3.0 in

83.8 x 53.3 x 76.2 (max) mm  
3.3 x 2.1 x 3.0 in

83.8 x 53.3 x 76.2 (max) mm  
3.3 x 2.1 x 3.0 in

83.8 x 53.3 x 76.2 (max) mm  
3.3 x 2.1 x 3.0 in

Features

20FLA rating  
Robust  
Arc covers standard  
Variety of terminations.  
Fan motors, heating

25FLA rating  
Robust  
Arc covers standard  
Variety of terminations.  
HVAC

30FLA rating  
Robust  
Arc covers standard  
Variety of terminations.  
Heating elements,  
lighting

40FLA rating  
Robust  
Arc covers standard  
Variety of terminations.  
Motors, power supplies,  
heating, HVAC

### Contacts

Contact form

SPST-NO-DM, DPST-NO-DM,  
3PST-NO-DM, 4PST-NO-DM

SPST-NO-DM, DPST-NO-DM,  
3PST-NO-DM, 4PST-NO-DM

SPST-NO-DM, DPST-NO-DM,  
3PST-NO-DM, 4PST-NO-DM

SPST-NO-DM, DPST-NO-DM,  
3PST-NO-DM, 4PST-NO-DM

Contact materials

AgCdO, AgSnOInO

AgCdO, AgSnOInO

AgCdO, AgSnOInO

AgCdO, AgSnOInO

Resistive load (250,000 operations)

30A

35A

40A

50A

FLA rating

20A

25A

30A

40A

LRA rating  
(Locked Rotor Amps)

120V AC

120A

150A

150A (180A 4 Pole)

200A (240A 3&4P)

240/277VAC

120A

150A

150A (180A 4 Pole)

200A (240A 3&4P)

480V AC

100A

125A

125A (150A 4 Pole)

200A

600V AC

80A

100A

100A (100A 4 Pole)

200A (160A 3&4P)

Max. switching voltage

600V AC

600V AC

600V AC

600V AC

### Coil

Rated voltage

AC 24...480V

AC 24...480V

AC 24...480V

AC 24...480V

Rated nominal power consumption

VA 5...9

VA 5...9

VA 5...9

VA 5...9

### General data

Dielectric strength  
(between coil and contacts)  
(between contact poles)

2200V AC

2200V AC

2200V AC

2200V AC

2200V AC

2200V AC

2200V AC

2200V AC

Ambient temperature (operating)

-40...+65°C

-40...+65°C

-40...+65°C

-40...+65°C

Operate/release time

20 / 10 ms

20 / 10 ms

20 / 10 ms

20 / 10 ms

Terminations

Coil Terminals

Dual 0.250" QC

Dual 0.250" QC

Dual 0.250" QC

Dual 0.250" QC

Power Terminals

#10-32 Screw or  
#14-4 AWG box lug  
+ dual 0.25" QC

#10-32 Screw or  
#14-4 AWG box lug  
+ dual 0.25" QC or  
quad 0.25" QC

#10-32 Screw or  
#14-4 AWG box lug  
+ dual 0.25" QC or  
quad 0.25" QC

#10-32 Screw or  
#14-4 AWG box lug  
+ dual 0.25" QC or  
quad 0.25" QC

Recognitions, directives, approvals

RoHS 

RoHS 

RoHS 

RoHS 

definite purpose contactors

Series	30C50	30C60	30C75	30C90
Click on photograph for data sheet				
Dimensions L x W x H	102 x 71 x 92 mm 4.02 x 2.79 x 3.62 in	102 x 71 x 92 mm 4.02 x 2.79 x 3.62 in	127 x 95.3 x 103 mm 5 x 3.75 x 4.05 in	127 x 95.3 x 103 mm 5 x 3.75 x 4.05 in
Features	50FLA rating Robust Arc covers standard Variety of terminations	60FLA rating Robust Arc covers standard Variety of terminations	75FLA rating Robust Arc covers standard Variety of terminations	90FLA rating Robust Arc covers standard Variety of terminations

**Contacts**

Contact form	DPST-NO-DM, 3PST-NO-DM	DPST-NO-DM, 3PST-NO-DM	DPST-NO-DM, 3PST-NO-DM	DPST-NO-DM, 3PST-NO-DM
Contact materials	AgCdO, AgSnOInO	AgCdO, AgSnOInO	AgCdO, AgSnOInO	AgCdO, AgSnOInO
Resistive load (250,000 operations)	65A	75A	93A	120A
FLA rating	50A	60A	75A	90A
LRA rating (Locked Rotor Amps)	120V AC 300A 240/277VAC 300A 480V AC 250A 600V AC 200A	300A 300A 250A 240A (200A 3 Pole)	450A 450A 375A 300A	540A 540A 450A 360A
Max. switching voltage	600V AC	600V AC	600V AC	600V AC

**Coil**

Rated voltage	AC 24...480V	AC 24...480V	AC 24...480V	AC 24...480V
Rated nominal power consumption	VA 13(60Hz) / 18 (50Hz)	VA 13(60Hz) / 18 (50Hz)	VA 27(60Hz) / 42 (50Hz)	VA 27(60Hz) / 42 (50Hz)

**General data**

Dielectric strength (between coil and contacts)	2200V AC	2200V AC	2200V AC	2200V AC
(between contact poles)	2200V AC	2200V AC	2200V AC	2200V AC
Ambient temperature (operating)	-40...+65°C	-40...+65°C	-40...+65°C	-40...+65°C
Operate/release time	30 / 15 ms	30 / 15 ms	40 / 25 ms	20 / 10 ms
Terminations				
Coil Terminals	Dual 0.250" QC	Dual 0.250" QC	Dual 0.250" QC	Dual 0.250" QC
Power Terminals	#1/4-20 Screw or #14-2 AWG box lug + dual 0.25" QC	#1/4-20 Screw or #14-2 AWG box lug + dual 0.25" QC	#1/4-20 Screw or #14-1 AWG box lug + dual 0.25" QC	#1/4-20 Screw or #14-1 AWG box lug + dual 0.25" QC
Recognitions, directives, approvals	RoHS 	RoHS 	RoHS 	RoHS 

Due to our constant development policy, American Electronic Components Inc. reserves the right to introduce changes to the data and characteristics of the products. The devices shall be operated by skilled personnel in accordance with the regulations in force pertaining to electrical systems. The technical data is of informational nature. Thus, American Electronic Components Inc. does not accept any liability for inappropriate use of the presented products.

# DURAKOOL

Durakool and American Electronic Components Inc., specializes in the design and manufacture of electronic, electrical, and mechanical components. AEC's products are shipped worldwide for a diverse set of markets which include automotive, consumer electronics, appliance, industrial control and outdoor power equipment manufacturers.

For more information, contact the AEC Sales Department toll free [USA] 888-847-6552.

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- G-force switches
- float switches
- liquid level switches & sensors
- hermetic seals & feed-thru's
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Mercury Contactors



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