



CII Brand

High Performance Relays & Specialty Products

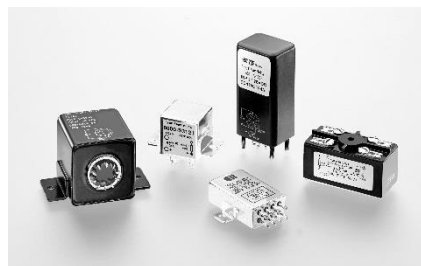


EVERY CONNECTION COUNTS



The HPG Products Advantage

- The most complete High Performance Relay and Contactor offering in the industry
- CII brand holds more Mil-Spec QPL's than any other manufacturer
 - M28776, M39016, M5757, M6106, M83536, M83726, MS27245, MS27247 & MS27418
 - Only manufacturer qualified to P level!
- Continuous Product Development on all three brands
- SWaP benefits among the best in the Industry
- Dedicated In-House and Field Application Support
- Value Added Power Distribution Assembly capability utilizing the TE breadth of products and in-house design, development, qualification and manufacturing expertise



CII Summary

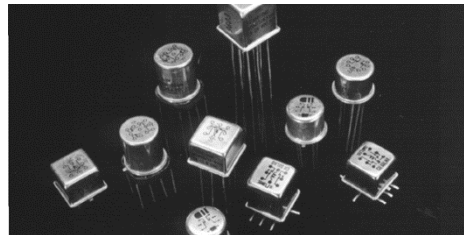
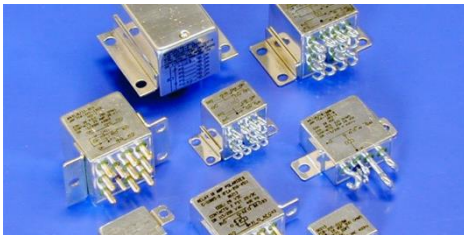
TE Connectivity manufactures an expansive product line of high performance electromechanical relays and specialty products. They are designed for low-level to 50 amps switching in many rigorous aerospace, military electronics, and commercial applications. If you need military approvals, TE has one of the largest listings of QPL relays in the Industry.

QPL Qualifications

- MIL-PRF-39016
- MIL-PRF-28776
- MIL-PRF-6106
- MIL-R-5757
- MIL-PRF-83536
- MIL-PRF-83726
- MS27245
- MS27247
- MS27418

High Performance Relays

- Crystal Can Relays
- Fifth-Size Relays
- T0-5 / Minigridd Relays
- Midrange Relays



Specialty Products

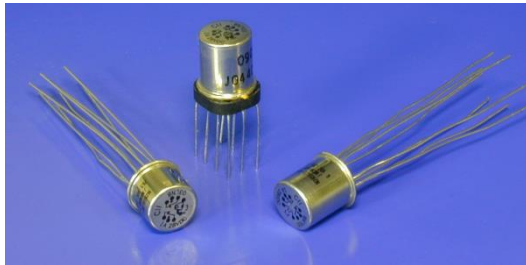
- Electropneumatic Timers
- MDR Rotary Relays
- Custom Solenoids
- Custom / Legacy Relays



Mil Spec Product Offering

T0-5 / Minigrid Relays

Low level to 1 Amp switching
Qualified to MIL-PRF-39016 & MIL-PRF-28776



Product Features

- Hermetically sealed*
- High shock and vibration ratings*
- Standard or sensitive coils*
- Spreader pads available*
- Excellent RF switching*
- Suppression & protection diodes*
- Transistor driven versions available*
- MOSFET versions available*



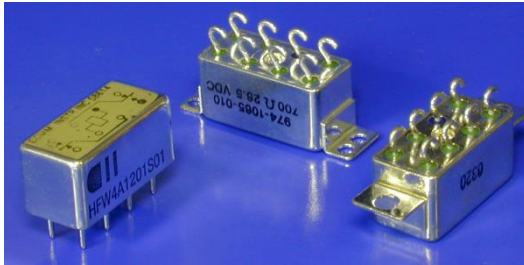
Series	Contacts	Rating	Coil Voltage	Mil Spec	Level
J1MA	SPDT	1 Amp	5 to 26.5 Vdc	M39016/7	L, M, P
JMA	DPDT	1 Amp	5 to 30 Vdc	M39016/9	L, M, P
J1MS	SPDT	1 Amp	5 to 40 Vdc	M39016/10	L, M, P
JMS	DPDT	1 Amp	5 to 48 Vdc	M39016/11	L, M, P
JMAD	DPDT	1 Amp	5 to 26.5 Vdc	M39016/15	L, M, P
JMSD	DPDT	1 Amp	5 to 48 Vdc	M39016/16	L, M, P
JMGA	DPDT	1 Amp	5 to 26.5 Vdc	M39016/17	L, M, P
JMGAD	DPDT	1 Amp	5 to 26.5 Vdc	M39016/18	L, M, P
JMGADD	DPDT	1 Amp	5 to 26.5 Vdc	M39016/19	L, M, P
JMADD	DPDT	1 Amp	5 to 26.5 Vdc	M39016/20	L, M, P
JMSDD	DPDT	1 Amp	5 to 48 Vdc	M39016/21	L, M, P
J1MAD	SPDT	1 Amp	5 to 26.5 Vdc	M39016/23	L, M, P
J1MADD	SPDT	1 Amp	5 to 26.5 Vdc	M39016/24	L, M, P
J1MSD	SPDT	1 Amp	5 to 40 Vdc	M39016/25	L, M, P
J1MSDD	SPDT	1 Amp	5 to 40 Vdc	M39016/26	L, M, P
JMGS	DPDT	1 Amp	5 to 48 Vdc	M39016/41	L, M, P
JMGSD	DPDT	1 Amp	5 to 48 Vdc	M39016/42	L, M, P
JMGSD	DPDT	1 Amp	5 to 48 Vdc	M39016/42	L, M, P
JMGSD	DPDT	1 Amp	5 to 48 Vdc	M39016/43	L, M, P
JMAT	DPDT	1 Amp	5 to 26.5 Vdc	M28776/1	L, M, P
JMST	DPDT	1 Amp	5 to 48 Vdc	M28776/3	L, M, P
J1MST	SPDT	1 Amp	5 to 40 Vdc	M28776/4	L, M, P
J1MAT	SPDT	1 Amp	5 to 26.5 Vdc	M28776/5	L, M, P
JMGAT	DPDT	1 Amp	5 to 26.5 Vdc	M28776/6	L, M
JMGST	DPDT	1 Amp	5 to 26.5 Vdc	M28776/7	L, M

**TE is the only P level
qualified manufacturer**

Mil Spec Product Offering

Crystal Can Relays

Up to 10 Amps switching
Qualified to MIL-PRF-39016 & MIL-R-5757



Product Features

- Hermetically sealed*
- High shock and vibration ratings*
- Standard, sensitive & bifilar coils*
- Latching versions available*
- Multi-pole versions*
- Optional terminals*
- Optional mounting styles*
- Excellent RF switching*

Series	Contacts	Rating	Coil Voltage	Mil Spec	Level
HFW	DPDT	2 Amps	5 to 48 Vdc	M39016/6	L, M, P
HMB	DPDT	2 Amps	6 to 26.5 Vdc	M39016/22	L, M, P
3SAM	DPDT	2 Amps	6 to 24 Vdc	M39016/32	Qualified
MFW	DPDT	2 Amps	3.5 to 53 Vdc	M39016/34	Qualified
SR	4DPT	2 Amps	6 to 26.5 Vdc	M39016/40	Qualified
HMS	DPDT	2 Amps	5 to 36 Vdc	M39016/44	L, M, P
RD6	6PDT	2 Amps	6 to 26.5 Vdc	M5757/1	Qualified
RD4	4PDT	2 Amps	6 to 26.5 Vdc	M5757/7	Qualified
O2	DPDT	2 Amps	6 to 26.5 Vdc	M5757/8	Qualified
FW	DPDT	3 Amps	6.3 to 110 Vdc	M5757/10	Qualified
3SAT	DPDT	2 Amps	2 to 45 Vdc	M5757/13	Qualified
B07	DPDT	10 Amps	6 to 120 Vdc	M5757/23	Qualified
B07	DPDT	10 Amps	6 to 120 Vdc	MS27245	Qualified
B07	DPDT	10 Amps	6 to 120 Vdc	MS27247	Qualified

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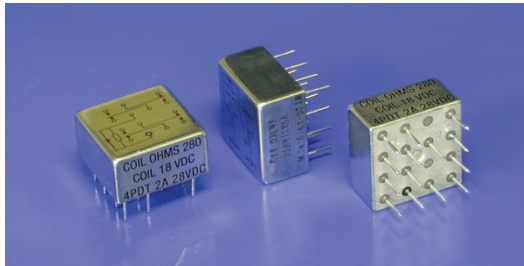
Mounting Terminal Options

- Socket Pins
- Solder Pins
- Solder Hooks

Mil Spec Product Offering

Fifth-Size Relays

Up to 2 Amps switching
Qualified to MIL-PRF-39016

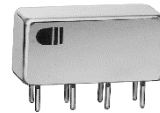


Product Features

- Hermetically sealed*
- Low profile package*
- 150 Grid pin spacing*
- Latching versions available*
- High shock and vibration ratings*
- Optional terminals*
- Optional mounting styles*
- RF designs available*
- Diode and transistor driven versions*

Series	Contacts	Rating	Coil Voltage	Mil Spec	Level
3SBC	DPDT	2 Amps	5 to 36 Vdc	M39016/13	L, M, P
3SBH	4PDT	2 Amps	6 to 36 Vdc	M39016/14	L, M
3SBM	4PDT	2 Amps	6 to 26.5 Vdc	M39016/31	L, M
3SBM	4PDT	2 Amps	6 to 26.5 Vdc	M39016/35	L, M
3SBM	4PDT	2 Amps	6 to 26.5 Vdc	M39016/36	L, M
3SBC	DPDT	2 Amps	5 to 36 Vdc	M39016/37	L, M, P
3SBC	DPDT	2 Amps	5 to 36 Vdc	M39016/38	L, M, P
3SBH	4PDT	2 Amps	6 to 36 Vdc	M39016/53	L, M
3SBH	4PDT	2 Amps	6 to 36 Vdc	M39016/54	L, M

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Standard Versions

- M39016/13, /14, /31

Single Diode Versions

- M39016/35, /37, /53

Dual Diode Versions

- M39016/36, /38, /54

Mil Spec Product Offering

Midrange Relays

Up to 25 Amps switching
Qualified to MIL-PRF-6106 & MIL-PRF-83536



Product Features

- Hermetically sealed*
- All welded construction*
- High shock and vibration ratings*
- Diode suppression available*
- AC versions available (not QPL)*
- Optional terminals*
- Optional mounting styles*

Series	Contacts	Rating	Coil Voltage	Mil Spec	Level
FCA-125	SPDT	25 Amps	6 to 48 Vdc	M6106/19	L, M
FCB-205	DPDT	5 Amps	6 to 48 Vdc	M83536/1	L, M
FCB-205	DPDT	5 Amps	6 to 48 Vdc	M83536/2	L, M
FCB-405	4PDT	5 Amps	6 to 48 Vdc	M83536/5	L, M
FCB-405	4PDT	5 Amps	6 to 48 Vdc	M83536/6	L, M
FCA-210	SPDT	10 Amps	6 to 48 Vdc	M83536/9	L, M
FCA-210	SPDT	10 Amps	6 to 48 Vdc	M83536/10	L, M
FCA-410	4PDT	10 Amps	6 to 48 Vdc	M83536/15	L, M
FCA-410	4PDT	10 Amps	6 to 48 Vdc	M83536/16	L, M
FCA-325	3PDT	25 Amps	6 to 48 Vdc	M83536/32	L
FCA-325	3PDT	25 Amps	6 to 48 Vdc	M83536/33	L
FCA-125	SPDT	25 Amps	6 to 48 Vdc	M83536/36	L
FCA-125	SPDT	25 Amps	6 to 48 Vdc	M83536/37	L



Mounting Terminal Options

- Socket Pins
- Solder Pins
- Solder Hooks

Time Delay Relays

Up to 10 Amps switching
Qualified to MIL-PRF-83726



Product Features

- Delay on operate, fixed – M83726/28*
- Delay on release, fixed – M83726/29*
- Delay on operate, adjustable - M83726/30*
- Delay on release, adjustable – M83726/31*
- Delay range is 0.01 to 500 seconds*

Recent Product Releases

FCA-150 Series

*Miniature Power Relay – 1” Cube
SPST/NO (DM) 50 Amp*



- Designed to the requirements of Mil-PRF-6106
- 50 amps switching in 1 inch cube package
- Normally Open & Normally Closed Versions
- FCAC-150 with additional SPDT Aux Contact
- Rated for 28VDC & 115VAC/400Hz Loads
- -70°C to +125°C Operating Temp Range
- Hermetically Sealed
- Bridges gap between Relays & Contactors

FC-325 Series

*Designed for Harsh Loads
3PST/NO (DM) 25 Amp*



- Qualified to MS27418 Specifications
- Excellent for harsh inductive, motor & lamp loads – 60Hz AC Rated!
- All welded construction vs. Competition's solder seal
- Efficient double make – double break design
- Bridge product between CII AC Relays & Hartman AC Contactors

“Smallest 50 Amp Aerospace Relay in the Industry”