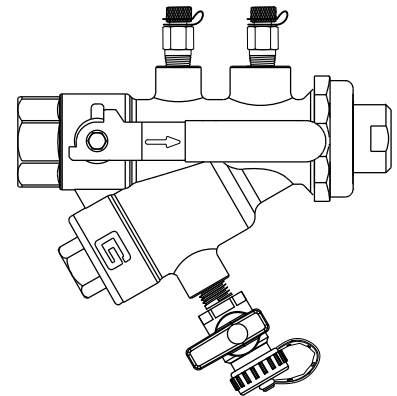


Isolator™ “Y” 15-40mm

Automatic Flow Control - Accessible Pre-Set Cartridge



SPECIFICATIONS

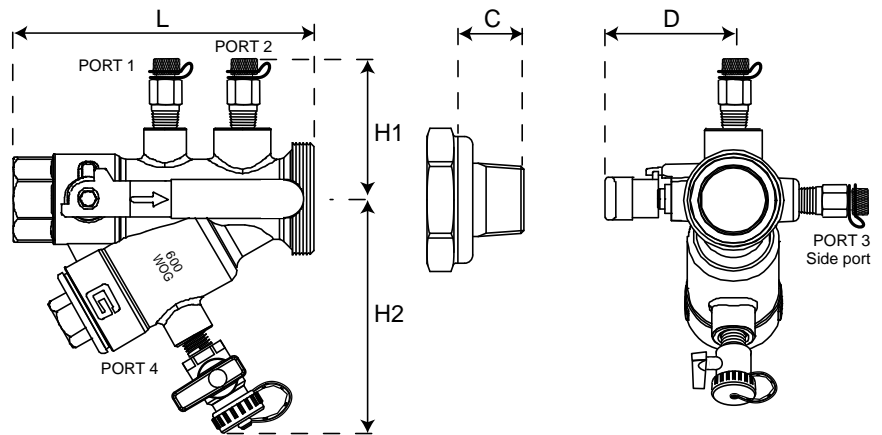
Pressure rating:	2700 kPa / 390 psi
Temperature rating:	+120°C / +248°F
Material:	
- Cartridge:	AISI type 304 stainless steel AISI type 17-7 PH stainless steel spring
- Body:	Forged brass ASTM B283-06
- Ball valve:	Nickel-plated brass ball. Optional: stainless steel ball
- Ball valve seals:	Teflon
- Union end connection (out-let):	Brass alloy NPT or sweat
- O-rings:	EPDM
- Strainer:	20 mesh stainless steel
- Field repairable stem:	Dual teflon seals and EPDM o-ring
Body tappings ¹ :	Port 1 and 2: combination p/t plug and manual air vent (CPTA) Port 4, drain: FYY1: 1/4", FYY2: 1/2"
Assembly:	Valve comes fully assembled
Bypass options:	
FYY1:	Port 2: bypass ² 1/2" NPT
FYY2:	Port 2: bypass ² (3/8" by 1/2" FNPT adaptor) When port 2 is used as bypass, port 3 will be with a p/t plug

Note 1: Body tappings for accessories are a leak proof metal to metal seal and do not require pipe dope or tape. Tape or dope should not be used.
Note 2: Bypass is only available on FYY1 valve. FYY2 valves have a bypass that is a 3/8" by 1/2" FNPT adapter.

DIMENSIONS AND WEIGHTS (NOMINAL) (measured in mm unless noted)

Model no.	Valve size	Cartridge size	L		H1	H2	D	C				Weight (kgs.)	Kv ⁴ (m ³ /hr)
			Fixed end connection					End connections ³					
			NPT female	Sweat				Size	NPT female	NPT male	Sweat		
FYY1xx	15	20	129.6	134.7	55.9	96.6	55.9	10	N/A	N/A	25.4	1.2	7.3
	20		132.1	134.7				15	25.4	25.4	25.4		
	25		132.1	137.2				20	25.4	25.4	17.8		
	25		N/A ⁵	35.6				33.0					
FYY2xx	25	40	190.5	198.2	63.5	122.0	58.5	25	43.2	43.2	43.2	2.4	16.5
	32		182.9	185.5				32	43.2	43.2	43.2		
	40		180.4	190.5				40	43.2	43.2 ⁶	35.6		

Note 3: For overall length, add union end connection length to body length.
 Note 4: Kv-values are based on housing with a clean 20 mesh strainer but without cartridge.
 Note 5: Tailpiece is not available for this size. Male tailpiece used with coupling.
 Note 6: DN32 and DN40 valves can also take 15mm and 20 MNPT tailpiece.



MODEL NUMBER SELECTION⁷

Insert body size:
 1=15-25mm (1/2"-1") 2=25-40mm (1"-1 1/2")

Insert kPaD control range:
 1=10-95 kPaD 2=22-210 kPaD 4=40-390 kPaD 8=90-880 kPaD

Select an accessory package:
 B=CPTA and drain C=CPTA, drain and bypass

Select ball and stem package:
 P=plated ball S=stainless steel ball and stem

Insulation option⁸:
 N=no (standard)

Valve	Fixed end or union end ⁹		Union end only ⁹
	Female threaded	Sweat	Male treaded
FYY1	E=15mm=1/2" F=20mm=3/4" G ¹⁰ =25mm=1"	K ¹¹ =10mm=3/8" L=15mm=1/2" M=20mm=3/4" N=25mm=1"	H=15mm=1/2" I=20mm=3/4" J=25mm=1"
FYY2	G=25mm=1" P=32mm=1 1/4" Q=40mm=1 1/2"	N=25mm=1" K=32mm=1 1/4" W=40mm=1 1/2"	J=25mm=1" S=32mm=1 1/4" ¹² T=40mm=1 1/2" ¹²

T=Optional aluminum identification tag:
 Please specify flow requirement as per selection chart when ordering.

Note 7: Model no. and flow rate are indicated on label affixed to body.
 Note 8: Insulation option includes handle cover and accessory extensions.
 Note 9: Select the fixed end first and then the union end second.
 Note 10: Tailpiece is not available for this size. Mail tailpiece used with coupling.
 Note 11: Fixed end is not available for this size. Union tailpiece only.
 Note 12: 1 1/4" and 1 1/2" valves can also take 1/2" and 3/4" NPT male tail pieces.

FLOW RATE TABLE- FOR VALVES DN15-DN25 SMALL

20mm · 3/4" · stainless steel cartridge											
Nominal flow rate	Pressure range, ΔP:			10-95 kPaD 1-14 psid		22-210 kPaD 2-32 psid		40-390 kPaD 4-57 psid		90-880 kPaD 8-128 psid	
	l/sec	l/hr	GPM	Type 1		Type 2		Type 4		Type 8	
				Marking	Model no.	Marking	Model no.	Marking	Model no.	Marking	Model no.
0.0210	75.7	0.333	11-1	F360111							
0.0315	114	0.500	01-1	F360101							
0.0347	125	0.550			11-2	F360211					
0.0421	151	0.667	02-1	F360102							
0.0473	170	0.750			01-2	F360201	11-4	F360411			
0.0631	227	1.00	03-1	F360103	02-2	F360202	01-4	F360401			
0.0694	250	1.10							11-8	F360811	
0.0841	303	1.33	04-1	F360104			02-4	F360402			
0.0946	341	1.50			03-2	F360203			01-8	F360801	
0.105	379	1.67	05-1	F360105							
0.126	454	2.00	06-1	F360106	04-2	F360204	03-4	F360403	02-8	F360802	
0.147	530	2.33	07-1	F360107							
0.158	568	2.50			05-2	F360205					
0.168	606	2.67	08-1	F360108			04-4	F360404			
0.189	681	3.00			06-2	F360206			03-8	F360803	
0.210	757	3.33	10-1	F360110			05-4	F360405			
0.221	795	3.50			07-2	F360207					
0.252	908	4.00	12-1	F360112	08-2	F360208	06-4	F360406	04-8	F360804	
0.294	1060	4.67	14-1	F360114			07-4	F360407			
0.315	1140	5.00	16-1	F360116	10-2	F360210			05-8	F360805	
0.336	1210	5.33					08-4	F360408			
0.379	1360	6.00			12-2	F360212			06-8	F360806	
0.421	1511	6.67					10-4	F360410			
0.442	1590	7.00			14-2	F360214			07-8	F360807	
0.505	1820	8.00			16-2	F360216	12-4	F360412	08-8	F360808	
0.589	2120	9.33					14-4	F360414			
0.631	2270	10.0					16-4	F360416	10-8	F360810	
0.757	2730	12.0							12-8	F360812	
0.883	3180	14.0							14-8	F360814	
1.01	3630	16.0							16-8	F360816	

Accuracy: ±5% of controlled flow rate.

FLOW RATE TABLE - FOR VALVES DN25 LARGE -DN40

40mm · 1 1/2" · stainless steel cartridge											
Nominal flow rate	Pressure range, ΔP:			10-95 kPaD 1-14 psid		22-210 kPaD 2-32 psid		40-390 kPaD 4-57 psid		90-880 kPaD 8-128 psid	
	l/sec	l/hr	GPM	Type 1		Type 2		Type 4		Type 8	
				Marking	Model no.	Marking	Model no.	Marking	Model no.	Marking	Model no.
0.189	681	3.00	09-1	F361109							
0.210	757	3.33	10-1	F361110							
0.252	908	4.00	12-1	F361112							
0.284	1020	4.50			09-2	F361209					
0.294	1060	4.67	14-1	F361114							
0.315	1140	5.00			10-2	F361210					
0.336	1210	5.33	16-1	F361116							
0.379	1360	6.00	18-1	F361118	12-2	F361212	09-4	F361409			
0.421	1510	6.67	20-1	F361120			10-4	F361410			
0.442	1590	7.00			14-2	F361214					
0.463	1670	7.33	22-1	F361122							
0.505	1820	8.00	24-1	F361124	16-2	F361216	12-4	F361412			
0.547	1970	8.67	26-1	F361126							
0.568	2040	9.00			18-2	F361218			09-8	F361809	
0.589	2120	9.33	28-1	F361128			14-4	F361414			
0.631	2270	10.00	30-1	F361130	20-2	F361220			10-8	F361810	
0.673	2420	10.7	32-1	F361132			16-4	F361416			
0.694	2500	11.0			22-2	F361222					
0.715	2570	11.3	34-1	F361134							
0.757	2730	12.0	36-1	F361136	24-2	F361224	18-4	F361418	12-8	F361812	
0.799	2880	12.7	38-1	F361138							
0.820	2950	13.0			26-2	F361226					
0.841	3030	13.3	40-1	F361140			20-4	F361420			
0.883	3180	14.0	42-1	F361142	28-2	F361228			14-8	F361814	
0.925	3330	14.7	44-1	F361144			22-4	F361422			
0.946	3410	15.0			30-2	F361230					
1.01	3630	16.0			32-2	F361232	24-4	F361424	16-8	F361816	
1.07	3860	17.0			34-2	F361234					
1.09	3940	17.3					26-4	F361426			
1.14	4090	18.0			36-2	F361236			18-8	F361818	
1.18	4240	18.7					28-4	F361428			
1.20	4320	19.0			38-2	F361238					
1.26	4540	20.0			40-2	F361240	30-4	F361430	20-8	F361820	
1.32	4770	21.0			42-2	F361242					
1.35	4850	21.3					32-4	F361432			
1.39	5000	22.0			44-2	F361244			22-8	F361822	
1.43	5150	22.7					34-4	F361434			
1.51	5450	24.0					36-4	F361436	24-8	F361824	
1.60	5750	25.3					38-4	F361438			
1.64	5910	26.0							26-8	F361826	
1.68	6060	26.7					40-4	F361440			
1.77	6360	28.0					42-4	F361442	28-8	F361828	
1.85	6660	29.3					44-4	F361444			
1.89	6810	30.0							30-8	F361830	
2.02	7270	32.0							32-8	F361832	
2.15	7720	34.0							34-8	F361834	
2.27	8180	36.0							36-8	F361836	
2.40	8630	38.0							38-8	F361838	
2.52	9080	40.0							40-8	F361840	
2.65	9540	42.0							42-8	F361842	
2.78	9990	44.0							44-8	F361844	

Accuracy: ±5% of controlled flow rate.

GENERAL SPECIFICATIONS

1. AUTOMATIC BALANCING VALVES - ISOLATOR™ "Y"

- 1.1. Contractor shall install automatic balancing valves where indicated in drawings.
- 1.2. Valve shall consist of a dynamic and accessible flow limiting device, isolation handle ball valve and strainer.

2. VALVE HOUSING

- 2.1. Valve housing shall consist of forged brass ASTM B283-06 rated at no less than 2700 kPa static pressure and +120°C.
- 2.2. Valve shall be permanently marked to show direction of flow.
- 2.3. Valve shall be constructed in a one piece housing to include an isolation ball and a strainer. Ball shall be chemically nickel plated brass, alternatively stainless steel.
- 2.4. Combination pressure/temperature plugs and manual air vent for verifying accuracy of flow performance and venting air shall be provided for all valve sizes.
- 2.5. Housing shall be configured for flow regulation unit accessibility.
- 2.6. Blowdown valve shall be provided for all valves.

3. FLOW REGULATOR / AUTOMATIC BALANCING UNIT

- 3.1. Flow regulation unit assembly shall be manufactured of AISI type 304 stainless steel and stainless steel 17-7 spring.
- 3.2. Flow regulation unit shall be readily accessible for change-out or maintenance.
- 3.3. Flow regulation unit shall be available in 4 different kPaD operational ranges, minimum range shall be capable of being activated by minimum 10 kPaD. Further, the flow regulation unit shall be capable of controlling flow within $\pm 5\%$ of rated flow.
- 3.4. Identification tags shall be available for all valves; tags shall be indelibly marked with part number and flow rate.

UPDATES

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