OPERATORS
for explosive atmospheres
2 and 3 way
encapsulated moulded coils with leads

FEATURES
- The solenoid is conforming to ICS-6 ANSI / NEMA standard and UL standards 429, 508 and 1002
- A one-piece moulded epoxy coated solenoid with an integral 1/2" NPT conduit hub and built-in strain relief for leads
- The epoxy encapsulation serves as the enclosure and the magnetic frame is moulded into the coil
- The operator is available as both pull or push type solenoid and can be installed on normally open and normally closed valves
- The solenoid has 35 cm long leaded wires
- The solenoids include an internal non-resetable thermal fuse to limit solenoid temperature in the event that extraordinary conditions occur, which could cause excessive temperatures

CONSTRUCTION
Encapsulant
Thermosetting epoxy-resin
Core tube
Stainless steel
Core and plugnut
Stainless steel
Core spring
Stainless steel
Sealings & discs
NBR
Top disc (3 way)
PA
Disc holder
CA
Cartridge
Welded, packless AISI 430
Cartridge seat
Brass
Seat insert
CA
Shading coil
Copper
Ridering (Low Power)
PTFE
Nameplate
Stainless steel
Conduit hub
1/2" NPT zinc plated carbon steel (EF prefix)
or 1/2" NPT stainless steel (EV prefix)

ELECTRICAL CHARACTERISTICS

SAFETY CODE
NEMA, types 7 and 9

Standard voltages:
DC (=) : 24V - 48V
AC (~) : 24V - 48V - 120V - 240V / 60 Hz
(Other voltages and 50 Hz on request)

TEMPERATURE CLASSIFICATION TABLES
The minimum allowable ambient temperature is -40°C for the operator. Select the requested “T” classification from the temperature classification tables (AC or DC), respecting the maximum ambient temperature and cold (20°C) electrical holding power values.

AC (-) Solenoids

<table>
<thead>
<tr>
<th>Power level (watt)</th>
<th>Insulation class</th>
<th>T6 (G)</th>
<th>T5 (G)</th>
<th>T4 (G)</th>
<th>T3 (G)</th>
<th>T2 (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low power (LP)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Basic power (BP)</td>
<td>6,1 F</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>52°C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9,1 F</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>52°C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10,1 F</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>52°C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12,0 F</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>52°C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15,1 F</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>52°C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17,1 F</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>52°C</td>
<td></td>
</tr>
</tbody>
</table>

(1) Make sure that the selected ambient temperature does not exceed the allowable valve temperature characteristics as specified on the appropriate valve catalogue sheets
AC (-) Full wave rectified coil construction

DC (-) Solenoids

<table>
<thead>
<tr>
<th>Power level (watt)</th>
<th>Insulation class</th>
<th>T6 (G)</th>
<th>T5 (G)</th>
<th>T4 (G)</th>
<th>T3 (G)</th>
<th>T2 (D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low power (LP)</td>
<td>1,7 F</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>40°C</td>
<td></td>
</tr>
<tr>
<td>Basic power (BP)</td>
<td>10,6 F</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>40°C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11,6 F</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>40°C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>22,6 F</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>40°C</td>
<td></td>
</tr>
</tbody>
</table>

All leaflets are available on: www.asco.com
**PRODUCT SELECTION GUIDE**

(The selection can only be made in conjunction with the appropriate valve catalogue sheet)

**STEP 1**
Select basic valve catalogue number, including pipe thread identification letter from one of the specification tables on the separate catalogue pages.

**Example:** G327G001

**STEP 2**
Select voltage. Refer to standard voltages on page 1.

**Example:** 24V / DC

**STEP 3**
Select solenoid prefix (combination). Refer to the prefix table on this page and respect the indicated power level, cold electrical holding values and "T" classification mentioned on page 1.

**NOTE:** Make sure that the ambient temperature does not exceed the allowable valve temperature characteristics.

**Example:** EF

40°C ambient
Basic Power (BP) 11,6W
NEMA Type 7 and 9, T3

**STEP 4**
Final catalogue / ordering number.

**Example:**
EF G327G001 24V / DC

---

**PREFIX TABLE**

<table>
<thead>
<tr>
<th>prefix</th>
<th>description</th>
<th>power level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td>LP RP MP BP</td>
</tr>
<tr>
<td>E F E V X</td>
<td>Explosionproof - NEMA 7, 9 - zinc plated steel conduit</td>
<td>- - - -</td>
</tr>
<tr>
<td></td>
<td>Explosionproof - NEMA 7, 9 - 316 SS conduit</td>
<td>- - - -</td>
</tr>
<tr>
<td></td>
<td>Other special constructions</td>
<td>- - - -</td>
</tr>
</tbody>
</table>

- Available feature
- Available feature in DC only
- Not available

---

**ORDERING EXAMPLES VALVES:**

<table>
<thead>
<tr>
<th>prefix/option</th>
<th>power level</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>E</th>
<th>F1</th>
<th>F2</th>
<th>weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>EF B 320G200MO 240V / 60 Hz</td>
<td>BP</td>
<td>70</td>
<td>48</td>
<td>43</td>
<td>24</td>
<td>46</td>
<td>-</td>
<td>0,25 kg</td>
</tr>
<tr>
<td>EV E 316G084MB 240V / 60 Hz</td>
<td>BP</td>
<td>77</td>
<td>52</td>
<td>50</td>
<td>26</td>
<td>51</td>
<td>-</td>
<td>0,35 kg</td>
</tr>
</tbody>
</table>

- Available feature
- Available feature in DC only
- Not available

---

**INSTALLATION**

- The solenoid valves can be mounted in any position without affecting operation
- The solenoid can be rotated 360° to select the most favourable position for cable entry

---

**DIMENSIONS (mm), WEIGHT (kg)**

---

**SECTIONAL DRAWING**

- Execution:
  - EF, Low power 3 way cartridge