



Cert. No. LRQ 0963008

ISO 9001

spirax sarco

TI-P208-01

CH Issue 3

DPP17E and DPP17EE

Pilot Operated

Pressure Reducing Valves with SG Iron Bodies

Description

The DPP17E is an SG iron pilot operated pressure reducing valve fitted with an additional pressure control pilot. This allows the valve to reduce the pressure to a lower level when required.

The high pressure pilot is fitted to the main valve body. The reduced pressure pilot is fitted to the side of the main valve. Change over is achieved by electrical switching of the solenoid.

The DPP17EE has an additional solenoid valve fitted which allows the main valve to be opened and closed by a remote signal.

Sizes and pipe connections

DN15LC, DN15, DN20, DN25, DN32, DN40 and DN50. Screwed BSP (BS 21 parallel) or NPT (DN15 to DN25 only).

Standard flanges: **DN15 - DN50** BS 4504 PN16 and PN25

DN25 - DN50 BS 10 Table H and ANSI 300

Available on request: **DN15 - DN50** JIS 10/16 and ANSI 150

DN15 - DN20 BS 10 Table F

DN15 ANSI 300

Capacities

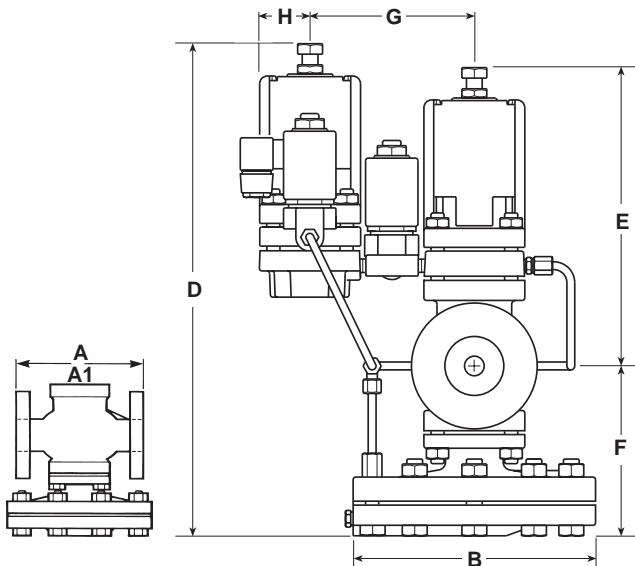
See TI-P006-03 for steam and compressed air sizing. A low capacity version of the DN15 is available: Type DN15LC. The K_V maximum values shown below are **full** capacities and should be used for safety valve sizing purposes only.

DN15LC	DN15	DN20	DN25	DN32	DN40	DN50
1.0	2.8	5.5	8.1	12.0	17.0	28.0

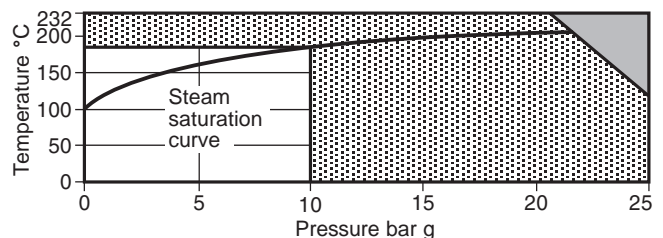
For conversion: C_V (UK) = $K_V \times 0.963$ C_V (US) = $K_V \times 1.156$

Note: Where the internal downstream pressure sensing pipe is used the valve capacity will be reduced.

Dimensions / weights (approximate) in mm and kg



Pressure / temperature limits



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

Due to the restrictions of the solenoid, the product should not be used in this region.

Note: The pressure adjustment spring provides the required downstream pressure between 0.2 bar - 17 bar.

Body design conditions	PN25
PMA Maximum allowable pressure @ 120°C	25 bar g
TMA Maximum allowable temperature	232°C
Minimum allowable temperature	-10°C
PMO Maximum operating pressure for saturated steam service	10 bar g
TMO Maximum operating temperature	190°C
Minimum operating temperature	0°C

Note: For lower operating temperatures consult Spirax Sarco.

Δ PMX Maximum differential pressure is limited to the PMO

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

Note: With internals fitted, test pressure must not exceed 25 bar g

Technical data (Solenoid valve)

Voltages available	230 \pm 10% Vac or 115 \pm 10% Vac (others available on request).
Frequency	50/60 Hz
Power consumption	Inrush 45 VA Holding 23 VA

Dimensions/weights (approximate) in mm and kg

Size	Screwed BS 10 H PN16/25 ANSI 300 BS 10 F ANSI 150 JIS 10/16							Weight							
	A	A1	A1	A1	A1	A1	A1	B	D	E	F	G	H	Screwed	Flanged
DN15LC	160	-	130	126.6	117	120.2	122	185	404	234	130	115	40	15.5	16.0
DN15	160	-	130	126.6	117	120.2	122	185	404	234	130	115	40	15.5	16.0
DN20	160	-	150	-	133	139.4	142	185	404	234	130	115	40	15.5	17.2
DN25	180	160	160	160.0	-	160.0	152	207	428	240	148	115	40	16.5	19.5
DN32	-	180	180	180.0	-	176.0	176	207	428	240	148	115	40	-	20.5
DN40	-	200	200	200.0	-	199.0	196	255	473	255	178	115	40	-	32.5
DN50	-	230	230	230.0	-	228.0	222	255	473	255	178	115	40	-	35.0

Local regulations may restrict the use of this product to below the conditions quoted.

In the interests of development and improvement of the product, we reserve the right to change the specification.

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Materials

No.	Part	Material	
1	Adjustment screw	Steel	BS 3692 Gr. 8.8
2	Adjustment lock-nut	Steel	BS 3692 Gr. 8
3	Washer	Stainless steel	BS 1449 304 S 16
*4	Spring housing	SG iron	DIN 1693 GGG 40
5	Top spring plate	Brass	BS 2872 CZ 122
6	Pressure adjustment spring	Stainless steel	BS 2056 302 S 25
7	Bottom spring plate	Brass	BS 2872 CZ 122
8	Spring housing securing studs and nuts	Steel M10 x 50 mm	BS 4439 Gr. 8.8 BS 3692 Gr. 8
9	Pilot diaphragms	Phosphor bronze	BS 2870 PB 102 1980
*10	Pilot valve housing	SG iron	DIN 1693 GGG 40.3
11	Pilot valve plunger	Stainless steel	BS 970 431 S 29
12	Spring housing cover	Stainless steel	BS 1449 304 S 12 2A
13	Pilot valve and seat unit	Stainless steel	BS 970 431 S 29
	Filter element (not shown)	Brass	
14	Internal strainer	Stainless steel	BS 1449 304 S 16
15	Body gasket	Reinforced exfoliated graphite	
16	Main valve return spring	Stainless steel	BS 2056 302 S 25
17	Main valve	Stainless steel	BS 970 431 S 29
18	Main valve seat	Stainless steel	BS 970 431 S 29
*20	Main valve body	SG iron	DIN 1693 GGG 40.3
21	Main body securing studs and nuts	Steel M10 x 25 mm	BS 4439 Gr. 8.8 BS 3692 Gr. 8
*22	Main diaphragm chamber	SG iron	DIN 1693 GGG 40.3
23	Main diaphragm securing bolts and nuts	Steel M12 x 50 mm	BS 3692 Gr. 8.8 BS 3692 Gr. 8
24	Main diaphragms	Phosphor bronze	BS 2870 PB 102 1980
25	Main diaphragm plate	Brass	BS 2872 CZ 122
26	Push rod	Stainless steel	BS 970 431 S 29
27	Pipe assembly	Brass and copper	
28	Plug 1/8" BSP	Steel	
29	Pressure pipe union	Brass	
30	Lock-nut	Steel	BS 3692 Gr. 8
31	Solenoid valve		
*32	Lower pressure pilot bottom housing	SG iron	DIN 1693 GGG 40.3
33	Connecting nipple	Steel	

*Note: This product is also available in cast steel.

Safety information, installation and maintenance

For full details see the Installation and Maintenance Instructions 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.

Optional extras

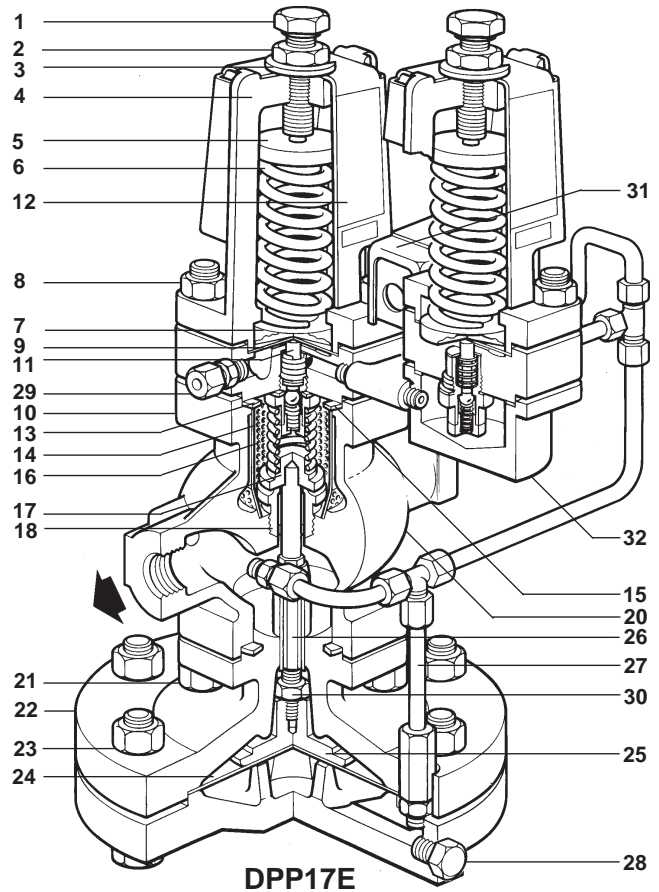
Soft seated main valves and pilot valves can be supplied at additional cost. These are recommended for compressed air and other gas duties. Maximum temperature with soft seating is 125°C.

How to order

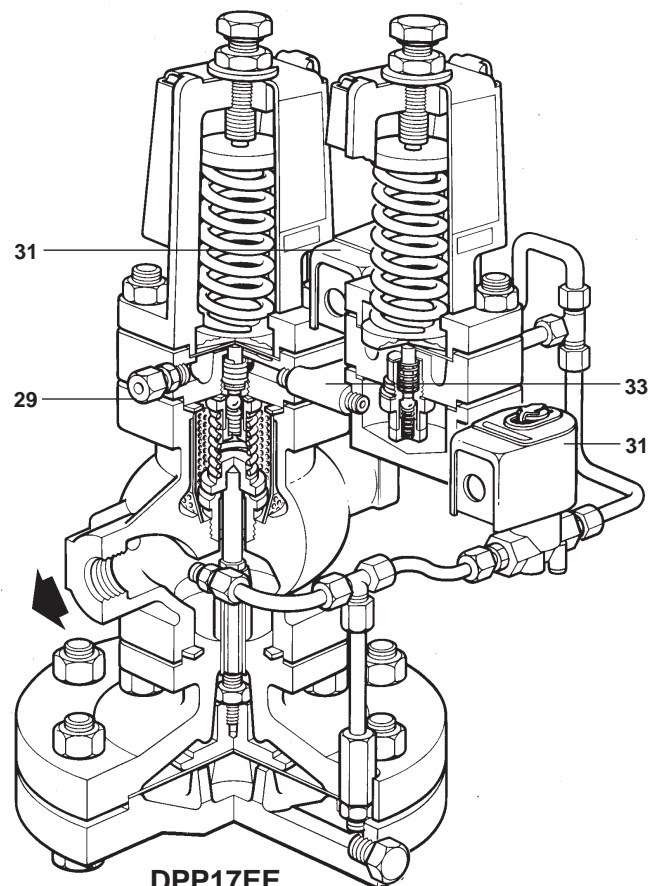
Example: 1 off Spirax Sarco DN32 DPP17E pilot operated pressure reducing valve flanged BS 4504 PN25. Fitted with blue and red pressure adjustment springs and 110 Vac solenoid valve.

Spare parts

See TI-P100-03.



DPP17E



DPP17EE