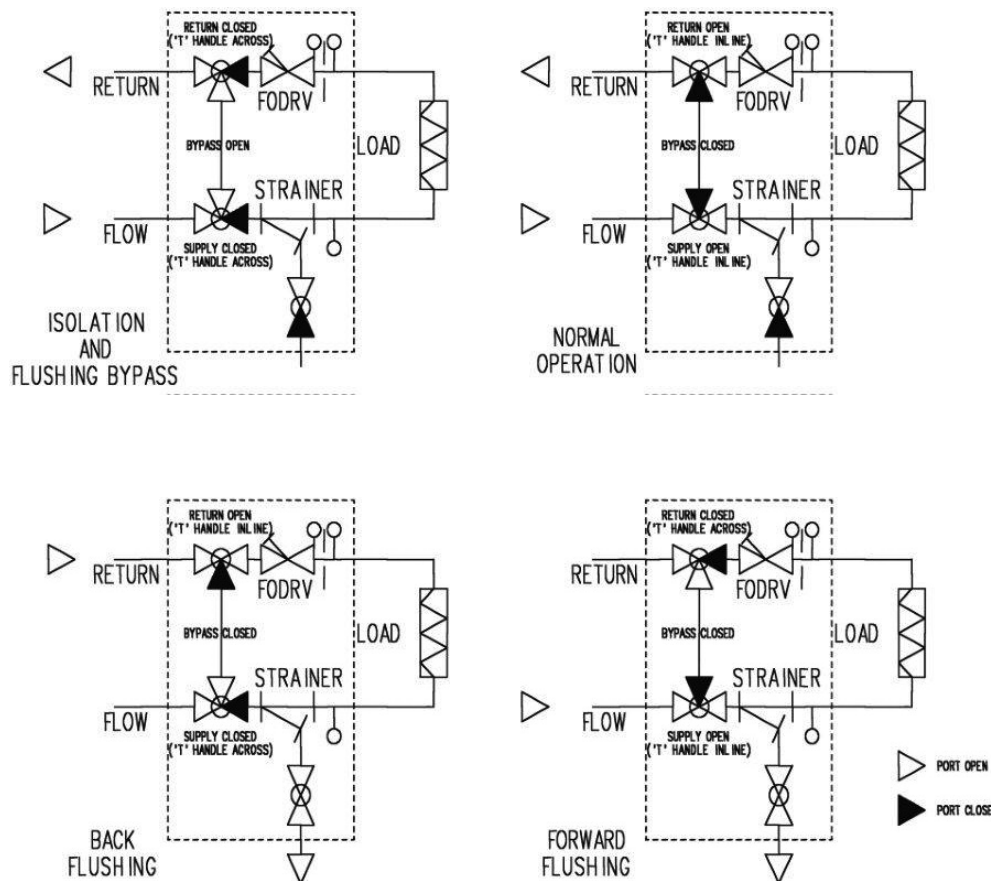


FIG. 2



CRANE FLUID SYSTEMS

DOMINATOR Z3001/3/4

- Flow management system for fan coil units
- Combines the essential control components and connecting pipework into one compact, fully assembled unit ready to connect.
- The Z3000 is compact and lightweight
- The bypass valve unit comprises two T Ball valves
- The strainer unit has integral filter and pressure test point, plus drain cock/vent facility
- Balancing valve is of proven high quality and accuracy.



INSTALLATION

The valve may be installed directly or remotely to a load (typically a Fan Coil Unit). The direction of flow (Figure 1) should be such that the return from load enters the ProBalance (FODRV) on the flow measurement side. **Temperature Range: -10 to 120°C | Pressure rating: PN16**

End Connections

Depending on model the connections will be suitable for connection with pipe threaded to R¹/₂, R³/₄ or R1 (see table overleaf). Kits are available to adapt to other common piping systems. Contact Crane Fluid Systems for further information.

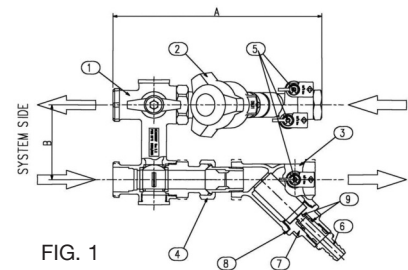


FIG. 1

ITEM	DESCRIPTION	MATERIAL
1	Bypass Valve	BSEN 1982 CC491K
2	ProBalance valve	-
3	D299P Strainer	BSEN 1982 CC491K
4	Union	BSEN 12165 CW617N
5	P84 Pressure Tapping	BSEN 12164 CW602N
6	Drain Cock	BSEN 12164 CW614
7	Strainer Bonnet	BSEN 12164 CW614
8	Strainer Gasket	KL INGER C4500
9	'O' Rings	Nitrile

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FM311 ISO 9001

- Designed and manufactured under quality management systems in accordance with BS EN ISO 9001-2008

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INSTALLATION (CONTINUED)

FIGURE NO.	WEIGHT Kg	FODRV Kvs	TOTAL Kv	A mm	B mm	UNION TORQUE Nm (4)	STRAINER BONNET TORQUE Nm (7)	SYSTEM SIDE THREAD SIZE	LOAD SIDE THREAD SIZE
Z3004 DN15/15	1.65	0.58	0.53	200	80	40	35	R 1/2	R 1/2
Z3003 DN15/15	1.65	1.1	0.91	200	80	40	35	R 1/2	R 1/2
Z3001 DN15/15	1.65	2.2	0.51	200	80	40	35	R 1/2	R 1/2
Z3004 DN20/15	1.65	0.58	0.55	200	80	40	35	R 3/4	R 1/2
Z3003 DN20/15	1.65	1.1	0.97	200	80	40	35	R 3/4	R 1/2
Z3001 DN20/15	1.65	2.2	1.58	200	80	40	35	R 3/4	R 1/2
Z3001 DN15/15EXS	1.65	2.2	1.51	200	80	40	35	R 1/2	R 1/2
Z3001 DN20/15EXS	1.65	2.2	1.58	200	80	40	35	R 3/4	R 1/2
Z3001 DN20/20	2.05	4.7	2.83	214	80	40	35	R 3/4	R 3/4
Z3001 DN20/20EXS	2.05	4.7	2.83	214	80	40	35	R 3/4	R 3/4
Z3001 DN25/20	2.05	4.7	3	214	80	40	35	R 1	R 3/4
Z3001 DN25/20EXS	2.05	4.7	3	214	80	40	35	R 1	R 3/4
Z3001 DN25/25	2.40	8.6	4.86	233	80	40	70	R 1	R 1
Z3001 DN25/25EXS	2.40	8.6	4.86	233	80	40	70	R 1	R 1

Pipe preparation

Steel tube – cut square and de-burr internally and externally, thread to BS21 and fit to Dominator using PTFE tape to BS7786:1995 or other recommended jointing compound.

Whilst fitting pipe and/or adapters appropriate sized wrenches should be used to take the reaction force generated on the valve body when making the joint.

ORIENTATION & HANDING

The ‘Dominator’ has two unions fitted to allow for orientation and handing of the FODRV, Strainer and Bypass valve.

OPERATION

Bypass valve

Has four primary modes of operation. It is factory set in Isolation/Flushing bypass mode. The mode of operation can be changed by operation of the ‘T’ balls as indicated in Figure 2.

Strainer

This module is fitted with a stainless steel perforated screen with drain-cock/vent facility and pressure tapping point. The screen may be removed for cleaning by undoing the bonnet. Replacement screens are available. It is recommended that the gasket and ‘O’ rings are replaced during routine servicing. Retighten the bonnet to the recommended torque (Refer to table opposite (7)). The strainer may be back or forward flushed by setting the bypass valve to the appropriate mode (refer mode of operation) and loosening the drain-cock about two to three turns. The drain cock has provision for attaching a drain hose. Avoid over-tightening the drain-cock, which requires only low torque to seal. The load can also be flushed in the back-flushing mode. Monitoring the pressure drop across the load can be facilitated by taking a reading across FODRV (upstream - red tapping point) and the tapping point provided in the strainer.

ProBalance

This valve is a static balancing valve with integral flow measurement generally conforming to BS 7350:1990 type 3. All balancing valves require four clockwise turns of the ‘Microset’ hand-wheel from fully open to closed position. A highly visible window indicates the number of complete turns of the hand-wheel from fully open (4) to closed (0) and a numbered ring indicates the division of each turn in tenths from 0 to 9. A total of 80 distinct settings are available. The ‘Microset’ hand-wheel can be removed and repositioned on the valve spindle in any one of 6 positions to allow ease of scale reading.

Setting facility

Refer to enclosed Installation and setting instructions for D921/D923 – D931/D933/D934. Standard 1/8” (3.175mm) insertion probes may be used with the pressure tapping points. This allows measurement of the differential pressure signal from which flow can be calculated. Apply silicone grease to the probe on each application. Failure to do so can damage the EPDM seal causing leakage immediately after the probe is removed, or subsequently in service. The Dominator shall be supported using proprietary mounting brackets or other suitable device. Pipe-work should be well supported to avoid undue strain on the joints of the Dominator.

MAINTENANCE

With the exception of the strainer the Dominator valve is a maintenance free device – for further information consult Crane. This valve is intended for group 2 liquids only, as defined by the Pressure Equipment Directive 97/23/EC

For further assistance please call our technical helpline on +44 (0) 1473 277400 or email us at: enquiries@cranefs.com.

Following a policy of continuous improvement, Crane Fluid Systems reserves the right to alter specifications shown in this document and the e-catalogue without prior notice.