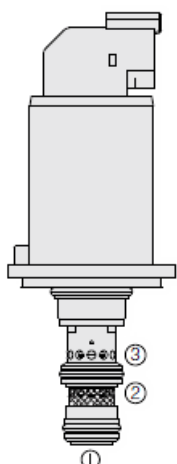




## Overview



### Description

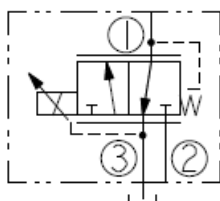
The EHPR98-G38HXX is a direct-acting, spool-type, proportional, pressure reducing relieving valve. It is a 3rd generation hydraforce drop-in, flange mounted cartridge type valve for use with mineral based or synthetic (with lubricating properties) hydraulic fluids. The coil is an integral part of the valve and is not serviceable the regulated pressure is proportional to the input electrical current in the pressure ranges shown.

**NOTE:** \* The 'H' pressure option is to be used in applications with inlet pressures that exceed 69 bar (1000 psi) at port 2. See standard and 'D' options for inlet pressures below 69 bar (1000 psi).

### Features

- Economical drop-in style
- Mounting plate option
- Several regulated pressure ranges
- Retrofit option for EHPR98-T38
- Quick response time
- Screen option
- Top-mounted connector
- Low leakage

### Symbol



## Ratings

### Pressure Ratings

|                                             |                                  |                                       |
|---------------------------------------------|----------------------------------|---------------------------------------|
| Pressure rating                             | 69 to 241 bar (1000 to 3500 psi) | - <b>Note:</b> Port 2                 |
|                                             | 45 bar (650 psi)                 | - <b>Note:</b> Port 1                 |
|                                             | 34.5 bar (500 psi)               | - <b>Note:</b> At port 3              |
| Proof pressure                              | 345 bar (5000 psi)               | - <b>Note:</b> Ports 1, 2 pressurized |
|                                             | 54 bar (780 psi)                 | - <b>Note:</b> Port 3                 |
| Burst pressure                              | 380 bar (5500 psi)               | - <b>Note:</b> Ports 1, 2 pressurized |
|                                             | 250 bar (3625 psi)               | - <b>Note:</b> Port 3                 |
| Control pressure at maximum control current | 21 bar (305 psi)                 | - <b>Note:</b> EHPR98-G38HA           |
|                                             | 25 bar (363 psi)                 | - <b>Note:</b> EHPR98-G38HB           |
|                                             | 30 bar (435 psi)                 | - <b>Note:</b> EHPR98-G38HC           |

### Flow Ratings

|                          |                                        |                                                   |
|--------------------------|----------------------------------------|---------------------------------------------------|
| Flow rating              | 23 lpm (6 gpm)                         |                                                   |
| Maximum internal leakage | 200 ml/min (12.2 in <sup>3</sup> /min) | - <b>Note:</b> At 241 bar (3500 psi) de-energized |

### Other Ratings

|                      |                                   |
|----------------------|-----------------------------------|
| Cycle life           | 10 million cycles                 |
| Environmental rating | IP69K                             |
| Corrosion protection | 960 hour salt spray per ASTM B117 |

### Temperature Ratings

|                             |                               |                             |
|-----------------------------|-------------------------------|-----------------------------|
| Operating fluid temperature | -40 to 149 °C (-40 to 300 °F) | - <b>Note:</b> HNBR         |
|                             | -26 to 204 °C (-15 to 400 °F) | - <b>Note:</b> Fluorocarbon |
| Storage temperature         | -40 to 70 °C (-40 to 158 °F)  |                             |
| Ambient temperature         | -40 to 120 °C (-40 to 248 °F) |                             |

## Operating Parameters

|                       |                                                                        |
|-----------------------|------------------------------------------------------------------------|
| Fluids                | Mineral based or synthetic hydraulic fluid with lubricating properties |
| Fluid viscosity range | 7.4 to 420 cSt                                                         |



Properties

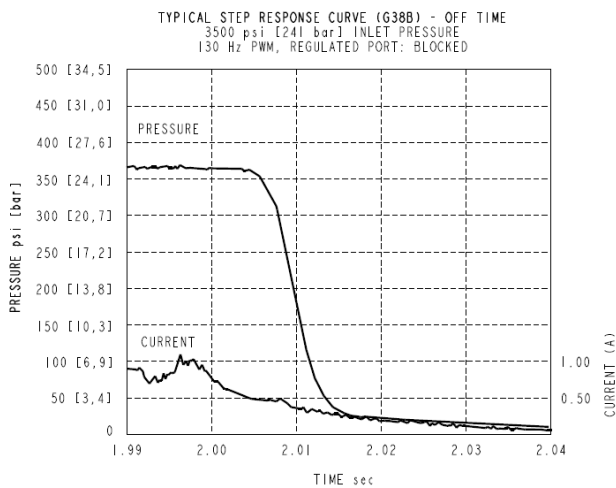
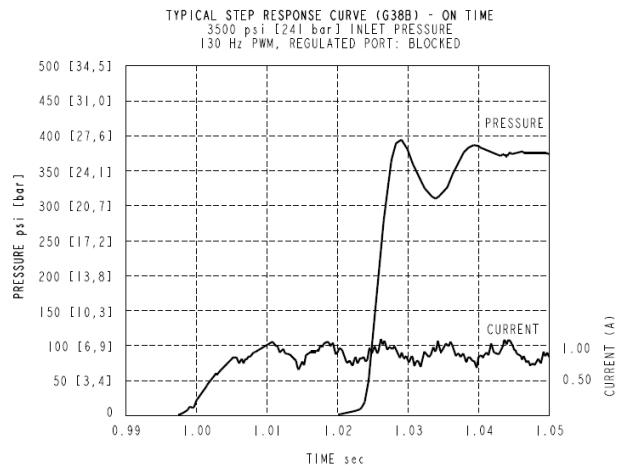
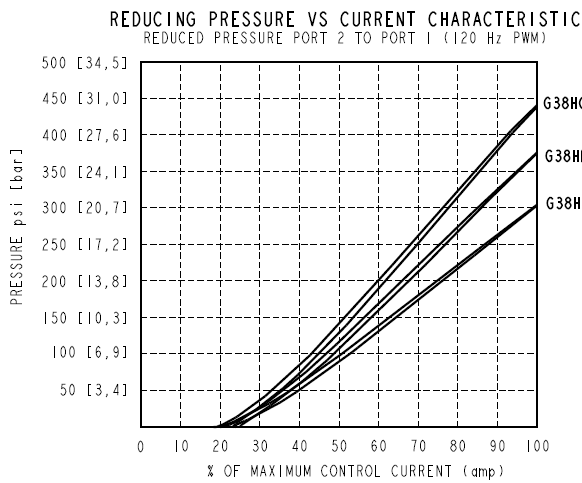
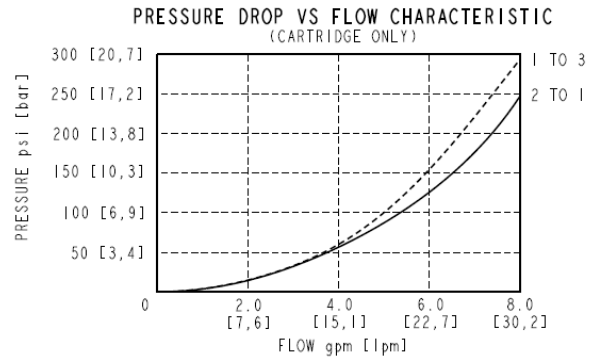
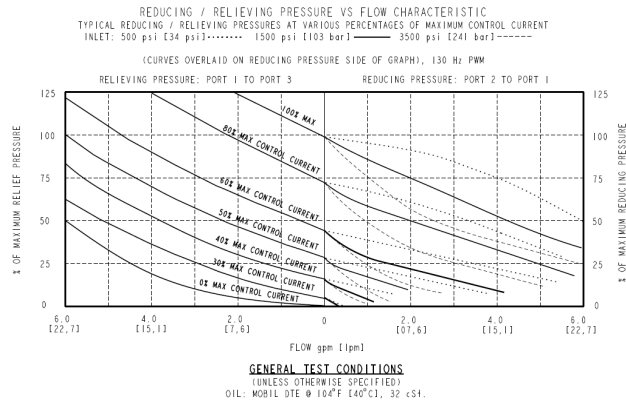
|                              |                    |
|------------------------------|--------------------|
| Unit weight                  | 0.27 kg (0.60 lb)  |
| Internal wetted surface area | 148 cm² (23.0 in²) |

Electrical Parameters

|                         |           |                              |
|-------------------------|-----------|------------------------------|
| Maximum control current | 1.050 A   | - <b>Note:</b> At 10 V       |
|                         | 0.0880 A  | - <b>Note:</b> At 12 V       |
|                         | 0.720 A   | - <b>Note:</b> At 14 V       |
|                         | 0.525 A   | - <b>Note:</b> At 20 V       |
|                         | 0.440 A   | - <b>Note:</b> At 24 V       |
|                         | 0.360 A   | - <b>Note:</b> At 28 V       |
| Coil resistance         | 4.83 ohm  | - <b>Note:</b> 10 V coil     |
|                         | 7.28 ohm  | - <b>Note:</b> 12 V coil     |
|                         | 10.05 ohm | - <b>Note:</b> 14 V coil     |
|                         | 18.35 ohm | - <b>Note:</b> 20 V coil     |
|                         | 29.54 ohm | - <b>Note:</b> 24 V coil     |
|                         | 40.36 ohm | - <b>Note:</b> 28 V coil     |
| Valve inductance        | 77 mH     | - <b>Note:</b> 10 V coil     |
|                         | 118 mH    | - <b>Note:</b> 12 V coil     |
|                         | 165 mH    | - <b>Note:</b> 14 V coil     |
|                         | 301 mH    | - <b>Note:</b> 20 V coil     |
|                         | 446 mH    | - <b>Note:</b> 24 V coil     |
|                         | 680 mH    | - <b>Note:</b> 28 V coil     |
| Hysteresis              | 4 %       | - <b>Note:</b> At 120 Hz PWM |

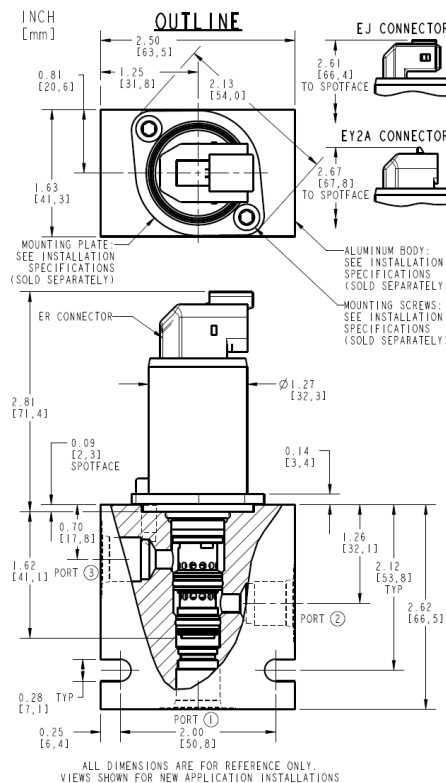


## Performance





## Dimensions



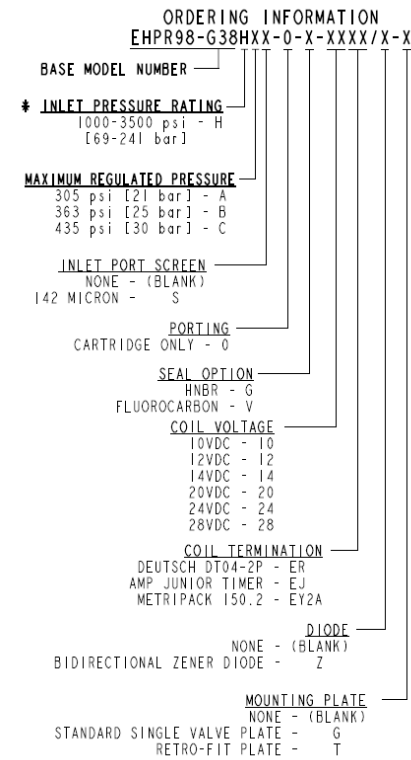
## Installation Specifications

|                         |                                                                                                                                    |                                       |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| Cavity                  | VC-G028                                                                                                                            | - <b>Note:</b> Standard configuration |
| Installation type       | Flange mounted                                                                                                                     |                                       |
| Orientation restriction | None                                                                                                                               |                                       |
| Mounting screw torque   | 3 to 4 N-m (2.2 to 3.0 ft-lb)                                                                                                      |                                       |
| Note                    | For retro-fitting into older drop-in cavities and other mounting options, see "Mounting-options-for-G3-valves" technical reference |                                       |

## Accessories

|                  |                                                           |                                                 |
|------------------|-----------------------------------------------------------|-------------------------------------------------|
| Mounting plate   | HF P/N 4595096                                            | - <b>Note:</b> Use with standard VC-G028 cavity |
|                  | HF P/N 4210226                                            | - <b>Note:</b> Use with retrofit VC-T011 cavity |
| Mounting screw   | M5 x 0,8 x 12 mm long, HF P/N: 4002609 (sold separately)  | - <b>Note:</b> Use with standard VC-G028 cavity |
|                  | M4 x 00.7 x 12 mm long, HF P/N: 4001015 (sold separately) | - <b>Note:</b> Use with retrofit VC-T011 cavity |
| Seal kit         | SK-G028-X                                                 | - <b>Note:</b> X=seal option                    |
| Ported test body | HF P/N: 71612X0                                           |                                                 |

## Order Code



Model Options

EHPR98-G38HDG-H-J-KL-U

D Max Regulated Pressure

| CODE | DESCRIPTION      |
|------|------------------|
| A    | 21 bar (305 psi) |
| B    | 25 bar (363 psi) |
| C    | 30 bar (435 psi) |

G Screen

| CODE  | DESCRIPTION     |
|-------|-----------------|
| BLANK | NONE            |
| S     | 100 Mesh Screen |

H Line Body

| CODE | DESCRIPTION |
|------|-------------|
| 0    | No Body     |

J Seal

| CODE | DESCRIPTION                                  |
|------|----------------------------------------------|
| G    | HNBR (Hydrogenated Nitrile Butadiene Rubber) |
| V    | Fluorocarbon                                 |
| P    | Polyurethane                                 |

K Coil Voltage

| CODE | DESCRIPTION |
|------|-------------|
| 10   | 10 VDC      |
| 12   | 12 VDC      |
| 14   | 14 VDC      |



| CODE | DESCRIPTION |
|------|-------------|
| 20   | 20 VDC      |
| 24   | 24 VDC      |
| 28   | 28 VDC      |

**L Coil Termination**

| CODE | DESCRIPTION                 |
|------|-----------------------------|
| EJ   | E-Coil, AMP Jr.             |
| ER   | E-Coil, Deutsch             |
| EY2A | E-Coil, Metri-Pack<br>150.2 |

**U Mounting Plate**

| CODE  | DESCRIPTION                    |
|-------|--------------------------------|
| BLANK | None                           |
| G     | Standard Single Valve<br>Plate |
| T     | Retro-Fit Plate                |