

# WHITE-RODGERS DC PRODUCTS

## Type 120

### solenoid

#### FEATURES

- Water resistant
- Capable of handling low and high current requirements
- Versatile mounting and termination

#### ENGINEERING DATA

##### Contacts

- Pole form—SPNO
- Material—silver alloy or copper
- Termination— $\frac{5}{16}$ "-24 UNF-2A thread or  $\frac{1}{4}$ "-20 UNC-2A thread

| RATINGS  |       |        |            |                  |
|----------|-------|--------|------------|------------------|
| Volts DC | Cont. | Inrush | Elec. Life | Contact Material |
| 12 VDC   | 80A   | 400 A  | 10,000     | Copper           |
| 12 VDC   | 100 A | 400 A  | 50,000     | Silver Alloy     |
| 36 VDC   | 100 A | 400 A  | 25,000     | Silver Alloy     |

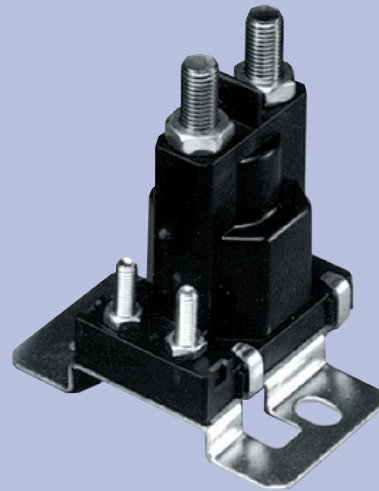
Consult factory for additional ratings.

##### Coils

- Voltage—6 VDC through 48 VDC
- Termination—#8-32 UNC-2A, #10-32 UNF-2A thread or  $\frac{1}{4}$ " quick-connect
- Power (approximate)  
Continuous 8.1 watts  
Intermittent 14.4 watts
- Connections
  1. Coil isolated (two terminals)
  2. One coil lead grounded to bracket (one terminal)
- Operate (77°F/25°C)  
67% of nominal (Int.)  
75% of nominal (Cont.)  
110% max. safe of nominal coil voltage

| COIL DATA |                    |            |
|-----------|--------------------|------------|
| Volts DC  | Resistance in Ohms |            |
|           | Intermittent       | Continuous |
| 6         | *                  | 4.0        |
| 12        | 6.0                | 16.0       |
| 14        | *                  | 26.0       |
| 15        | 9.4                | 23.0       |
| 24        | 24.0               | 64.0       |
| 36        | 54.0               | 160.0      |
| 48        | *                  | 256.0      |

\* SPECIAL COILS AVAILABLE UPON REQUEST



#### GENERAL DATA

##### Dielectric Strength

- 500 Volts

##### Temperature Range

- -20°F to 150°F (-28.9°C to 65.6°C) (Intermittent)
- -20°F to 120°F (-28.9°C to 48.9°C) (Continuous)

##### Mechanical Life (no load)

- 100,000 cycles

##### Mounting Position

- Recommended mounting is coil terminals up or horizontal

##### Weight (approximate)

- SPNO—6.0 oz.

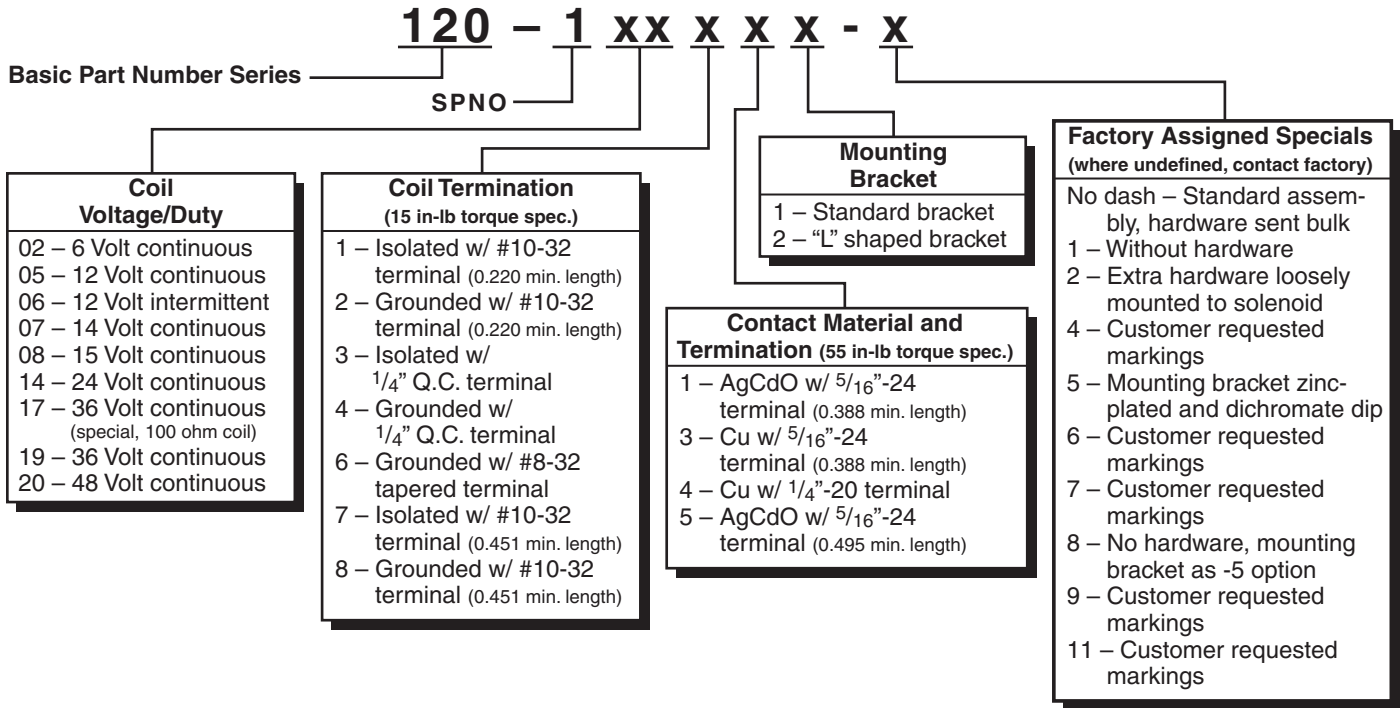
##### Duty Cycle

- Continuous
- Intermittent—30 seconds "on" maximum and minimum 6 minutes "off"

##### Hardware Torque Specification

- Contact Terminal: 45-55 inch-lbs.
- Coil Terminal: 12-18 inch-lbs.

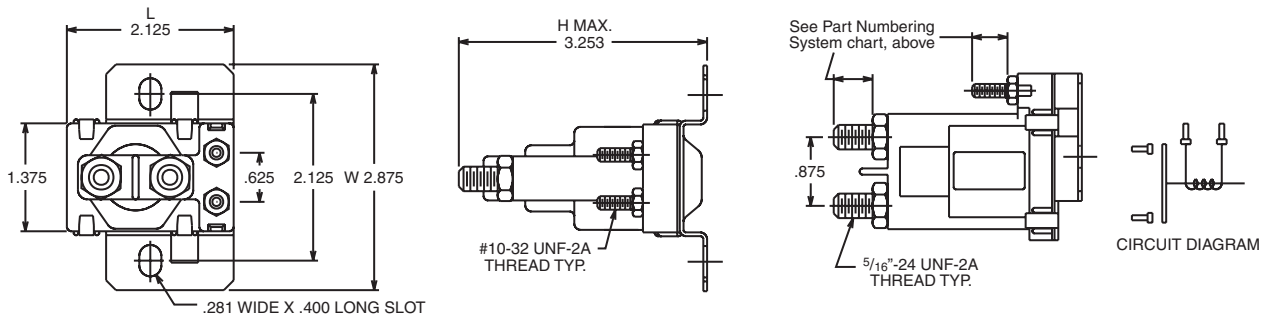
# TYPE 120 PART NUMBERING SYSTEM



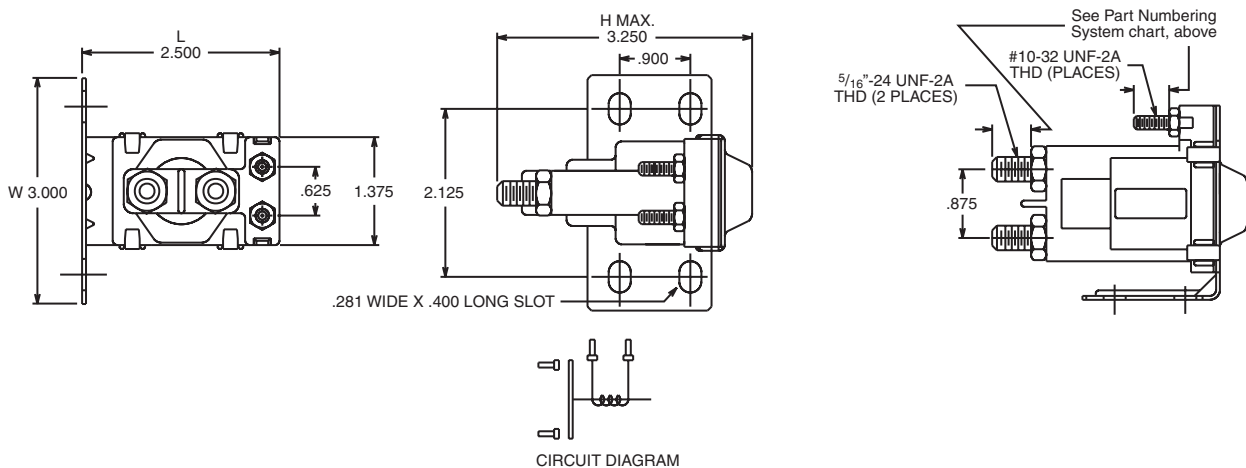
## APPLICATION NOTES

- Not all part number combinations are available. Please contact your Sales Representative for available part numbers.
- 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.

## Terminal Type 4 - Isolated Coil (STD Bracket)



## Terminal Type 4 - Isolated Coil (L Bracket)



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