

FlowCon E-JUST 20mm-50mm

External Adjustable Composite Cartridge



SPECIFICATIONS

Static pressure:	2500 kPa / 360 psi
Temperature rating, media:	-20°C to +120°C / -4°F to +248°F
Materials:	
- Cartridge:	PSU (Polysulfone)
- Diaphragm:	- Hydrogenated acrylonitrile-butadiene-rubber on G-red, G-green, G-black, 40mm Y-green and 50mm G-black - EPDM on Y-red, Y-green and Y-black
- Spring:	18-8 stainless steel
- Stem seals:	EPDM
- Head nut:	Forged brass ASTM CuZn40Pb2
Flow rate range:	0.0278 l/sec - 4.48 l/sec

FLOW RATES ($\pm 5\%$ of controlled flow or $\pm 2\%$ of maximum flow)

E-JUST model	Control range		Minimum setting			Maximum setting		
	kPaD	psid	l/sec	l/hr	GPM	l/sec	l/hr	GPM
20mm	17-200	2.5-29	0.0767	276	1.22	0.229	825	3.60
	17-210	2.5-30	0.0278	100	0.44	0.169	609	2.68
	30-400	4.4-58	0.113	406	1.79	0.352	1270	5.57
	35-400	5.1-58	0.0383	138	0.607	0.249	896	3.95
40mm	17-400	2.5-58	0.149	535	2.36	1.62	5830	25.6
50mm	20-400	2.9-58	0.883	3180	14.0	4.48	16100	70.9

MODEL NUMBER SELECTION

E-JUST

Insert cartridge size:

1=20mm (fits in 15-25mm valve bodies)

2=40mm (fits in 25-40mm valve bodies)

3=50mm (fits in 40-50mm valve bodies)

Insert dP control range:

Y= White pawl:

17-200 kPaD for 20mm red cartridge

17-210 kPaD for 20mm black or green cartridge

17-400 kPaD for 40mm cartridge

G=Grey pawl:

20-400 kPaD for 50mm cartridge

30-400 kPaD for 20mm red cartridge

35-400 kPaD for 20mm black or green cartridge

Insert color code:

R=red **B**=black (B=standard code for 50mm) **G**=green (G=standard code for 40mm)

Example: E-JUST1.Y.B=20mm black E-JUST cartridge for 15-25mm valve body, 17-210 kPaD.

FLOW RATE SETTING - E-JUST CARTRIDGE - FOR VALVES DN15-DN25 SMALL

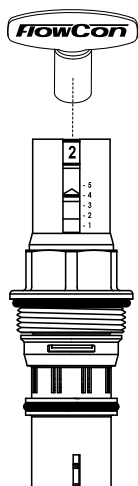
20mm · 3/4" · E-JUST · Y-type · White pawl					
Pressure range, ΔP: 17-210 kPaD · 2.5-30 psid					
	Model no.			E-JUST1.Y.B	E-JUST1.Y.G
				Black	Green
	I/sec	I/hr	GPM	Setting	Setting
Nominal flow rate	0.0278	100	0.440	1.0	
	0.0299	108	0.475	1.1	
	0.0321	116	0.509	1.2	
	0.0343	123	0.543	1.3	
	0.0364	131	0.578	1.4	
	0.0386	139	0.612	1.5	
	0.0408	147	0.646	1.6	
	0.0429	155	0.681	1.7	
	0.0436	157	0.691		1.0
	0.0451	162	0.715	1.8	
	0.0468	168	0.741		1.1
	0.0473	170	0.749	1.9	
	0.0494	178	0.784	2.0	
	0.0499	180	0.791		1.2
	0.0516	186	0.818	2.1	
	0.0530	191	0.841		1.3
	0.0538	194	0.852	2.2	
	0.0559	201	0.887	2.3	
	0.0562	202	0.890		1.4
	0.0581	209	0.921	2.4	
	0.0593	214	0.940		1.5
	0.0603	217	0.955	2.5	
	0.0624	225	0.990	2.6	1.6
	0.0646	233	1.02	2.7	
	0.0656	236	1.04		1.7
	0.0668	240	1.06	2.8	
	0.0687	247	1.09		1.8
	0.0689	248	1.09	2.9	
	0.0711	256	1.13	3.0	
	0.0719	259	1.14		1.9
	0.0733	264	1.16	3.1	
	0.0750	270	1.19		2.0
	0.0754	272	1.20	3.2	
	0.0776	279	1.23	3.3	
	0.0781	281	1.24		2.1
	0.0798	287	1.26	3.4	
	0.0813	293	1.29		2.2
	0.0819	295	1.30	3.5	
	0.0841	303	1.33	3.6	
	0.0844	304	1.34		2.3
	0.0863	311	1.37	3.7	
	0.0876	315	1.39		2.4
	0.0884	318	1.40	3.8	

Continue next column...



20mm · 3/4" · E-JUST · Y-type · White pawl					
Pressure range, ΔP: 17-210 kPaD · 2.5-30 psid					
	Model no.			E-JUST1.Y.B	E-JUST1.Y.G
				Black	Green
	I/sec	I/hr	GPM	Setting	Setting
Nominal flow rate	0.0906	326	1.44	3.9	
	0.0907	327	1.44		2.5
	0.0928	334	1.47	4.0	
	0.0938	338	1.49		2.6
	0.0949	342	1.50	4.1	
	0.0970	349	1.54		2.7
	0.0971	350	1.54	4.2	
	0.0993	357	1.57	4.3	
	0.100	360	1.59		2.8
	0.101	365	1.61	4.4	
	0.103	372	1.64		2.9
	0.104	373	1.64	4.5	
	0.106	381	1.68	4.6	
	0.106	383	1.69		3.0
	0.108	389	1.71	4.7	
	0.110	394	1.74		3.1
	0.110	396	1.75	4.8	
	0.112	404	1.78	4.9	
	0.113	406	1.79		3.2
	0.114	412	1.81	5.0	
	0.116	417	1.84		3.3
	0.119	428	1.89		3.4
	0.122	440	1.94		3.5
	0.125	451	1.98		3.6
	0.128	462	2.03		3.7
	0.132	473	2.08		3.8
	0.135	485	2.13		3.9
	0.138	496	2.18		4.0
	0.141	507	2.23		4.1
	0.144	519	2.28		4.2
	0.147	530	2.33		4.3
	0.150	541	2.38		4.4
	0.153	553	2.43		4.5
	0.157	564	2.48		4.6
	0.160	575	2.53		4.7
	0.163	586	2.58		4.8
	0.166	598	2.63		4.9
	0.169	609	2.68		5.0

Accuracy: Greatest of
either ±5% of controlled flow rate
or ±2% of maximum flow rate



Use the FlowCon adjustment key (part number ACC0001) for adjusting the flow rate.

A setting of 4.2 corresponds to a flow rate of 0.144 l/sec for the 20mm green cartridge, range 17-210 kPaD.

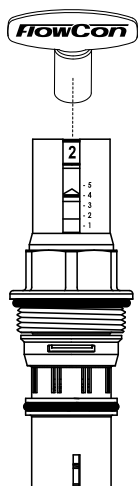
FLOW RATE SETTING - E-JUST CARTRIDGE - FOR VALVES DN15-DN25 SMALL (continued)

20mm · 3/4" · E-JUST · Y-type · White pawl				
Pressure range. ΔP: 17-200 kPaD · 2.5-29 psid				
		Model no.	E-JUST1.Y.R	
Nominal flow rate				Red
	l/sec	l/hr	GPM	Setting
	0.0767	276	1.22	1.0
	0.0813	293	1.29	1.1
	0.0860	310	1.36	1.2
	0.0907	326	1.44	1.3
	0.0953	343	1.51	1.4
	0.100	360	1.58	1.5
	0.105	377	1.66	1.6
	0.109	393	1.73	1.7
	0.114	410	1.80	1.8
	0.118	426	1.88	1.9
	0.123	443	1.95	2.0
	0.128	459	2.02	2.1
	0.132	475	2.09	2.2
	0.136	491	2.16	2.3
	0.141	507	2.23	2.4
	0.145	523	2.30	2.5
	0.150	539	2.37	2.6
	0.154	554	2.44	2.7
	0.158	569	2.51	2.8
	0.162	584	2.57	2.9
	0.166	599	2.64	3.0
	0.170	614	2.70	3.1
	0.174	628	2.76	3.2
	0.178	642	2.83	3.3
	0.182	655	2.89	3.4
	0.186	669	2.94	3.5
	0.189	682	3.00	3.6
	0.193	695	3.06	3.7
	0.196	707	3.11	3.8
	0.200	719	3.17	3.9
	0.203	731	3.22	4.0
	0.206	742	3.27	4.1
	0.209	753	3.32	4.2
	0.212	764	3.36	4.3
	0.215	774	3.41	4.4
	0.218	784	3.45	4.5
	0.220	793	3.49	4.6
	0.223	802	3.53	4.7
	0.225	810	3.57	4.8
	0.227	818	3.60	4.9
	0.229	825	3.60	5.0

Accuracy: Greatest of
either ±5% of controlled flow rate
or ±2% of maximum flow rate

20mm · 3/4" · E-JUST · G-type · Grey pawl				
Pressure range. ΔP: 30-400 kPaD · 4.4-58 psid				
		Model no.	E-JUST1.G.R	
Nominal flow rate				Red
	l/sec	l/hr	GPM	Setting
	0.113	406	1.79	1.0
	0.119	427	1.88	1.1
	0.125	449	1.98	1.2
	0.131	470	2.07	1.3
	0.137	492	2.17	1.4
	0.143	513	2.26	1.5
	0.149	535	2.36	1.6
	0.155	556	2.45	1.7
	0.161	578	2.54	1.8
	0.167	599	2.64	1.9
	0.172	621	2.73	2.0
	0.178	642	2.83	2.1
	0.184	664	2.92	2.2
	0.190	685	3.02	2.3
	0.196	707	3.11	2.4
	0.202	728	3.21	2.5
	0.208	750	3.30	2.6
	0.214	771	3.40	2.7
	0.220	793	3.49	2.8
	0.226	814	3.59	2.9
	0.232	836	3.68	3.0
	0.238	857	3.78	3.1
	0.244	879	3.87	3.2
	0.250	900	3.96	3.3
	0.256	922	4.06	3.4
	0.262	943	4.15	3.5
	0.268	965	4.25	3.6
	0.274	987	4.34	3.7
	0.280	1010	4.44	3.8
	0.286	1030	4.53	3.9
	0.292	1050	4.63	4.0
	0.298	1070	4.72	4.1
	0.304	1090	4.82	4.2
	0.310	1120	4.91	4.3
	0.316	1140	5.01	4.4
	0.322	1160	5.10	4.5
	0.328	1180	5.20	4.6
	0.334	1200	5.29	4.7
	0.340	1220	5.38	4.8
	0.346	1240	5.48	4.9
	0.352	1270	5.57	5.0

Accuracy: Greatest of
either ±5% of controlled flow rate
or ±2% of maximum flow rate



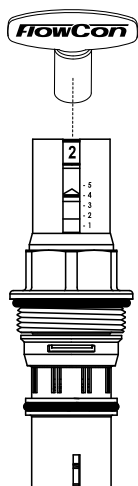
Use the FlowCon adjustment
key (part number ACC0001)
for adjusting the flow rate.

A setting of 4.2 corresponds
to a flow rate of 0.304 l/sec
for the 20mm red cartridge,
range 30-400 kPaD.

FLOW RATE SETTING - E-JUST CARTRIDGE - FOR VALVES DN15-DN25 SMALL (continued)

20mm · 3/4" · E-JUST · G-type · Grey pawl					
Pressure range, ΔP: 35-400 kPaD · 5.1-58 psid					
	Model no.			E-JUST1.G.B	E-JUST1.G.G
				Black	Green
	l/sec	l/hr	GPM	Setting	Setting
Nominal flow rate	0.0383	138	0.607	1.0	
	0.0416	150	0.660	1.1	
	0.0449	162	0.712	1.2	
	0.0483	174	0.765	1.3	
	0.0516	186	0.817	1.4	
	0.0549	198	0.870	1.5	
	0.0582	210	0.922	1.6	
	0.0615	221	0.975	1.7	
	0.0648	233	1.03	1.8	
	0.0660	238	1.05		1.0
	0.0681	245	1.08	1.9	
	0.0706	254	1.12		1.1
	0.0714	257	1.13	2.0	
	0.0748	269	1.18	2.1	
	0.0751	271	1.19		1.2
	0.0781	281	1.24	2.2	
	0.0797	287	1.26		1.3
	0.0814	293	1.29	2.3	
	0.0843	304	1.34		1.4
	0.0847	305	1.34	2.4	
	0.0880	317	1.40	2.5	
	0.0889	320	1.41		1.5
	0.0913	329	1.45	2.6	
	0.0934	336	1.48		1.6
	0.0946	341	1.50	2.7	
	0.0979	353	1.55	2.8	
	0.0980	353	1.55		1.7
	0.101	365	1.61	2.9	
	0.103	369	1.63		1.8
	0.105	377	1.66	3.0	
	0.107	386	1.70		1.9
	0.108	388	1.71	3.1	
	0.111	400	1.76	3.2	
	0.112	402	1.77		2.0
	0.115	412	1.82	3.3	
	0.116	419	1.84		2.1
	0.118	424	1.87	3.4	
	0.121	435	1.92		2.2
	0.121	436	1.92	3.5	
	0.124	448	1.97	3.6	
	0.125	452	1.99		2.3
	0.128	460	2.03	3.7	
	0.130	468	2.06		2.4
	0.131	472	2.08	3.8	

Continue next column...



Use the FlowCon adjustment key (part number ACC0001) for adjusting the flow rate.

A setting of 4.2 corresponds to a flow rate of 0.212 l/sec for the 20mm green cartridge, range 35-400 kPaD.



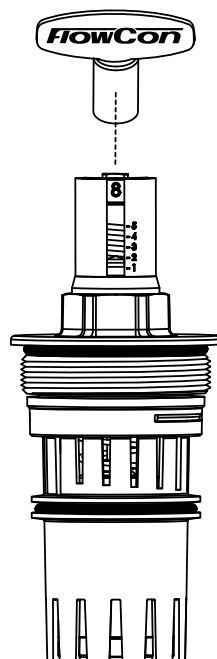
20mm · 3/4" · E-JUST · G-type · Grey pawl					
Pressure range, ΔP: 35-400 kPaD · 5.1-58 psid					
	Model no.			E-JUST1.G.B	E-JUST1.G.G
				Black	Green
	l/sec	l/hr	GPM	Setting	Setting
Nominal flow rate	0.134	484	2.13	3.9	
	0.135	485	2.13		2.5
	0.138	496	2.18	4.0	
	0.139	501	2.21		2.6
	0.141	508	2.24	4.1	
	0.144	517	2.28		2.7
	0.144	520	2.29	4.2	
	0.148	532	2.34	4.3	
	0.148	534	2.35		2.8
	0.151	544	2.39	4.4	
	0.153	550	2.42		2.9
	0.154	556	2.45	4.5	
	0.157	567	2.50		3.0
	0.158	567	2.50	4.6	
	0.161	579	2.55	4.7	
	0.162	583	2.57		3.1
	0.164	591	2.60	4.8	
	0.167	600	2.64		3.2
	0.168	603	2.66	4.9	
	0.171	615	2.71	5.0	
	0.171	616	2.71		3.3
	0.176	633	2.79		3.4
	0.180	649	2.86		3.5
	0.185	666	2.93		3.6
	0.189	682	3.00		3.7
	0.194	699	3.08		3.8
	0.199	715	3.15		3.9
	0.203	731	3.22		4.0
	0.208	748	3.29		4.1
	0.212	764	3.37		4.2
	0.217	781	3.44		4.3
	0.221	797	3.51		4.4
	0.226	814	3.58		4.5
	0.231	830	3.66		4.6
	0.235	847	3.73		4.7
	0.240	863	3.80		4.8
	0.244	880	3.87		4.9
	0.249	896	3.95		5.0

Accuracy: Greatest of either ±5% of controlled flow rate or ±2% of maximum flow rate

FLOW RATE SETTING - E-JUST CARTRIDGE - FOR VALVES DN25 LARGE-DN40

40mm · 1 1/2" · E-JUST · Y-type · White pawl				
Pressure range. ΔP : 17-400 kPaD · 2.5-58 psid				
		Model no.	E-JUST2.Y.G	
Nominal flow rate	l/sec	l/hr	GPM	Setting
	0.149	535	2.36	1.0
	0.220	793	3.49	1.1
	0.289	1040	4.58	1.2
	0.355	1280	5.62	1.3
	0.418	1510	6.63	1.4
	0.479	1730	7.59	1.5
	0.538	1940	8.52	1.6
	0.594	2140	9.40	1.7
	0.647	2330	10.3	1.8
	0.699	2520	11.1	1.9
	0.748	2690	11.9	2.0
	0.795	2860	12.6	2.1
	0.841	3030	13.3	2.2
	0.884	3180	14.0	2.3
	0.925	3330	14.7	2.4
	0.965	3470	15.3	2.5
	1.00	3610	15.9	2.6
	1.04	3740	16.5	2.7
	1.07	3870	17.0	2.8
	1.11	3990	17.5	2.9
	1.14	4100	18.1	3.0
	1.17	4220	18.5	3.1
	1.20	4320	19.0	3.2
	1.23	4420	19.5	3.3
	1.26	4520	19.9	3.4
	1.28	4620	20.3	3.5
	1.31	4710	20.7	3.6
	1.33	4800	21.1	3.7
	1.36	4890	21.5	3.8
	1.38	4970	21.9	3.9
	1.40	5050	22.2	4.0
	1.43	5130	22.6	4.1
	1.45	5210	22.9	4.2
	1.47	5290	23.3	4.3
	1.49	5370	23.6	4.4
	1.51	5440	24.0	4.5
	1.53	5520	24.3	4.6
	1.55	5600	24.6	4.7
	1.58	5670	25.0	4.8
	1.60	5750	25.3	4.9
	1.62	5830	25.6	5.0

Accuracy: Greatest of
either $\pm 5\%$ of controlled flow rate
or $\pm 2\%$ of maximum flow rate



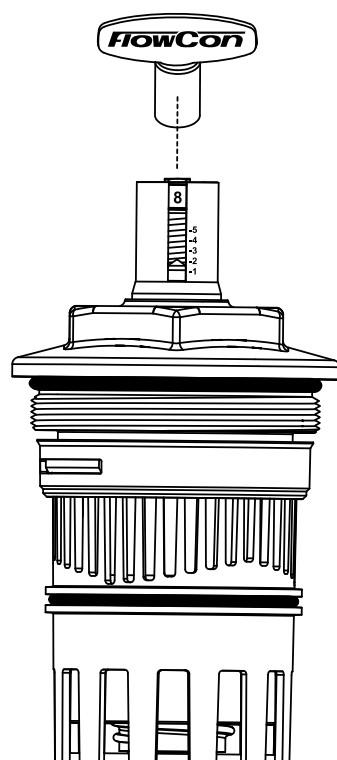
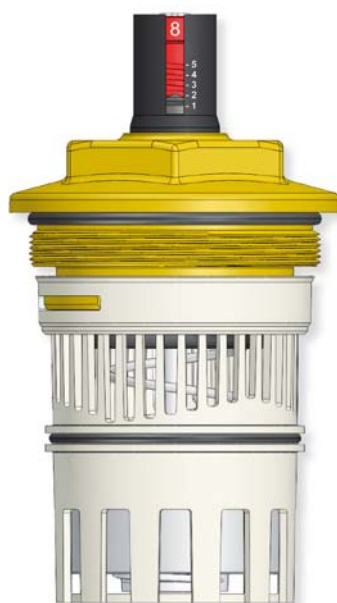
Use the FlowCon adjustment key (part number ACC0001) for adjusting the flow rate.

A setting of 4.2 corresponds to a flow rate of 1.45 l/sec for the 40mm cartridge, range 17-400 kPaD.

FLOW RATE SETTING - E-JUST CARTRIDGE - FOR VALVES DN40/50

50mm · 2" · E-JUST · G-type · Grey pawl				
Pressure range. ΔP: 20-400 kPaD · 2.9-58 psid				
Model no.				E-JUST3.G.B
Nominal flow rate	l/sec	l/hr	GPM	Setting
	0.883	3180	14.0	1.0
	1.14	4100	18.0	1.1
	1.37	4940	21.7	1.2
	1.59	5710	25.1	1.3
	1.78	6420	28.3	1.4
	1.96	7070	31.1	1.5
	2.13	7660	33.7	1.6
	2.28	8200	36.1	1.7
	2.42	8700	38.3	1.8
	2.54	9150	40.3	1.9
	2.66	9570	42.1	2.0
	2.77	9960	43.8	2.1
	2.86	10300	45.4	2.2
	2.95	10600	46.8	2.3
	3.04	10900	48.2	2.4
	3.12	11200	49.4	2.5
	3.19	11500	50.6	2.6
	3.26	11700	51.7	2.7
	3.32	12000	52.7	2.8
	3.39	12200	53.7	2.9
	3.45	12400	54.6	3.0
	3.51	12600	55.6	3.1
	3.56	12800	56.5	3.2
	3.62	13000	57.3	3.3
	3.67	13200	58.2	3.4
	3.73	13400	59.1	3.5
	3.78	13600	59.9	3.6
	3.83	13800	60.8	3.7
	3.89	14000	61.6	3.8
	3.94	14200	62.4	3.9
	3.99	14400	63.3	4.0
	4.05	14600	64.1	4.1
	4.10	14800	65.0	4.2
	4.15	14900	65.8	4.3
	4.20	15100	66.6	4.4
	4.25	15300	67.4	4.5
	4.30	15500	68.2	4.6
	4.35	15700	68.9	4.7
	4.39	15800	69.6	4.8
	4.44	16000	70.3	4.9
	4.48	16100	70.9	5.0

Accuracy: Greatest of
either ±5% of controlled flow rate
or ±2% of maximum flow rate

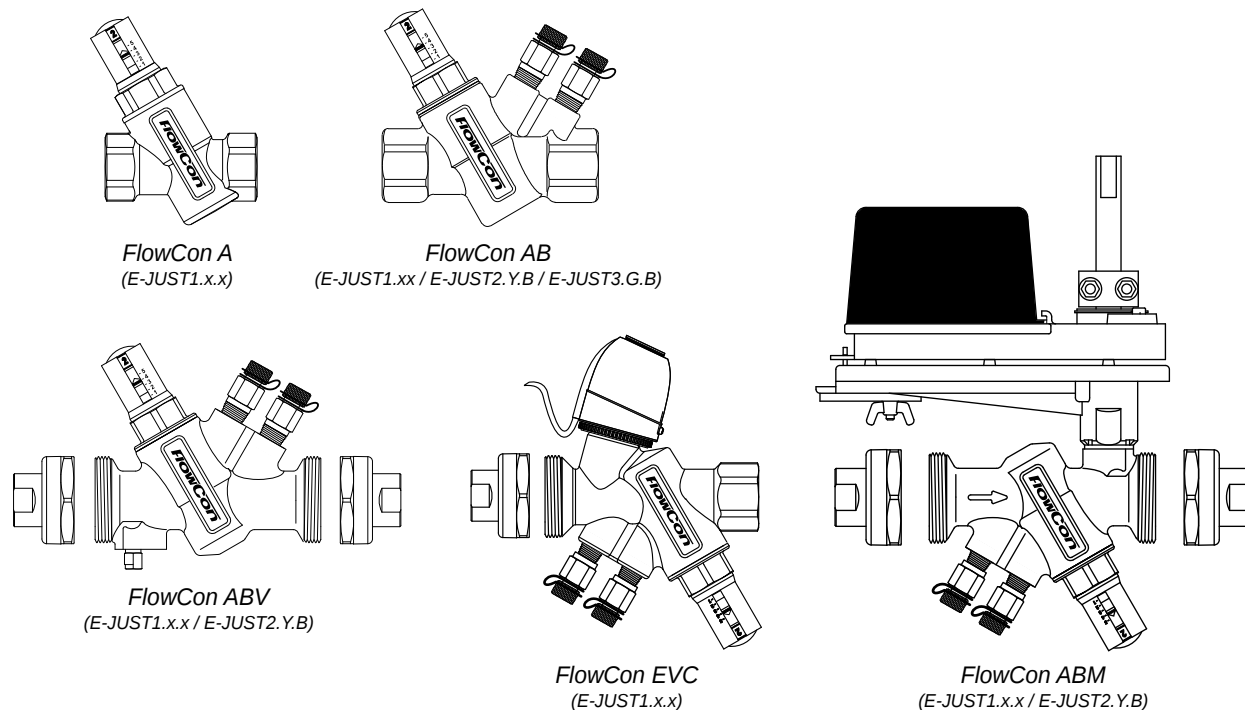


Use the FlowCon adjustment key (part number ACC0001) for adjusting the flow rate.

A setting of 4.2 corresponds to a flow rate of 4.10 l/sec for the 50mm cartridge, range 20-400 kPaD.

GENERAL DESCRIPTION

The FlowCon E-JUST cartridge is tamper-proof since the adjustment unit is being operated by means of a special FlowCon key and the setting can be sealed by means of a colored top cover. The color of the cover indicates the color of the cartridge, i.e. the flow range. The color of the pawl on the handle shows the control range. The FlowCon E-JUST can be used with the following FlowCon valves:



GENERAL SPECIFICATIONS

1. AUTOMATIC BALANCING VALVES WITH EXTERNAL ADJUSTABLE CARTRIDGE

- 1.1. Contractor shall install automatic balancing valves where indicated in drawings.
- 1.2. Valve shall consist of dynamic, adjustable flow limiting device.
- 1.3. Housing shall be configured for flow regulation unit accessibility.

2. FLOW REGULATOR / AUTOMATIC BALANCING UNIT

- 2.1. Flow regulation unit assembly shall be manufactured of polysulfone with a hydrogenated acrylonitrile-butadiene rubber or EPDM diaphragm and stainless steel 18-8 spring.
- 2.2. Flow regulation unit shall be readily accessible for change-out or maintenance.
- 2.3. Flow regulation unit shall be adjustable with the valve in-line and the system in operation.
- 2.4. Flow regulation unit shall be externally adjustable to 1 of 41 different flow rates; shall be available in 4 different kPaD operational ranges for DN15/20/25, 1 kPaD operational range for DN25/32/40 and 1 kPaD operational range for DN40/50; minimum range shall be capable of being activated by minimum 17 kPaD. Further, the flow regulation unit shall be capable of controlling flow within $\pm 5\%$ of rated flow or $\pm 2\%$ of maximum flow.
- 2.5. Identification tags shall be available for all cartridges; tags shall be indelibly marked with differential pressure range, flow rate, color and dial setting.

UPDATES

For latest updates please see www.flowcon.com

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