

# Downstream Pressure Control - NW-flanged IQ Sealing Throttling Butterfly Valve



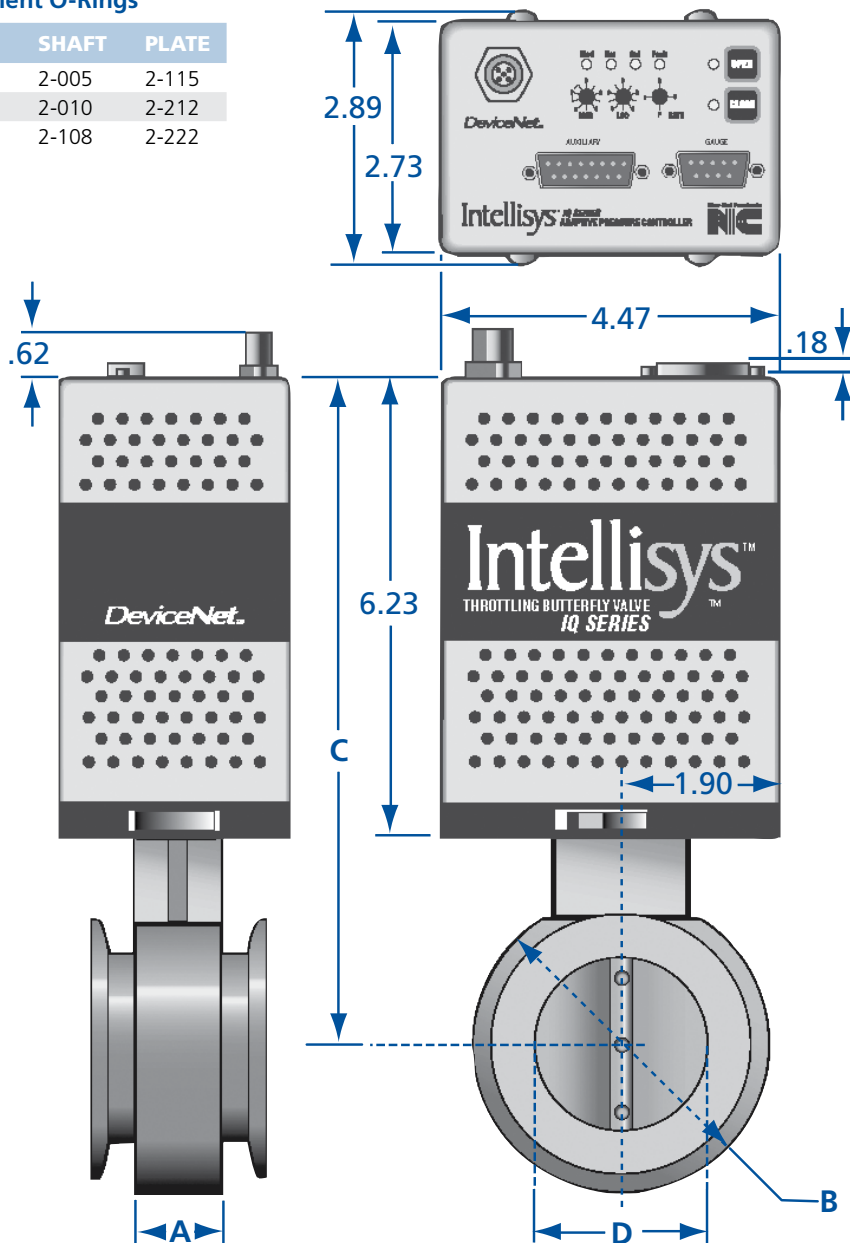
## DIMENSIONS

MODEL NUMBER	NOMINAL ID	A	B	C	D	WEIGHT
TBVS-IQA-100-NW-25	1"	2.00 (50.8)	2.11 (53.6)	8.34 (212)	0.98 (24.9)	6.5 (3.0)
TBVS-IQA-150-NW-40	1.5"	2.25 (57.2)	2.73 (69.3)	8.34 (212)	1.27 (32.3)	5.8 (2.9)
TBVS-IQA-200-NW-50	2"	2.25 (57.2)	3.35 (85.1)	8.65 (220)	1.85 (47.0)	6.5 (3.0)

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

## Replacement O-Rings

FLANGE	SHAFT	PLATE
NW-25	2-005	2-115
NW-40	2-010	2-212
NW-50	2-108	2-222



## SPECIFICATIONS

### General

#### Controller Options:

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

**Valve position:** Visual indicator

### Construction

**Wetted materials:** 304 stainless steel, seal material (see below)

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

### Operation

**Power input:** +24 VDC

**Differential pressure:** 15 psi Maximum across valve plate

**Forced heating capabilities:** Valves may be heated up to 150°C with optional external heaters.

**Process gas temperature capabilities:** For process gas temperatures in excess of 100°C, please consult with Nor-Cal Intellisys technical support for proper design considerations.

**Ambient operating conditions:** 0-60°C @ 0-95% humidity

**Leak rate (shaft):**  $1 \times 10^{-9}$  atm scc/sec He

**Leak rate (plate):**  $1 \times 10^{-6}$  atm scc/sec He

### Inherent Performance

**Open to close speed:** 300 msec

**Control resolution:** 3.2 arc second

**Maximum torque:** 700 in-oz

### Pressure Control Performance

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

**Repeatability:** Within 2.5mV 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 (shaft):** 5 million cycles

**O-ring cycle life (plate):** Process Dependent

**MTBF:** >50,000 hours continuous (excluding plate O-ring)

### Approvals

CE (EMC and machinery directives)

REV 6/16

