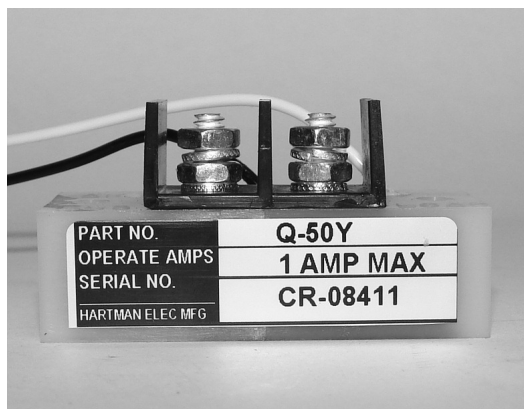


Q-50 Series Relay, Current Indicator, Rated up to 2 Amps, 28 Vdc

Product Facts

- SPST NC
- Environmentally sealed
- Meets many requirements of MIL-PRF-6106



Performance Data

Electrical Characteristics

Contact Arrangement — SPST NC

Contact Rating @ 120 Vdc —
0.1 Amp

Rated Operating Voltage — 28 Vdc

Sensing Current Rating — 2 Amps,
continuous

Pickup Max. — 1 Amp DC

Dropout Min. — 0.4 Amp

Operating Voltage, Nom. —
28 Vdc

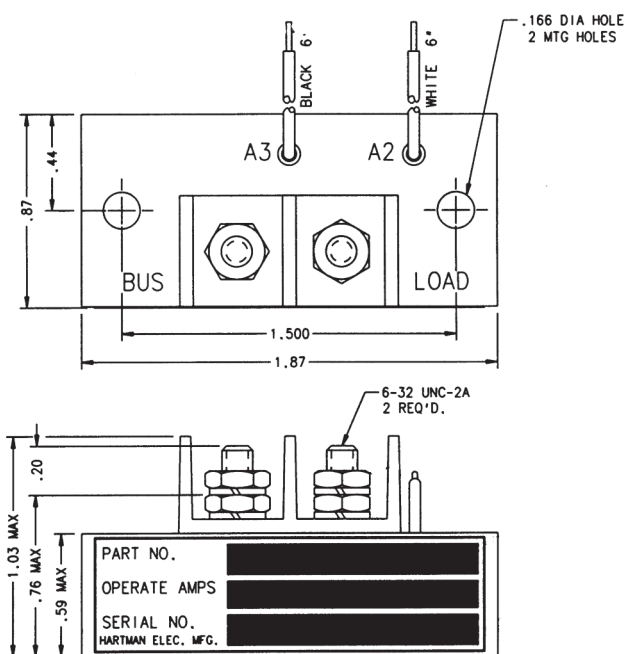
General Characteristics

Temperature Range —

-55°C to +71°C

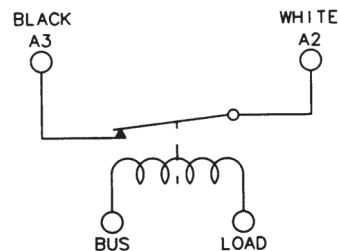
Altitude, Max. — 50,000 ft

Weight, Max. — 1.25 oz



Mounting Style A

Circuit Configurations (Consult factory for other available circuit configurations)



Circuit Configuration 1

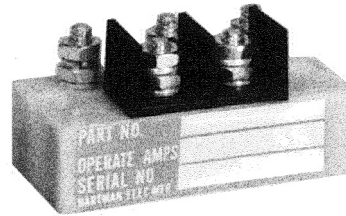
For factory-direct application assistance, phone 419-521-9500 or fax 419-526-2749.

HARTMAN Part Number	Construction Type	Mounting Style	Duty Cycle	Circuit Config.	TE Part Number
Q-50Y	Environmentally Sealed	A	Continuous	1	1-1616131-2

Q-50 Series Relay, Current Indicator, Rated up to 3.5 Amps, 28 Vdc

Product Facts

- SPDT
- Environmentally sealed
- Meets many requirements of MIL-PRF-6106



Performance Data

Electrical Characteristics

Contact Arrangement — SPDT

Contact Rating @ 28 Vdc —
0.25 Amp

Lamp Load @ 28 Vdc — 0.080 Amp

Rated Operating Voltage — 28 Vdc

Sensing Current Rating — 3.5
Amps, continuous

Pickup Max. — 2 Amp DC

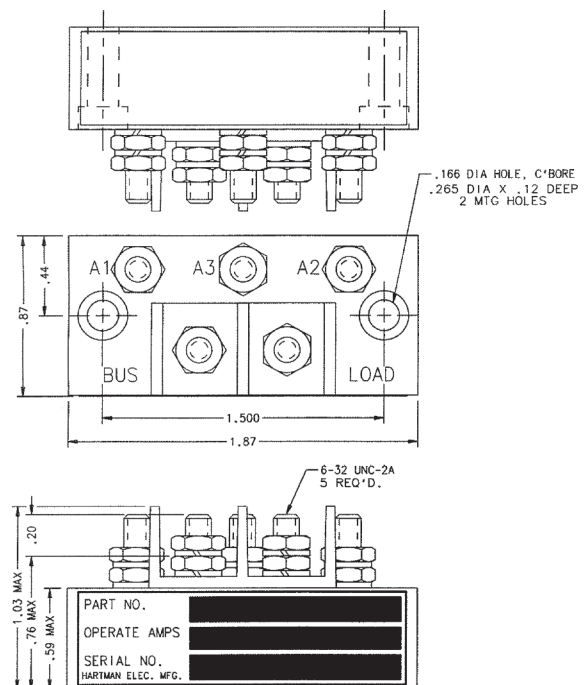
Dropout Min. — 0.8 Amp

General Characteristics

Temperature Range —
-55°C to +71°C

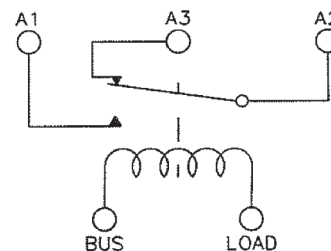
Altitude, Max. — 50,000 ft

Weight, Max. — 1.25 oz



Mounting Style A

Circuit Configurations (Consult factory for other available circuit configurations)



Circuit Configuration 1

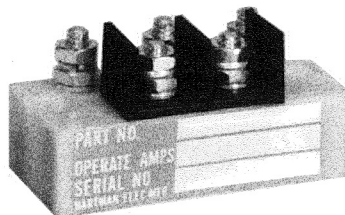
For factory-direct application assistance, phone 419-521-9500 or fax 419-526-2749.

HARTMAN Part Number	Construction Type	Mounting Style	Duty Cycle	Circuit Config.	TE Part Number
Q-50F	Environmentally Sealed	A	Continuous	1	1616131-9

Q-50 Series Relay, Current Indicator, Rated up to 6.25 Amps, 28 Vdc

Product Facts

- SPDT
- Environmentally sealed
- Meets many requirements of MIL-PRF-6106



Performance Data

Electrical Characteristics

Contact Arrangement — SPST NC

Contact Rating @ 28 Vdc —
0.25 Amp

Rated Operating Voltage — 28 Vdc

Sensing Current Rating — 6.25
Amps, continuous

Lamp Load — 0.080 Amp

Pickup Max. —

Q50BB - 2.5 Amps DC

Q50BD - 2.0 Amps DC

Q50E - 3.5 Amps DC

Dropout Min. —

Q50BD - 0.8 Amps DC

Q50BB - 1.0 Amps DC

Q50E - 1.4 Amps DC

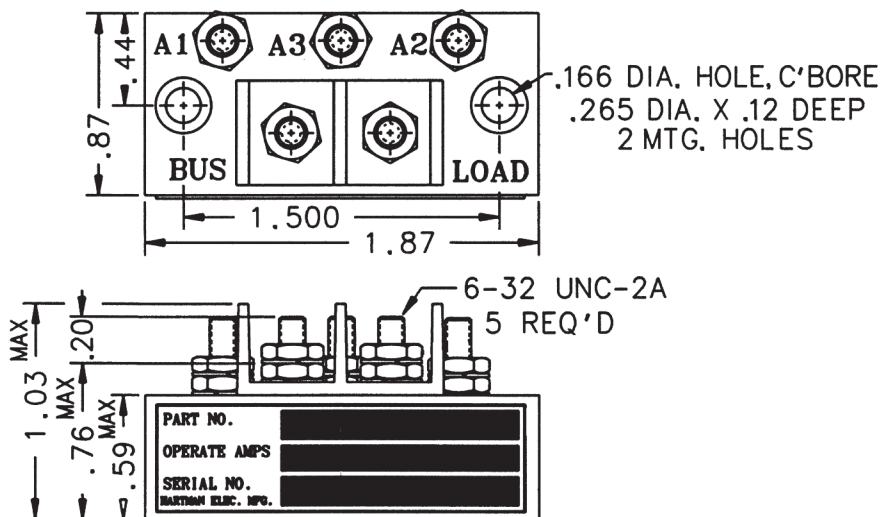
General Characteristics

Temperature Range —

-55°C to +71°C

Altitude, Max. — 50,000 ft

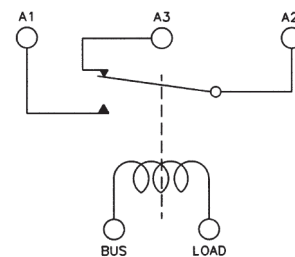
Weight, Max. — 1.25 oz



Mounting Style A

Circuit Configurations

(Consult factory for other available circuit configurations)



Circuit Configuration 1

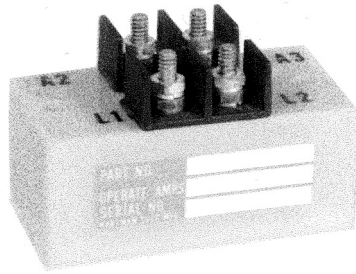
For factory-direct application assistance, phone 419-521-9500 or fax 419-526-2749.

HARTMAN Part Number	Construction Type	Mounting Style	Coil Type	Circuit Config.	TE Part Number
Q-50BB	Environmentally Sealed	A	Continuous	1	1616131-5
Q-50E	Environmentally Sealed	A	Continuous	1	1616131-8
Q-50BD	Environmentally Sealed	A	Continuous	1	1616131-6

Q-50 Series Relay, Current Indicator, Rated up to 10 Amps, 28 Vdc

Product Facts

- SPST NO
- Environmentally sealed
- Meets many requirements of MIL-PRF-6106



Performance Data

Electrical Characteristics

Contact Arrangement — SPST NO

Contact Rating @ 28 Vdc —
0.25 Amp

Lamp Load @ 28 Vdc — 0.08 Amp

Rated Operating Voltage — 28 Vdc

Sensing Current Rating — 20 Amps,
continuous, max.

Pickup Max. —
3.5 Amps DC

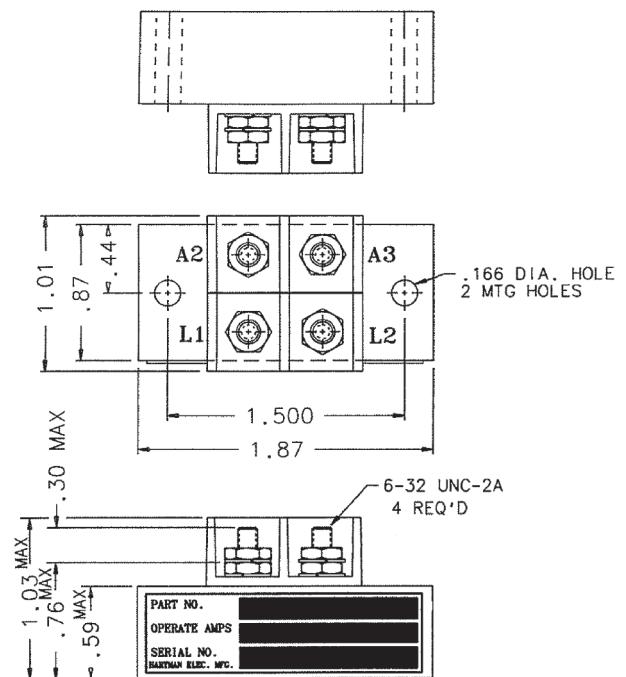
Dropout Min. — 0.5 Amp

General Characteristics

Temperature Range —
-55°C to +71°C

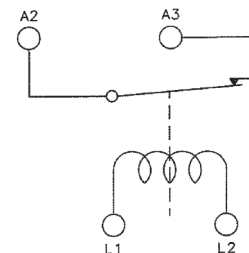
Altitude, Max. — 50,000 ft

Weight, Max. — 1.25 oz



Mounting Style A

Circuit Configurations (Consult factory for other available circuit configurations)



Circuit Configuration 1

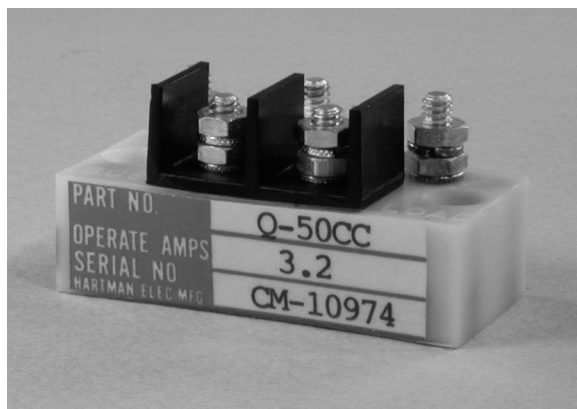
For factory-direct application assistance, phone 419-521-9500 or fax 419-526-2749.

HARTMAN Part Number	Construction Type	Mounting Style	Duty Cycle	Circuit Config.	TE Part Number
Q-50A	Environmentally Sealed	A	Continuous	1	1616131-1

Q-50 Series Relay, Current Indicator, Rated up to 15 Amps, 28 Vdc

Product Facts

- SPDT
- Environmentally sealed
- Meets many requirements of MIL-PRF-6106



Performance Data

Electrical Characteristics

Contact Arrangement — SPDT

Contact Rating @ 28 Vdc —
0.25 Amp

Lamp Load @ 28 Vdc —
0.10 Amp

Rated Operating Voltage — 28 Vdc

Sensing Current Rating — 15 Amps
DC, continuous, max.

Pickup Max. —
3.2 Amps DC

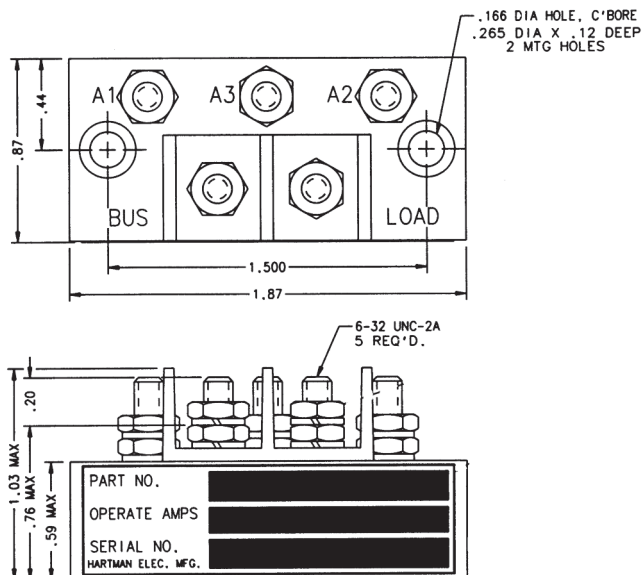
Dropout Min. — 1.2 Amps

General Characteristics

Temperature Range —
-55°C to +85°C

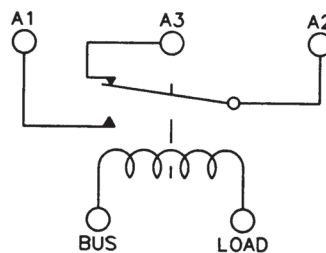
Altitude, Max. — 50,000 ft

Weight, Max. — 1.25 oz



Mounting Style A

Circuit Configurations (Consult factory for other available circuit configurations)



Circuit Configuration 1

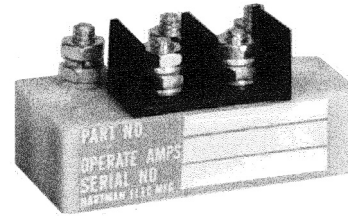
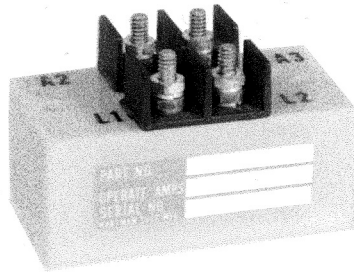
For factory-direct application assistance, phone 419-521-9500 or fax 419-526-2749.

HARTMAN Part Number	Construction Type	Mounting Style	Duty Cycle	Circuit Config.	TE Part Number
Q-50CC	Environmentally Sealed	A	Continuous	1	1616131-7

Q-50 Series Relay, Current Indicator, Rated up to 16 Amps, 28 Vdc

Product Facts

- SPST NC
- Environmentally sealed
- Meets many requirements of MIL-PRF-6106



Performance Data

Electrical Characteristics

Contact Arrangement —

Q50S - SPST NC

Q50Z - SPDT

Contact Rating @ 28 Vdc —

0.25 Amp

Lamp Load @ 28 Vdc —

0.10 Amp

Rated Operating Voltage — 28 Vdc

Sensing Current Rating — 16 Amps
DC, continuous, max.

Pickup Max. — 3 Amps DC

Dropout Min. — 1.2 Amps

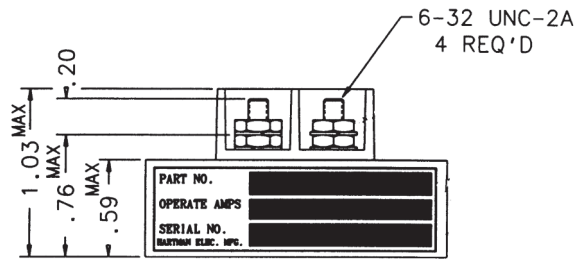
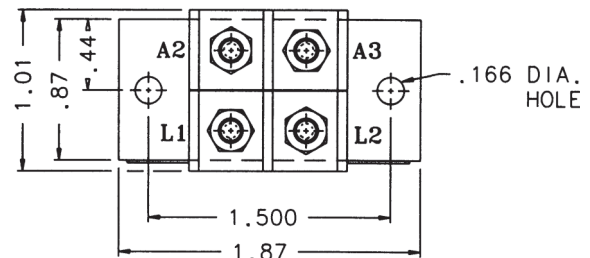
General Characteristics

Temperature Range —

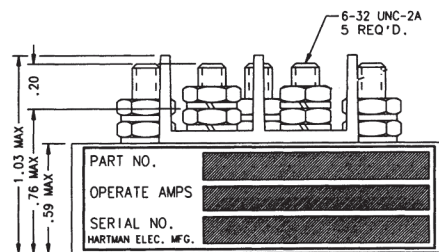
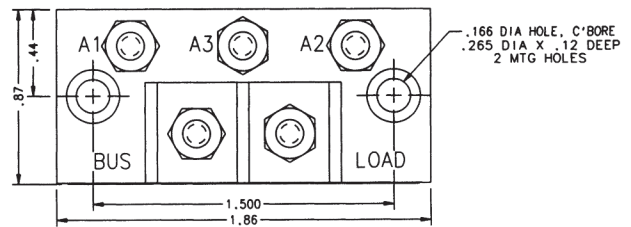
-55°C to +71°C

Altitude, Max. — 50,000 ft

Weight, Max. — 1.25 oz

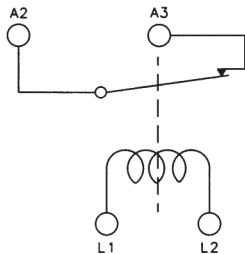


Mounting Style A

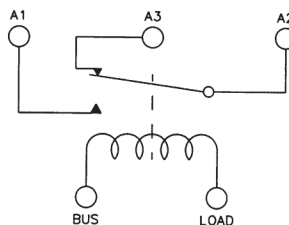


Mounting Style B

Circuit Configurations (Consult factory for other available circuit configurations)



Circuit Configuration 1



Circuit Configuration 1

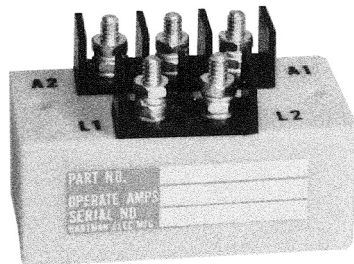
For factory-direct application assistance, phone 419-521-9500 or fax 419-526-2749.

HARTMAN Part Number	Construction Type	Mounting Style	Duty Cycle	Circuit Config.	TE Part Number
Q-50S	Environmentally Sealed	A	Continuous	1	1-1616131-1
Q-50Z	Environmentally Sealed	A	Continuous	2	1-1616131-3

Q-50 Series Relay, Current Indicator, Rated up to 20 Amps, 28 Vdc

Product Facts

- SPST NC or SPST NO
- Environmentally sealed
- Meets many requirements of MIL-PRF-6106



Performance Data

Electrical Characteristics

Contact Arrangement —
SPST NC, SPST NO or SPDT

Contact Rating @ 28 Vdc —

Q-50AB-2 — 0.2 Amp
Q-50J, — 0.25 Amp
Q-50AG — 1.0 Amp
Q-50AB-1 — 1 Amp switching, and
2 Amps carry
Q50AC — 2 Amp

Lamp Load @ 28 Vdc —

Q-50AC, Q-50AB-2 — 0.08 Amp
Q-50J, Q-50AG — 0.20 Amp

Operating Voltage, Nom. — 28 Vdc

Sensing Current Rating —

20 Amps continuous, max. except for
Q-50AB-1 and Q-50AB-2 which are 10

Amps max. and 15 Amps max. for 3 sec.

Q50AC 2 Amps continuous 10 Amps
max. for 5 seconds

Pickup Max. —

Q-50AC — 0.3 Amp
Q-50AB-1, Q-50AB-2 — 1.5 Amp
Q-50J — 3.5 Amps DC
Q-50AG — 6 Amps DC $\pm 20\%$

Dropout Min. —

Q-50AC — 0.1 Amp
Q-50J — 0.5 Amp
Q-50AB-1, Q-50AB-2 — less than 1 Amp
Q-50AG — 2.4 Amp

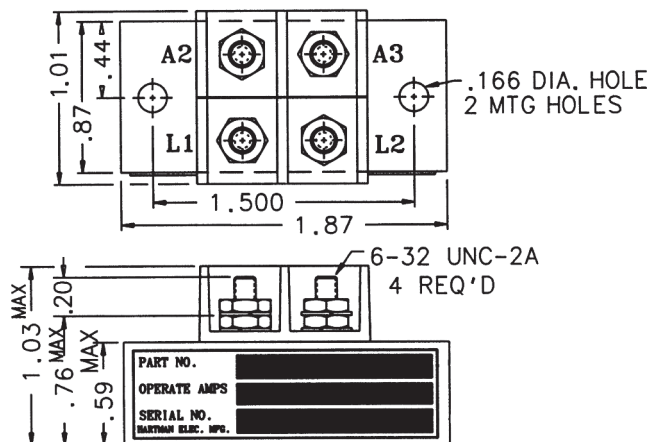
General Characteristics

Temperature Range —
-55°C to +71°C

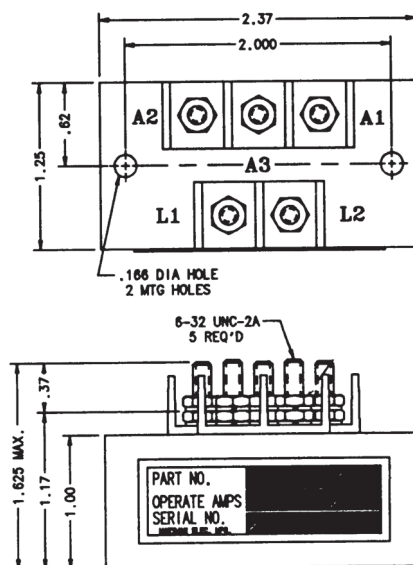
Altitude, Max. —

Q-50J, Q-50AB-1 — 50,000 ft
Q-50AC, Q-50AG, Q-50AB-2 —
60,000 ft

Weight, Max. — 1.25 oz



Mounting Style A

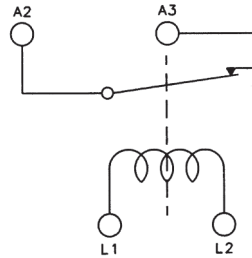


Mounting Style B

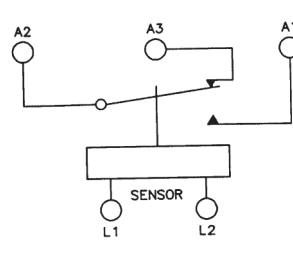
For factory-direct application
assistance, phone 419-521-9500 or
fax 419-526-2749.

Q-50 Series Relay, Current Indicator, Rated up to 20 Amps, 28 Vdc (Continued)

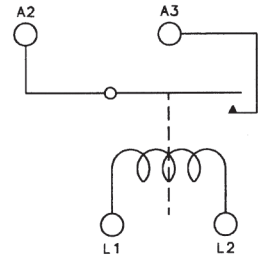
Circuit Configurations (Consult factory for other available circuit configurations)



Circuit Configuration 1



Circuit Configuration 2



Circuit Configuration 3

HARTMAN Part Number	Construction Type	Mounting Style	Duty Cycle	Circuit Config.	TE Part Number
Q-50J	Environmentally Sealed	A	Continuous	1	1-1616131-0
Q-50AC	Environmentally Sealed	B	Continuous	2	1616131-4
Q-50AG	Environmentally Sealed	A	Continuous	1	1616540-7
Q-50AB-1	Environmentally Sealed	A	Continuous	1	1616131-2
Q-50AB-2	Environmentally Sealed	A	Continuous	3	1616131-3

For factory-direct application assistance, phone 419-521-9500 or fax 419-526-2749.