

spirax sarco

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
(5.08 to 24.7 psi g)

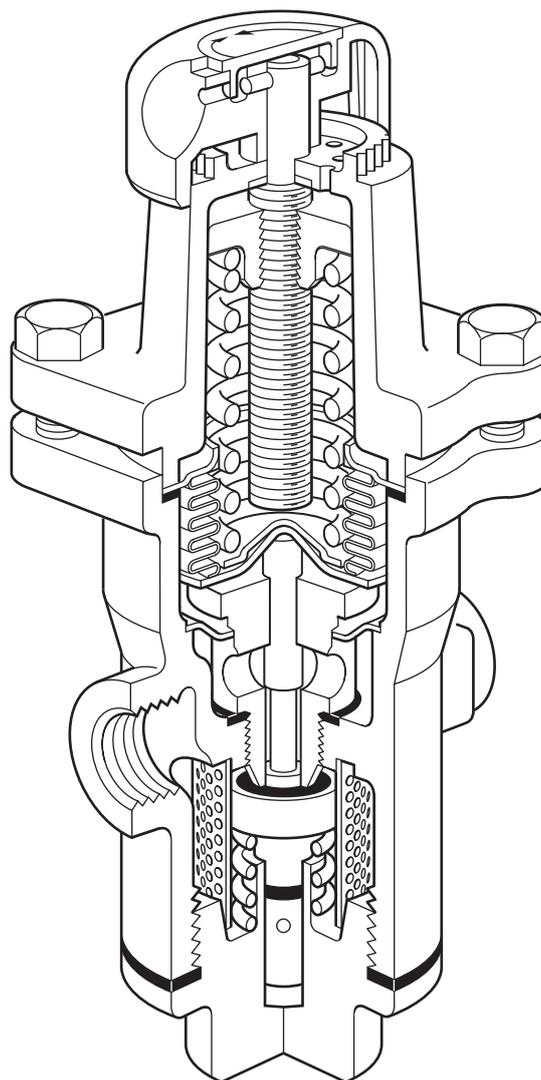
Green For downstream pressure control: 1.40 to 4.0 bar g
(20.3 to 58.0 psi g)

Orange For downstream pressure control: 3.50 to 8.6 bar g
(50.8 to 125 psi g)

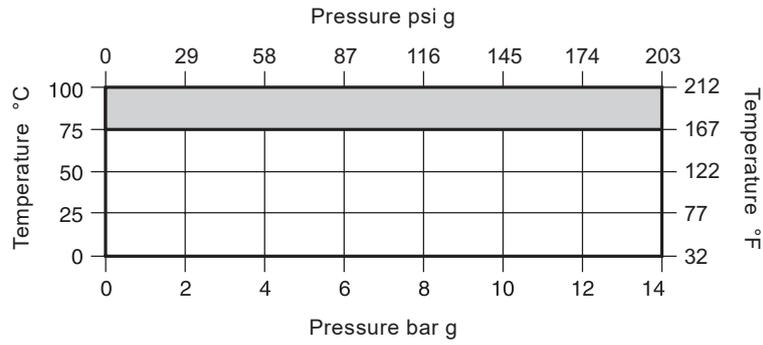
Note: where control spring ranges overlap always use the lower range to give better control.

Sizes and pipe connections

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



Pressure/temperature limits

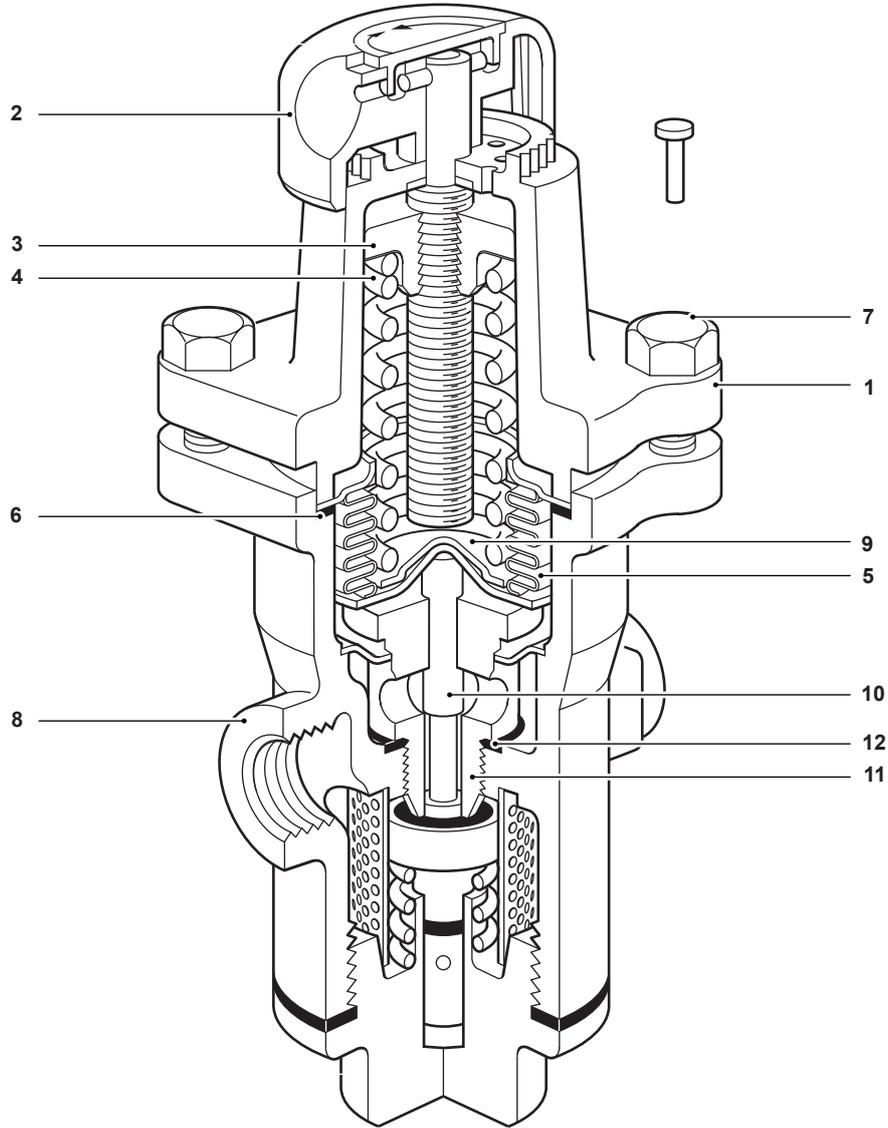


 The product **must not** be used in this region.

Body design conditions		PN25	
PMA	Maximum allowable pressure	25 bar g @ 120 °C	363 psi g @ 248 °F
TMA	Maximum allowable temperature	100 °C @ 17 bar g	212 °F @ 247 psi g
	Minimum allowable temperature	0 °C	32 °F
PMO	Maximum operating pressure	14 bar g @ 75 °C	203 psi g @ 167 °F
TMO	Maximum operating temperature	75 °C @ 14 bar g	167 °F @ 203 psi g
	Minimum operating temperature	0 °C	32 °F
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	551 psi g

Note: With internals fitted, test pressure must not exceed 17 bar g (247 psi g)

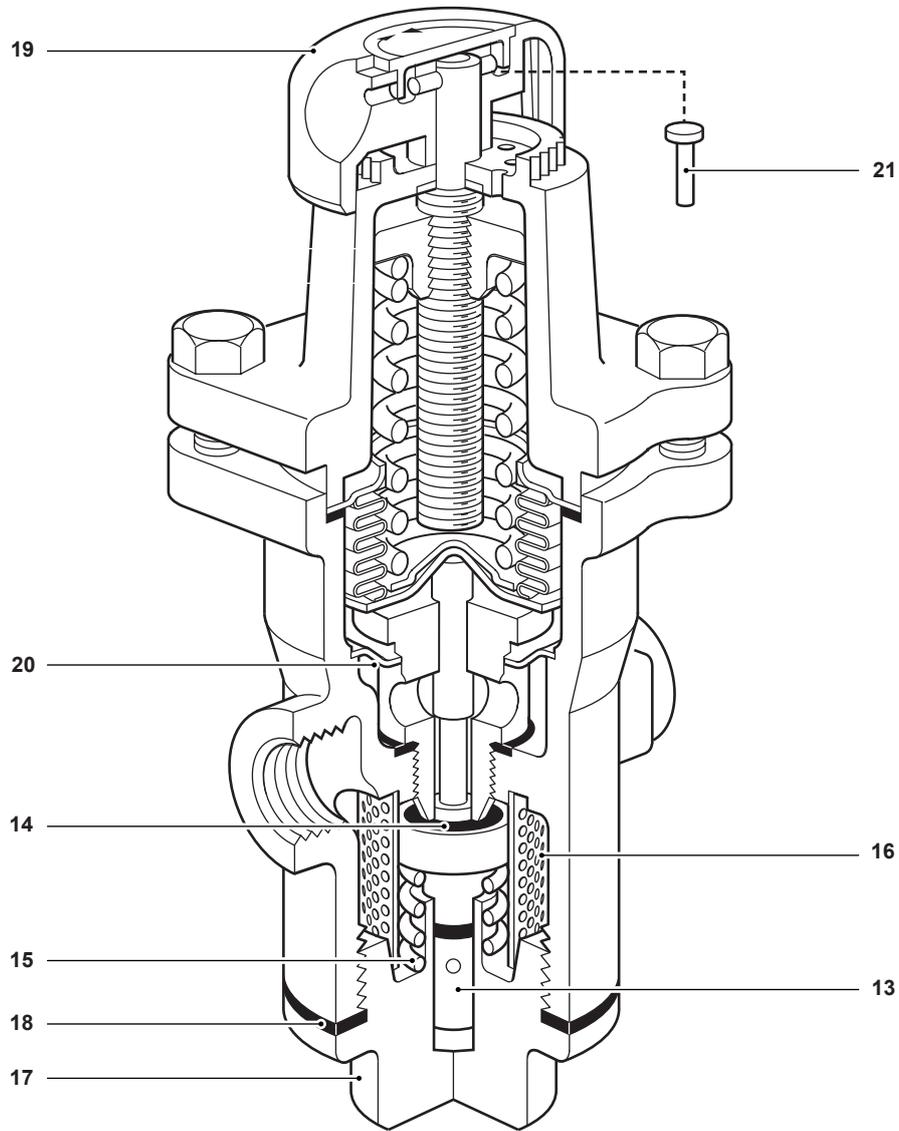
Materials



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 spring steel	BS 2803 685 A55 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
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

Materials continued on next page

Materials
(continued)



No.	Part	Materials	
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	

Capacities

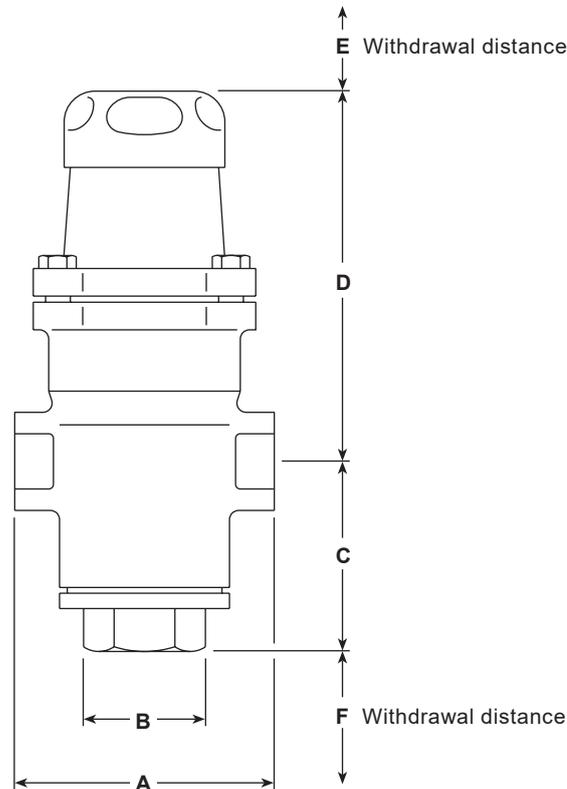
Size	½"	¾"	1"
Full lift capacity for safety valve sizing purposes are shown opposite:			
Kvs	2.1	3.6	4.3

For conversion:

Cv (UK) = Kv x 0.963

Cv (US) = Kv x 1.156

Dimensions / weight (approximate) in mm (inches) and kg (lb)



Size	A	B	C	D	E	F	Weight
½"	83 (3.3)	32 (1.3)	62 (2.4)	130 (5.1)	25 (0.98)	40 (1.6)	2.0 (4.4)
¾"	96 (3.8)						2.1 (4.6)
1"	108 (4.3)						2.4 (5.3)

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 (50.8 to 125 psi 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 a grey line are not supplied as spares.

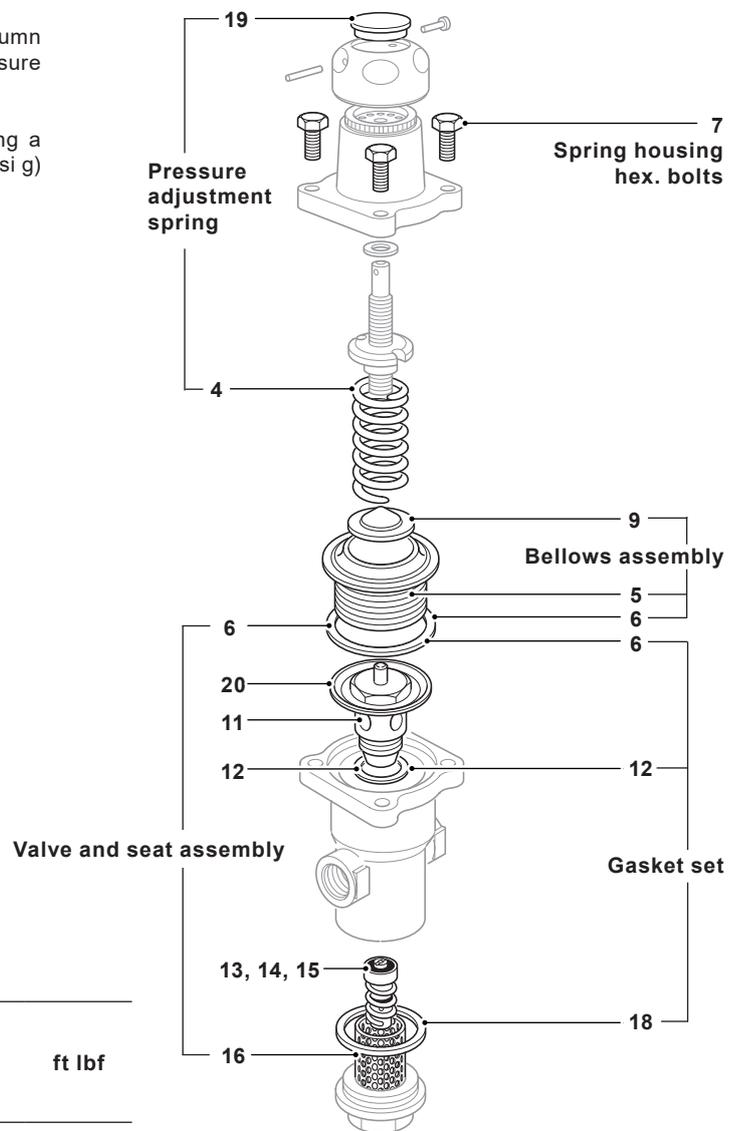
Available spares

* Pressure adjustment spring	Grey	0.35 to 1.7 bar g (5.08 to 24.7 psi g)	4, 19
	Green	1.40 to 4.0 bar g (20.3 to 58.0 psi g)	4, 19
	Orange	3.50 to 8.6 bar g (50.8 to 125 psi 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 (50.8 to 125 psi g) for a Spirax Sarco ½" LRV2S pressure reducing valve.



Recommended tightening torques

Item	Part	 or mm		N m	ft lbf
7	Hex. bolts	13 A/F	M8 x 25	13 - 15	10 - 11
11	Valve seat	32 A/F		108 - 132	80 - 97
16	Bottom cap	32 A/F		65 - 75	48 - 55