

spirax sarco

TI-P001-07
 CH Issue 5

LRV2B and LRV2S Gunmetal Pressure Reducing Valves

Description

The LRV2B and LRV2S are direct acting pressure reducing valves suitable for liquid applications.

Available types

LRV2B	Phosphor bronze/brass bellows
LRV2S	Stainless steel (316 Ti/316L) bellows

LRV2B and LRV2S pressure reducing valves are supplied with one of three colour coded springs which are identified by the disc (19) located on the adjustment handwheel:

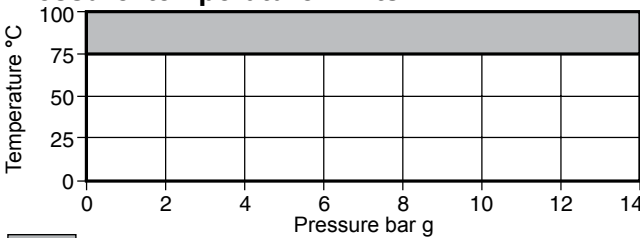
Grey	For downstream pressure control: 0.35 to 1.7 bar g
Green	For downstream pressure control: 1.40 to 4.0 bar g
Orange	For downstream pressure control: 3.50 to 8.6 bar g

Note: where control spring ranges overlap always use the lower range to give better control.

Sizes and pipe connections

½", ¾" and 1" Screwed BSP (BS 21 Rp) or NPT.

Pressure/temperature limits



Body design conditions		PN25
PMA	Maximum allowable pressure	25 bar g @ 120°C
TMA	Maximum allowable temperature	100°C @ 17 bar g
Minimum allowable temperature		0°C
PMO	Maximum operating pressure	14 bar g @ 75°C
TMO	Maximum operating temperature	75°C @ 14 bar g

Minimum operating temperature 0°C

Note: For lower operating temperatures consult Spirax Sarco

ΔPMX Maximum differential pressure is limited to the PMO

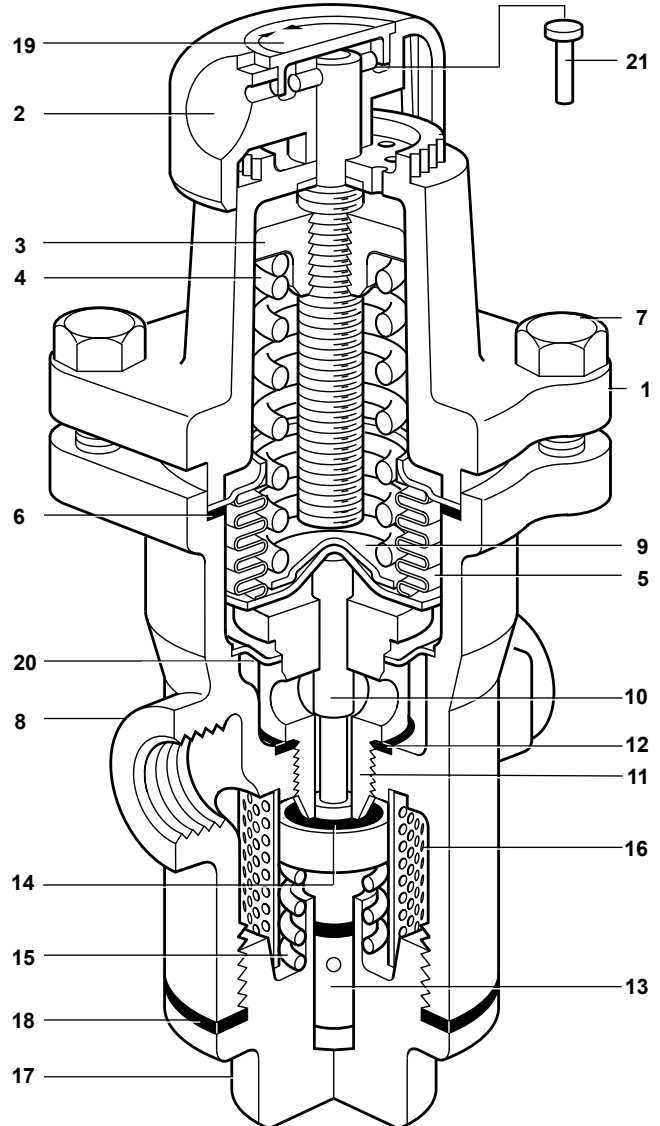
Maximum recommended turndown ratio 10:1 at maximum flow

Designed for a maximum cold hydraulic test pressure of 38 bar g

Note: With internals fitted, test pressure must not exceed 17 bar g

Materials

No. Part	Materials
1 Spring housing	Aluminium epoxy coated LM 24
2 Adjustment handwheel	Polypropylene
3 Top spring plate	Cast iron DIN 1691 GG 20
4 Pressure adjustment spring	Silicon chrome BS 2803 685 A55 spring steel Range 2
5 Bellows assembly	Stainless steel 316Ti/316L
	Phosphor bronze BS 2872 CZ 122
6 Bellows assembly gasket	Stainless steel reinforced exfoliated graphite
7 Hex. bolt (M8 x 25 mm)	Steel zinc plated BS 3692 Gr. 8.8
8 Body	Gunmetal BS 1400 LG2
9 Cone shaped washer	Stainless steel ASTM A276 316L



No. Part	Materials
10 Push rod	Stainless steel ASTM A276 316L
11 Valve seat	Stainless steel BS 970 431 S29
12 Valve seat gasket	Stainless steel BS 1449 316 S11
13 Piston	Stainless steel BS 970 431 S29
14 Valve head	Nitrile rubber
15 Piston return spring	Stainless steel BS 2056 Gr. 302 S26
16 Strainer screen	Stainless steel BS 1449 316 S16
17 Cap	Brass BS 2872 CZ 122
18 Cap gasket	Stainless steel reinforced exfoliated graphite
19 Spring range ID disc	Polypropylene
20 Bulkhead plate	Stainless steel 316L
21 Tamper-proof pin	Mild steel copper plated

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Capacities

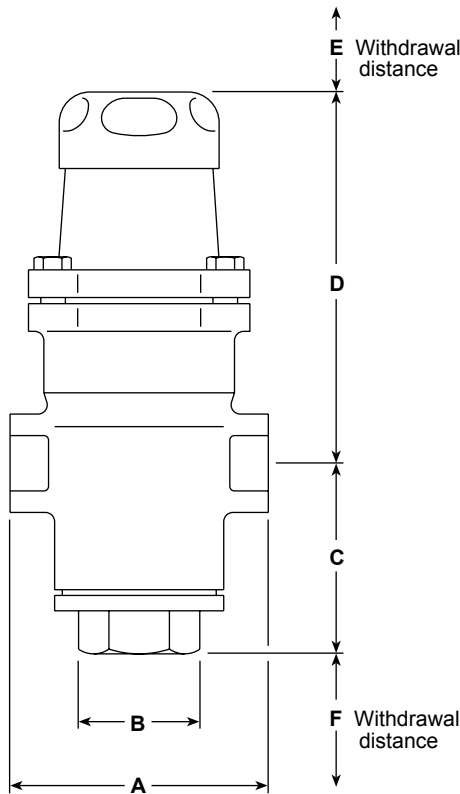
Full lift capacity for safety valve sizing purposes are shown below:

Size	½"	¾"	1"
Kvs	2.1	3.6	4.3

For conversion: $C_V(UK) = K_V \times 0.963$ $C_V(US) = K_V \times 1.156$

Dimensions / weight (approximate) in mm and kg

Size	A	B	C	D	E	F	Weight
½"	83	32	62	130	25	40	2.0
¾"	96	32	62	130	25	40	2.1
1"	108	32	62	130	25	40	2.4



Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions (IM-P001-08) supplied with the product.

Installation note:

The valve should be installed in a horizontal pipeline with the direction of flow as indicated by the arrow on the valve body.

How to order

Example: 1 off Spirax Sarco ½" LRV2S pressure reducing valve with gunmetal body, screwed BSP connections, stainless steel bellows and fitted with an orange spring for downstream pressure control of 3.5 to 8.6 bar g.

Please note that the only certification that is available for this product is a manufacturer's Typical Test Report. Note: All certification/inspection requirements must be stated at the time of order placement.

Spare parts

The spare parts available are shown in heavy outline. Parts drawn in broken line are not supplied as spares.

Available spares

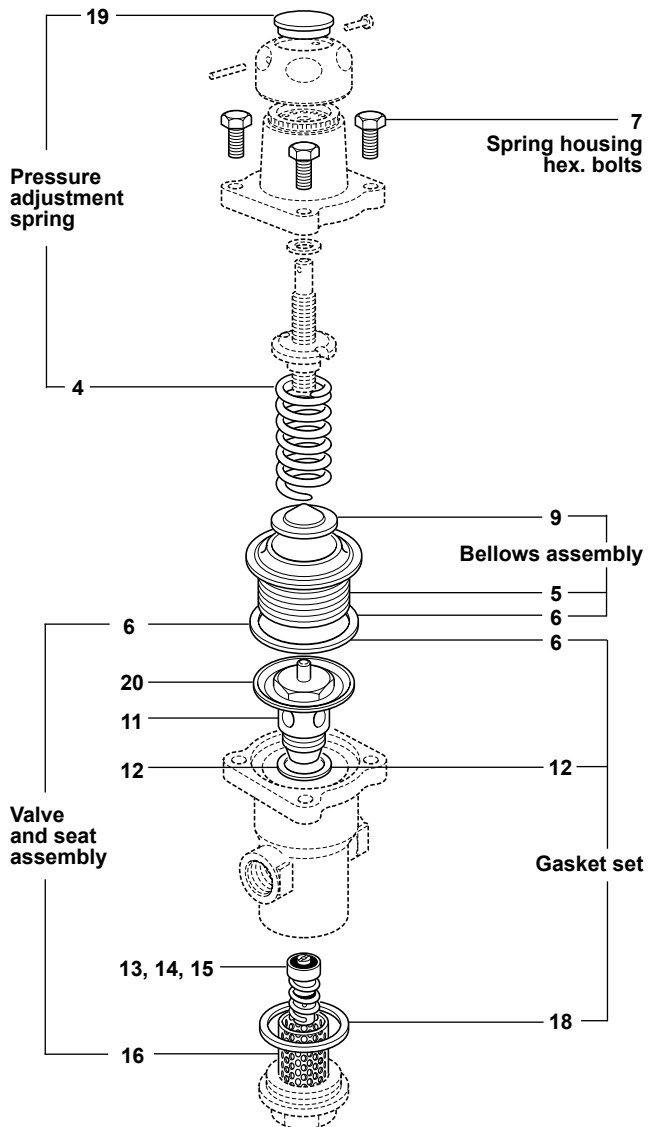
* Pressure adjustment spring	Grey	0.35 to 1.7 bar g	4, 19
	Green	1.40 to 4.0 bar g	4, 19
	Orange	3.50 to 8.6 bar g	4, 19
* Bellows assembly specify type	Stainless steel or phosphor bronze		5, 6, 9
* Spring housing hex. bolts (set of 4)			7
Valve and seat assembly			6, 11, 12, 13, 14, 15, 16, 20
* Gasket set			6, 12, 18
* Strainer screen			16

* Common to all sizes.



How to order spares

Always order spares by using the description given in the column headed 'Available spares' and state the size, type and pressure range of the reducing valve.

Example: 1 off Pressure adjustment spring (orange), having a downstream pressure range of 3.5 to 8.6 bar g for a Spirax Sarco ½" LRV2S pressure reducing valve.



Recommended tightening torques

Item no.	Part	 or 	mm	N m
7	Hex. bolts		13 A/F M8 x 25	13 - 15
11	Valve seat		32 A/F	108 - 132
16	Bottom cap		32 A/F	65 - 75