

Type 70 and 71 solenoids

FEATURES

- High current capacity control
- Isolated or grounded coils
- Enclosed in dust-resistant case
- Longer steel encasement permits lower heat rise and more sensitive operation on Type 71

ENGINEERING DATA

Contacts

- Pole form— SPNO, SPDT
- Material— SPNO-copper or silver
SPDT-copper and silver or all silver
- Termination— $\frac{5}{16}$ "-24 UNF-2A thread

| RATINGS | | | | | |
|---------|----------|-------|--------|-------|--------|
| Type | Volts DC | NO | | NC | |
| | | Cont. | Inrush | Cont. | Inrush |
| 70 | 6 | 80A | 800 A | 60A | 100 A |
| | 12 | 80 A | 400 A | 60 A | 60 A |
| | 24 & 36 | 50 A | 200 A | 30 A | 30 A |
| 71 | 6 | 80A | 1000 A | 60A | 100 A |
| | 12 | 80 A | 500 A | 60 A | 60 A |
| | 24 & 36 | 50 A | 250 A | 30 A | 30 A |

Coils

- Voltage—6 VDC through 36 VDC
- Termination—#10-32 UNF-2A thread
- Power (approximate)
 - Type 70 intermittent 23 watts
 - Type 70 continuous 9 watts
 - Type 71 intermittent 25 watts
 - Type 71 continuous 10 watts
- Connections
 1. Coil isolated (two terminals)
 2. One coil lead grounded to case (one terminal)
 3. One coil lead common to NO terminal marked "BAT" (one terminal)
- Operate (77°F/25°C)
75% of nominal coil voltage; 110% max. safe of nominal coil voltage

| COIL DATA | | | | | |
|-----------|-------------------|-------|----------|-------------------|-------|
| TYPE 70 | | | TYPE 71 | | |
| Volts DC | Resistance (Ohms) | | Volts DC | Resistance (Ohms) | |
| | Int. | Cont. | | Int. | Cont. |
| 6 | 1.5 | 4.0 | 6 | 1.4 | 3.5 |
| 12 | 6.2 | 16.0 | 12 | 4.9 | 13.5 |
| 18 | 20.3 | 37.4 | 18 | 13.46 | 36.0 |
| 24 | 23.9 | 60.4 | 24 | 20.1 | 57.1 |
| 36 | 60.4 | 114.0 | 36 | 57.1 | 131.0 |



GENERAL DATA

- Dielectric Strength
 - 500 Volts
- Temperature Range
 - -40°F/-40°C to 122°F/50°C
- Mechanical Life (no load)
 - 250,000 operations
- Electrical Life (rated load)
 - 100,000 operations
- Mounting Position
 - Recommended mounting is plunger vertical with cap down
- Weight (approximate)
 - Type 70—14.0 oz.
 - Type 71—17.0 oz.
- Duty Cycle
 - Continuous
 - Intermittent—10 seconds "on" maximum and minimum 60 seconds "off". One minute "on" maximum and minimum 6 minutes "off".
- Hardware Torque Specification
 - Contact Terminal: 45-55 inch-lbs.
 - Coil Terminal: 12-18 inch-lbs.

TYPE 70/71 PART NUMBERING SYSTEM

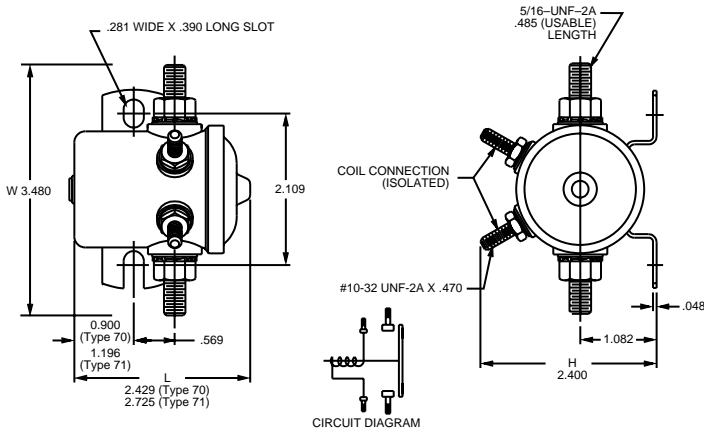
7x - xxxxx - x

| Basic Part Number Series | Coil Voltage/Duty | Coil Termination (15 in-lb torque spec.) | Hardware |
|---|--|---|--|
| Type 71 case is approx. 0.29" longer than Type 70 | 08 – 6 Volt continuous 09 – 6 Volt intermittent 11 – 12 Volt continuous 12 – 12 Volt intermittent 14 – 18 Volt continuous 15 – 18 Volt intermittent 17 – 24 Volt continuous 18 – 24 Volt intermittent 20 – 36 Volt continuous 21 – 36 Volt intermittent | 221 – Isolated coil, all Ag contacts 222 – Coil grounded to case, all Ag contacts 224 – Isolated coil, Cu NO and Ag NC contacts 225 – Coil grounded to case, Cu NO and Ag NC contacts 226 – Coil common to NO (stud marked "BAT"), Cu NO and Ag NC contacts | 2 – Hardware loosely assembled 3 – Hardware bulk packed (not assigned to new part numbers) 4 – Hardware loosely assembled (not assigned to new part numbers) 5 – Hardware bulk packed 7 – No hardware included |
| Contact Form | | | |
| 1 – SPNO 3 – SPDT | | | |

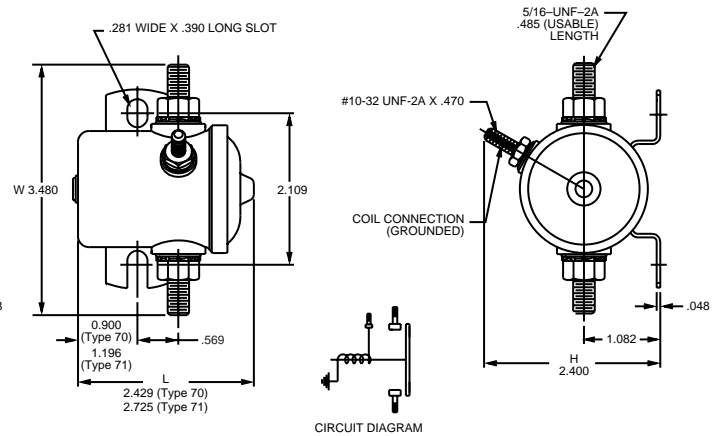
APPLICATION NOTES

- Not all part number combinations are available. Please contact your Sales Representative for available part numbers.
- Special construction options, including a curved bracket, may be available under other part numbers, including 111-xxxD, 111-xxxE, 5608-x and 878x-x.
- Solenoids applied in battery charging circuits should be protected from higher than rated voltage during charging. The service life may be affected by this condition and the solenoid may or may not operate the circuit as intended.
- Circuits should be designed to provide safe operation should the solenoid fail in either the open or closed position.
- A back-up wrench must be used to hold the bottom nut stationary during installation.

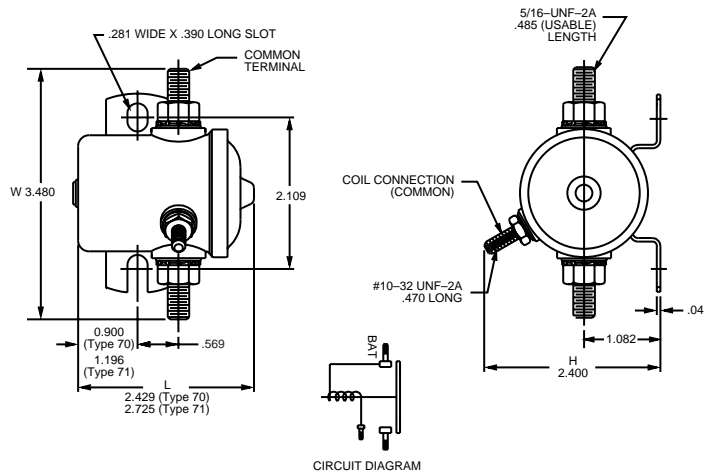
SPNO – Isolated Coil



Coil Grounded to Case



Coil Common to Load



SPDT – Isolated Coil

