


840GS




Engineering
GREAT Solutions

Control valves for general applications

840GS

The 840GS control valve has been specially designed using recent advances in control valve technology. It is used to control a wide variety of fossil power and selected oil and gas applications. The 840GS valve is primarily used for semi-severe service applications requiring anti-cavitation or a low-noise trim. Under process conditions, in most cases, high pressure drop will cause erosion, noise and vibration, which affects process control and plant performance. Typical applications for the 840GS include heater drains, condensate water, steam service, spray water, level control, pressure control and flow control valves.



Key features

The 840GS series valve is flexible, allowing a variety of trim types to be installed in the body. In addition, its rigid construction reduces plug vibration and provides stable performance throughout travel. All 840GS trims have a screwed seat design for convenient repair and easy trim replacement

- > Multi-spring
 - Multi-spring design improves hysteresis and dead band performance
- > Proven trim design
 - Single P-port
 - Drilled-hole cage
- > Fail mode
 - Fail-to-close on loss of air
 - Fail-to-open on loss of air
- > Screwed seat design
 - All internal parts can be inspected easily by removing bonnet
- > Accessories
 - A full range of accessories are available to meet requirements

Benefits

- > **Tight shutoff**
Shutoff classes from ANSI IV through VI are available to meet application requirements
- > **Actuation**
A wide selection of actuation includes pneumatic and electric and top-mounted hand-wheel are available
- > **Easy maintenance**
Top-entry design to allow for quick inspection or trim change
- > **Simple to change capacity and flexible trim design**
A simple plug change is all that is required to change between reduced and full-sized capacity trims or between linear and equal percentage characteristics
- > **Sour gas/corrosive fluid capable**
The wide choice of body and trim materials allows the series 840GS valves to be applied to corrosive/sour gas services with full compliance to NACE requirements

Product Specification

Valve size
1/2" through 6"

Ratings
ANSI class 150 and 300

End connections
Raised face flange, weld ends (BW and SW)

Flow characterisation
Linear or equal percentage to suit application

Seat leakage
Standard ANSI class IV,
Optional ANSI class V or VI

Temperature range (general)*
-46 ~ 350 °C for unbalanced trim
-46 ~ 200 °C for balanced trim

*For higher temperature requirements please contact IMI CCI using the contact details listed on the back of this brochure

Applications

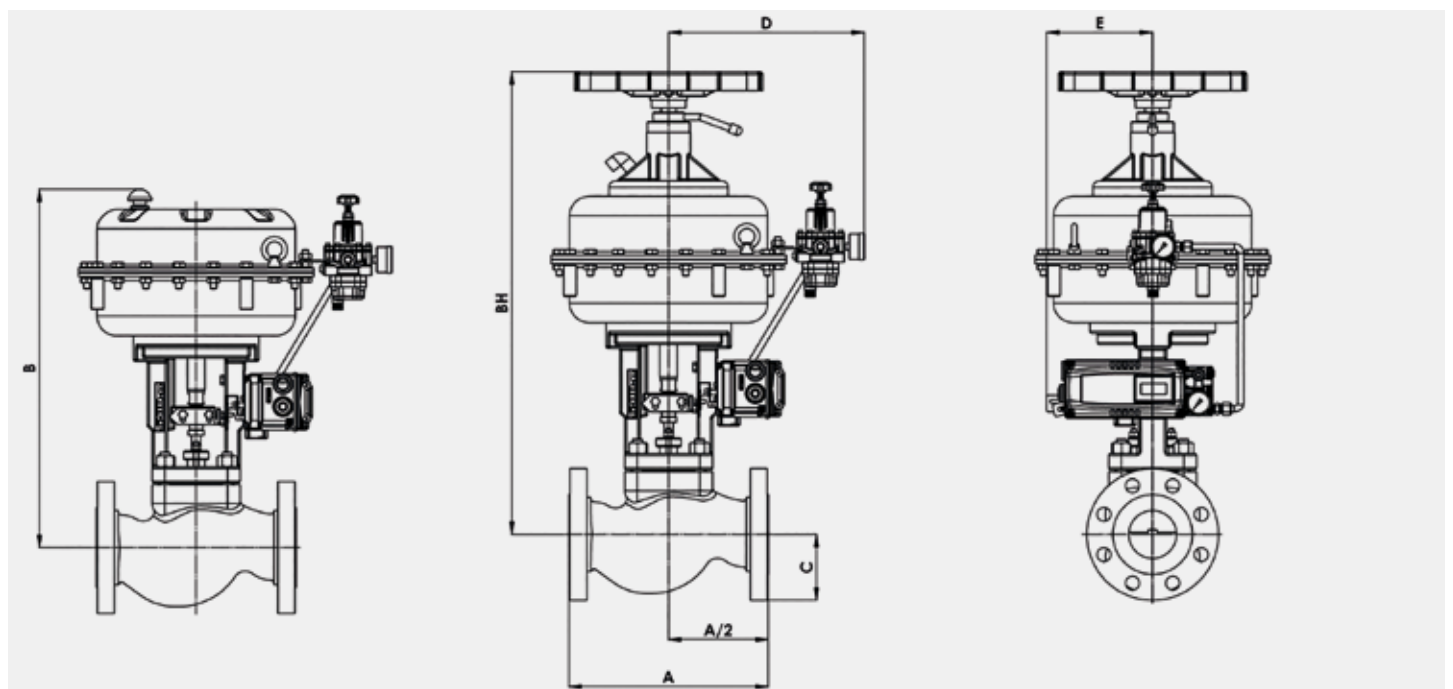
- > Power: Nuclear, Combined Cycle, Oil & Coal fired Power Plants, Combined Heat & Power, District Heating
- > Oil and gas: Onshore, offshore, refinery
- > Chemical: Dyes, cosmetics, caprolaktam
- > Petro-chem: NCC, ethylene, BTX, PS, SM, VCM, PVC, LDPE, HDPE
- > Fine-chem: HCL, H₂SO₄, NHO₃, acetic acid, PTA, AN, NH₃, pulp & paper

Materials

Part	Material
Body and bonnet	Carbon steel, stainless steel
Trim	316SS, 316L, 410SS, UNS31803, 17-4PH
Gasket	304SS or 316SS with graphite
Balance seal	Carbon filled teflon with NBR or FKM
Packing	V-TFE, glass filled teflon, graphite under gasket



Product dimensions



840GS dimensional data**

Size	#150										#300							
	A			B	BH	C	D	E	Weight kgs	A			B	BH	C	D	E	Weight kgs
	SW	BW†	RF†							SW	BW†	RF†						
1/2"	197*	187	184	410	630	45	260	170	27	197*	187	197*	410	630	47.5	260	170	28
3/4"	197*	187	184	410	630	50	260	170	27	197*	187	197*	410	630	57.5	260	170	28
1"	197	187	184	410	630	55	260	170	27	197	187	197	410	630	62.5	260	170	28
1-1/2"	235	222	222	530	750	62.5	320	170	59	235	222	235	530	750	77.5	320	170	62
2"	267	254	254	540	760	75	320	170	61	267	254	267	540	760	82.5	320	170	65
3"	318	318	298	580	800	95	320	170	83	318	318	318	580	800	105	320	170	90
4"	368	368	352	610	830	115	320	170	100	368	368	368	610	830	127.5	320	170	110
6"	N/A	451	451	750	1000	140	380	170	160	N/A	451	473	750	1000	160	380	170	180

*1/2", 3/4" valve use 1" face-to-face dimensions **Dimensions A, B, BH, C, D, E in mm †RF - Raised flange ends; BW - Welded ends

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