

**FIG. 178**

**BIDIRECTIONAL TIGHTNESS GATE VALVE PN10**



**Size :** DN 50 to DN 500  
**Ends :** Between flanges ISO PN10  
**Min Temperature :** -10°C  
**Max Temperature :** + 90°C  
**Max Pressure :** 10 Bars up to DN 200  
**Specifications :** Non rising stem and handwheel  
Bidirectional tightness  
Weak head loss

**Materials :** Cast iron body

**BIDIRECTIONAL TIGHTNESS GATE VALVE PN10****SPECIFICATIONS :**

- Opened or closed valve
- Non rising stem and handwheel
- Bidirectional tightness
- Weak head loss
- Between flanges ISO PN10
- Full crossing threaded lower holes and blind threaded top holes
- With handwheel
- 50% epoxy 50% polyester painting blue colour RAL 5005

**USE :**

- Water, water treatment, chemical pulp, powders, food industry, chemistry
- Min and max Temperature Ts : - 10°C to + 90°C

**MAX PRESSURE :**

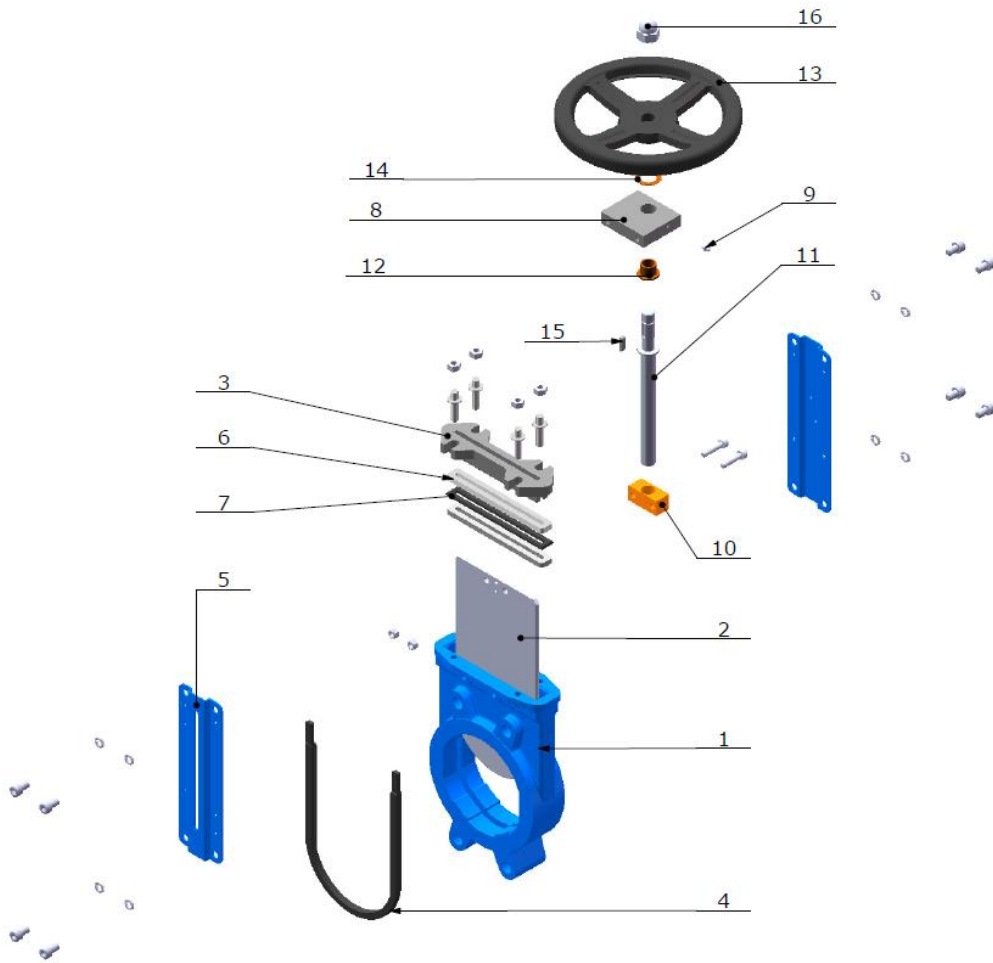
DN	50	65	80	100	125	150	200	250	300	350	400	450	500
PN (Bars)	10	10	10	10	10	10	10	8	6	4	4	3	3

**RANGE :**

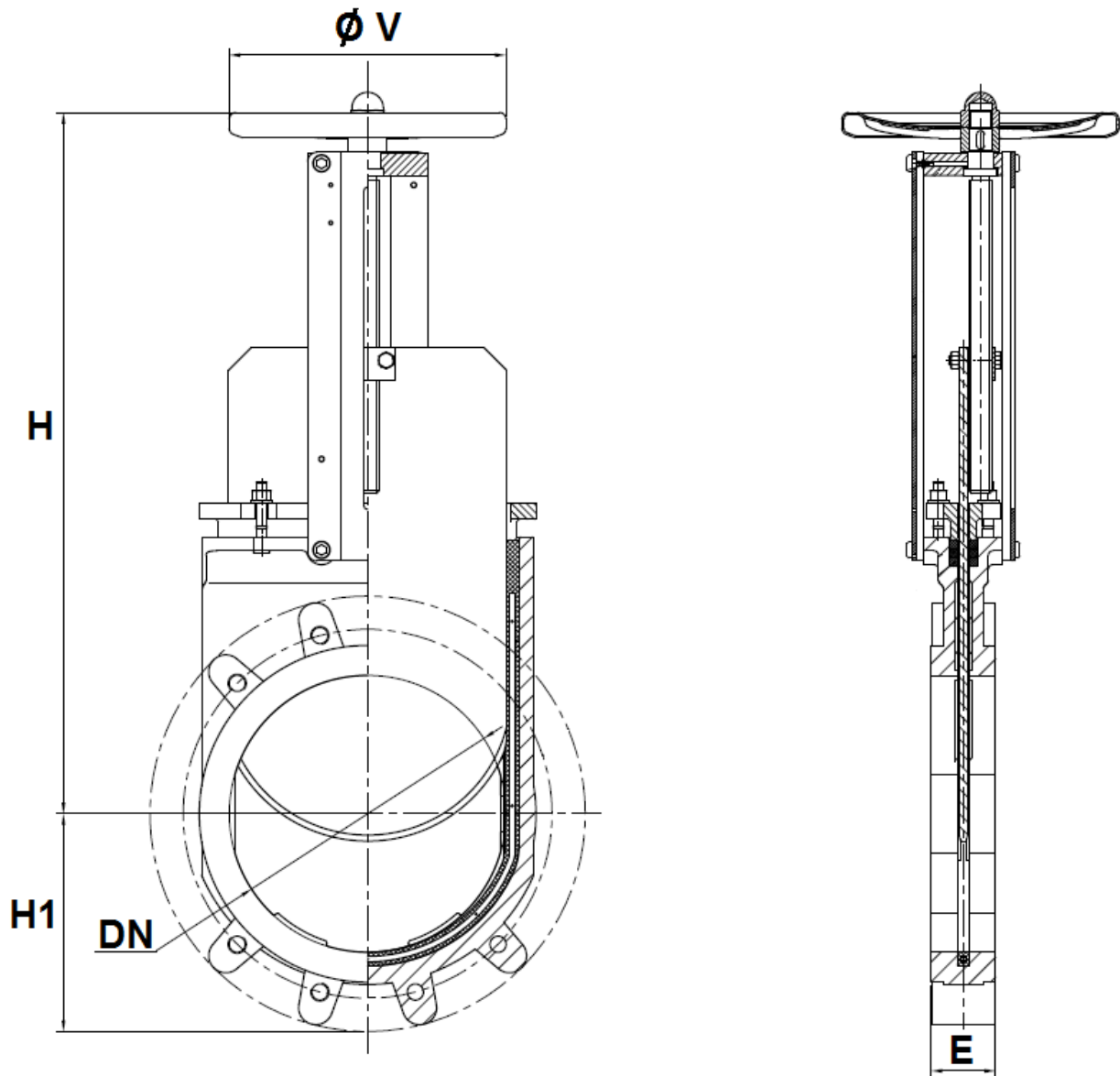
- Between flanges ISO PN10, Cast iron body, SS 304 gate , NBR seat, with handwheel **Ref. 178** from DN 50 to DN 500



- Between flanges ISO PN10 Cast iron body, SS 304 gate , NBR seat, with handwheel, with limit switch for opened position **Ref. 178051 to 170401** from DN 50 to DN 400

**FIG. 178****BIDIRECTIONAL TIGHTNESS GATE VALVE PN10****MATERIALS :**

Item	Designation	Materials
1	Body	Cast iron EN GJL-250
2	Gate	SS 304
3	Packing gland	Ductile Iron EN GJS-400-15
4	Seat	NBR
5	Support	Painted steel
6	Packing (Tress)	PTFE
7	Packing ( O ring )	NBR
8	Yoke	A3 Steel
9	Greaser	Steel
10	Stem nut	Bronze
11	Stem	SS 303
12	Stem nut	Bronze
13	Handwheel	A3 Steel
14	Ring	Bronze
15	Pin	Steel
16	Handwheel nut	Steel

**FIG. 178****BIDIRECTIONAL TIGHTNESS GATE VALVE PN10**SIZE ( in mm ):

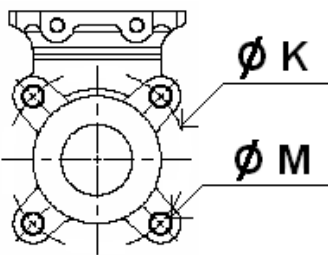
DN	50	65	80	100	125	150	200	250	300	350	400	450	500
E	40	40	50	50	50	60	60	70	70	96	100	106	110
H	286	316	342	382	415	458	575	676	776	906	1012	1098	1210
H1	63	70	92	105	120	130	160	198	234	256	292	308	340
Ø V	200	200	200	200	250	250	300	300	300	500	500	500	500
Weight ( Kg )	6.2	6.8	8	9.9	12.7	16.9	25.4	42.7	59	119	144	166	203

**FIG. 178**

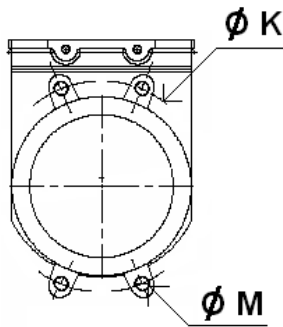
**BIDIRECTIONAL TIGHTNESS GATE VALVE PN10**

SIZE FIXING VALVE THREADED HOLES ( BETWEEN FLANGES ISO PN10 in mm ) :

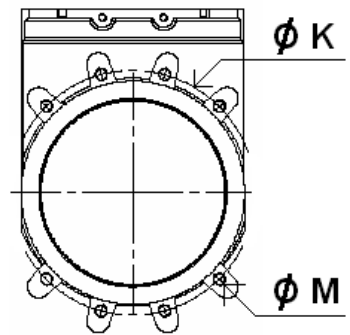
DN 50 – 65



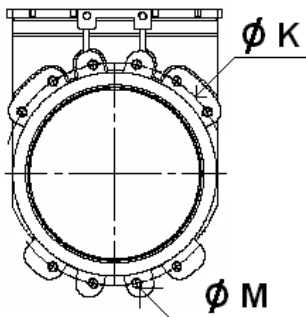
DN 80 – 200



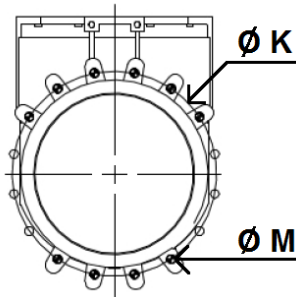
DN 250 - 300



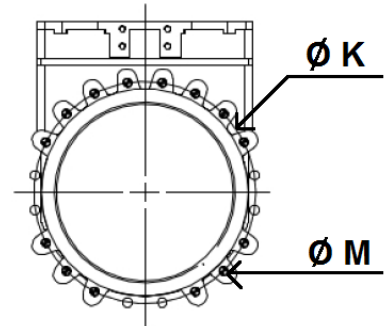
DN 350



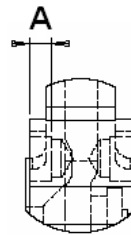
DN 400



DN 450-500



THREADED LENGHT FOR TOP BLIND HOLES :

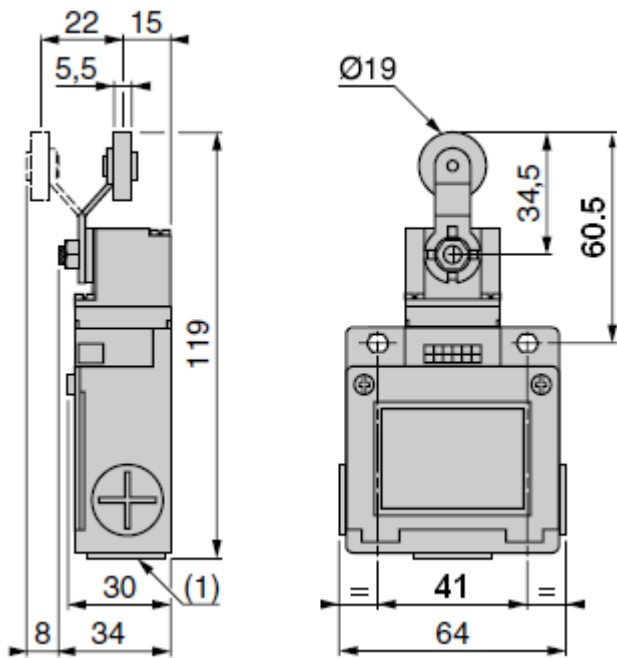


DN	50	65	80	100	125	150	200	250	300	350	400	450	500
Ø K	125	145	160	180	210	240	295	350	400	460	515	565	620
Ø M	M16	M16	M16	M16	M16	M20	M20	M20	M20	M20	M24	M24	M24
Nb threaded hole	4	4	4	4	4	4	4	8	8	10	10	14	14
A	8	8	9	9	9	10	10	12	12	20	20	24	24

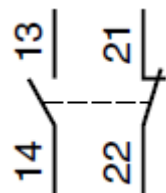
**FIG. 178**

**BIDIRECTIONAL TIGHTNESS GATE VALVE PN10**

**SENSOR SIZE ( in mm ) AND SCHEMA :**



Bipolar sensor O + C  
( XE2S P2151 )



**STANDARDS :**

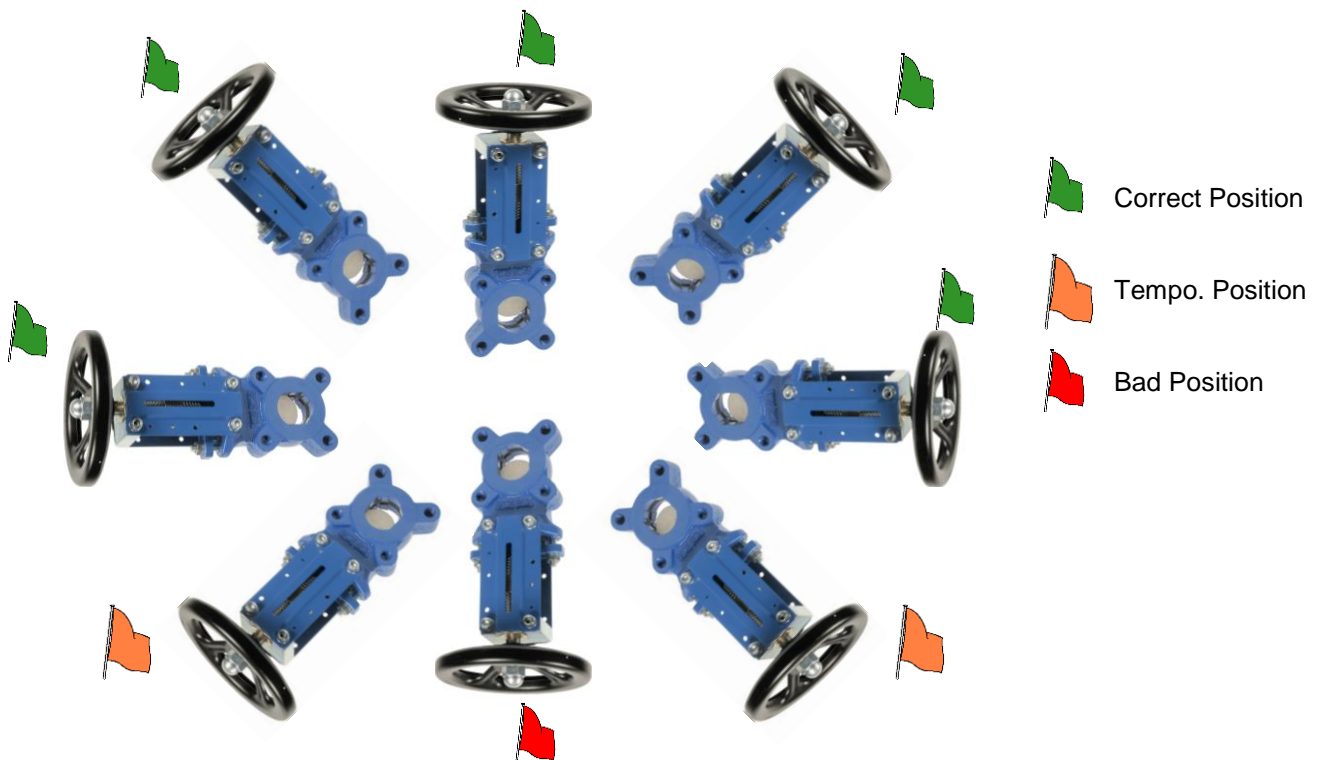
- Between flanges ISO PN10 according to EN 1092-2 PN10

**BIDIRECTIONAL TIGHTNESS GATE VALVE PN10****INSTALLATION INSTRUCTIONS :****GENERAL GUIDELINES :**

- Ensure that the valves to be used are appropriate for the conditions of the installation (type of fluid, pressure and temperature).
- Be sure to have enough valves to be able to isolate the sections of piping as well as the appropriate equipment for maintenance and repair.
- Ensure that the valves to be installed are of correct strength to be able to support the capacity of their usage.
- **Installation of all circuits should ensure that their function can be automatically tested on a regular basis (at least two times a year).**

**INSTALLATION INSTRUCTIONS :**

- **Before installing the valves, clean and remove any objects from the pipes** (in particular bits of sealing and metal) which could obstruct and block the valves.
- **Ensure that both connecting pipes either side of the valve (upstream and downstream) are aligned** (if they're not, the valves may not work correctly).
- **Make sure that the two sections of the pipe (upstream and downstream) match, the valve unit will not absorb any gaps. Any distortions in the pipes may affect the tightness of the connection, the working of the valve and can even cause a rupture.** To be sure, place the kit in position to ensure the assembling will work.
- **If sections of piping do not have their final support in place, they should be temporarily fixed. This is to avoid unnecessary strain on the valve.**
- During installation operation, do not carry the valves by the handwheel.
- Valves can be installed in all positions but we recommend the above positions :



**BIDIRECTIONAL TIGHTNESS GATE VALVE PN10****INSTALLATION INSTRUCTIONS ( SUITE ) :**

- If the valve is installed at the end of the pipe, it must be between 2 flanges.
- The knife gate valves are unidirectional, respect the flow direction indicated on the body by the arrow.  
When using powders, inverse flow direction
- Tighten the bolts in cross. For blind holes, use studs to have a good tightening and tighten them carefully so that they don't touch the gate.
- During cleaning operation, the valves must be opened.
- Tests must be done with cleaned installation and pipe.
- Test must be done with partially opened valve. Test pressure must not exceed valve specification according to EN 12266-1.
- Open carefully the valve.
- Tighten the gland packing at the first start of the installation ( with a moderate torque ) so that there's no leakage and the handwheel is easy to operate. Make sure there's no contact between the gate and the gland.
- Keep greased the stem.
- It's recommended to operate the valve ( open and close ) 1 time per month