## Coil Information

## **7000 SERIES COILS**

#### Integrated Coil Offering (These coils utilize enclosure code "NO". For coil dimensions, see page 125.)

|      | Coil Code | Type of Termination    | Wattage | Description  |
|------|-----------|------------------------|---------|--|
|      | L111      | Leads                  | 10      | Class F Molded with 18" leads                                      |
| -    | L222      | Leads                  | 10      | Class H Molded with 18" leads                                      |
|      | L322      | Leads                  | 22      | Class H Molded with 18* leads                                      |
|      | C111      | 1/2" Conduit           | 10      | Class F Molded, NEMA 1, 2, 3, 3s, 4, 4X, 18" leads                 |
| 6    | C222      | 1/2" Conduit           | 10      | Class H Molded, NEMA 1, 2, 3, 3s, 4, 4X, 18" leads                 |
|      | C322      | 1/2" Conduit           | 22      | Class H Molded, NEMA 1, 2, 3, 3s, 4, 4X, 18" leads                 |
|      | H111      | 1/2" Conduit           | 10      | Class F Molded, NEMA 3, 3s, 4, 4X, 7, 9 18" leads                  |
| -    | H222      | 1/2" Conduit           | 10      | Class H Molded, NEMA 3, 3s, 4, 4X, 7, 9 18" leads                  |
|      | H322      | 1/2" Conduit           | 22      | Class H Molded, NEMA 3, 3s, 4, 4X, 7, 9 18" leads                  |
|      | H2S1      | 1/2" Conduit Stainless | 10      | Class H Molded, NEMA 3, 3s, 4, 4X, 7, 9 18" leads, stainless steel |
| 1/21 | D100      | DIN                    | 10      | Class F Molded   |
|      | D200      | DIN                    | 10      | Class H Molded   |
| T    | D300      | DIN                    | 22      | Class H Molded   |
|      | S100      | Screw                  | 10      | Class F Molded   |
|      | S200      | Screw                  | 10      | Class H Molded   |
| TO   | S300      | Screw                  | 22      | Class H Molded   |
|      | T100      | 1/4" Tab               | 10      | Class F Molded   |

#### Conventional Coil Offering (These coils require conventional coil enclosures-see page 120.)

| J111 | Leads | 10 | Class F Molded with 18" leads |
|------|-------|----|-------------------------------|
| J222 | Leads | 10 | Class H Molded with 18" leads |
| J322 | Leads | 22 | Class H Molded with 18" leads |
|      |       |    |                               |

## Specialty Coils (These coils require conventional coil enclosures-see page 134.)

| J611<br>F611 | 18" Leads<br>18" Leads | 1.3<br>1.1 | Fluxtron 2 wire, low power, low temperature Fluxtron 4 wire, low power, low temperature (TTL logic level compatible) |
|--------------|------------------------|------------|--|
| J011<br>G011 | 18" Leads<br>18" Leads | 0          | Magnelatch 2 wire, DC only<br>Magnelatch 3 wire, AC or DC (pulse)  |

#### Notes:

- \* For coil temperature information, refer to Technical Information section beginning on page 114.
- \* Refer to 7000 Series numbering system description beginning on page 119 for voltage code designations.
- \* Ordinary Location Agency: Underwriter's Laboratories Inc. (UL), Ordinary Location File Number MH 15507/ Canadian Standards Association (CSA), Ordinary Location File Number LR 10716
- \* Hazardous location coils certified for Class I, Division 1 and 2, Groups A,B,C,D; Class II, Division 1 and 2, Groups E,F,G. Agency File Numbers: Underwriter's Laboratories Inc. (UL), Hazardous Location File Number E 23267/ Canadian Standards Association (CSA), Hazardous Location File Number LR 16286
- \* DIN terminations per DIN 43650A/ ISO 4400 requirements.

- \* Valves with AC Fluxtron coils receive a 10 watt pressure rating. Valves with a DC Fluxtron coil receive a DC pressure rating.
- \* Fluxtron coils are not available for direct lift valves (code 2 in position 2) or for steam service valves (code S0 in position 11,12 of the pressure vessel)
- Magnelatch coils are equipped with permanent magnets to retain plunger position after power is removed.
- \* Magnelatch coils receive the same pressure ratings as a valve with a 10 watt coil.
- \* Magnelatch coils are not available for steam service valves (S0 in position 11,12 of the pressure vessel)
- \* Magnelatch coils use minimal average power and have no appreciable temperature rise.

#### **Available Voltages**

Standard available voltages are listed here. Additional voltages can be satisfied with a new coil of a specific voltage. Consult Fluid Control Division. Note: Valves encoded with 4th digit = 2 (i.e. 7122, 7222, 7322, except for 71221 and 73222) do not meet UL temperature approval requirements on 50Hz voltages when supplied with 10 watt or 22 watt dual frequency coils listed here. Consult Fluid Control Division if

UL approval is required. However, the following voltages and codes can be specified for operating these valves on 60Hz:

| 120/60 | B6 |
|--------|----|
| 240/60 | B8 |
| 480/60 | 1R |

#### Integrated, Conventional and Magnelatch Coil Voltages

| DC Voltage          | Voltage Code | Agency Approval |
|---------------------|--------------|-----------------|
| 12 VDC              | C1           | Yes             |
| 24 VDC              | C2           | Yes             |
| 48 VDC              | C4           | Yes             |
| 120 VDC             | C6           | Yes             |
| AC Voltage          | Voltage Code | Agency Approval |
| 24/60               | B2           | Yes             |
| 110/50, 120/60      | P3           | Yes             |
| 208/60 <sup>1</sup> | 2K           | Yes             |
| 220/50, 240/60      | Q3           | Yes             |
| 440/50, 480/60*     | Q8           | Yes             |

#### **Fluxtron Coil Voltages**

| -            |                 |
|--------------|-----------------|
| Voltage Code | Agency Approval |
| C1           | Yes             |
| C2           | Yes             |
| P0           | Yes             |
| 2W           | Yes             |
|              | C1<br>C2<br>P0  |

<sup>\*</sup> Note: Not available in coil types H111, H222, H322

Voltage range -15% to +10% for continous duty.

Not available in magnelatch

# **Explosion-proof Coil**



Model: H111 / H322 ½" conduit, 18" leads NEMA 4, 4X, 7, 9

H111 = 10 wattsH322 = 22 watts

Prefix "NO" as enclosure code when order complete set with valve

Suffix voltage: C2=24VDC P3=110/50, 120/60 Q3=220/50, 240/60

Example: NO-H111C2 = 24VDC 10watts NO-H322C2 = 24VDC 22watts

#### **NEMA STANDARD:**

- •Type 1: General Purpose Enclosures are intended for indoor use, primarily to prevent accidental contact of personnel with the enclosed equipment in areas where unusual service conditions do not exist.
- •**Type 2:** Drip-Proof Enclosures are intended for indoor use to protect the enclosed equipment against falling non-corrosive liquids and falling dirt.
- •Type 3R: Rainproof and Sleet Resistant (Ice Resistant) Enclosures are intended for outdoor use to
  protect the enclosed equipment against rain,
  sleet and external ice formation.
- •**Type 4:** Watertight and Dust-Tight Enclosures are intended for indoor or outdoor use to protect the enclosed equipment against splashing water, seepage of water, falling or hose-directed water and severe external condensation.
- •**Type 4X:** Watertight, Dust-Tight and Corrosion-Resistant Enclosures have the same provisions as Type 4 enclosures and are corrosion-resistant.
- •**Type 6:** Submersible Enclosure protected against entry of water during occasional temporary submersion at a limited depth.
- •Type 7: Explosion-Proof Designed to be used in a hazardous atmospheres classified as Class I, Groups A, B, C or D, as defined by NEC (National Electric Code). The explosion-proof enclosure must be able to withstand an internal explosion and prevent the ignition of atmospheric gases which may be caused by the shorts or sparks occurring within the enclosures. Additionally, the external enclosure temperature must be low enough as to not ignite a surrounding flammable atmosphere.
- •Type 9: Class II, Division I, Group E, F or G Enclosures are intended for indoor use in the
  atmospheres and locations as defined as Class
  II, Division I or Division II, and Group E, F or
  G in the NEC to prevent the entrance of
  explosive amounts of hazardous dust. If
  gaskets are used, they must be of noncombustible, non-deteriorating, vermin proof
  material.
- •Type 12: Industrial Use Dust-Tight and Drip-Tight Enclosures are intended for indoor use to protect enclosed equipment against fibers, filings, lint, dust and dirt; and light splashing, seepage, dripping and external condensation of non-corrosive liquids.

