

## Flowmaster 3-in-1 control valves PN16

ICV 951 Flowmaster 3-in-1 (PICV) for terminal units in 0-90°C HVAC systems (fancoils and air handling units). Especially suitable for variable flow systems with frequently changing loads or DP.The actuator also has the function of flow setting, LCD display: display the feedback signal voltage or opening percentage. Valve body preset flow: 1-6 gear.

Flanges and drilling to BS EN 1092-2

Use:

For water to max. 95℃

**Materials** Body Stem Diaphragm Internals

Ductile iron Stainless steel AISI 304 EPDM Stainless steel AISI 304

#### Tests:

Hydraulic test to BS EN 12266 Seat: According to each aperture closure pressure difference. The allowable leakage rate:Max flow\*0.05% Body: 1.5 x PN

### Marking:

Body: ICV Nameplate. DN, PN, and flow direction. Actuator: ICV logo, Wiring diagram, Voltage value.

#### Actuator

Power supply Power

Control signal Feedback signal Actuator torque

Running time

Protection grade Ambient temp 24VAC±10% 50/60HZ 7 W (DN65-80) 15 W (DN100-150) 0-10V/2-10V/0-20mA/4-20mA 0-10V/2-10V/0-20mA/4-20mA 1000 N (DN65-80) 3000 N (DN100-150) 50HZ,140s/60HZ,120s(DN65-80) 50HZ,180s/60HZ,150s(DN100-150) IP54 -10~50°C



DN65-80



DN100-150

Expect.



The designs, materials and specifications shown are subject to change without notice due to our continuing programme of product development.

ICV 951 Flowmaster 3-in-1 (PICV) for terminal units in 0-90°C HVAC systems (fancoils and air handling units). Especially suitable for variable flow systems with frequently changing loads or DP. The 3-in-1 PICV set combines motorized control, dynamic differential pressure balancing and static balancing (max flow setting). Flanges and drilling to BS EN 1092-2

ICV Flowmaster is an innovative design with an adjustable control unit that maintains 100% valve weight at all times. Preset and adjusting functions are two independent actions, in the preset flow rate, the radial change of water area does not affect the stroke of the valve; In the adjustment, the water area in the whole stroke linear adjustment.



Lock screw: After confirming the completion of the preset, lock the device to prevent misoperation and change the preset value.

Dial scale: According to the preset and flow table, select a reasonable gear, save flow, save energy.

Pre-set:Can intuitively and clearly read the current preset gear, to prevent improper preset, resulting in underflow or excess flow.

Dial plate

Green: spool, preset flow, water area radial change does not affect the stroke of the valve, in the adjustment, water area in the full stroke of linear adjustment.

Red and white: differential pressure control assembly, which ensures that the flow rate does not exceed the maximum preset value and is not affected by system pressure fluctuations. It keeps constant within the maximum flow pressure difference of 400KPa.

Blue: Seat, maximum closing differential pressure.







ICV 951 Flowmaster 3-in-1 (PICV) for terminal units in 0-90°C HVAC systems (fancoils and air handling units). Especially suitable for variable flow systems with frequently changing loads or DP.The actuator also has the function of flow setting, LCD display: display the feedback signal voltage or opening percentage. Valve body preset flow: 1-6 gear. Flanges and drilling to BS EN 1092-2

#### Component list

Spring
Diaphragm

3. Body 4. Disc 5. Stem



		L	D1	N-Φd	Н	H1	Flow rate*	DP range	Closing pressure	Weight
Ref.no.	DN	mm	mm		mm	mm	m³/h	KPa	Кра	Kgs
951006555101	65	290	145	4-Φ18	178	192	0.4-23	30~300	400	26
951008055101	80	310	160	8-Φ18	195	203	0.5-34	30~300	400	34
951010055101	100	350	180	8-Φ18	226	245	0.81-53	30~300	400	55
951012555101	125	400	210	8-Φ18	265	240	3.87-71	30~300	400	73
951015055101	150	480	240	12-Φ23	290	250	4.2-102	30~300	400	116

\* Flow tolerance allowed:≤5%.



ICV 951 Flowmaster 3-in-1 (PICV) for terminal units in 0-90°C HVAC systems (fancoils and air handling units). Especially suitable for variable flow systems with frequently changing loads or DP.The actuator also has the function of flow setting, LCD display: display the feedback signal voltage or opening percentage. Valve body preset flow: 1-6 gear. Flanges and drilling to BS EN 1092-2

#### Actuator





# Setting and flow

	DN65 Flow				DN80 Flow		DN100 Flow		
Pre-set	Flow m <sup>3</sup> /h	Flow I/s	Flow gpm	Flow m <sup>3</sup> /h	Flow I/s	Flow gpm	Flow m <sup>3</sup> /h	Flow I/s	Flow gpm
1	15	4.12	66	22	6.11	97	31	8.61	136
2	17	4.72	75	26	7.22	114	39	10.83	172
3	18	5.00	79	29	8.06	128	43	11.94	189
4	19	5.28	84	31	8.61	136	46	12.78	203
5	22	6.11	97	32	8.89	141	49	13.61	216
6	23	6.39	101	34	9.44	150	53	14.72	233
	· · · · · ·					·	^		

		DN125 Flov	v	DN150 Flow					
Pre-set	Flow m <sup>3</sup> /h	Flow I/s	Flow gpm	Flow m <sup>3</sup> /h	Flow I/s	Flow gpm			
1	44	12.22	194	49	13.61	216			
2	53	14.72	233	56	15.56	247			
3	59	16.39	260	70	19.44	308			
4	65	18.06	286	87	24.17	383			
5	69	19.17	304	92	25.56	405			
6	71	19.72	313	102	28.83	449			



Member of the AVK Group



DN100-150

**951/C** 006

ICV 951 Flowmaster 3-in-1 (PICV) for terminal units in 0-90°C HVAC systems (fancoils and air handling units). Especially suitable for variable flow systems with frequently changing loads or DP.The actuator also has the function of flow setting, LCD display: display the feedback signal voltage or opening percentage. Valve body preset flow: 1-6 gear. Flanges and drilling to BS EN 1092-2

Pre-set 1 flow chart



Pre-set 6 flow chart



