

# DC Power Relays "LT" Series



P.O. Box 1089 308 Components Drive Smithfield, North Carolina 27577 Phone: 919-934-3135 Fax: 919-934-3298 E-mail: Shallco@shallco.com Website: www.shallco.com

# **DC Power Relays**

Introducing our NEW line of DC Power Relays. Designed and manufactured in the USA to meet the most demanding applications. We have incorporated our Sealed contact system to increase Reliability and Performance. This Robust enclosure allows various mounting methods while still retaining Shock and Vibration Resistance. The Sealed system increases resistance to most fluids and cleaning agents without influencing the Compact size and weight. The relays have been Optimized to Increase Voltage Delivery to Critical components. Our relays have been tested to meet or exceed an assortment of industry standards including Heavy Equipment and Transportation.

# "LT" Series - Lockout-Tag Out Relay

Our NEW "Lockout Tag out" relay carries a Patent pending and is an Industry First. It is manufactured and designed in the U.S.A. It offers the same Visible Identification of a mechanical disconnect with the Reliable benefits of remote electronic actuation. In the past to interrupt power, relays required remote location lock out and or removal of the attached cables to ensure the main power has been Disconnected.

Our relays ability to Mechanically Break closed contacts and Prevent Reclosures when the lock is applied using lockout standards is the separating factor. Safety is first and foremost no matter the location.

#### Technical Data - 12 VDC

Temperature range: -40 C to +85°C -40°F to +185°F

Max. Altitude rating: 50,000 ft.

Seal: IP67: IEC 60529
Shock: 6g, 11ms, Saw Tooth
Vibration: SAE J1455, Appendix A,

Category 2, 4g - 10Hz-2000Hz

#### Technical Data - 24 VDC

Temperature range: -40 C to +85°C

-40°F to +185°F Max. Altitude rating: 50,000 ft.

Seal: IP67: IEC 60529
Shock: 6g, 11ms, Saw Tooth
Vibration: SAE J1455, Appendix A,

Category 2, 4g - 10Hz-2000Hz

300 A

#### **Electrical Characteristics**

Min. Insulation Resistance:  $100 \text{ M}\Omega$  Dielectric withstanding voltage: 1025 V / 1 min.

Max. Contact drop, initial: 150 mV Duty rating, Continuous: 300 A

# **Electrical Characteristics**

Min. Insulation Resistance: 100 M $\Omega$  Dielectric withstanding voltage: 1050 V / 1 min. Max. Contact drop, initial: 150 mV

#### Rated Contact Load 12 VDC

Resistive load 10,000 cycles 300 A 10,000 cycles 150 A 50,000 cycles 300 A 50,000 cycles 300 A

Bounce:  $\leq 5 \text{ ms}$ Break:  $\leq 5 \text{ ms}$ 

# Rated Contact Load 24/28 VDC

Resistive load: 50,000 cycles 300 A Inductive load: 10,000 cycles 150 A Motor load: 50,000 cycles 300 A

Bounce:  $\leq 5 \text{ ms}$ Break:  $\leq 5 \text{ ms}$ 

Duty rating, Continuous:

#### Coil Data 12 VDC

Nominal voltage: 12 VDC 9-16 VDC Pull closed coil resistance: 1.92  $\Omega$ ,  $\pm$  10% Pull open coil resistance: 2.38  $\Omega$ ,  $\pm$  10% Max. Operating time: 2.5 sec Max. Cycles per minute 6

### Coil Data 24/28 VDC

Nominal voltage: 24/28 VDC Voltage range: 18-32 VDC Pull closed coil resistance:  $7.3 \Omega, \pm 10\%$  8.4  $\Omega, \pm 10\%$  Max. Operating time: 2.5 sec Max. Cycles per minute 6

# **Physical Data** [95.25mm] 3.75in COIL + M4 x 0.7 TYP COIL -[97.38mm] 3.83in 0 [80.95mm] 3.19in [49.53mm] 1.95in **(** 0 M10 x 1.5 TYP [7.62mm] Ø.3in [8.38mm] − Ø.3in TYP [69.85mm] 2.8in [12.70mm]/ .5in [38.10mm] 1.5in [129.54mm] 5.1in $\oplus$ (+)[116.94mm] 4.6in [23.19mm] .91in UNLOCK <

## DC POWER RELAY ORDERING INFORMATION

		Current Rating				Coil Voltage			Mounting	ng Method		Special Modifier	
Switch Series		100	200	300		12 2	24		1	2		3	4
							24		Bottom	Bracket		Hardware	Diode
BR	-	†	0	0	-	0	0	-	0	†	-	0	0
MR	-	†	0	†	-	0	0	-	0	†	-	0	0
LT	-	†	0	0	-	0	0	-	Х	Х	-	0	0
BD	-	†	0	0	-	Х	Х	-	Х	Х	-	Х	Х

#### Ordering Example:

BR	-	300	-	12	-	1	-	3	4
----	---	-----	---	----	---	---	---	---	---

Part Number Ordered as: BR	-300-12-1-34
----------------------------	--------------

O - Available option† - Contact Factory for Availability

- Unavailable Series option

Х

#### Reads as:

D: Ctable	200 Amns	12 Valta	Pottom Mounting	Mith Handwara	With Diode
Bi Stable	300 Amps	12 Volts	<b>Bottom Mounting</b>	With Hardware	Suppression

# Also Available in the DC Power Relay Line

#### **BR Series - Bi-Stable Relay**



Bi-Stable Relays available in:

- 200-300 Amp
- 12 Volt
- 24 Volt
- Bottom Mounted
- Bracket Mounted

Our New line of "Magnetically Maintained" Bi-stable relays are Designed and Manufactured in the U.S.A. These High Quality relays have been Extensively Tested for Reliable switching in the most Demanding Agricultural, Construction, and Transportation environments. Our Compact relay features Environmentally Sealed contacts, Shock and Vibration Resistant enclosure, and are Dependable with a minimal pulse from your circuit. Shallco relays will provide more usable power to your system than the competition, Guaranteed!

#### MR Series - Mono-Stable Relay



Our Mono-Stable Relays available in:

- 200-300 Amp
- 12 Volt
- 24 Volt
- Bottom Mounted
- Bracket Mounted

Our New line of "Maintained" mono stable relays are Designed and Manufactured in the U.S.A. These High Quality relays have been Extensively Tested for Reliable switching in the most Demanding Agricultural, Construction, and Transportation environments. Our Compact relay features Environmentally Sealed contacts, Shock and Vibration Resistant enclosure, and can be reliably operated with minimal power from your circuit. Shallco relays will provide more usable power to your system than the competition, Guaranteed!

#### **BD Series - Battery Disconnect**



Battery Disconnect Switches available in:

- 200-350 Amp
- 12 Volt
- 24 Volt
- w/Auxiliary Contacts
- w/o Auxiliary Contacts
- Standard Panel Mount

Our NEW Battery disconnect switch offers
Lockout Tag out Features along with Standard
Panel mounting. It is manufactured and designed
in the U.S.A. It offers a Large knob to operate
with "Gloved Hands". It also has a Compact
Streamlined Footprint behind the panel allowing
More Room to work. It has our Sealed contact
System to increase Reliability and Performance.
We offer it with or without Delay on Break Main
to Auxiliary contacts.

Also available is panel mount or keylock for added security.