



Badger Meter Europa

CRYOGENIC ORION CONTROL VALVE

Data Sheet
OR960

DESCRIPTION

- Control valve in size 1", 1,5" and 2".
- Globe cast body.
- Maximum allowable pressure 50 bar.
- Suitable for control of medium flow at low temperatures down to -270°C.

APPLICATIONS

Suitable for control of liquids, gases or steam, in industrial applications. For any kind of precise control.

PRESSURE-TEMPERATURE RATING

Temperature (°C)	Pressure (bar)
-270 to 20	50
100	42
200	36
300	32
400	29
500	31

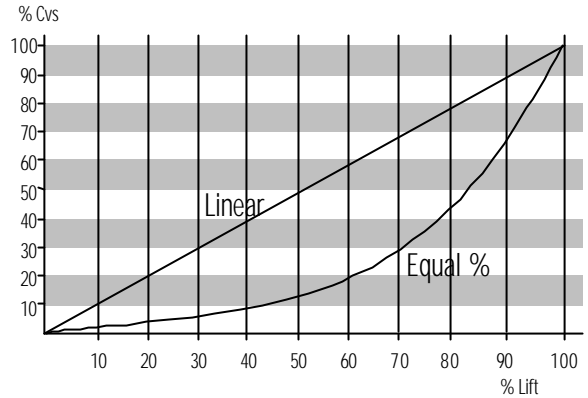
Notes

* Below -29°C and above +260°C use optional 316 SS bonnet studs
Consider Stellite above 316°C

VALVE MATERIALS

Body	Bonnet
316 SS (~ 1.4581) casting	316 SS (~ 1.4571) barstock

INNERVALVE CHARACTERISTIC

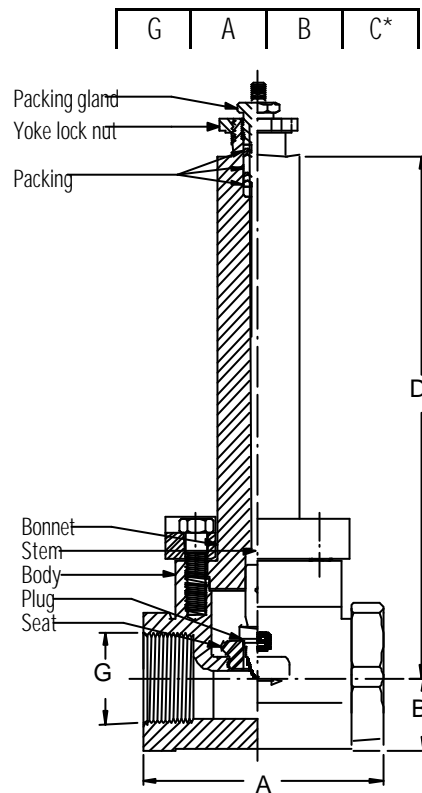


SEAT LEAKAGE

0.01% of Cvs

ANSI Class IV

DIMENSIONS



	G	A	B	C*
2"	124	45	254	
1,5"	115	38	254	
1"	102	25,4	254	

Dimension "C" optional 356 mm or 458 mm

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INNERVALVE MATERIALS

Plug

Seat

316 SS (~ 1.4571) barstock	316 SS (~ 1.4571) barstock
316 SS (~ 1.4571) stellited	316 SS (~ 1.4571) stellited

Gasket: Grafoil

Packing: PTFE- CV-rings, REK, Graphite

OPTIONS

Body with flanges

PTFE PFA soft seating

Seat leakage Class 5 or 6

Double packing

Double packing with Purge Port

Positioners, i/p-converters, filter regulators, limit switches, solenoid valves, gauges.

INNERVALVE CHART

Maximum allowable pressure drop (bar)

Valve size	Port dia. (mm)	Port area (cm ²)	Cvs (linear)	Cvs (= %)	Shut Off ? p	Operation ? p	FL
2"	38,1	11,4	25	20	20	10	0,85
2"	28,6	6,44	21	17	38	19	0,86
2"	20,6	3,35	17	15	50	37	0,88
2"	15,9	2	8,5	8,5	50	41	0,9
1,5"	28,6	6,44	15	14	31	15,5	0,85
1,5"	20,6	3,35	11	10	50	37	0,87
1,5"	15,9	2	7	6,5	50	41	0,9
1,5"	15,9	2	4	4,0	50	41	0,92
1"	20,6	3,35	8,3	7,0	50	37	0,85
1"	12,7	1,29	5,3	4,5	50	45,5	0,87
1"	12,7	1,29	2,0	2,0	50	45,5	0,89
1"	12,7	1,29	1,0	1,0	50	45,5	0,91
1"	3,96	0,13	0,5	0,5	50	50	0,93
1"	3,96	0,13	0,2	0,2	50	50	0,94
1"	3,96	0,13	0,1	0,1	50	50	0,95
1"	3,96	0,13	0,05	0,05	50	50	0,96
1"	3,96	0,13	0,02	-	50	50	0,97

Integral seat Rangeability: Linear 50:1, Equal percent: 60:1