

D995 DN15, DN20 & DN25

Peak Pro

Pressure Independent Control Valve

PN25



Features & Benefits

ProBalance

- Comprehensive flow range available, allowing for cost effective valve selections. The PICV Peak Pro has up to 70% higher max flow compared to the previous model
- Accurate over a wide ΔP range - available in both 400 and 800kPa variants
- Flow can be precisely measured with D901 FMD to $\pm 5\%$ accuracy (sold separately)
- Class IV leakage*
- PN25 rated product, suitable for high pressure applications
- Design validation testing to BSRIA BTS01. As per Cyclic Testing requirements, valve subjected to 10,000 cycles (equivalent to 15 years** of typical service)
- Comprehensive testing undertaken for each valve - pressure tested to BS EN 12266-1
- Integral test points for verification of ΔP and valve performance
- Built in convoluted integral diaphragm
- Smaller and lighter design suits applications with a small footprint

Materials

ITEM	DESCRIPTION	MATERIAL
1	Body	DZR Brass BS EN 12165 (CW602N)
2	Bonnet	DZR Brass BS EN 12165 (CW602N)
3	End Cap	DZR Brass BS EN 12165 (CW602N)
4	P84 Test Point	DZR Brass BS EN 12165 (CW602N)
5	Setting Dial	Nylon 6
6	DP Controller	Stainless Steel 303
7	Springs	Stainless Steel 302
8	Diaphragm	EPDM
9	O-Rings	EPDM
10	O-Ring Insert	DZR Brass BS EN 12165 (CW602N)
11	Stem	Stainless Steel 303

*DN15 LF Class 3 **based on two full stroke cycles per day

Dimensions & Weights

	A (mm)	B (mm)	C (mm)	C2 (mm)	D (mm)	END CONNECTIONS	WEIGHT (kg)
DN15	74	36	63	120	27	1/2" BSP Female Taper to BS EN 10226-2	0.52
DN20	90	47	75	130	30	3/4" BSP Female Taper to BS EN 10226-2	0.82
DN25	112	63	75	130	51	1" BSP Female Taper to BS EN 10226-2	1.55

Flow Range

	LOW FLOW (l/s)	STD FLOW (l/s)	HIGH FLOW (l/s)
DN15	0.008 - 0.080	0.060 - 0.200	0.10 - 0.370
DN20	-	0.070 - 0.350	0.075 - 0.420
DN25	-	0.120 - 0.600	0.360 - 0.850

Differential Pressure Range

	LOW FLOW (kPa)	STD FLOW (kPa)	HIGH FLOW (kPa)
DN15	20 - 400 20 - 800	25 - 400 20 - 800	40 - 400 40 - 800
DN20	-	27 - 400 27 - 800	40 - 400 40 - 800
DN25	-	40 - 400 40 - 800	70 - 400 70 - 800

Please request max ΔP on order

PRESSURE RATING: PN25

MEDIUM: Group 2 Liquids

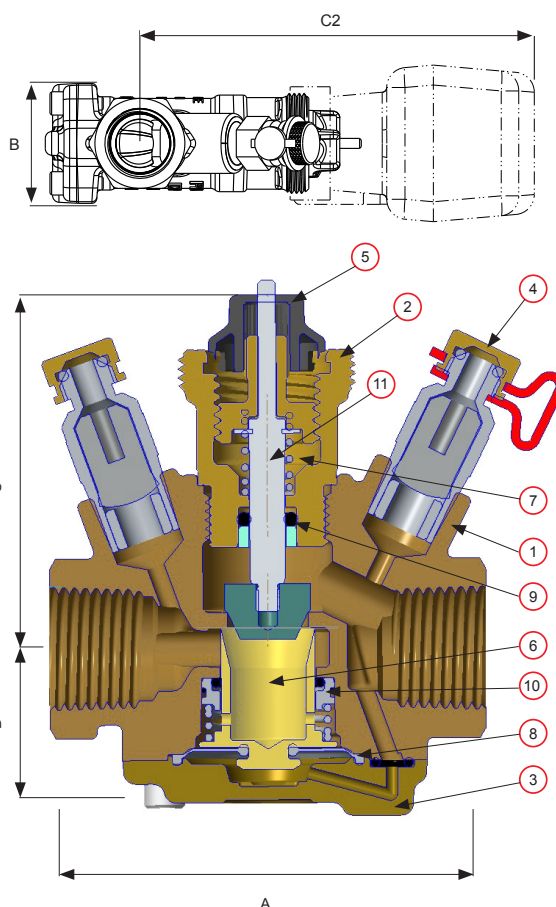
END CONNECTIONS:

BSP Female Taper to BS EN 10226-2

SPECIFICATION: The PICV shall have a constant control characteristic at all flow settings and control flow rates at differential pressures up to 800kPa. Flow rates will be externally adjustable, and set point recordable. Integral test points will be fitted to verify setting pressure allowing pumps to be set at optimum speed to maximise energy savings. Shall be manufactured from DZR Brass, with Stainless Steel springs, and an EPDM diaphragm. Shall be rated to PN25 and operate at temperatures to 90°C. As per Crane FS Peak Pro (Fig D995).

SPARES: Isolating cap part number 0ED13666H.

Dimensional Drawings



Pressure/Temperature Ratings

TEMPERATURE (°C)	0°C to 90°C
PRESSURE (BAR)	25 Bar

D995 DN32

Peak Pro™

BSRIA

Pressure Independent Control Valve

PN16

Features & Benefits

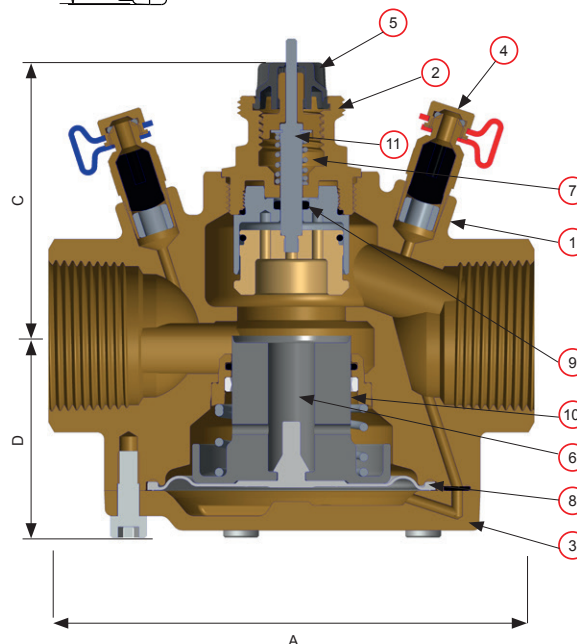
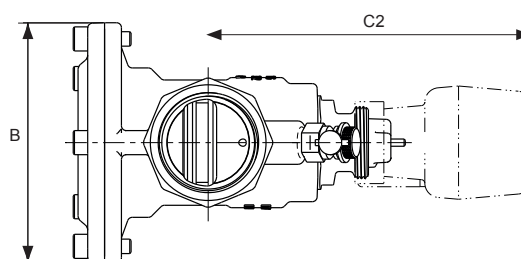
ProBalance

- Comprehensive flow range available, allowing for cost effective valve selections. The PICV Peak Pro has up to 80% higher max flow compared to the previous model
- Accurate over a wide ΔP range - up to 800kPa
- Class IV leakage
- PN16 rated product, suitable for high pressure applications
- Design validation testing to BSRIA BTS01. As per Cyclic Testing requirements, valve subjected to 10,000 cycles (equivalent to 15 years* of typical service)
- Comprehensive testing undertaken for each valve - pressure tested to BS EN 12266-1
- Integral test points for verification of ΔP and valve performance
- Built in convoluted integral diaphragm
- Smaller and lighter design suits applications with a small footprint

*based on two full stroke cycles per day



Dimensional Drawings



Materials

ITEM	DESCRIPTION	MATERIAL
1	Body	DZR Brass BS EN 12165 (CW602N)
2	Bonnet	DZR Brass BS EN 12165 (CW602N)
3	End Cap	DZR Brass BS EN 12165 (CW602N)
4	P84 Test Point	DZR Brass BS EN 12165 (CW602N)
5	Setting Dial	Nylon 6
6	DP Controller	Stainless Steel 303
7	Springs	Stainless Steel 302
8	Diaphragm	EPDM
9	O-Rings	EPDM
10	O-Ring Insert	DZR Brass BS EN 12165 (CW602N)
11	Stem	Stainless Steel 303

Dimensions & Weights

	A (mm)	B (mm)	C (mm)	C2 (mm)	D (mm)	END CONNECTIONS	WEIGHT (kg)
DN32	135	100	76	135	56	1-1/4" BSP Taper	2.3

Flow Range

	STD FLOW (l/s)	HIGH FLOW (l/s)
DN32	0.52-1.35	0.63 - 1.73

Differential Pressure Range

	STD FLOW (kPa)	HIGH FLOW (kPa)
DN32	65-800	70-800

Pressure/Temperature Ratings

TEMPERATURE (°C)	0°C to 90°C
PRESSURE (BAR)	16 Bar

PRESSURE RATING: PN16

MEDIUM: Group 2 Liquids

END CONNECTIONS:

BSP Female Taper to BS EN 10226-2

SPECIFICATION: The PICV shall have a constant control characteristic at all flow settings and control flow rates at differential pressures up to 800kPa. Flow rates will be externally adjustable, and set point recordable. Integral test points will be fitted to verify setting pressure allowing pumps to be set at optimum speed to maximise energy savings. Shall be manufactured from DZR Brass, with Stainless Steel springs, and an EPDM diaphragm. Shall be rated to PN16 and operate at temperatures to 90°C. As per Crane FS Peak Pro (Fig D995).

SPARES: Isolating cap part number 0ED13666H.

Valid as of 220321

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D995 DN40-50

Pressure Independent Control Valve

PN16

Features & Benefits

ProBalance

- Comprehensive flow range available, allowing for cost effective valve selections. The PICV Peak Pro has up to 25% higher max flow compared to the previous model
- Accurate over a wide ΔP range - up to 800kPa
- Class IV leakage
- PN16 rated product, suitable for high pressure applications
- Design validation testing to BSRIA BTS01. As per Cyclic Testing requirements, valve subjected to 10,000 cycles (equivalent to 15 years* of typical service)
- Comprehensive testing undertaken for each valve - pressure tested to BS EN 12266-1
- Integral test points for verification of ΔP and valve performance
- Built in convoluted integral diaphragm
- Smaller and lighter design suits applications with a small footprint

*based on two full stroke cycles per day

Materials

ITEM	DESCRIPTION	MATERIAL
1	Body	Bronze BS EN 1982 (CC491K)
2	Bonnet	Bronze BS EN 1982 (CC491K)
3	End Cap	Bronze BS EN 1982 (CC491K)
4	P84 Test Point	DZR Brass BS EN 12165 (CW602N)
5	Setting Dial	Nylon 6
6	DP Controller	Stainless Steel 303
7	Springs	Stainless Steel 302
8	Diaphragm	EPDM
9	O-Rings	EPDM
10	O-Ring Insert	Stainless Steel 303S
11	Stem	Stainless Steel 303S

Dimensions & Weights

	A (mm)	B (mm)	C1 (mm)	C2 (mm)	D (mm)	E (mm)	END CONNECTIONS	WEIGHT (kg)
DN40	137.1	118	94	145	104	72	1 1/2" BSP Female Taper to BS EN 10226	3.60
DN50	161.5	118	99	150	106.5	78	2" BSP Female Taper to BS EN 10226	4.25

Flow Range

	FLOW (l/s)
DN40	0.39 - 3.00
DN50	0.69 - 3.80

Differential Pressure Range

	FLOW (kPa)
DN40	50 - 800 kPa
DN50	40 - 800 kPa

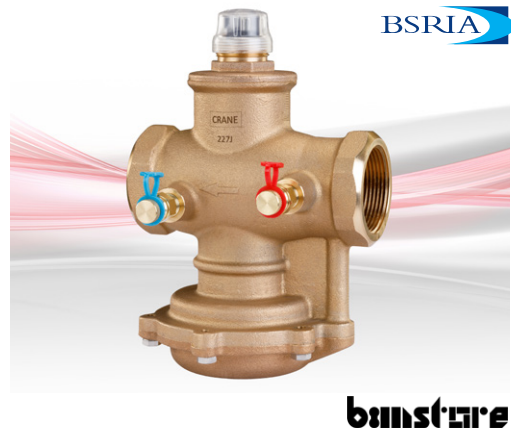
PRESSURE RATING: PN16

MEDIUM: Group 2 Liquids

END CONNECTIONS: BSP Female Taper to BS EN 10226-2

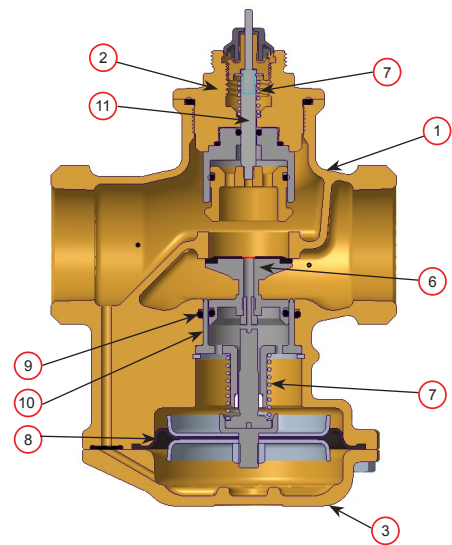
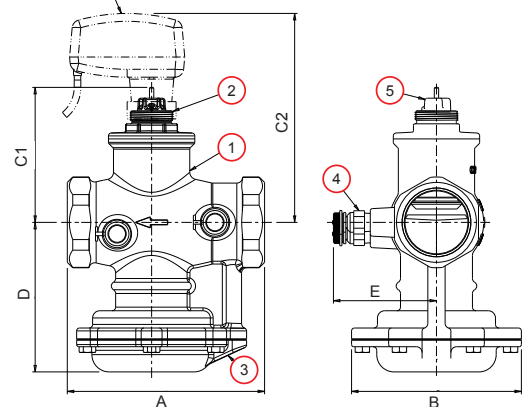
SPARES: Isolating cap part number 0ED13666H

SPECIFICATION: The PICV shall have a constant control characteristic at all flow settings and control flow rates at differential pressures up to 800kPa. Flow rates will be externally adjustable, and set point recordable. Integral test points will be fitted to verify setting pressure allowing pumps to be set at optimum speed to maximise energy savings. Shall be manufactured from Bronze (CC491K), with Stainless Steel springs, and an EPDM diaphragm. Shall be rated to PN16 and operate at temperatures to 90°C. As per Crane FS Peak Pro (Fig D995).



Dimensional Drawings

Actuator shown for reference only (supply separately)



Pressure/Temperature Ratings

TEMPERATURE (°C)	0°C to 90°C
PRESSURE (BAR)	16 Bar

D996F DN65-DN150

Electronic Pressure Independent Control valve

PN16

Description

E-PICV uses pressure transducers combined with a high-speed actuator to automatically regulate flow, regardless of pressure fluctuations in the system.

Features & Benefits

- Reduced commissioning time and costs due to the preconfigured actuator settings, via the BMS or Crane configurator tool
- Stable head output by maintaining a flow rate regardless of ΔP via pressure sensors
- System optimisation using the indicated flow rate and position feedback via Modbus
- Reduced installation labour and cabling costs due to daisy chaining between Modbus actuators
- Reduced downtime due to error feedback via the BMS
- Optimised system efficiency and user comfort due to fast responding actuator
- Critical application protection from configurable fail-safe feature
- Isolation function with Class IV leakage up to 800kPa

Materials

DESCRIPTION	MATERIAL	SPECIFICATION
Body	Grey Iron	EN GJL-250
End Cap	Grey Iron	EN GJL-250
Plug	Brass	CB 491K
Seat	Grey Iron	EN GJL-250
Stem	Stainless Steel	AISI-303

Dimensions & Weights

SIZE (DN)	L (mm)	H (mm)	h (mm)	D (mm)	b (mm)	a (mm)	f (mm)	HOLES	WGT (kg)	Qmin (l/s)	Qmax (l/s)
65	290	320	175	185	20	145	18	4	18	3.3	10.3
80	310	330	186	200	22	160	18	8	28	6.9	16.4
100	350	341	206	220	24	180	18	8	32	12.5	21.4
125	400	364	255	250	26	210	22	8	45	16.9	32.8
150	480	382	275	285	26	240	25	8	60	22.2	49.2

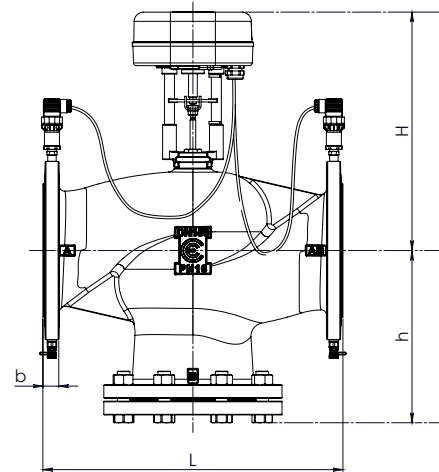
Technical Specification

CHARACTERISTIC	DESCRIPTION	
Fluid temperature	-10°C - 110°C	
Storage temperature	-10°C - 50°C	
Protection	Actuator	IP54
	Pressure Sensors	IP65
Valve connections	Flanged PN16	
Max close off pressure	800kPa	
Operational ΔP range	35kPa – 800kPa	
Supply voltage	24Vac/dc / 230Vac variants available	
Control signal	0-10Vdc, 2-10Vdc, 0-5/2-6Vdc and 4-20mA or 0-100% Modbus control signal	
Output signal	2-10Vdc (0-100%); max load 2mA or 0-100% Modbus signal	
Pressure sensors	Pressure range	0 - 16 bar
	Temperature range	-15°C - 125°C
	Output signal	0-10 Vdc
	Power supply	16Vdc (supplied from actuator)
	Valve connection	1/8"

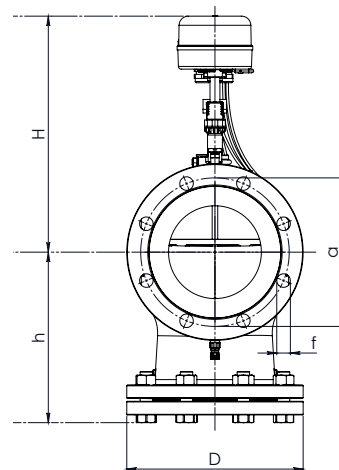


Dimensional Drawings

Front



Side



PRESSURE RATING: PN16

MEDIUM: Group 2 Liquids

END CONNECTIONS: Flanges to BS EN 1092-2 PN16

SPECIFICATION: The E-PICV shall consist of a two-port characterised control valve with equal percentage control set through the actuator. Shall maintain flow rates, through integral pressure sensors, at differential pressures up to 800kPa. Flow rate adjustable through 0-10V or 0-100% Modbus signal, with feedback of % position, through 0-10V signal, and indicated flow rate based on valve position to be made available. Shall be manufactured from Grey Iron, with Brass plug and Stainless-Steel springs. Shall be rated to PN16 and operate at temperatures to 120°C. As per Crane FS D996F

PICV ACTUATORS

ACT991M / ACTD995FB / ACTD995FS / ACT991TP / ACT991TH

Features & Benefits

- **ACT991M** is a modulating actuator providing proportional (equal percentage) control. This now includes a stem gap detection innovation, which reduces onsite adjustments and results in easier installation and commissioning. The gap detection feature matches the stroke length of the valve during calibration, ensuring the actuator conversion to equal percentage is accurate and gives the desired flow control across all valve settings for the operating differential pressure range.
- **ACTD995FB** is a Feedback actuator allowing proportional control with 0-10V with position feedback signal function.
- **ACTD995FS** is a Fail Safe actuator designed to protect the equipment and the system from damage, while enhancing overall efficiency
- **ACT991TP** is a 3-point actuator (or floating point) electromechanical actuator for use where thermal actuators are not suitable.
- **ACT991TH** is a thermal actuator designed for ON/OFF control. Thermal actuators are small, light, and therefore a good choice for confined spaces.
- All feature an LED for the indication of the operating status.

Materials

	Material
Cover	ABS + PC
Yoke	PA66 - Glass Mineral filled (30% total)
Thread Nut	Brass CuZn40Pb2

Dimensions & Weights

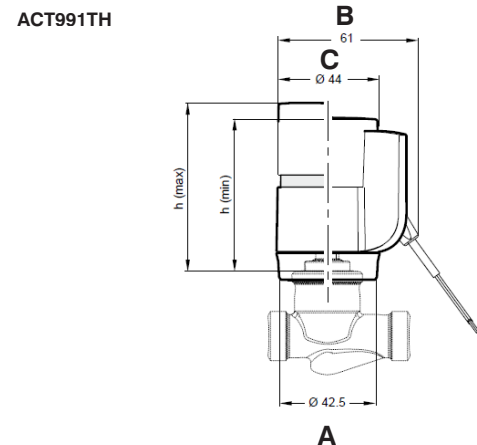
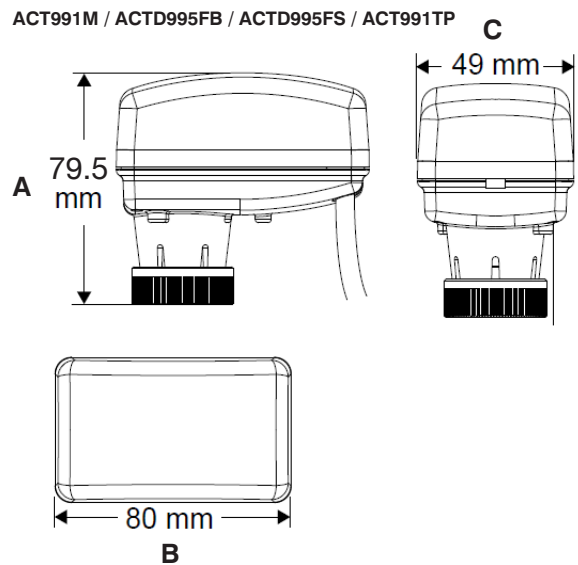
Fig No.	Cable Length	A (mm)	B (mm)	C (mm)	Weight (kg)
ACT991M	1.5m	79.5	80	49	0.2
ACTD995FB					
ACTD995FS					
ACT991TP					
ACT991TH	1.0m	42.5	61	44	0.2

Technical Specification

Actuator Type	Power Supply	Control Signal	Configurations	Control Type	Nominal Force	Stroke Length	Running Time	Protection Class	Connections	Calibration
ACT991M	24VAC/DC	0 - 10V DC 0 - 5V DC 2 - 10V DC 4 - 20mA	Direct acting	Proportional	140N	6.3mm max	8 sec/mm	IP54	M30 x 1.5	Self Calibrating
ACTD995FB			Direct acting		160N					
ACTD995FS			Reverse acting		160N					
ACT991TP	24VAC/DC (230V Available)	N/A	N/A	Raise / Lower	140N	4.5mm max (nominal)	13 sec			
ACT991TH				ON/OFF	125N	4.5 min				



Dimensional Drawing



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