

**MODEL****KP**

## TRANSMITTER ISOLATION VALVE

ORBINOX KP valve provides isolation of an level instrument transmitter from a storage tank. The installation of this valve allows the replacement of the transmitter or its maintenance without disrupting the process or draining the vessel.

**Sizes:**

DN 80

**Standard flange connection:**

PN10 / ANSI 150

Tank side: see pag. 4

**Working pressure:**

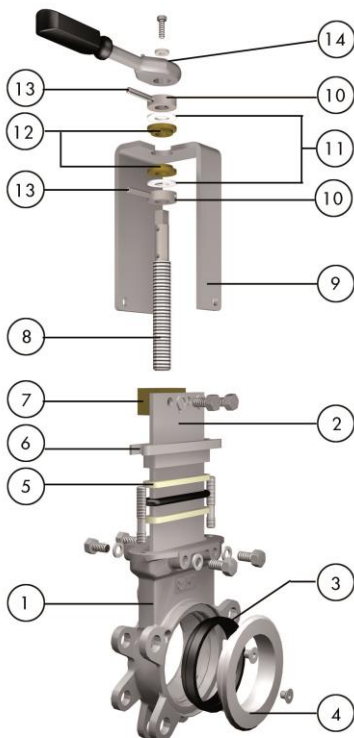
DN80: 10 bar

**Directives:**

For EU Directives and other Certificates, please see the document: Directives and Certificates Compliance - Knife Gate Valves - Catalogues and Datasheets



All valves are tested prior to shipping in accordance with the standard developed by the Quality Control Department at ORBINOX



### STANDARD PARTS LIST

| Part:                 | Material:  |
|-----------------------|--|
| 1- Body               | CF8M (1.4408)  |
| 2- Gate               | AISI 316 (1.4404)  |
| 3- Seat               | EPDM   |
| 4- "K" Ring           | AISI 316 (1.4404)  |
| 5- Packing            | Dynapack (Graphite impregnated PTFE and Aramid yarn combination with an elastomeric core)+ (EPDM O-ring) |
| 6- Gland Follower     | CF8M (1.4408)  |
| 7- Stem nut           | Brass  |
| 8- Stem               | Stainless steel  |
| 9- Yoke               | AISI 304 (1.4301)  |
| 10- Axial fixing bush | AISI 304 (1.4301)  |
| 11- Friction washer   | PET + solid lubricant  |
| 12- Bushing           | Bronze   |
| 13- Spring pin        | AISI 420 (1.4021) (ISO 8752)   |
| 14- Ratchet wrench    | Carbon steel   |
| 15- Bolts & Nuts      | A2   |

## DESIGN FEATURES

### **BODY:**

Wafer style cast stainless steel monoblock body with raised faces. Designed with internal cast-in gate wedges and guides to ensure a tighter valve shut-off. The full port design guarantees a greater flow capacity and a minimal pressure drop. The body internal design avoids any accumulation of particles that would prevent valve from closing.

### **GATE:**

Stainless steel gate as standard. Gate is polished on both sides to avoid jamming and seat damage. The bottom of the gate edge is machined to a bevel to cut through solids for a tighter seal in the closed position.

### **SEAT: (resilient)**

Unique design that mechanically locks the seal in the inner side of the valve body with a cast, easy to replace, stainless steel seat ring. Standard EPDM also available in different materials such as PTFE, etc.

### **PACKING:**

Long-life packing with several graphite impregnated PTFE and aramid yarn combination with an elastomeric core, plus an EPDM O-ring with an easy access packing gland ensuring a tight seal. Long-life braided packing is available in a wide range of materials.

### **STEM:**

The standard stainless steel stem offers a long corrosion resistant life.

### **ACTUATORS:**

All valves supplied with WRENCH

### **YOKE or ACTUATOR SUPPORT:**

Made of stainless steel (EPOXY coated steel available on request). Compact design makes it extremely robust even under the most severe conditions.

### **EPOXY COATING:**

The epoxy coating on all ORBINOX cast iron and carbon steel valve bodies and components is electrostatically applied making the valves to be corrosion resistant with a high quality finished surface. The ORBINOX standard colour is RAL-5015 blue.



## TEMPERATURE CHART

### SEAT / SEALS

| Material     | Max.Temp.(°C) | Applications                     |
|--------------|---------------|----------------------------------|
| EPDM (E)     | 120           | Acids and non mineral oils       |
| NBR (N)      | 120           | Resistance to petroleum products |
| FKM-FPM (V)  | 200           | Chemical service/High temp.      |
| VMQ (S)      | 250           | Food service/High temp.          |
| PTFE (T)     | 250           | Corrosion resistance             |
| Polyurethane | 90            | Abrasion resistance              |

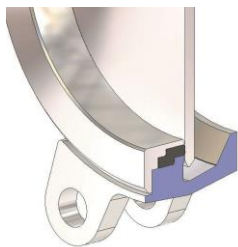
### PACKING

| Material           | Max.Temp.(°C) | pH   |
|--------------------|---------------|------|
| Dynapack (DP)      | 270           | 2-13 |
| Braided PTFE (TH)  | 260           | 0-14 |
| Graphited (GR)     | 600           | 0-14 |
| Ceramic fibre (FC) | 1200          | ---  |

NOTE: all types include an elastomere O-ring (same material as seal)

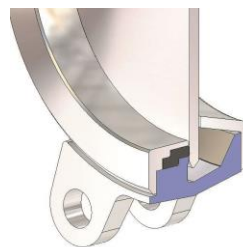
More details and other materials on request

## SEAT TYPES



### TYPE "K" SEAT (EPDM)

- Standard replaceable resilient EPDM seat
- Replaceable stainless steel ring



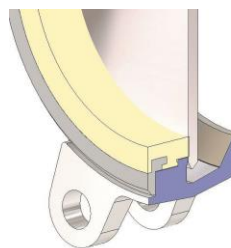
### DEFLECTION CONE "C"

- Deflects the media away from any internal exposed parts of the valve such as gate guides, seat, etc.
- Different types of material available such as AISI 316 stainless, CA15, Ni-Hard, etc.
- Face to face dimension increase:  
DN 50 to DN 250 X = 9mm  
DN 300 to DN 600 X = 12mm  
Larger diameters on request



### TYPE "K" SEAT (PTFE)

- Replaceable resilient PTFE + O-ring seat
- Replaceable stainless steel ring



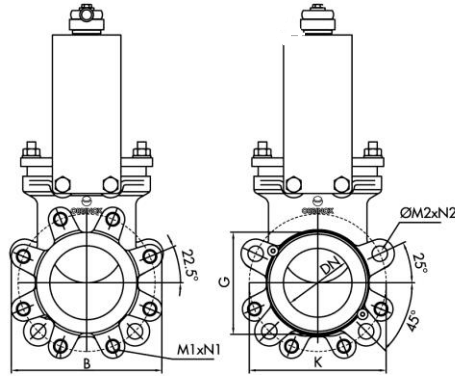
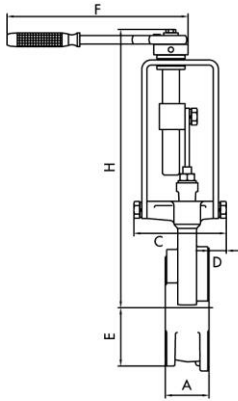
### POLYURETHANE

- Replaceable polyurethane seat ring

MODEL

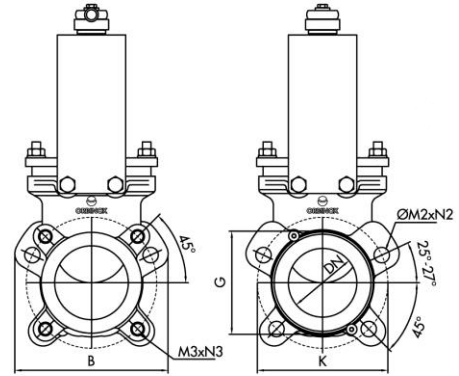
**KP**

**MAIN DIMENSIONS**



TANK SIDE

**PN 10**



TANK SIDE

**ANSI 150**

|                | DN | A  | B   | C   | D  | E  | F   | G   | H   | K     | PN10 |    | ANSI class 150 |    | TANK SIDE |    |
|----------------|----|----|-----|-----|----|----|-----|-----|-----|-------|------|----|----------------|----|-----------|----|
|                |    |    |     |     |    |    |     |     |     |       | M1   | N1 | M3             | N3 | ØM2       | N2 |
| PN10           | 80 | 51 | 177 | 110 | 22 | 88 | 212 | 120 | 325 | 160   | M16  | 8  | -              | -  | 18        | 4  |
| ANSI class 150 | 80 | 51 | 180 | 110 | 22 | 74 | 212 | 120 | 325 | 152.4 | -    | -  | 5/8-11 UNC     | 4  | 18        | 4  |