



## ER12M type directional solenoid valves – 4 way / 2 positions

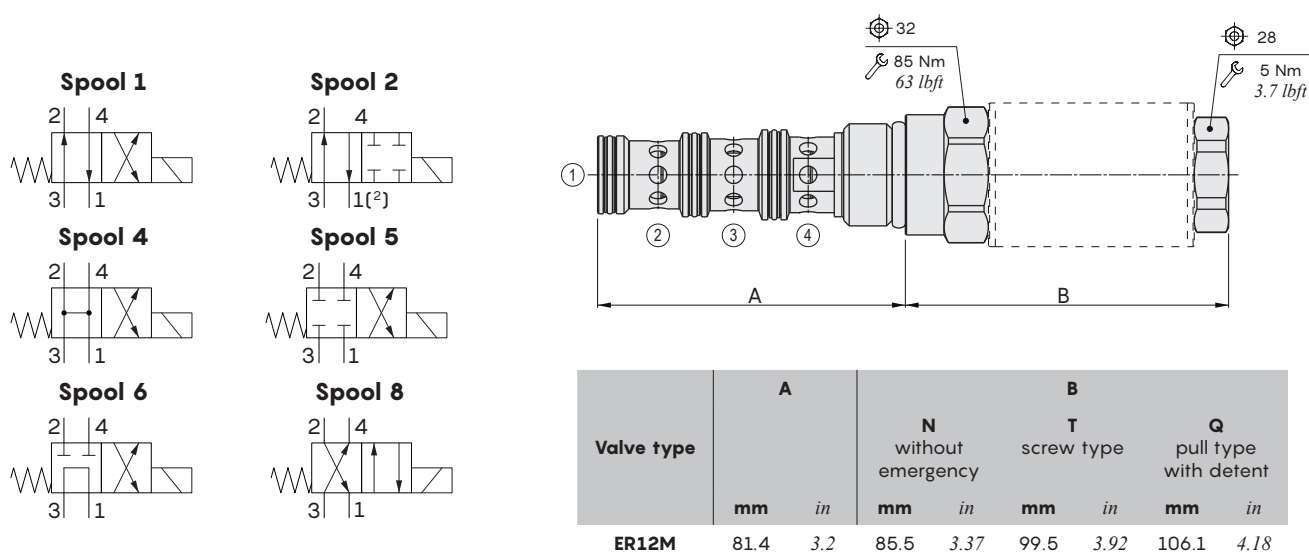
- Spool type
- Direct acting with on-off solenoid
- Different types of emergencies available

Technical specifications and diagrams are measured with mineral oil of 46 cSt viscosity at 40°C (104°F) temperature.

### ER12M

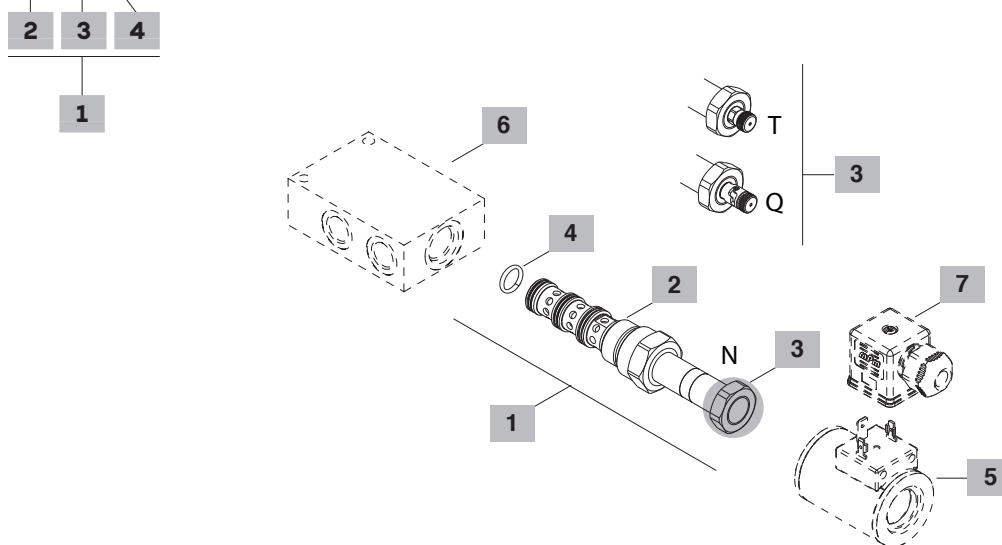
|                                            |                                               |                                                                          |
|--------------------------------------------|-----------------------------------------------|--------------------------------------------------------------------------|
| Nominal flow                               |                                               | 60 l/min (15.8 US gpm)                                                   |
| Max. pressure                              | port 1<br>port 2, 3, 4                        | 250 bar (3600 psi)<br>320 bar (4600 psi)                                 |
| Oil leakage                                | at 210 bar (3050 psi)                         | 200 cm <sup>3</sup> /min (12.20 in <sup>3</sup> /min)                    |
| Fluid                                      |                                               | mineral based or synthetic hydraulic fluid with lubricating properties   |
| Viscosity                                  |                                               | 10–200 cSt                                                               |
| Max level of contamination                 |                                               | 18/16/13 ISO4406                                                         |
| Fluid temperature                          | with NBR seals+Polyurethane<br>with FPM seals | from -25°C (-13°F) to 90°C (194°F)<br>from -20°C (-4°F) to 110°C (230°F) |
| Environmental temp. for working conditions |                                               | from -20°C (-4°F) to 60°C (140°F)                                        |
| Cavity                                     |                                               | SAE 12/4                                                                 |
| Coil type*                                 |                                               | BH                                                                       |
| Nominal voltages                           |                                               | 12VDC – 24 VDC ± 10%                                                     |
| Power rating                               |                                               | 33 W (12/24 VDC)                                                         |
| Weight                                     |                                               | 0.73 kg (1.61 lb)                                                        |

NOTE – For different conditions, please contact Walvoil Sales Dpt. – \*For coils further features see from page 201.



## Ordering codes and description composition

ER12M/ 1 0 N B

**1 Cartridges**

| TYPE                   | CODE        | DESCRIPTION                              |
|------------------------|-------------|------------------------------------------|
| <b>SAE cavity 12/4</b> |             |                                          |
| <b>ER12M/10NB</b>      | OER12002021 | Without emergency, spool 1               |
| <b>ER12M/20NB</b>      | OER12002023 | Without emergency, spool 2               |
| <b>ER12M/40NB</b>      | OER12002031 | Without emergency, spool 4               |
| <b>ER12M/50NB</b>      | OER12002024 | Without emergency, spool 5               |
| <b>ER12M/60NB</b>      | OER12002028 | Without emergency, spool 6               |
| <b>ER12M/80NB</b>      | OER12002022 | Without emergency, spool 8               |
| <b>ER12M/10QB</b>      | OER12002033 | Pull type emergency with detent, spool 1 |
| <b>ER12M/60TB</b>      | OER12002030 | Screw type, spool 6                      |

**2 Spool**

| TYPE     | DESCRIPTION |
|----------|-------------|
| <b>1</b> | Spool 1     |
| <b>2</b> | Spool 2     |
| <b>4</b> | Spool 4     |
| <b>5</b> | Spool 5     |
| <b>6</b> | Spool 6     |
| <b>8</b> | Spool 8     |

**3 Emergency**

| TYPE     | DESCRIPTION           |
|----------|-----------------------|
| <b>N</b> | Without emergency     |
| <b>Q</b> | Pull type with detent |
| <b>T</b> | Screw type            |

**4 Seals**

| TYPE     | DESCRIPTION                                                    |
|----------|----------------------------------------------------------------|
| <b>B</b> | <b>NBR (Buna)+Polyurethane</b> o-ring seals, std configuration |
| <b>V</b> | <b>FPM (Viton)</b> o-ring seals, contact Sales Dept            |

**5 Coils**

| TYPE                   | CODE        | DESCRIPTION        |
|------------------------|-------------|--------------------|
| <b>BH12VDC-ISO4400</b> | 4SLD001200A | 12VDC-ISO4400 coil |

For complete coils list see page 201

**6 Valve body**

| TYPE                 | CODE       | DESCRIPTION                                          |
|----------------------|------------|------------------------------------------------------|
| <b>SAE12/4-G 1/2</b> | 3CC1240D11 | Aluminium body for cavity 12 valve, G 1/2 std thread |

Note: aluminium body can stand up to 210 bar (3050 psi)  
For steel bodies or different threading see from page 212

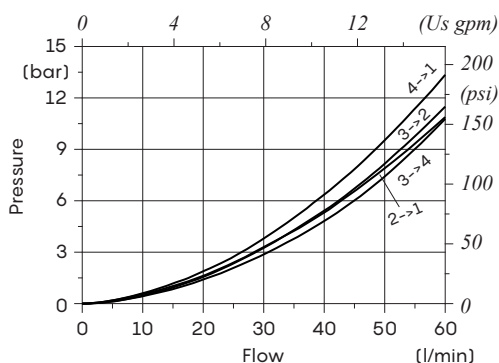
**7 Connector**

| TYPE           | CODE        | DESCRIPTION |
|----------------|-------------|-------------|
| <b>ISO4400</b> | 4CN1009995B | Connector   |

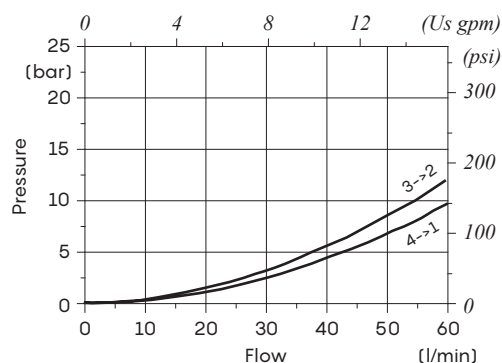
For complete connectors list see from page 201

**Rating diagrams**

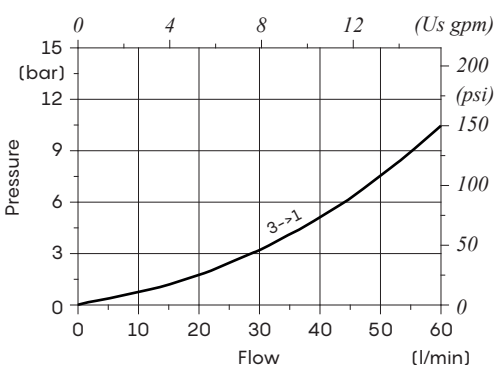
**ER12M pressure drop vs. flow**  
spool 1



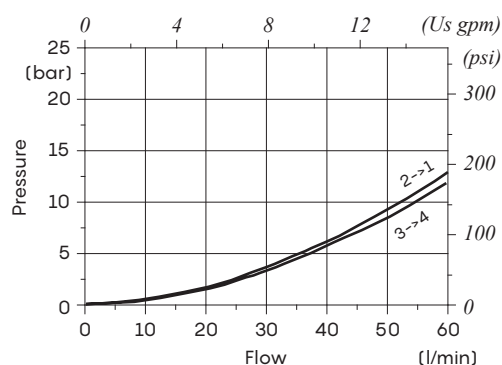
**ER12M pressure drop vs. flow**  
spool 2



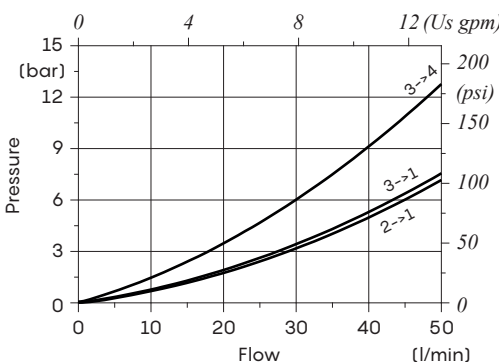
**ER12M pressure drop vs. flow**  
spool 4



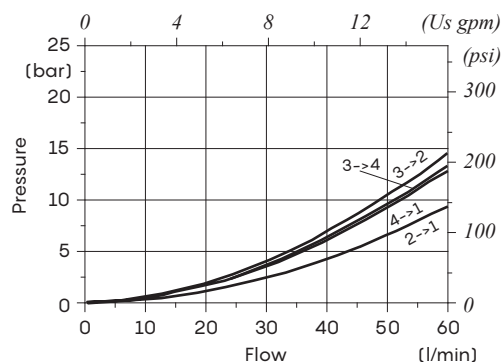
**ER12M pressure drop vs. flow**  
spool 5



**ER12M pressure drop vs. flow**  
spool 6



**ER12M pressure drop vs. flow**  
spool 8



**ER12M performance limit**

