

## 10-15 AMP RELAYS

The Pilot Series contains relays that are rated at 10 or 15 Amps. They have been packaged to save the installer the time, trouble, and expense of buying separate components (relay, LED indicator, socket, mounting rail, transient protection, and housing) and assembling them on the job or at the shop.

In spite of being called Pilot relays, most of the relays have inductive, resistive, motor, ballast, and tungsten ratings. The coil of most of the relays can be powered by more than one voltage. An externally visible LED indicates the status of the coil of the relay.

## 20-30 AMP RELAYS

The Power Series contains relays that are rated at 20 or 30 Amp. They have been packaged to save the installer the time, trouble and expense of buying separate components (relay, LED indicator, socket, mounting rail, transient protection, and housing) and assembling them on the job or at the shop.

Most of the Power relays have inductive, resistive, motor, ballast, and tungsten ratings. The coil of many of the relays can be powered by more than one voltage. An externally visible LED indicates the status of the coil of the relay. The (Closed-Open-Auto) override switch, available on certain models, is a true override switch located on the load side of the relay. Power Series relays are available in Enclosed, T, and Panel Style packaging.

## LOW-INPUT / OPTOISOLATED RELAYS

The Low-Input Optoisolated Series of RIB Relays offer the features of regular RIB Relays with the added benefit of extremely low current draw on the input. This means you can operate a 10 to 20 Amp relay from a controller (or other device) that cannot source the typical amount of current required to operate a relay. Low-Input Optoisolated Series RIB Relays require a separate constant power-source input, but this can be a local 120, 208, 240, or 277 Vac power source (depending on model). Many models may also be powered from 10-30 Vac/dc or 24 Vac/dc. The control input is separate and only draws 0.4 mA @ 5 Vdc, 3 mA @ 24 Vac (see specifications for details). The control input can be connected to an analog-out (AO), Digital Out (DO), or other low power signal to control the relay. The AO can be run to bottom-scale to turn the relay off and top-scale to turn the relay on. The optoisolation is also useful if there is a need to protect a controller from a potential feedback or voltage transients. The Low-Input RIB Relays are available in T Style and Track Mount models.

## POLARIZED RELAYS

The Polarized RIB series is equivalent to the standard RIB series except for the coil input, which is polarity sensitive when driving the relay with DC voltage. The "FA" suffix in the model name stands for Fire Alarm and indicates the unit accepts a polarity sensitive input through the signaling circuit. These relays are designed for operation in systems that require supervision from controllers that utilize end-of-line resistors. The relay can also be operated from A/C voltage (non-polarized) if desired.

## DRY CONTACT INPUT RELAYS

The Dry Contact Input RIB series offers all the advantages of the standard RIB line plus it can be activated by a wide range of dry-contacts such as thermostats, current switches, other relays, solid-state switches, etc. The Dry Contact Input RIB accepts local power to provide the low-voltage (Class 2) power needed to activate the relay; just close the dry-contact input. The power to energize the relay can be brought to the relay on a separate pair of wires along with the control output of the controller, or can be a local power source near the relay. The relay contacts are isolated from the input power and the dry contact input; thus, the relay contacts can be wired to switch any other power-load or low-voltage load (see specifications for contact ratings). One model can be used for many installations (model RIB21CDC can be powered from any voltage from 120Vac to 277Vac; see specifications for the input power of other models).

## LONRIB® RELAYS

The LonWorks® series of general purpose power relays can be utilized when a LonWorks network is installed in a building. The network gives the user the ability to control the relay from a remote location. The devices operate on 24Vac/dc, 120Vac, or 208-277Vac. The power can be provided locally to allow the relay to communicate with the network over the twisted pair without having long wire runs to power the device.

This series contains intelligent devices that not only turn on and off the relay when commanded by the network, but also communicate the relay state back to the network. LonWorks series relays can currently control loads up to 20 amps.

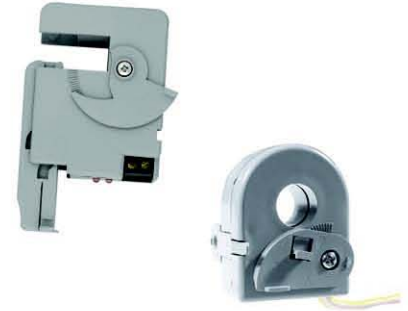
LonWorks series models have been packaged to save the installer the time, trouble, and expense of buying separate components (LonWorks controller, relay, LED indicators, socket, mounting rail, and housing) and assembling them on the job or at the shop. The low voltage wiring compartment of the T Style eliminates the need for a junction box. LonWorks relays are available in T Style packaging.



## CURRENT SENSORS & CURRENT SENSOR-RELAY COMBOS

Functional Devices' X Series contain models with just a current sensor, or with a current sensor and a 10 or 20 Amp relay. An internal 10 Amp relay can be used to activate an external load, and currents up to 150 Amps are sensed externally with a Solid or Split current sensing ring. Other units control and sense up to 20 Amp loads, without the use of an external current ring, greatly reducing installation time. Models are available with fixed, or adjustable current sensing trigger points, or with voltage out or 4-20 mA regulation. Externally visible LEDs indicate the status of the relay coil and current sensor trigger. The (Closed-Open-Auto) override switch, available on certain models, is a true override switch located on the load side of the relay.

X Series models have been packaged to save the installer the time, trouble, and expense of buying separate components (current sensor, relay, LED indicator, socket, mounting rail, and housing) and assembling them on the job or at the shop. Current Rings (solid or split core) feature a wire clamp that assures proper positioning along the load wire. The low voltage wiring compartment of the T Style eliminates the need for a junction box. X Series models are available in T Style or Track Mount packaging.



## POWER CONTROL

Power control centers (PSP Models) have been pre-packaged to include two 120 Vac grounded convenience outlets as well as a 4 or 10 Amp switch / circuit breaker for controlling the output power. The outlets can be continuously powered or controlled by the switch / circuit breaker.

Other power control units (SIB Models) utilize the Functional Devices standard small enclosure to house simple switching schemes. The product labels can be ordered with custom content to fit your project.



## POWER SUPPLIES

Our power supplies include one or two transformers pre-packaged in a metal enclosure and intended for mounting in the enclosure of the user's choice or outside of an enclosure by itself. The transformers are available in 40VA, 75VA, and 100VA. A switch / circuit breaker is provided for switching the secondary of each transformer and on "B10" models a switch / circuit breaker is present for controlling power for the entire unit. An LED indicates the presence of 24 Vac on the Class 2 terminals on the outside of the enclosure, or wires on the inside. An internal high-voltage wiring compartment and two 120 Vac grounded convenience outlets are provided on most models. Each power supply series is available with a number of various options. Functional Devices offers 40 VA and 100 VA panel mount power supplies that can be directly mounted to sub-panels or similar material. Track Mount Power Supplies are available in 2.75" and 4.00" sizes. They are all Class 2, UL Listed, and ideal for smaller AC or DC loads.



## TRANSFORMERS

Transformers ranging from 20VA to 375VA are foot or hub mounted. They are available with single or dual threaded hubs. Some are foot mounted only. All transformers are UL Listed, and many are Class 2. Several transformers are provided with a circuit breaker. Pigtail wires are standard on most models and are typically 8.00" in length. All transformers utilize split-bobbin construction. Custom transformers are also available (contact factory).



## CONTACTORS

Functional Devices, Inc. offers a variety of contactors for industry ranging from 30-90FLA. Models are available with 2, 3, or 4 poles, all are equipped with Box-lug/dual .250" quick connect termination. Reduced power consumption coils help save energy and generate less heat. Choose from 24Vac, 120Vac, or 208/240Vac coils. All models are UL Component Recognized for USA and Canada.



## ENCLOSURES

All enclosures are NEMA 1 rated and are UL Listed. Smaller enclosures have an abundance of knockouts and are stackable vertically and horizontally. Available in a variety of sizes, these enclosures provide many useful features. Small sizes have screw lock covers and the larger sizes are equipped with key-lock latch doors, most of which are full-hinge.



## ACCESSORIES

Functional Devices offers a wide range of accessories for all product lines. Polymetal sub-panels, mounting track for snap-mounting circuit boards, and replacement parts are just a few examples.

