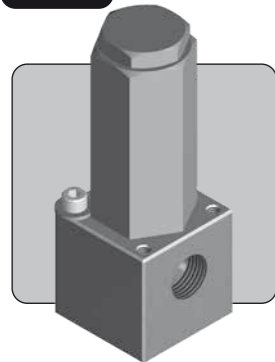


# RL50 RELIEF VALVE

**1/2" UP TO 1,034 BAR 15,000 PSI**



The RL50 is a 1/2" ported relief valve. Designed for emergency relief applications, it may be used to protect systems up to 1,034 bar (15,000 psi).

The valve is a proportional metering style relief valve, and is approved as a safety accessory to category IV of the Pressure Equipment Directive, enabling its use in the most demanding applications.

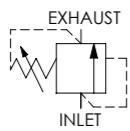
- Approved to category IV of the Pressure Equipment Directive (2014/68/EU)
- Available preset via internal adjustment or with an external handwheel adjustment option
- Wire locking and tagging available on request
- Minimal leakage at 90% of set pressure
- Reseat within 20% of set pressure
- Repeatably within ±5% of set pressure
- Subsea variants available, contact us for advice
- Suitable for use with mineral oils and water glycols, with options for water and sea water duty
- Suitable for many other media, contact us for advice
- Various spring ranges available

## Specifications

**BASIC MODEL NUMBER**

**RL50**

**SYMBOL**



**MAX WORKING PRESSURE**

1,034 bar  
(15,000 psi)

**MAX OUTLET PORT PRESSURE**

69 bar  
(1,000 psi)  
*Note: Any outlet port pressure is directly additive to the set pressure*

**ORIFICE SIZE**

Ø6.0mm (Ø0.236") - 1.6K & 5K  
Ø4.1mm (Ø0.161") - 15K

**FLUID**

Liquids only  
*See materials section*

**TEMPERATURE RANGE**

*See Product Selector opposite and Technical Data section*

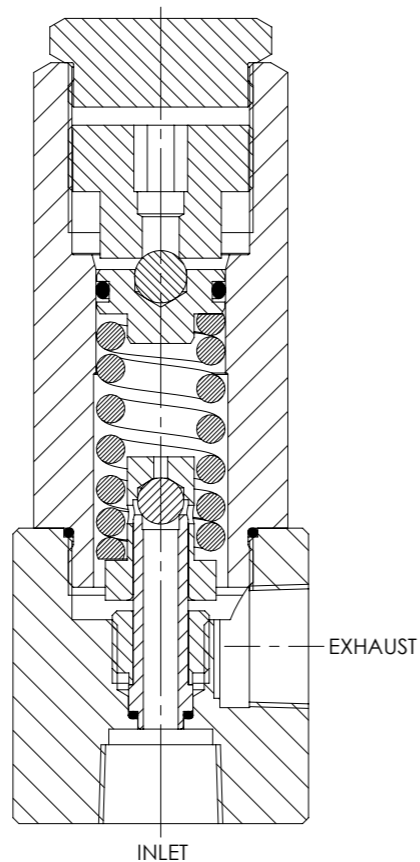
**PORT SIZE**

1/2"

**WEIGHT**

1.5 kg  
(3.3 lb)

*Specifications may change without notice*



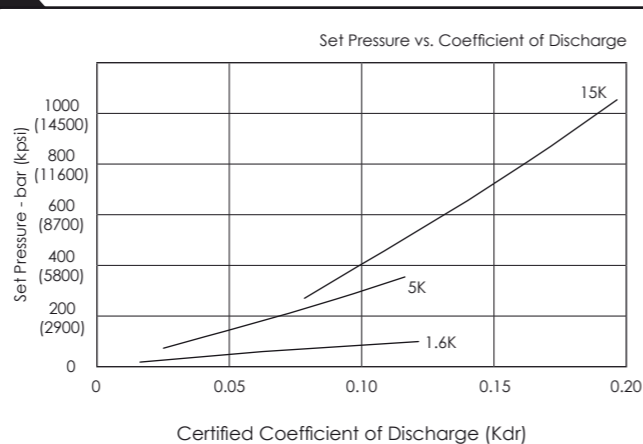
## Materials

Externally Exposed Parts: 316 stainless steel on all pressure retaining components, 300 series stainless steel is used for the external adjuster. The non-wetted and enclosed internal adjuster is chrome steel and brass.

Internally Wetted Parts: 316, 302 and 431 stainless steel. The seat and ball are 440C stainless steel and silicon nitride respectively. The water duty version contains a 17-4 PH stainless steel seat. The sea water duty valve uses only 316 stainless steel, inconel and silicon nitride in wetted areas. Note that use with water above 100°C is not recommended.

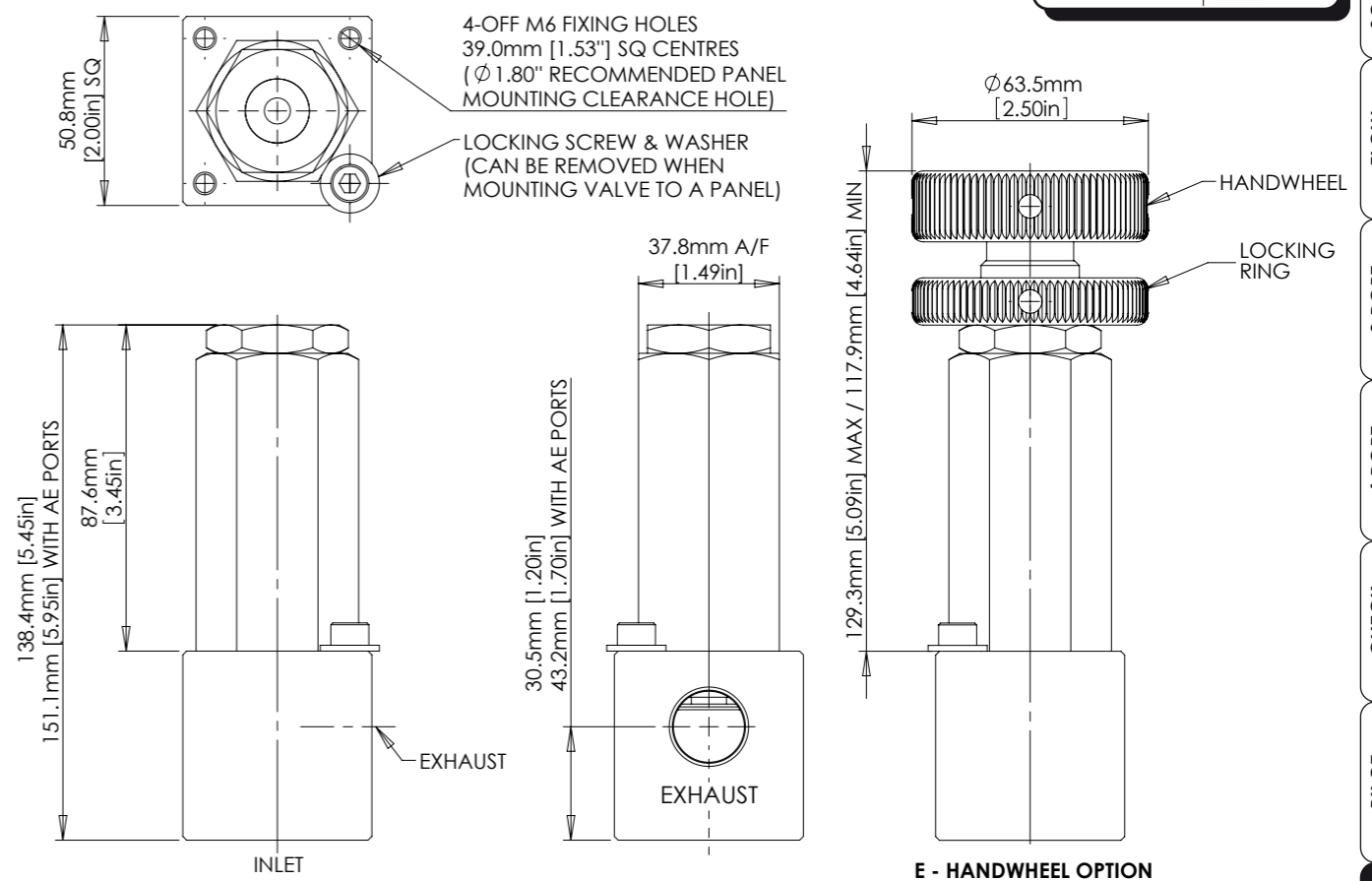
⚠ The standard valve has Viton® seals. Further seal options are available via the Product Selector. Compatibility with the working fluid at the operating temperature must be considered.

## Typical Performance



The ICdr value may be used to calculate discharge capacity in accordance with ISO 4126. We recommend contacting us with system details to confirm suitability.

## Installation Diagram



## Product Selector

**RL50 - 56AE - 50P - E - WD - NBR - 1.6K**

VALVE TYPE	INLET PORT OPTIONS	EXHAUST PORT OPTIONS	VALVE OPTIONS	WORKING FLUID OPTIONS	SEAL OPTIONS	SET PRESSURE RANGE
RL50	<b>P</b> 1/2" BSPP female inlet and exhaust	<b>50P</b> 1/2" BSPP female exhaust	<b>E</b> Handwheel (external) adjustment  ⚠ Exposure to high and low fluid temperatures will influence handle temperature. Operator safety must be considered  Further adjustment options are available on request	<b>WD</b> Water duty  <b>SWD</b> Sea water duty	<b>NBR</b> Nitrile seals -30°C to +105°C  <b>KLZ</b> Kalrez® seals -25°C to +200°C  <b>HNBR</b> Hydrogenated Nitrile seals -20°C to +150°C  <i>Further seal options are available on request</i>	<b>1.6K</b> 13.8 - 110 bar (200 - 1,600 psi)
	<b>N</b> 1/2" NPT female inlet and exhaust	<b>50N</b> 1/2" NPT female exhaust				<b>5K</b> 69 - 345 bar (1,000 - 5,000 psi)
	<b>56AE</b> 3/8" OD medium pressure tube inlet  <b>81AE</b> 9/16" OD medium pressure tube inlet					<b>15K</b> 276 - 1,034 bar (4,000 - 15,000 psi)  <i>Advise us of set pressure if factory pre-setting is required</i>



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[www.bisvalves.co.uk](http://www.bisvalves.co.uk)



**BS VALVES**  
The Specifier's Catalogue

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