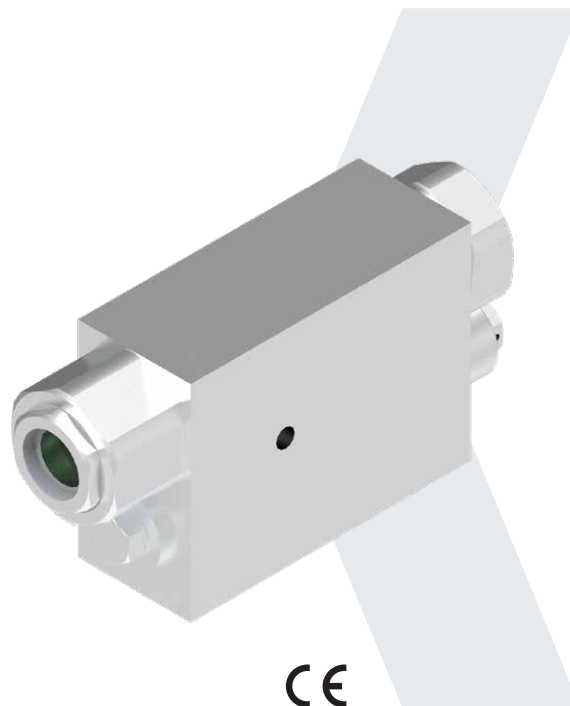




Keeping the World Flowing
for Future Generations

VRX Range

Pressure relief valve



The VRX proportional relief valve with integral check valves, have been developed to directly replace a separate check valve and proportional relief valves used, for example, in wellhead control systems.

The principal feature of this valve is its ability to return overpressurised fluid caused by thermal expansion downstream internally back to the supply point – thereby eliminating separate exhaust piping.

Application

These valves are suitable for wellhead control systems but can also be used for any application that previously required separate check and proportional relief valves.

Features

- No exhaust line connection required – exhaust line piping is eliminated
- Set point repeatability $\pm 3\%$
- Set point range – user specified up to 1035 bar
- Sealing re-seat pressure – $\geq 90\%$ (no less than 10% of set pressure)
- Flow capacity – flow rates up to 0.95 l/min (Relief Valve) and 32 l/min (Integral Check Valve) at 10% overpressure
- Orifice size: 6 mm forward flow, 3.2 mm back flow
- Back pressure – set point is not affected by vent back pressure. Maximum permissible back pressure 100 bar
- Operating media – mineral oils, water glycol fluids and some chemicals. Consult Rotork for specific chemicals and synthetic oils compatibility
- Single integrated unit – single integrated unit eliminates inter-valve piping
- Valve proof testing – removal or disconnection of the valve during proof testing is not required

VRX Range

Pressure relief valve

Environmental Specification

Material	Minimum Temperature	Maximum Temperature
Nitrile (Standard)	-20 °C	+80 °C
Nitrile (Low Temperature)	-40 °C	+80 °C
HNBR	-20 °C	+80 °C

Options

All control valves in this range are available in the following materials:

- Nitrile (Standard)
- Nitrile (Low Temperature)
- HNBR

Sizing Data

Ambient temperature range:

- Nitrile (Standard): -20 to +80 °C
- Nitrile (Low Temperature): -40 to +80 °C

Pressure range:

- 0 - 1,035 bar (0 - 15,008 psig)

Flow rate:

- Up to 0.95 l/min

Orifice size:

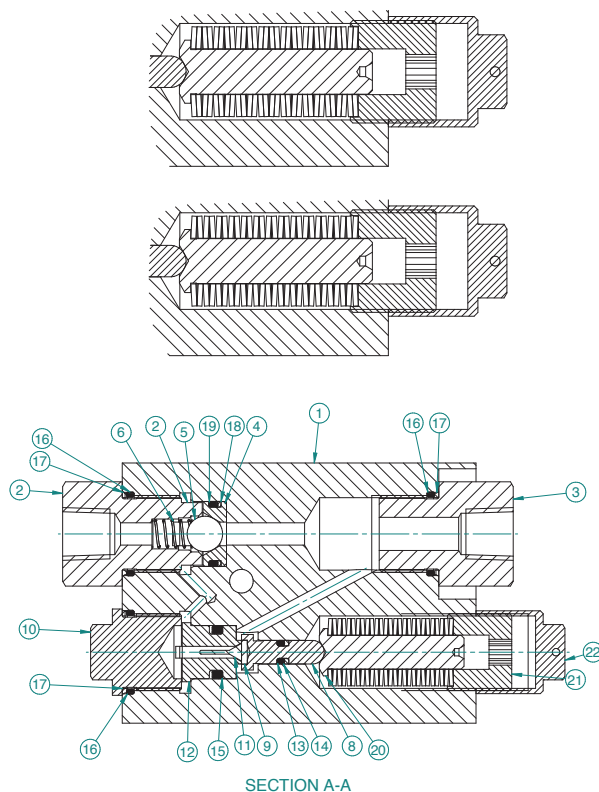
- 6 mm forward flow,
3.2 mm back flow

Ports:

- ¼" NPT up to ⅝" MP

Drawing and Material Specification

The image shown below is an example of one of the many sizes and options that we can offer. We can offer a range of sizes from ¼" NPT to ½" NPT. There are also some options on materials for some items.



ITEM NO.	DOC. NO.	DESCRIPTION	MATERIAL	QTY.
1	Various	Body	BSEN 10088-3 1.4404 to NACE MR0175	1
2	Various	Outlet adaptor	BSEN 10088-3 1.4404 to NACE MR0175	1
3	Various	Inlet adaptor	BSEN 10088-3 1.4404 to NACE MR0175	1
4		NRV seat	Acetal	1
5		Ball	Stainless Steel AISI420S21	1
6		Spring	302S26 Stainless Steel	1
7*		Disc spring	316S11 Stainless Steel BSEN10088-3	27/30
8		Pivot	M340 Stainless Steel	1
9		Seat pad	PUR	1
10	14473-01	Plug	BSEN 10088-3 1.4404 to NACE MR0175	1
11		Poppet	303 Stainless Steel	1
12		Insert	303 Stainless Steel	1
13		O-ring	Nitrile, Viton or low temp. Nitrile	1
14		Back up ring	P.T.F.E	1
15		O-ring	Nitrile, Viton or low temp. Nitrile	1
16		O-ring	Nitrile, Viton or low temp. Nitrile	3
17		Back up ring	P.T.F.E	3
18		Back up ring	P.T.F.E	1
19		O-ring	Nitrile, Viton or low temp. Nitrile	1
20		Pivot	M340 Stainless Steel	1
21		Adjuster	Aluminium Bronze CA104 to BS	1
22		Cap	BSEN 10088-3 1.4404 to NACE MR0175	1

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PUB177-003-00
Issue 07/25