



- Industry standard footprint, now with terminal
- Blades with no holes for better mounting in sockets
- Integral LED (Red for AC, Green for DC coils)
- Locking test lever with press feature (Blue for DC, Red for AC coils)
- Welded (not soldered) coil connections for greater reliability



RoHS  
Compliant ✓

## Contacts

Contact arrangement	DPDT (2C/O)
Contact material	AgNi(90/10)
Max. switching voltage	277VAC, 30VDC
Min. breaking capacity	0.3W
Rated load (resistive - cos φ=1)	AC1 DPDT:10A/240VAC
	DC1 DPDT:10A/28VDC
Initial resistance	≤ 100mΩ

## Coil

Nominal voltage	DC 6...110V, AC 6...240V
Must release voltage	DC ≥0.1Un, AC ≥0.3Un
Operating range of supply voltage	See tables 1 & 2
Rated power consumption	DC 0.9W, AC 1.2VA

## Insulation

Insulation resistance	≥100 MΩ at 500VDC, 50% RH	
Dielectric strength	coil to contact	1500V <sub>rms</sub> , 1min (50Hz), 1mA
	contact to contact	1000V <sub>rms</sub> , 1min (50Hz), 1mA
	between adjacent contacts	1200V <sub>rms</sub> , 1min (50Hz), 1mA

## General Data

Operating time	typ.	≤15ms
Release time	typ.	≤10ms
Electrical life	ops.	1 x 10 <sup>5</sup>
Mechanical life	ops.	1 x 10 <sup>7</sup>

## Environmental

Environmental protection	IP40	
Ambient temperature	operating	-40 to +70°C
	storage	-55 to +70°C
Shock resistance	10G, 11ms	
Vibration resistance	DA 1.0mm 10-55Hz	
Dimensions	L x W x H	27 x 21 x 36.5mm
Weight	approx.	≤35g

## Ordering Code

D X 2 - 2 0 1 2 - 2 3 - 1 0 1 2 - W T L

### Series

**Contact material**  
20: AgNi(90/10)

**Contact arrangement**  
12: DPDT (2C/O)

**Environmental protection IP40**  
2: In cover

**Mounting & terminations**  
3: For plug-in sockets only

### Options

Blank: Without LED & test lever (to special order only)  
WTL: LED indication of coil energization & test lever (standard)

**Coil code:**  
See tables  
1 & 2

DC Coil Data (Green LED)

Table 1

Coil code	Nominal voltage (VDC)	Coil resistance $\Omega \pm 10\%$	Power consumption (mW)	Must operate voltage max. (VDC)	Must release voltage min. (VDC)	Max. allowable voltage (VDC)
1006	6	40	900	4.5	0.6	6.6
1012	12	160	900	9.0	1.2	13.2
1024	24	640	900	18.0	2.4	26.4
1048	48	2600	900	36.0	4.8	52.8
1110	110	13450	900	82.5	11.0	121.0

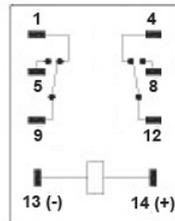
AC Coil Data at 50/60Hz (Red LED)

Table 2

Coil code	Nominal voltage (VAC)	Rated coil current (mA) $+15/-20\%$	Power consumption approx. (VA)	Must operate voltage max. (VAC)	Must release voltage min. (VAC)	Max. allowable voltage (VAC)
3006	6	10.5	1.2	4.8	1.8	6.6
3012	12	42	1.2	9.6	3.6	13.2
3024	24	168	1.2	19.2	7.2	26.4
3048	48	672	1.2	38.4	14.4	52.8
3110	110	3530	1.2	88.0	33.0	121.0
3120	120	4200	1.2	96.0	36.0	132.0
3230	230	15430	1.2	176.0	66.0	242.0

Wiring Diagram

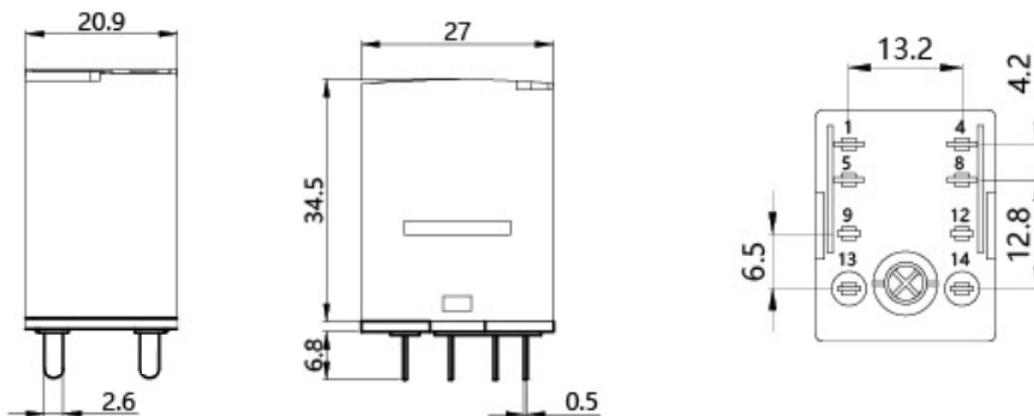
Fig. 1

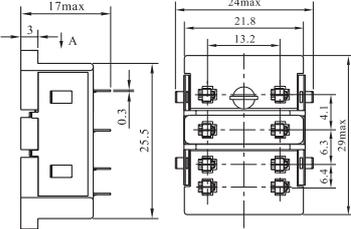
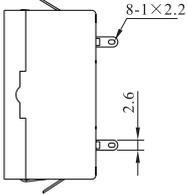
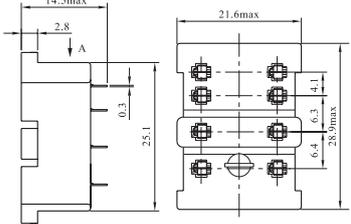
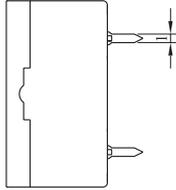
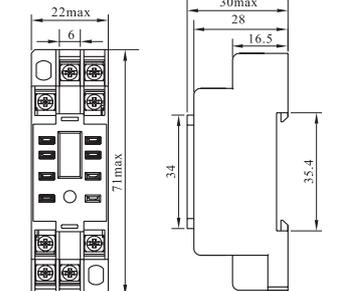
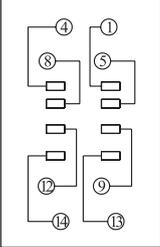
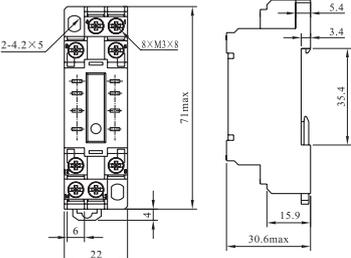
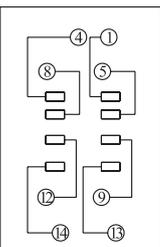
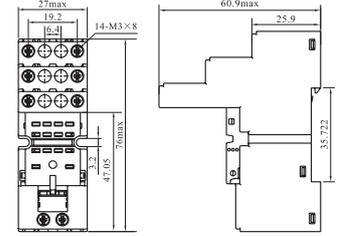
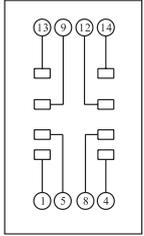


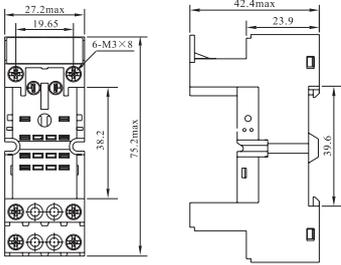
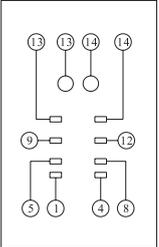
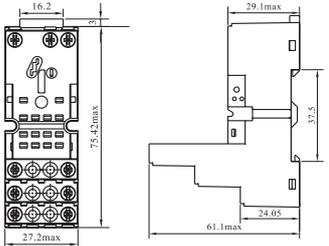
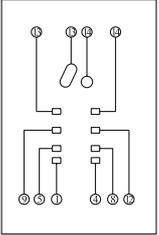
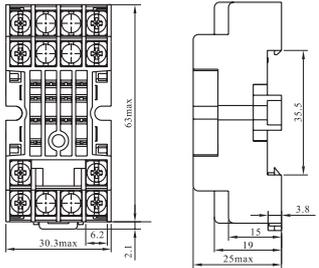
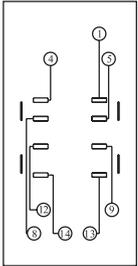
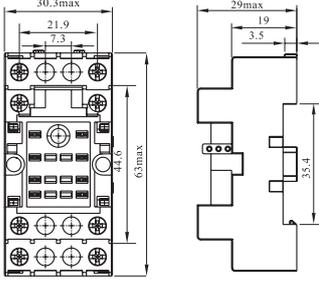
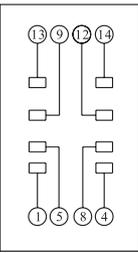
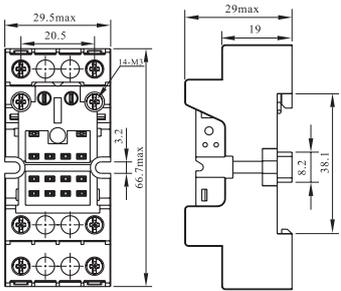
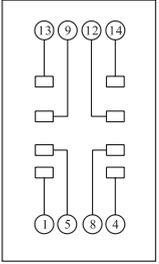
Bottom View

Overall Dimensions mm

Fig. 2



Sockets for the DX2 relay	Parameters	Outline Drawing	Wiring Diagram
 <p><b>D18F-2Z-A1</b></p>	<p>Rated voltage: 250VAC            Rated current: 7A            Insulation voltage: <math>\geq 3KV</math>            Socket material: PBT (V1/V0)            Contacts spring material: QSn6.5-0.1</p> <p>Metal retaining clip (page 7): JH-001RC</p> <p>Module: No</p>		
 <p><b>D18F-2Z-A2</b></p>	<p>Rated voltage: 250VAC            Rated current: 5A            Insulation voltage: <math>\geq 3KV</math>            Socket material: PA66+GF (V1/V0)            Contacts spring material: QSn6.5-0.1</p> <p>Metal retaining clip (page 7): JH-001RC</p> <p>Module: No</p>		
 <p><b>D18F-2Z-C1</b></p>	<p>Rated voltage: 250VAC            Rated current: 7A            Insulation voltage: <math>\geq 3KV</math>            Socket material: PA46-S250F6 (V1/V0)            Contacts spring material: QSn6.5-0.1</p> <p>Metal retaining clip (page 7): JH-006RC</p> <p>Module: No</p>		
 <p><b>D18F-2Z-C2</b></p>	<p>Rated voltage: 250VAC            Rated current: 7A            Insulation voltage: <math>\geq 3KV</math>            Socket material: PA66+GF (V1/V0)            Contacts spring material: QSn6.5-0.1</p> <p>Metal retaining clip (page 7): JH-006RC</p> <p>Module: No</p>		
 <p><b>D18F-2Z-C3</b></p>	<p>Rated voltage: 300VAC            Rated current: 10A            Insulation voltage: <math>\geq 3KV</math>            Socket material: PA66+GF (V1/V0)            Contacts spring material: QSn6.5-0.1</p> <p>Plastic ejector clip (page 7): JH-36PS-A            Metal retaining clip (page 7): JH-36MS-B</p> <p>Module: No</p>		

Sockets for the DX2 relay	Parameters	Outline Drawing	Wiring Diagram
 <p><b>D18F-2Z-C4</b></p>	<p>Rated voltage: 300VAC            Rated current: 10A            Insulation voltage: <math>\geq 3KV</math>            Socket material: PA66+GF (V1/V0)            Contacts spring material: QSn6.5-0.1</p> <p>Plastic ejector clip (page 7): JH-36PS-A            Metal retaining clip (page 7): JH-36MS-B</p> <p>Module: DM***-BK (pages 5-7)</p>		
 <p><b>D18F-2Z-C5</b></p>	<p>Rated voltage: 300VAC            Rated current: 10A            Insulation voltage: <math>\geq 3KV</math>            Socket material: PA66+GF (V1/V0)            Contacts spring material: QSn6.5-0.1</p> <p>Plastic ejector clip (page 7): JH-36PS-A            Metal retaining clip (page 7): JH-36MS-B</p> <p>Module: DM***-BK (pages 5-7)</p>		
 <p><b>D18F-2Z-C6</b></p>	<p>Rated voltage: 250VAC            Rated current: 5A            Insulation voltage: <math>\geq 3KV</math>            Socket material: PA66+GF (V1/V0)            Contacts spring material: QSn6.5-0.1</p> <p>Metal retaining clip (page 7): JH-505RC</p> <p>Module: No</p>		
 <p><b>D18F-2Z-C7</b></p>	<p>Rated voltage: 250VAC            Rated current: 5A            Insulation voltage: <math>\geq 3KV</math>            Socket material: PA66+GF (V1/V0)            Contacts spring material: QSn6.5-0.1</p> <p>Metal retaining clip (page 7): JH-36MS-B</p> <p>Module: No</p>		
 <p><b>D18F-2Z-C8</b></p>	<p>Rated voltage: 250VAC            Rated current: 5A            Insulation voltage: <math>\geq 3KV</math>            Socket material: PA66+GF (V1/V0)            Contacts spring material: QSn6.5-0.1</p> <p>Plastic ejector clip (page 7): JH-36PS-A            Metal retaining clip (page 7): JH-36MS-B</p> <p>Module: DM***-BK (pages 5-7)</p>		

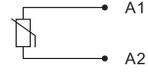
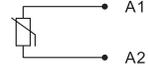
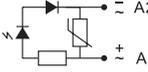
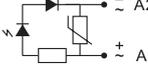
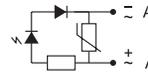
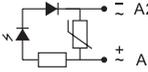
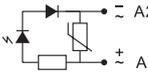
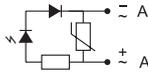


## Modules for Durakool Sockets - Round Pin Plug-in

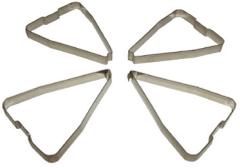
Part No	Socket Types	Circuit	Description
DM41G-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Green LED with diode, 6 - 24VDC, A1+
DM42R-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Red LED with diode, 24 - 60VDC, A1+
DM42G-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Green LED with diode, 24 - 60VDC, A1+
DM43R-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Red LED with diode, 110 - 230VDC, A1+
DM43G-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Green LED with diode, 110 - 230VDC, A1+
DM51-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		RC Network, 6 to 24V
DM52-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		RC Network, 24V to 60V
DM53-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		RC Network, 110 to 230V
DM61R-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Red LED, 6 - 24VAC/DC
DM61G-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Green LED, 6 - 24VAC/DC
DM62R-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Red LED, 24 - 60VAC/DC
DM62G-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Green LED, 24 - 60VAC/DC
DM63R-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Red LED, 110 - 230VAC/DC
DM63G-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Green LED, 110 - 230VAC/DC
DM71-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Varistor 24VAC

All accessories are upon request only.

## Modules for Durakool Sockets - Round Pin Plug-in

Part No	Socket Types	Circuit	Description
DM72-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Varistor 115VAC
DM73-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Varistor 230VAC
DM91R-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Red LED with varistor, 6 - 24VAC/DC
DM91G-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Green LED with varistor, 6 - 24VAC/DC
DM92R-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Red LED with varistor, 24 - 60VAC/DC
DM92G-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Green LED with varistor, 24 - 60VAC/DC
DM93R-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Red LED with varistor, 110 - 230VAC/DC
DM93G-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Green LED with varistor, 110 - 230VAC/DC
DM103-BK	D14F Series -C2, C3, C5, C9; D18F Series -C4, C5, C8, C9		Resistor 110 - 230VAC

## Retaining Springs and Ejector Clips for Durakool Sockets

 <p>Matching Socket(s): <b>D18F-2Z-A1/A2</b></p> <p><b>JH-001RC</b></p>	 <p>Matching Socket(s): <b>D18F-2Z-C1/C2</b></p> <p><b>JH-006RC</b></p>	 <p>Matching Socket(s): <b>D18F-2Z-C4/C5/ C7/C8/C9</b></p> <p><b>JH-36MS-B</b></p>
 <p>Matching Socket(s): <b>D18F-2Z-C3/C4/ C5/C8/C9</b></p> <p><b>JH-36PS-A</b></p>	 <p>Matching Socket(s): <b>D18F-2Z-C6</b></p> <p><b>JH-505RC</b></p>	

All accessories are upon request only.