

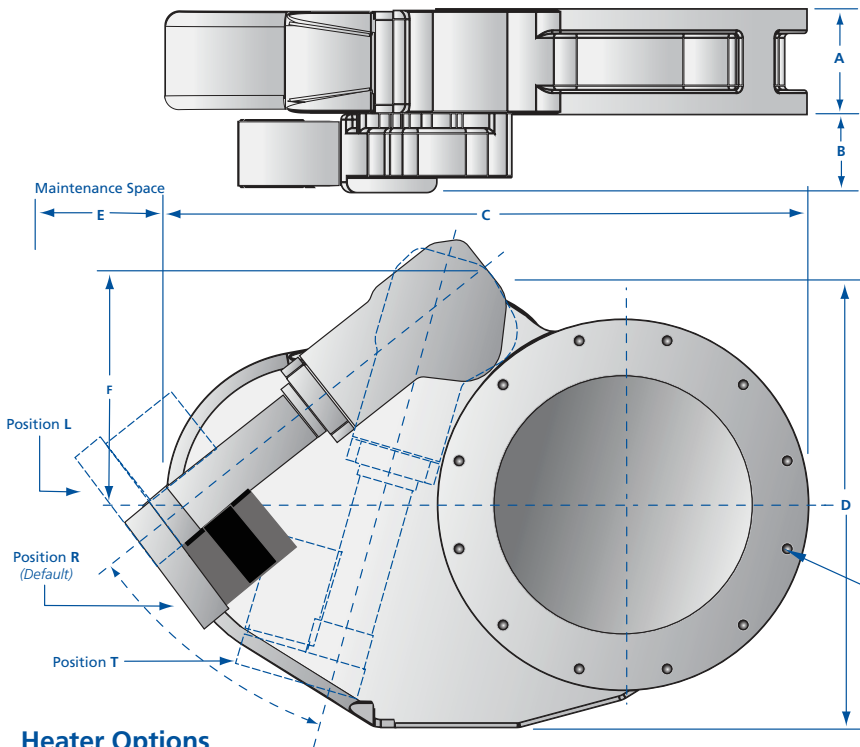
Downstream Pressure Control - ISO Flanged IQ Throttling Pendulum Valves (TPV)



DIMENSIONS

MODEL NUMBER	NOMINAL ID	A	B	C	D	E	F	N	M	L	WEIGHT
TPV-IQA-600-ISO-160	6"	3.15 (80.0)	3.78 (96.0)	15.9 (403)	12.2 (310)	5.31 (135)	8.50 (216)	8	M10	10	40 (18.0)
TPV-IQA-600-ISO-160-HA	6"	3.15 (80.0)	3.78 (96.0)	15.9 (403)	12.2 (310)	5.31 (135)	8.50 (216)	8	M10	10	40 (18.0)
TPV-IQA-800-ISO-200-MB	8"	3.46 (87.9)	3.78 (96.0)	19.9 (506)	14.4 (266)	6.50 (165)	9.29 (236)	12	M10	10	49 (22.2)
TPV-IQA-800-ISO-200-HM	8"	3.46 (87.9)	3.78 (96.0)	19.9 (506)	14.4 (266)	6.50 (165)	9.29 (236)	12	M10	10	49 (22.2)
TPV-IQA-1000-ISO-250	10"	3.94 (100)	3.78 (96.0)	23.8 (605)	16.6 (422)	8.46 (215)	9.49 (241)	12	M10	10	62 (28.1)
TPV-IQA-1000-ISO-250-HA	10"	3.94 (100)	3.78 (96.0)	23.8 (605)	16.6 (422)	8.46 (215)	9.49 (241)	12	M10	10	62 (28.1)
TPV-IQA-1200-ISO-320	12"	4.72 (120)	4.06 (103)	30.2 (767)	22.0 (559)	10.6 (269)	12.8 (325)	12	M12	18	123 (55.8)
TPV-IQA-1200-ISO-320-HA	12"	4.72 (120)	4.06 (103)	30.2 (767)	22.0 (559)	10.6 (269)	12.8 (325)	12	M12	18	123 (55.8)

NOTE: IQA can be replaced with IQD, IQD2, IQE and IQR



SPECIFICATIONS

General

Controller Options:

- IQA:** Analo / TTL / RS232 interface
- IQD:** DeviceNet / RS232 interface
- IQD2:** DeviceNet / RS232 interface, no power via DN connector
- IQE:** Ethernet / RS232 interface
- IQR:** RS485 interface

Construction

Wetted materials

Body: Cast aluminum A356.0 (machined billet aluminum 6061-T6 in 8" size)

Valve plate: Aluminum 6061-T6

Other parts: A6061, A7075, SS304, SS316, Inconel X-750 and Viton

Seals: Viton standard. Kalrez, Chemraz, Perlast and other materials available

Body and plate surface treatment: Bare aluminum standard, hard Type III anodizing optional

Operation

IQ controller power input: 5+24 VDC, +/- 10%

Differential pressure

With valve fully sealed: 15 psi maximum across the valve

While opening the valve: 20 Torr (DN160 & DN200); 24 Torr (DN250); 29 Torr (DN320 & DN350)

Operating pressure: 3.8×10^{-8} to 760 Torr

Heating or bakeout capabilities

Body: 150°C maximum with optional heater kits

Actuator: 60°C maximum

Ambient operating conditions: 0 - 45°C @ 0 - 95% humidity, non-condensing

Leak rate: 1×10^{-9} atm•scc/sec He Viton seals across seat and to atmosphere (1×10^{-6} atm•scc/sec He for hard anodized body or gate). Derated with some perfluoro-elastomers.

Inherent performance

Maximum speed: Open to closed in 2 to 5 seconds, depending on size

Control resolution: 8 to 20 million steps, open to closed, depending on size

Pressure control performance

Accuracy: The greater of 5 mV or 0.25% of reading

Repeatability: Within 2.5 mV or 0.12% of reading

Control range: 0.5% - 100% of the vacuum gauge range

Reliability

(99% confidence level, in clean environment)

O-ring cycle life: 1 million cycles open to control closed. 200K cycles open to fully closed.

MTBF: >10,000 hrs. continuous operation

Approvals

CE (EMC and machinery directives)

Heater Options

HEATER OPTIONS	OPERATION	CODE
None		Leave blank
90°C thermostat	120 VAC	HT091
120°C thermostat	120 VAC	HT121
150°C thermostat	120 VAC	HT151
90°C thermostat	208 VAC	HT092
120°C thermostat	208 VAC	HT122
150°C thermostat	208 VAC	HT152

Other Options

OTHER OPTIONS	CODE
Motor actuator position R* (default)	Leave blank
Motor actuator position L*	L
Motor actuator position T*	T
Pump-out port (NW-16 size on DN160 and DN200 NW-40 size on DN250, DN320 and DN350)	U
Open / closed position indicators (Optical with indicating LEDs)	W
Mirror image body configuration	Z

