



## RELAYS

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## Fujitsu Components Power Relays for PWB Applications from 3A to 20A

Fujitsu Component Limited produces electronic components, including electromechanical relays, for the worldwide market. Fujitsu has been manufacturing relays, its largest product line, for 80 years now, supplying them to many of the world's top electronics companies. Fujitsu still uses the Takamisawa relay brand name and P/N designators, especially on some popular power relays. All Fujitsu factories are ISO 9000 certified.



Fujitsu FTR-H3 series power relays

### Features ▶

- Focus on PCB power relays with less than 20A of current
- Power relays produced in Fujitsu cost-competitive China production factories
- Short lead times for samples and mass production to fill your requirements

### Benefits ▶

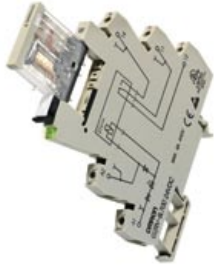
- Longer switching operation life and higher reliability for superior system performance
- Higher reliability for outstanding performance over product life
- Lower power consumption for reduced power demand and heat

### Applications ▶

- Programmable logic controllers
- Power-supply switching for TVs, set-top boxes, VCRs, DVDs, etc.
- Factory automation, timing devices, testing equipment, robotics, irrigation controls
- HVAC (heating, ventilation, air conditioning) temperature controllers
- Lamp and motor controls

### Product Specifications ▶

Product Series	Features	Dimensions L x W x H (mm)	Contact Arrangement	Contact Material	Contact Rating	Coil Voltage (V)	Nominal Coil Power (mW)	Dielectric Strength (VAC)	Mounting Method
NY	Slim and higher surge	20.1 x 5.0 x 17.5	SPST-NO	Silver alloy	3A 30 VDC or 250 VAC	4.5-24	120	3000	PCB
FTR-MY	Slim and lower power	20.0 x 5.0 x 12.0	SPST-NO	Silver alloy	5A 30 VDC or 250 VAC	4.5-24	110	3000	PCB
FTR-LY	Slim and 6A SPDT	28.0 x 5.0 x 15.0	SPST-NO, SPDT	Silver alloy	6A 250 VAC	5-48	170-217	4000	PCB
JS	Low profile and 10A maximum carry	29.0 x 10.0 x 12.5	SPST-NO, SPDT	Silver alloy	8A 24 VDC or 250 VAC	5-60	220-290	5000	PCB
JS-KS	Low profile and 65A inrush current	29.0 x 10.0 x 12.5	SPST-NO	Silver tin oxide	8A 24 VDC or 250 VAC	6-60	220-290	5000	PCB
JY	Industrial standard pins	20.0 x 10.0 x 12.8	SPST-NO	Silver alloy	5A 30 VDC or 250 VAC	4.5-48	200-360	2000	PCB
FTR-F3	Slim and low cost	20.3 x 7.0 x 15.0	SPST-NO	Silver nickel	5A 30 VDC or 250 VAC	5-24	200	4000	PCB
FTR-F2	Power switching and low cost	24.0 x 11.0 x 25.0	SPST-NO	Silver tin oxide	5A 30 VDC or 250 VAC	5-48	250-530	4000	PCB
FTR-H2	Power switching and low cost	24.0 x 11.0 x 25.0	SPST-NO	Silver tin oxide	10A 30 VAC or 250 VAC	5-48	250-530	4000	PCB
FTR-K2	Power switching and low cost	24.0 x 11.0 x 25.0	SPST-NO	Silver tin oxide	16A 30 VAC or 250 VAC	5-48	530	4000	PCB
FTR-H1	Industrial standard pins	28.0 x 12.8 x 16.5	SPST-NO, SPDT	Silver tin oxide	10A 30 VAC or 250 VAC	4-48	400-530	5000	PCB
FTR-H3	Quiet relay	28.8 x 13.7 x 18.8	SPST-NO	Silver tin oxide	10A 30 VAC or 250 VAC	3-48	530	5000	PCB
FTR-K1	Industrial standard pins	29.0 x 12.7 x 15.7	SPST-NO, SPDT	Silver tin oxide	16A 24 VDC or 250 VAC	5-48	400	5000	PCB
FTR-K1 80A Inrush	80A inrush	29.0 x 12.7 x 15.7	SPST-NO, SPDT	Silver tin oxide	16A 24 VDC or 250 VAC	5-48	400	5000	PCB
FTR-K1 High temp.	16A 105C operation	29.0 x 12.7 x 15.7	SPST-NO, SPDT	Silver tin oxide	16A 24 VDC or 250 VAC	5-48	400	5000	PCB
FTR-K1 Tab	17A tab terminal	29.0 x 12.7 x 15.8	SPST-NO	Silver tin oxide	17A 250 VAC	5-48	400	5000	PCB
FTR-F1	Industrial standard pins	29.0 x 12.8 x 16.5	DPST-NO, DPDT	Silver tin oxide	8A 24 VDC or 250 VAC	1.5-48	400	5000	PCB
FTR-K3	20A compact size	30.1 x 15.7 x 24.1	SPST-NO	Silver alloy	20A 250 VAC	5-24	780	5000	PCB



## Industrial Slim Relay

The G2RV relay meets the needs of panel and machine builders who are looking to cut costs by reducing panel size. Its slim width allows modules to be downsized and the number of I/O lines to be increased. The relay utilizes a standard platform for control loads ranging from a powerful 6 A to an accurate 10 mA signal. The relay and socket are sold as a combination, with relays also available separately.

### Features ▶

- Rated at a full 6A at 250 VAC/30 VDC, and over 6,000 operations at +40° C
- Low power consumption
- Large plug-in terminals for reliable connection
- PLC interface available
- Color-coded crossbar to indicate AC vs. DC

### Benefits ▶

- Ultra-slim relay—6mm in width
- Space saving in high volume rack applications
- Both mechanical and LED indicators
- Transparent housing for visual fault detection

### Applications ▶

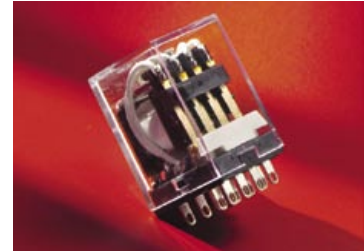
- Output relays for measuring equipment, timers, counters
- Temperature controllers
- Interface relays for PLCs
- Panel builders
- Machine builders

### Product Specifications ▶

Part Number	Description	Contact Rating (A)	Input Voltage	Contact Form	Mounting	Connection Type	Replacement	Figure
G2RV-SL700-AC110	Relay and socket	6	110 VAC	SPDT	DIN-rail	Screw terminals	NA	NA
G2RV-SL700-AC230	Relay and socket	6	230 VAC	SPDT	DIN-rail	Screw terminals	NA	NA
G2RV-SL700-AC/DC48	Relay and socket	6	48 VAC/DC	SPDT	DIN-rail	Screw terminals	NA	NA
G2RV-SL700-AC/DC24	Relay and socket	6	24 VAC/DC	SPDT	DIN-rail	Screw terminals	NA	NA
G2RV-SL700-DC12DC11	Relay and socket	6	12 VDC	SPDT	DIN-rail	Screw terminals	NA	NA
G2RV-SL700-DC24DC21	Relay and socket	6	24 VDC	SPDT	DIN-rail	Screw terminals	NA	NA
G2RV-SL500-AC110	Relay and socket	6	110 VAC	SPDT	DIN-rail	Push-in terminals	NA	NA
G2RV-SL500-AC230	Relay and socket	6	230 VAC	SPDT	DIN-rail	Push-in terminals	NA	NA
G2RV-SL500-AC/DC48	Relay and socket	6	48 VDC	SPDT	DIN-rail	Push-in terminals	NA	NA
G2RV-SL500-AC/DC24	Relay and socket	6	24 VDC	SPDT	DIN-rail	Push-in terminals	NA	NA
G2RV-SL500-DC12DC11	Relay and socket	6	12 VDC	SPDT	DIN-rail	Push-in terminals	NA	NA
G2RV-SL500-DC24DC21	Relay and socket	6	24 VDC	SPDT	DIN-rail	Push-in terminals	NA	NA
G2RV-1-S-DC11	Relay	6	12 VDC	SPDT	Socket-mount	NA	G2RV-SL7xx/5xxDC12	NA
G2RV-1-S-DC21	Relay	6	24 VDC	SPDT	Socket-mount	NA	G2RV-SL7xx/5xxDC24 G2RV-SL7xx/5xxAC/DC24	NA
G2RV-1-S-DC48	Relay	6	48 VDC	SPDT	Socket-mount	NA	G2RV-SL7xx/5xxAC/DC48 G2RV-SL7xx/5xxAC110 G2RV-SL7xx/5xxAC230	NA
P2RVM-020R	Cross bar red	NA	NA	2 poles	NA	NA	NA	2
P2RVM-030R	Cross bar red	NA	NA	3 poles	NA	NA	NA	2
P2RVM-040R	Cross bar red	NA	NA	4 poles	NA	NA	NA	2
P2RVM-020B	Cross bar blue	NA	NA	2 poles	NA	NA	NA	2
P2RVM-030B	Cross bar blue	NA	NA	3 poles	NA	NA	NA	2
P2RVM-040B	Cross bar blue	NA	NA	4 poles	NA	NA	NA	2
P2RVC-8-O-F	PLC interface	NA	NA	NA	NA	Connect 8 relays and PLC output	NA	1
P2RV-S	Separator plate	NA	NA	NA	NA	NA	NA	NA
R99-16	Label sheet	NA	NA	NA	NA	Adhesive	NA	3

## General Purpose and Force Guided Relays

Panasonic general-purpose relays are suitable for a wide range of applications. LED indication and test buttons are available as options. Our force guided relays comply with EN50205 for safety applications and are available in standard and low-profile housing. A complete range of accessories is available, from terminal sockets for DIN-rail assembly to PC board sockets and more.



HJ miniature relay

### Features ▶

- Current rating: up to 20A
- DIN-rail terminal sockets available
- LED indication and test button
- Double contacts available
- RoHS compliant

### Benefits ▶

- Long switching life
- Low power consumption
- High contact reliability
- Fast response time
- High shock resistance

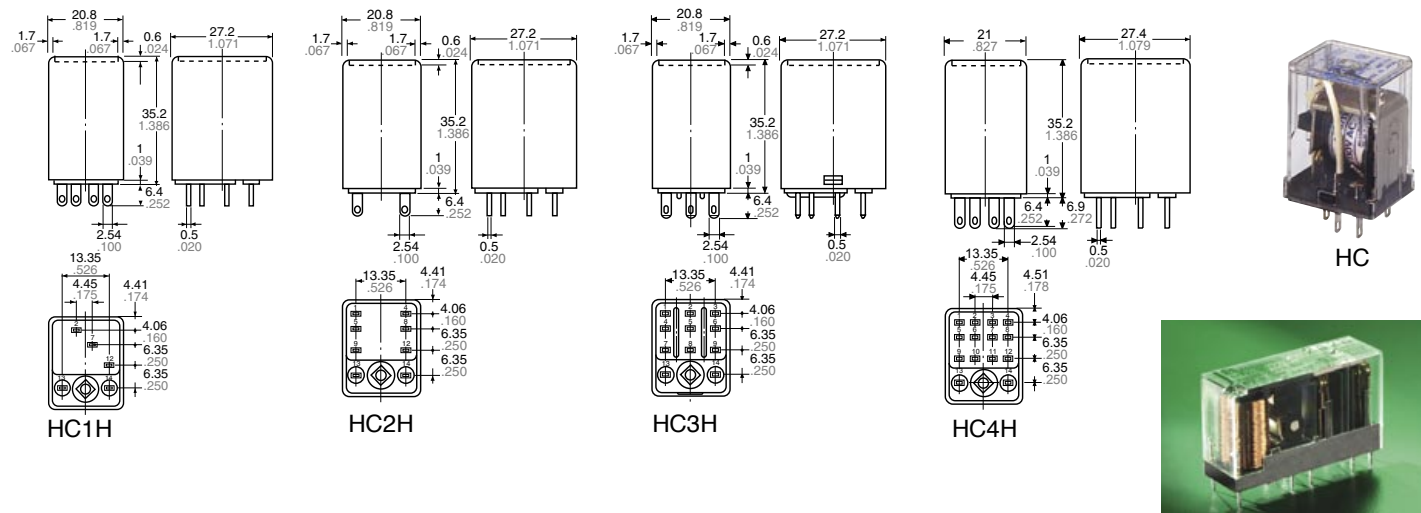
### Applications ▶

- Elevators/escalators
- Machine control
- Packaging equipment
- Molding machines
- Food-processing machinery

### Product Specifications ▶

	Series	Contact Arrangement	Current Rating (A)	Voltage Rating	Mounting Method	Characteristics
General Purpose Relays	AHN	2a	5	250 VAC, 30 VDC	Plug-in, TM	LED indication, diode surge suppression
	HJ	2c, 4c	7	250 VAC, 125 VDC	Plug-in	Test button, LED, gold-plated contacts, surge suppression (diode, CR)
	HC	1c, 2c, 3c, 4c	10	250 VAC	Plug-in, TM	Sealed versions, latching (2 coil), LED indication, bifurcated contacts
	HP	2c, 3c, 4c	10	250 VAC	Plug-in	Lamp indication
	AHK	1c, 2c	15	250 VAC, 125 VDC	Plug-in	LED indication, surge suppression (diode, CR)
	HL	1c, 2c	15	250 VAC	Plug-in, TM	LED indication
	HG	2c, 3c, 4c	20	250 VAC	Plug-in	High capacity
Force Guided Relays	SFS: 4-pole	2a2b; 3a1b	6	250 VAC, 30 VDC	PCB	EN50205 Type A, fast response time (max. 8 ms), LED indication, DIN-rail terminal socket available
	SFS: 6-pole	4a2b; 5a1b; 3a3b	6	250 VAC, 30 VDC	PCB	EN50205 Type A, fast response time (max. 8 ms), LED indication, DIN-rail terminal socket available
	SFN4D	4a2b	6	500V	PCB	EN50205 Type B, low-profile housing, double contacts, low power consumption
	SF4D	4a4b	6	400V	PCB	EN50205 Type B, double contacts
	SF3	3a1b	6	400V	PCB	EN50205 Type A
	SF2D	2a2b	6	400V	PCB	EN50205 Type A, double contacts

### Related Information ▶



SFS Force Guided Relay: 4-pole type



AQN Solid State Relay

## Solid State and High Capacity Relays

Panasonic solid state relays offer ratings up to 40A with an optional heat sink for broad industrial application, including motor and heater control. Our high capacity relays are available with either electromechanical contacts, Triac or MOSFET outputs. The RT3 relay terminal allows easy DIN-rail mounting and accepts up to four relays. Additional models offer high current ratings and enable high capacity cutoff in a compact relay.

### Features ▶

- Compact size
- Zero cross and random types available
- LED indication
- High voltage, high current capability
- RoHS compliant

### Benefits ▶

- High contact reliability
- Built-in varistor available
- Long life
- Relay terminal allows easy installation
- Hermetically sealed contact area

### Applications ▶

- Motor controls
- Heater controls
- Industrial robots
- Controller output
- Welding equipment

### Product Specifications ▶

	Series	Current Rating	Voltage Rating	Contact Arrangement	Isolation (V)	Coil Voltage	Characteristics
Solid State Relays	AQN	40A	250 VAC	NA	2500-4000	NA	10A-40A models, built-in varistor and operation LED
	AQR	40A	250 VAC	NA	1500-4000	NA	Low-profile housing, plug-in and screw terminal, built-in varistor
	AQJ	25A	264 VAC	NA	2500-3000	NA	Ultra-compact size, #110-type input and #250-type output terminals, built-in varistor
	AQK	25A	250 VAC	NA	2500-4000	NA	Slim profile with heat sink to save space on control panel, built-in varistor and operation LED
High Capacity Relays	AQZ PhotoMOS	4A	400V	NA	NA	NA	Solid state design with long life, low on resistance, 1,500V-2,500V I/O isolation, controls AC/DC loads, 6A rating available
	PA	5A	250 VAC 110 VDC	1a	1000-2000	NA	High surge voltage (4000V), wide switching capacity: 100 µA, 100 mV to 5A, 250 VAC, 30 VDC, controls AC/DC loads
	RT3 Relay Terminal for AQZ and PA	NA	NA	NA	NA	NA	Space-saving design with 4 relays installed, incorporates protection diode (AQZ) or surge protector (PA), LED display, DIN-rail and screw mounting
	AEJ	100A (100V DC)	NA	1a	NA	12, 24 VDC	NA
	AEP	300A (400V DC)	NA	1a	NA	12, 24, 36, 48, 100 VDC	Sealed available
	VC	160A (AC voltage)	NA	4a, 3a1b, 2a2b, 3a, 2a1b, 2a, 1a1b, 1a	NA	12, 24, 48, 100 VDC; 24, 48, 120, 240 VAC	NA

### Related Information ▶



RT3 Relay Terminal



### NaPiOn Passive Infrared Motion Sensors

- Very small—with a built-in amplifier
- Detects even slight motion by a person
- Available in digital and analog outputs with adjustable sensitivity
- Comes in four types, 2 colors



NaPiOn sensors are available in four types and two colors

## PLC-RELAY Series

The new Phoenix ultra-narrow 6.2 mm or 14 mm interposing relay generation includes over 200 relay variations, including relays for Class I, Division 2 hazardous locations. Options range from plug-in relays with SPDT or DPDT contacts to plug-in, wear-free solid state relays (SSR) with AC or DC input/output. Connecting commons or supplying a source voltage to contacts is accomplished by press-fit, bridging 6.2 mm and 14 mm relays together.



PLC RELAYS, 6.2 mm-width and 14 mm-width versions

### Features ▶

- Over 200 different PLC RELAYS to choose from, all available with screw or spring-cage terminations
- 14 mm DPDT, high-current, and high-inrush-current versions
- 6.2 mm electromechanical or solid state relays
- Space-independent bridging system
- Integrated LED, reverse polarity, and kickback diodes

### Benefits ▶

- Cost-effective plug-in relays instead of costly PLC relay cards
- Uses less space than conventional "ice cube" relays
- Fast and easy wiring using press-fit bridging
- Gold-plated contacts available for low-current signals
- Solid state relays for "no wear" high-frequency switching

### Applications ▶

- PLC input modules
- PLC output modules
- Actuators
- Lamp loads
- Sensors

### Product Specifications ▶

Part Number*	Type	Terminal Type	Dimensions W x H x D (mm)	Coil or Input Voltage/ Current	Configuration/ Current	Minimum Current (mA)	Contact Material	Maximum Voltage	Minimum Voltage
2966906	PLC-RSC-12DC/21	Screw clamp	6.2 x 80 x 94	12 VDC/15.3 mA	SPDT/6A	10	AgSnO	250 VAC/DC	12 VAC/DC
2966171	PLC-RSC-24DC/21	Screw clamp	6.2 x 80 x 94	24 VDC/9 mA	SPDT/6A	10	AgSnO	250 VAC/DC	12 VAC/DC
2966197	PLC-RSC-120UC/21	Screw clamp	6.2 x 80 x 94	120 VAC or DC/3.5 mA	SPDT/6A	10	AgSnO	250 VAC/DC	12 VAC/DC
2966265	PLC-RSC-24DC/21 AU	Screw clamp	6.2 x 80 x 94	24 VDC/9 mA	SPDT/50 mA	1	AgSnO/AU	30 VAC/36 VDC	100 mV
2966281	PLC-RSC-120UC/21 AU	Screw clamp	6.2 x 80 x 94	120 VAC or DC/3.5 mA	SPDT/50 mA	1	AgSnO/AU	30 VAC/36 VDC	100 mV
2967235	PLC-RSC-12DC/21-21	Screw clamp	14 x 80 x 94	12 VDC/33 mA	DPDT/6A	10	AgNi	250 VAC/DC	5V
2967060	PLC-RSC-24DC/21-21	Screw clamp	14 x 80 x 94	24 VDC/18 mA	DPDT/6A	10	AgNi	250 VAC/DC	5V
2967086	PLC-RSC-120UC/21-21	Screw clamp	14 x 80 x 94	120 VAC or DC/17.5 mA	DPDT/6A	10	AgNi	250 VAC/DC	5V
2966634	PLC-OSC-24DC/24DC/2	Screw clamp	6.2 x 80 x 94	24 VDC/9 mA	SSR/2A	NA	NA	33V DC	3 VDC
2967879	PLC-OSC-24DC/230AC/1	Screw clamp	6.2 x 80 x 94	24 VDC/9 mA	SSR/1A	10	NA	253 VAC	24 VAC
2967620	PLC-RSC-24DC/21HC	Screw clamp	14 x 80 x 94	24 VDC/18 mA	SPDT/10A	100	AgNi	250 VAC/DC	12 VAC/DC
2980461	PLC-RSC-24DC/21-21 ATEX	Screw clamp	14 x 80 x 94	24 VDC/18 mA	DPDT/6A	10	AgNi	250 VAC/DC	5V
5606331	PLC-RSC-12DC/21 C1D2	Screw clamp	6.2 x 80 x 94	12 VDC/15.3 mA	SPDT/6A	10	AgSnO	250 VAC/DC	12 VAC/DC
5603154	PLC-RSC-24DC/21 C1D2	Screw clamp	6.2 x 80 x 94	24 VDC/9 mA	SPDT/6A	10	AgSnO	250 VAC/DC	12 VAC/DC
5603260	PLC-OSC-24DC/24DC/2	Screw clamp	6.2 x 80 x 94	24 VDC/9 mA	SSR/2A	NA	NA	33 VDC	3 VDC

\*For a complete listing of part numbers please contact an Arrow sales representative.



P&B, SCHRACK, and OEG general purpose relays

## Potter & Brumfield, SCHRACK, and OEG General Purpose Relays

Potter & Brumfield, OEG, and SCHRACK relays from Tyco Electronics offer an exceptional range of capabilities. Our many different contact arrangements, materials, and styles enable the selection of a model with switching characteristics that closely match a customer's specific requirements. Many models are offered with either AC or DC coils, and some series provide a range of sensitivity options. An array of mounting and termination options allows for even greater design flexibility.

### Features ▶

- Industrial contact ratings from dry circuit to 16A
- Contact arrangements from SPST-NO through 8 PDT
- Broad range of coil options
- Expansive array of termination, mounting, and socket options

### Benefits ▶

- Contact rating can be closely matched to load
- Single relay can control numerous circuits
- Pluggability of socket-mount versions eases maintenance
- Optional indicators assist in troubleshooting
- Breadth of options enhances design flexibility

### Applications ▶

- Motor controls
- Electrical panels
- Production equipment
- Machine tool controls
- Integral component in control subsystems

### Product Specifications ▶

Product Series	Contact Arrangements	Contact Ratings (A)	Coil Type	Mounting	Size W x D x H (inches)	Features
SNR Series	SPDT	6	DC	Socket, PC board	.20 x 1.1 x .59	Very slim case
T77 Series	SPST-NO	3-10	DC	PC board	.72 x .39 x .60	Compact size
T7C Series	SPST-NO and SPDT	5-12	DC	Socket, PC board	.80 x .65 x .81	"Sugar cube" type
RT Series	SPST-NO - DPDT	8-16	AC or DC	Socket, PC board	1.14 x .5 x .62	Low-profile case, many options available
XT Series	SPDT and DPDT	8-16	AC or DC	Socket	1.14 x .54 x 1.05	Mechanical indicator, test lever option
R10 Series	SPDT - 8 PDT	Dry circuit to 7.5	AC or DC	Socket, panel, PC board	1.17 x .74 x 1.18	Many coil and contact options
PT Series	DPDT, 3 PDT, and 4 PDT	6-12	AC or DC	Socket, PC board	.89 x 1.1 x 1.14	Low-profile case, mechanical indicator, test lever
PTH Series	DPDT and 4 PDT	6-12	AC or DC	Socket, PC board	.87 x 1.1 x 1.42	Optional integral protection, LED indicator
KHA Series	DPDT and 4 PDT	Dry circuit to 5	AC or DC	Socket, panel, PC board	1.11 x .86 x 1.28	Wide range of contact options
K10 Series	DPDT	15	AC or DC	Socket, panel, PC board	1.11 x .86 x 1.28	Optional neon indicator
KUP Series	SPDT - 4 PDT	5-10	AC or DC	Socket, panel, PC board	1.53 x 1.41 x 1.91	Optional indicator lamp, test button
RM2/3/7	DPDT and 3 PDT	10-15	AC or DC	Socket, panel, PC board	1.52 x 1.40 x 1.91	Mechanical indicator, optional test button
KRPA Series	SPDT - 3 PDT	5-10	AC or DC	Socket	1.41 x 1.41 x 2.0	Optional indicator lamp
MT Series	DPDT and 3 PDT	10	AC or DC	Socket	1.40 x 1.40 x 2.24	Mechanical indicator, lockable test lever

Note: The series listed above represent featured products. Additional product series are available.

### Related Information ▶



Tyco Electronics sockets and accessories expand mounting options



## Potter & Brumfield, SCHRACK, and Tyco Electronics Power Relays and Definite Purpose Contactors

P&B, SCHRACK, and Tyco Electronics power electromechanical switching products are used in many different industrial applications. Products range from compact, single-pole 30A relays that can be either panel- or PC board-mounted, to three-pole definite purpose contactors capable of switching 120 FLA. Models are available for AC or DC actuation. Options include auxiliary switches and magnetic blowouts for heavy DC loads. Various terminal options are offered.



P&B, SCHRACK, and Tyco Electronics power relays and contactors

### Features ▶

- Ratings up to 120 FLA, 150A resistive at 600 VAC
- Robust construction
- AC and DC coils
- Numerous termination options

### Benefits ▶

- Rated for industrial loads
- Termination options accommodate various wire sizes and types
- Test buttons on some models ease troubleshooting
- Mounting plates permit installation flexibility
- Expected electrical life of up to 200,000 operations at rated load

### Applications ▶

- System power supply
- Motor control
- Compressor loads
- Welding equipment
- Resistance-heating elements

### Product Specifications ▶

Product Series	Contact Arrangements	Contact Ratings	Coil Type	Mounting	Size W x D x H (inches)	Features
T9A Series Relay	SPST-NO and SPDT	30A	DC	Panel or PC board	1.27 x 1.08 x 1.1	Compact size, mounting options
T92 Series Relay	DPST-NO and DPDT	30A	AC or DC	Panel or PC board	2.06 x 1.36 x 1.21	Compact size, mounting options
KUHP Series Relay	SPDT and DPDT	20A to 30A	AC or DC	Panel or PC board	1.53 x 1.41 x 1.91	See-through case, mounting options
RMC/D Series Relay	SPST-NO-DM and SPDT-DM	30A	AC or DC	Panel	1.52 x 1.40 x 1.91	Translucent cover, optional test button
PRD Series Relay	SPST-NO - DPDT	10A to 50A	AC or DC	Panel	3.38 x 2.51 x 2.5	Optional magnetic blowout, auxiliary switch
P25 Series Contactor	3 PST-NO	25 FLA	AC or DC	Panel	2.5 x 3.8 x 3.33	Optional auxiliary switch
P30/P40 Series Contactor	3 PST-NO-DM to 4PST-NO-DM	30 FLA to 40 FLA	AC or DC	Panel	2.55 x 3.8 x 3.98	Optional auxiliary switch
P31/P41 Series Contactor	3 PST-NO-DM to 4PST-NO-DM	16 FLA to 40 FLA	DC	Panel	2.63 x 3.8 x 2.87	Direct-operated DC coil
96-3100 Series Contactor	SPST-NO-DM and DPST-NO-DM	20 FLA to 40 FLA	AC	Panel	2.1 x 3.3 x 2.54	Optional shunt on 1-pole model
98-3100 Series Contactor	3 PST-NO-DM	20 FLA to 40 FLA	AC	Panel	2.375 x 3.75 x 3.0	Test button, optional interlock/auxiliary switches
93-3100/3P Series Contactor	3 PST-NO-DM	50 FLA to 60 FLA	AC	Panel	2.75 x 3.75 x 3.56	Optional auxiliary switches
93-3100/4P Series Contactor	4 PST-NO-DM	25 FLA to 40 FLA	AC	Panel	3.05 x 3.75 x 2.63	Optional auxiliary switches
96-3186 Series Contactor	3 PST-NO-DM	75 FLA to 90 FLA	AC	Panel	3.75 x 5.0 x 4.06	Optional auxiliary switches
A-3100 Series Contactor	3 PST-NO-DM	120 FLA	AC	Panel	4.625 x 6.375 x 5.0	Optional auxiliary switches

Note: The series listed above represent featured products. Additional product series are available.

### Related Information ▶

Tyco Electronics also offers thermal and magnetic circuit breakers. These secondary breakers protect components and wiring in industrial equipment.



## Arrow Industrial Selector Guide

800-349-4960 | [www.arrownac.com/industrial](http://www.arrownac.com/industrial)



P&B time delay and solid state relays and SCHRACK relays with forcibly-guided contacts

## Potter & Brumfield Time Delay and Solid State Relays, and SCHRACK Forcibly Guided Contact Relays

Potter & Brumfield time delay relays (TDRs) allow users to easily add a simple timing function to a process—even one controlled by a PLC. Various timing functions are available and delays can range from 0.1 seconds to 9,990 hours. P&B solid state relays (SSRs) and I/O modules are well-suited to high-repetition switching applications. SCHRACK forcibly guided contact relays (FGCRs) are specifically designed for use in safety control circuits.

### Features ▶

- TDRs offer many different timing functions and ranges; most offer DPDT contacts rated at 10A
- SSRs include single, dual, and quad output models
- I/O modules are series-operation compatible and come in industry-standard packages
- FGCRs comply with EN 50205 and provide a 0.5 mm contact gap, even if a fault occurs inside the relay

### Benefits ▶

- TDRs permit easy control of a timed function
- SSRs are quiet and capable of a long operational life
- I/O modules permit flexibility in system configurations
- FGCRs monitor the function of safety circuits

### Applications ▶

- TDRs in conveyor systems, filling operations, door operators, and other processes
- SSRs in high-cycle operations, such as lamp flashing, heater cycling, and actuator control
- I/Os interface with PLC systems
- FGCRs in safety circuits, light curtains, and elevator systems

### Product Specifications ▶

Product Series	Product Type	Timing Function	Timing Range	Mounting	Size W x D x H (inches)	Type of Adjustment
CN1	Time delay relay	On delay	0.1 sec. to 9,990 hr.	Socket, panel	1.88 x 1.88 x 2.83	Thumbwheel switches for delay time
CD	Time delay relay	Delay on operate, delay on release	0.1 sec. to 180 sec.	Socket	2.41 x 1.78 x 2.94	Knob, external resistor, fixed
CG	Time delay relay	Delay on operate, delay on release, interval on	1 min. to 50 min.	Socket	2.41 x 1.78 x 2.94	Knob
CNM5	Time delay relay	Programmable – 5 functions	0.1 sec. to 9,990 hr.	Socket, panel	1.88 x 1.88 x 2.83	Rotary switch for function, thumbwheels for range and time
CNS Series	Time delay relay	Programmable – 4 and 8 function types	0.1 sec. to 100 min.	Socket, panel	1.88 x 1.88 x 2.83	DIP switch for function and range, knob for time
CNT Series	Time delay relay	Programmable – 10 timing and 2 counting functions	0.1 sec. to 9,990 hr.	Socket, panel	1.88 x 1.88 x 2.83	Thumbwheel switches for function, range, and time
Product Series	Product Type	General Description	Package Style	Mounting	Size W x D x H (inches)	Features
SSR Series	Solid state relay	Single AC output (paired SCRs), 25A to 125A	Hockey puck	Panel	1.75 x 2.25 x .87	AC or DC input, LED indicator
SSRT Series	Solid state relay	Single AC output (snubberless triacs), 10A to 25A	Hockey puck	Panel	1.75 x 2.25 x .87	AC or DC input, LED indicator
SSRD Series	Solid state relay	Dual AC output (paired SCRs), 25A to 40A	Hockey puck	Panel	1.75 x 2.25 x .89	Two relays in a common package, DC input
SSRQ Series	Solid state relay	Quad AC output (triacs), 20A	Hockey puck	Panel	1.75 x 2.3 x .85	Four relays in a common package, DC input
IAC(M) Series	Input/output module	AC input module	Standard size or slim package (M)	Mounting board, PC board	1.7 x .6 x 1.25 or 1.7 x .4 x 1.0	Color-coded yellow, hold-down screw on standard size
OAC(M) Series	Input/output module	AC output module	Standard size or slim package (M)	Mounting board, PC board	1.7 x .6 x 1.25 or 1.7 x .4 x 1.0	Color-coded black, hold-down screw on standard size
IDC(M) Series	Input/output module	DC input module	Standard size or slim package (M)	Mounting board, PC board	1.7 x .6 x 1.25 or 1.7 x .4 x 1.0	Color-coded white, hold-down screw on standard size
ODC(M) Series	Input/output module	DC output module	Standard size or slim package (M)	Mounting board, PC board	1.7 x .6 x 1.25 or 1.7 x .4 x 1.0	Color-coded red, hold-down screw on standard size
Product Series	Product Type	Contact Configuration	Contact Rating (A)	Mounting	Size W x D x H (inches)	Features
SR2M Series	Forcibly guided contact relay	2-pole (NO + NC or DPDT)	8	PC board, socket, DIN-rail	1.14 x .5 x 1.0	DIN-mount module available
SR4 Series	Forcibly guided contact relay	4-pole (2 NO + 2 NC or 3 NO + 1 NC)	8	PC board	1.57 x .51 x .63	Optional type has larger spacings for more isolation
SR6 Series	Forcibly guided contact relay	6-pole (3 NO + 3 NC, 4 NO + 2 NC or 5 NO + 1 NC)	8	PC board, socket, DIN-rail	2.17 x .65 x .63	DIN-mount module and sensitive coil type available

Note: The series listed above represent featured products. Additional product series are available.

### Related Information ▶

Tyco Electronics general purpose and class 2 transformers are rated from 5 VA up to 150 VA.



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