# DIFFERENTIAL PRESSURE CONTROL VALVES

**ProBalance** 

**PN16** 

# **DPAF961 - Flow** DPAR961 - Return

#### **Differential Pressure Control Valves**

To meet the growing use of variable speed pumps for HVAC applications, Crane Fluid Systems has launched a range of Differential Pressure Control Valves (DPCV) specifically aimed at optimising system performance.

Extremely efficient, the DPCV is set to a maximum differential pressure which ensures flow cannot exceed a desired rate. It therefore helps reduce energy consumption, the risk of noise and simplifies the commissioning process.

#### Materials

ITEM	DESCRIPTION	MATERIAL
1	Body	Bronze BS EN 1982 (CC491K)
2	Bonnet	Bronze BS EN 1982 (CC491K)
3	Chamber	Bronze BS EN 1982 (CC491K)
4	Adjuster	Nylon Grade PA6
INT	Stem / Piston	Stainless Steel BS EN 10088 - 1: 2005
INT	Diaphragm	Rubber EPDM
INT	O-Ring Seals	Rubber EPDM

See diagrams for item numbers

INT denotes an internal component not visible on these drawings

#### **Dimensions & Weights**

SIZE	A (mm)	B (mm)	END CONNECTION BS EN 10226	WEIGHT (kg)	FLOW (Fully Open Kv)
DN15	87	175	Rp <sup>1</sup> /2" Parallel	2.32	2.32
DN20	96	175	Rp <sup>3</sup> /4" Parallel	2.36	3.2
DN25	100	185	Rc 1" Taper	2.53	6.45
DN32	114	190	Rc 1 <sup>1</sup> /4" Taper	2.73	10.9
DN40	125	195	Rc 1 <sup>1</sup> /2" Taper	3.01	16.7
DN50	146	205	Rc 2" Taper	3.46	26

DN15 & DN20 End Connections: BS EN 10226 Rp Parallel DN25 to DN50 End Connections: BS EN 10226 Rc Taper

# DPAF961

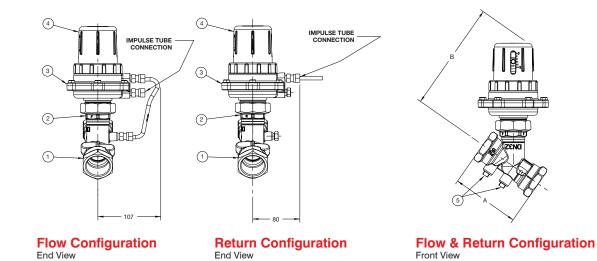
Female Ended DPCV



**Flow Configuration** 

# 318-

#### **Return Configuration**



Valid as of 160418

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#### **Dimensional Drawings**



# DIFFERENTIAL PRESSURE CONTROL VALVES

# DPF931

#### Companion Valve

### **Balance**

#### **PN16**

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MATERIAL

Plastic

END

CONNECTION

Rp 1/2" Parallel

D

Bronze BSEN1982 (CC491K)

Bronze BSEN1982 (CC491K)

DZR Brass BSEN12164 (CW602N)

DZR Brass BSEN12164 (CW602N)

DZR Brass BSEN12164 (CW602N)

DZR Brass BSEN12165 (CW602N)

EPDM Rubber WRAS approved DZR Brass BSEN12164 (CW602N)

DZR Brass BSEN12164 (CW602N)

DZR Brass BSEN12164 (CW602N)

DZR Brass BSEN12164 (CW602N)

FULLY OPEN

0.57

#### Dimensional Drawings



(8

**DPF931** 

EN10226 FLOW (Ky) 1088 2.2 34 Rp 1/2" Parallel 1.87 0.61 30.27 36 Rp 3/4" Parallel 3.14 34.55 4.7 0.65 39 Rc 1" Taper 5.59 27.85 8.6 0.95 Rc 1-1/4" Taper 43 10.80 22.60 16.6 1.13 46 Rc 1-1/2" Taper 18.10 14.76 24.5 1.52 48 Rc 2" Taper 29.10 14.62 46.1 1.98 Rp 1/2" Parallel 1.06 94.20 1.1 0.61 34

325.8 0.58 0.61

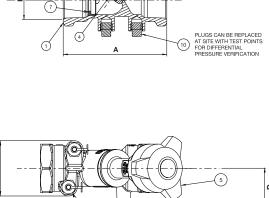
WEIGHT

(kg)

HEAD KVs

DN15 & DN20 End Connections: EN10226 Rp Parallel DN25 to DN50 End Connections: EN10226 Rc Taper





(8)

2

IMPULSE TUBE CONNECTION POINT

(9)

4

5

6

7

8

9

10

FIG

NO

D931

D933

D934

1

**Materials** 

DESCRIPTION

Bonnet DN15 to DN32

Bonnet DN40 to DN50

Disc (DN32 to DN50)

Disc (DN25 Only)

Handwheel

**O-Ring Seal** 

**Orifice Insert** 

Plug Rc 1/8" Taper

Plug Rp 1/4" Parallel

(mm) (mm) (mm)

128 66

105 50

**Test Point** 

**Dimensions & Weights** 

AB

87 105 50

96 106 54

100 127 62

114

125 143 70

146 144 78

87

87 105 50 34

NOM

SIZE

**DN15** 

**DN20** 

**DN25** 

**DN32** 

DN40

**DN50** 

**DN15** 

**DN15** 

Body

Stem

ITEM

**BALANCING VALVES** 

Valid as of 160418

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# DIFFERENTIAL PRESSURE CONTROL VALVES

# **DP971F**

DN65 - DN150

## **ProBalance**

**PN16** 

#### **Features & Benefits**

- A high performing differential pressure control valve that can be fitted in the supply or return pipework, regulating both differential pressure and flow rate.
- Differential pressure activation range (DP Range) from 15 to 150 kPa
- Integrated valve position indicator for visual inspection
- Tested in accordance with the BSRIA guidance standard



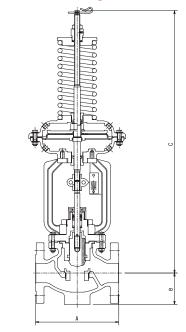
#### **Materials**

PART	MATERIAL
Body	Cast Iron ASTM A48-CL30
Seat	Cast Bronze ASTM B584-C836
Cone	Cast Bronze ASTM B584-C836
Guide	Cast Bronze ASTM B584-C836
Gasket	Non Asbestos
Top Flange	Cast Iron ASTM A48-CL30
Packing	EPDM
Yoke	Ductile Iron ASTM A536-65-45-12
Diaphragm plate	ASTM A240-304
Spring	Spring Steel
Adjust Screw	B16-C36000 (Brass)
Actuator Spindle	Stainless Steel 304
Diaphragm Case	DI (A536-65-45-12)
Diaphragm	EPDM
Cone Stem	Stainless Steel 316
Cover Bolt	Steel to JIS3101

#### **Dimensions, Coefficients & Weights**

SIZE (mm)	WEIGHT (kg)	A (mm)	B (mm)	C (mm)	F/O Kv
65	48	276	115	720	55.4
80	56	298	120	720	72.7
100	72	352	130	735	129.8
125	130	400	150	775	173
150	162	451	180	800	249.1

#### **Dimensional Drawing**



#### **Pressure/Temperature Ratings**

TEMPERATURE (°C)	-10 to 120°C
PRESSURE (BAR)	16

#### PRESSURE RATING: PN16

END CONNECTIONS: BS EN1092-2 PN16 OPERATOR: Actuator

**INCLUDED WITH VALVE:** 1 x Impulse tube kit (which contains two sets of; Copper tube, ball valve, tee piece, flare nut, flare nipple, nipple, long nipple and pressure gauge)

SPECIFICATION: - Valve shell tested and inspected in accordance with BS EN 12266-1 - Face-to-face in accordance with EN 58 Series 1 or 37

OTHER: Valve comes factory set at 70 kPa

SIZING: Please contact our technical support helpline for guidance

SPARES: Impulse tube kit (Part No. 0JG91983D)

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