

KNIFE GATE VALVE PN10 METAL / METAL TIGHTNESS



Size : DN 50 to DN 300
Ends : Between flanges GN10
Min Temperature : -10°C
Max Temperature : + 80°C
Max Pressure : 10 Bars up to DN 200
Specifications : Rising rotating stem , non rising handwheel
No tightness
Weak head loss

Materials : Cast iron body

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SPECIFICATIONS :

- Opened or closed valve
- Rising rotating stem, non rising handwheel
- **No tightness (loose factor : 2% of Kvs)**
- Weak head loss
- Between flanges GN10
- Full crossing threaded lower holes and blind threaded top holes
- With handwheel
- With lever or chain handwheel (option)
- Possible with bipolar sensor O + C , voltage AC 15-240V 3A, IP66 type XCK M115C
- Deflector (option)
- 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 + 80°C

MAX PRESSURE :

DN	50	65	80	100	125	150	200	250	300
Ps (Bars)	10	10	10	10	10	10	10	8	6

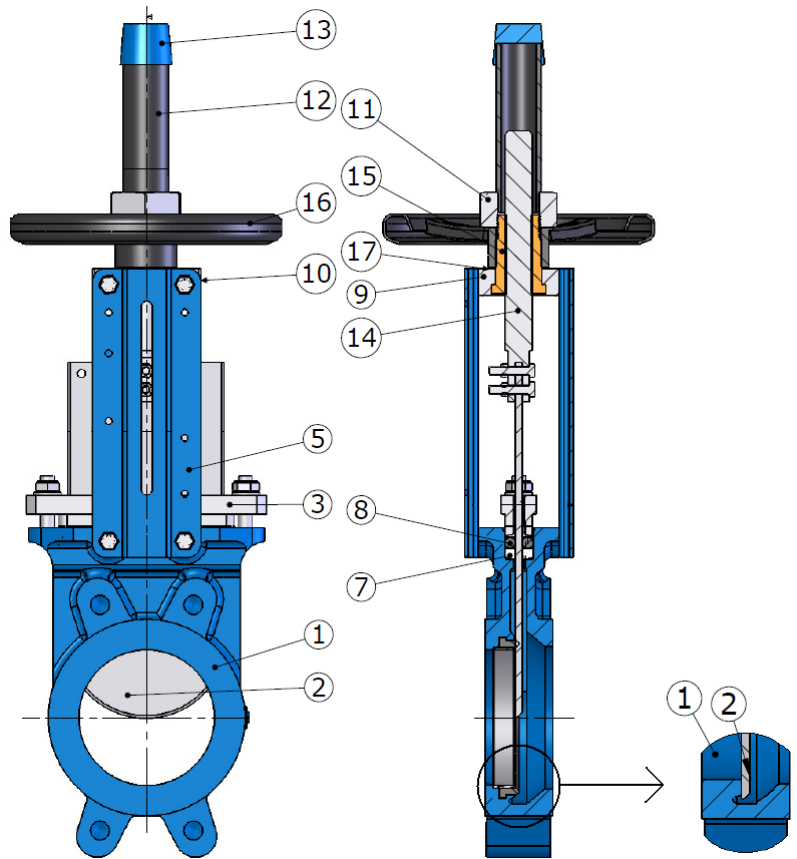
RANGE :

- Between flanges GN10 cast iron body, SS 304 gate, with handwheel **Ref. 176** from DN 50 to DN 300
- With chain handwheel (**Ref. 980179**) from DN 50 to DN 300
- With lever (**Ref. 980178**) from DN 50 to DN 300
- Option with deflector (**Ref. 98018**)
- Option with bipolar sensors O + C (**Ref. 980135**) from DN 50 to DN 300



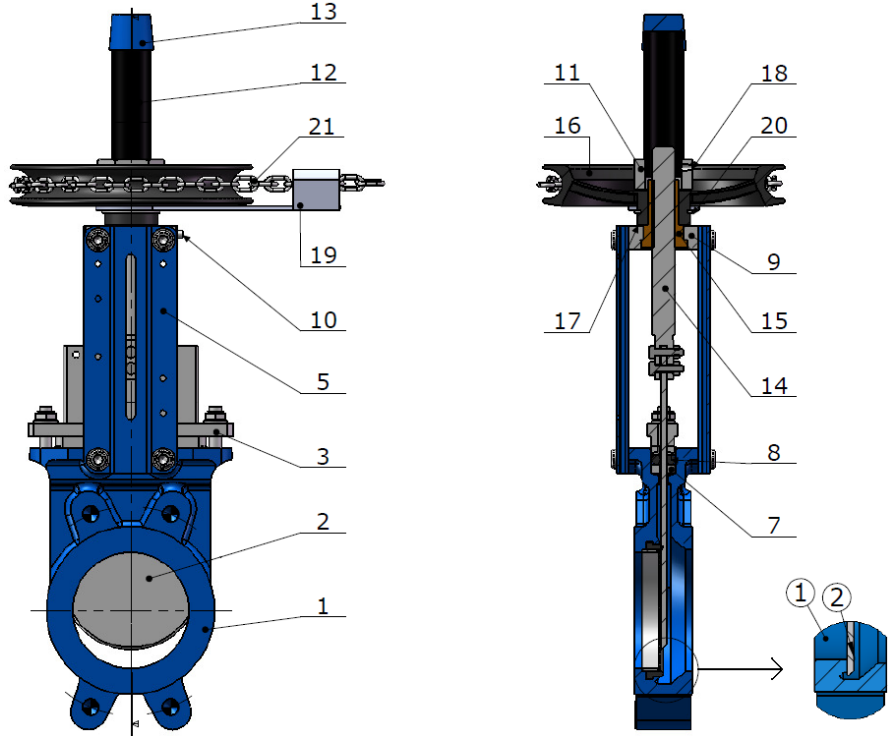
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MATERIALS WITH HANDWHEEL (REF. 176) :



Item	Designation	Materials Ref. 176
1	Body	Cast iron EN GJL-250
2	Gate	SS 304
3	Packing gland nut DN50 – DN 200	Aluminium
3	Packing gland nut DN 250 – 300	Cast iron EN GJL-250
5	Support	Painted steel
7(+)	Packing (Tress)	PTFE
8(+)	Packing (O ring)	NBR
9	Yoke	Steel
10	Oil hole	Steel
11	Fixing screw	Steel
12	Hood	Steel
13	Hood cover	Plastic
14	Spindle	SS 303
15	Stem nut	Bronze
16	Handwheel	Steel
17	Washer	Brass

(+) : Included in packing gland kit

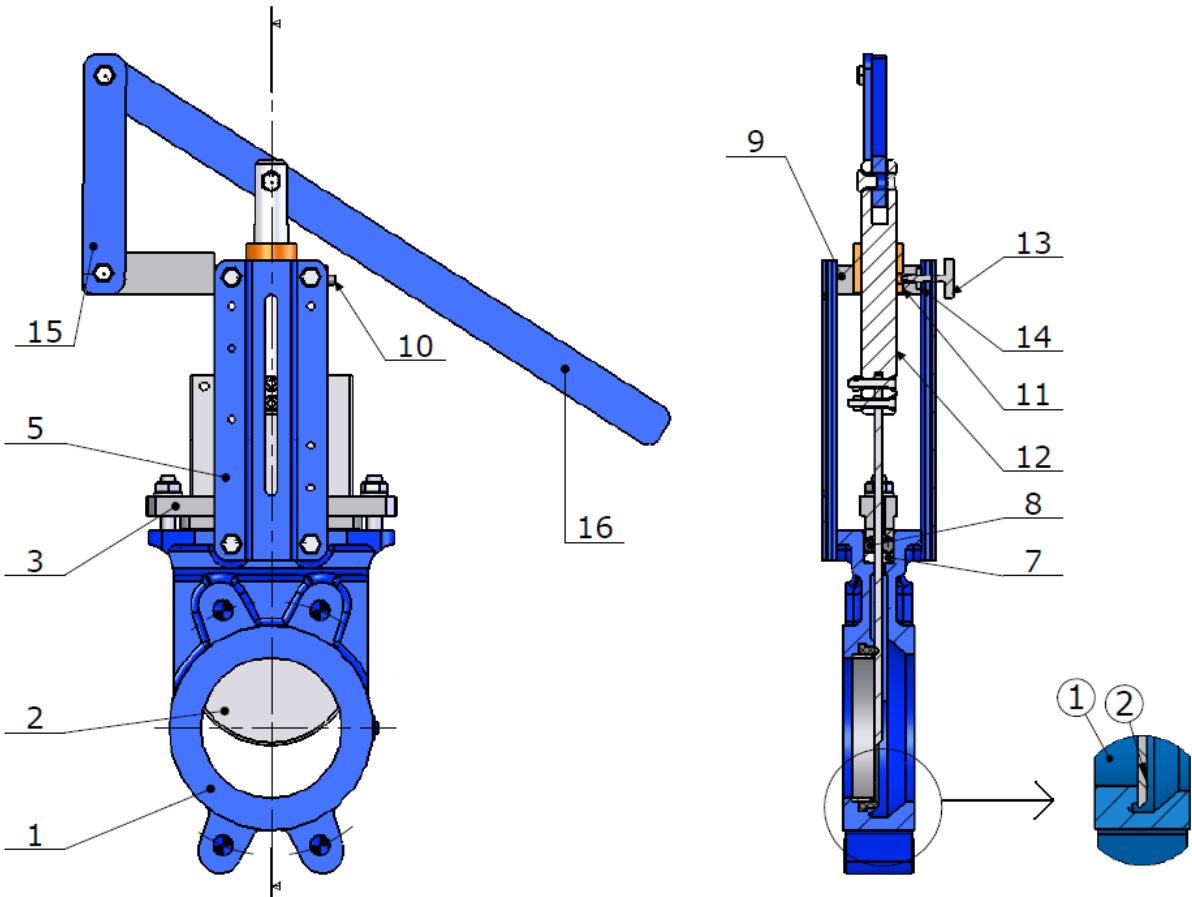
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MATERIALS WITH CHAIN HANDWHEEL (REF.176 + 980179) :


Item	Designation	Materials Ref. 176 + 980179
1	Body	Cast iron EN GJL-250
2	Gate	SS 304
3	Packing gland nut DN50 –DN 200	Aluminium
3	Packing gland nut DN 250 – 300	Cast iron EN GJL-250
5	Support	Painted steel
7(+)	Packing (Tress)	PTFE
8(+)	Packing (O ring)	NBR
9	Yoke	Steel
10	Oil hole	Steel
11	Fixing screw	Steel
12	Hood	Steel
13	Hood cover	Plastic
14	Spindle	SS 303
15	Stem nut	Bronze
16	Handwheel	Steel
17	Washer	Brass
18	Fixing screw	SS 304
19	Chain guide	Cast iron
20	Washer	Brass
21	Chain	Steel or stainless steel

(+) : Included in packing gland kit

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MATERIALS WITH LEVER (REF.176 + 980178) :

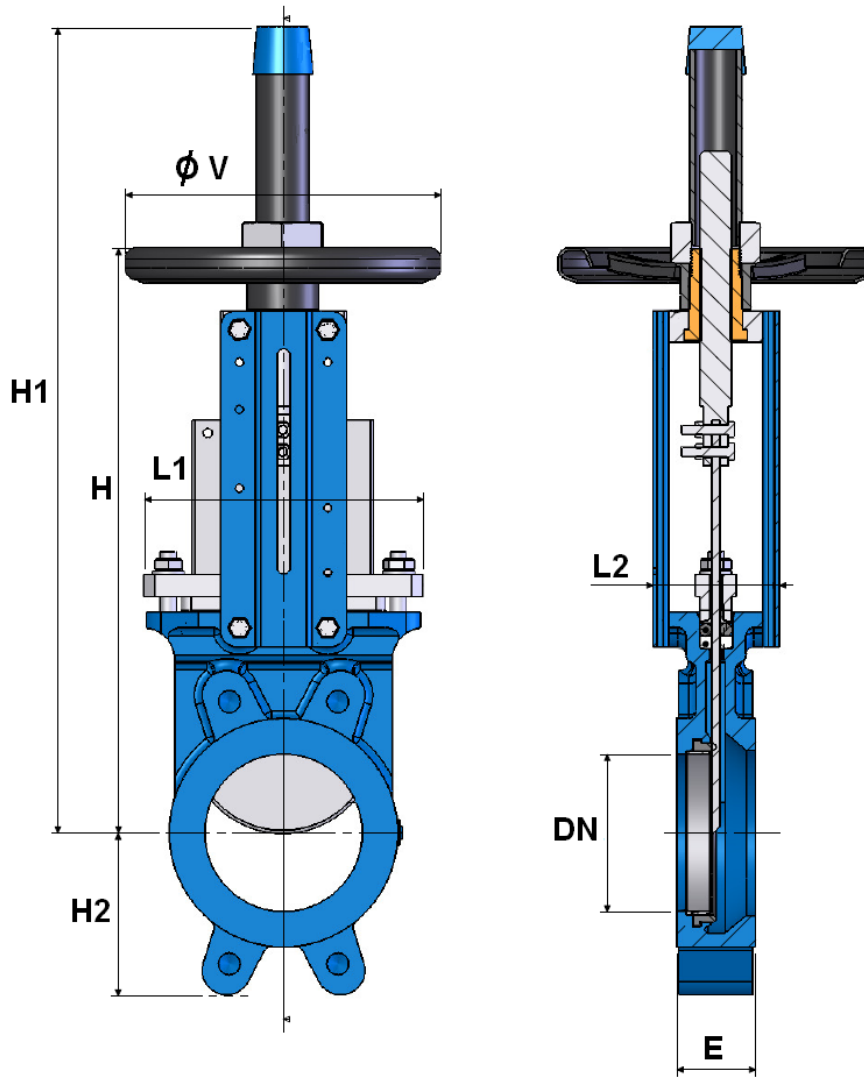


Item	Designation	Materials Ref. 176 + 980178
1	Body	Cast iron EN GJL-250
2	Gate	SS 304
3	Packing gland nut DN50 – DN 200	Aluminium
3	Packing gland nut DN 250 – 300	Cast iron EN GJL-250
5	Support	Painted steel
7(+)	Packing (Tress)	PTFE
8(+)	Packing (O ring)	NBR
9	Yoke	Steel
10	Oil hole	Steel
11	Stem nut	Bronze
12	Spindle	SS 303
13	Fixing screw	Steel
14	Wedge	Steel
15	Link	Steel
16	Lever	Steel

(+) : Included in packing gland kit

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SIZE WITH HANDWHEEL REF.176 (in mm) :

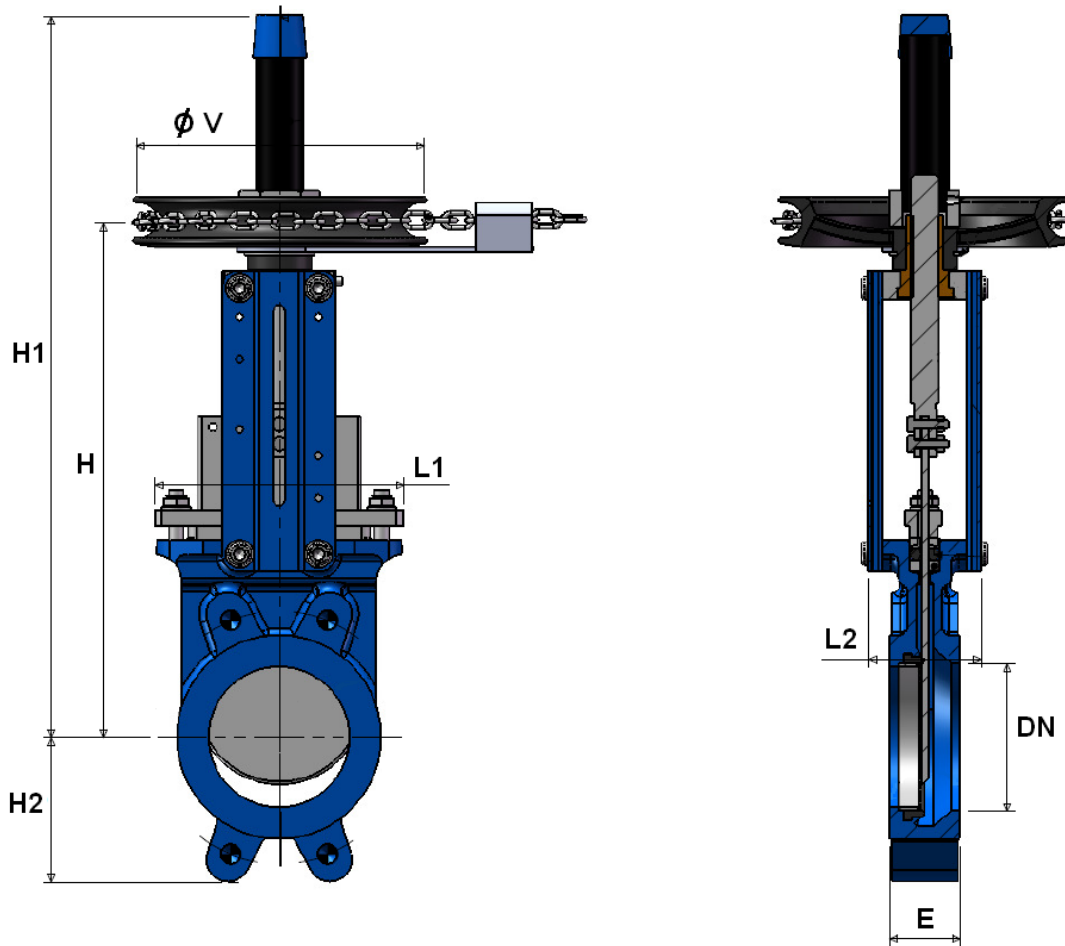


DN	50	65	80	100	125	150	200	250	300
E	40	40	50	50	50	60	60	70	70
H	289	316	342	382	415	458	575	676	776
H1	409	436	462	502	585	637	815	1016	1116
H2	63	70	92	105	120	130	160	198	234
L1	124	139	154	174	192	217	270	326	380
L2	92	92	92	92	102	102	119	119	119
Ø V	185	185	185	185	225	225	325	325	380
Weight (Kg)	6.53	7.1	8.53	9.8	12.7	16.16	26.8	43.5	57.5

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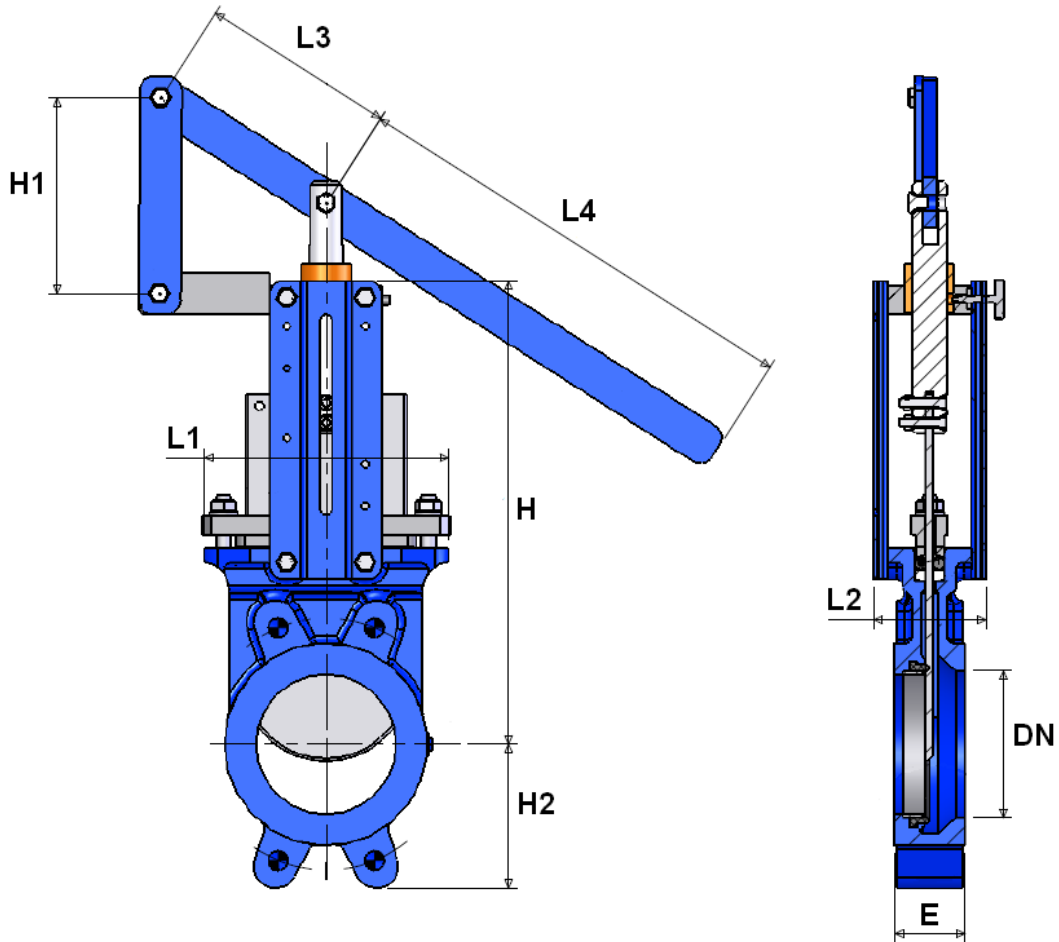
SIZE WITH CHAIN HANDWHEEL REF.176 + 980179 (in mm) :



DN	50	65	80	100	125	150	200	250	300
E	40	40	50	50	50	60	60	70	70
H	289	316	342	382	415	458	575	676	776
H1	409	436	462	502	585	637	815	1016	1116
H2	63	70	92	105	120	130	160	198	234
L1	124	139	154	174	192	217	270	326	380
L2	92	92	92	92	102	102	119	119	119
Ø V	212	212	212	212	212	212	296	296	296
Weight Ref.176 + 980179 (Kg)	11.4	12	13.4	14.7	17.6	21	34.3	51	65

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SIZE WITH LEVER REF.176 + 980178 (in mm) :

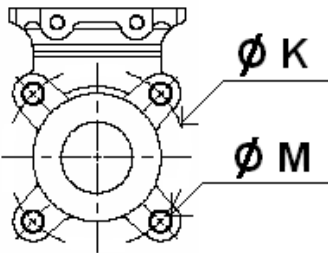


DN	50	65	80	100	125	150	200	250	300
E	40	40	50	50	50	60	60	70	70
H	240	265	290	335	373	424	533	625	732
H1	125	125	125	125	170	170	190	285	285
H2	63	70	92	105	120	130	160	198	234
L1	124	139	154	174	189	220	275	326	380
L2	83	83	83	83	93	93	108	108	108
L3	140	140	140	140	140	140	230	230	230
L4	340	340	340	340	440	440	640	680	680
Weight Ref.176 + 980178 (Kg)	8.9	9.8	11	13.3	16	18.9	32.9	53.6	67.3

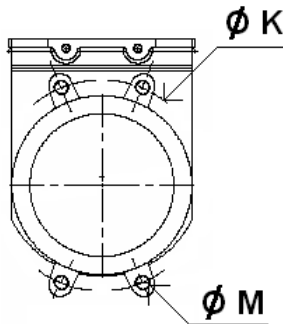
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SIZE FIXING VALVE THREADED HOLES (BETWEEN FLANGES GN10 in mm) :

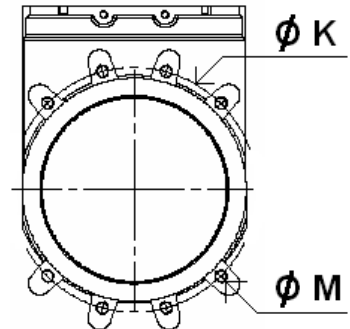
DN 50 – 65



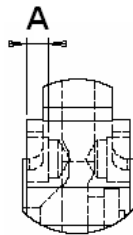
DN 80 – 200



DN 250 - 300



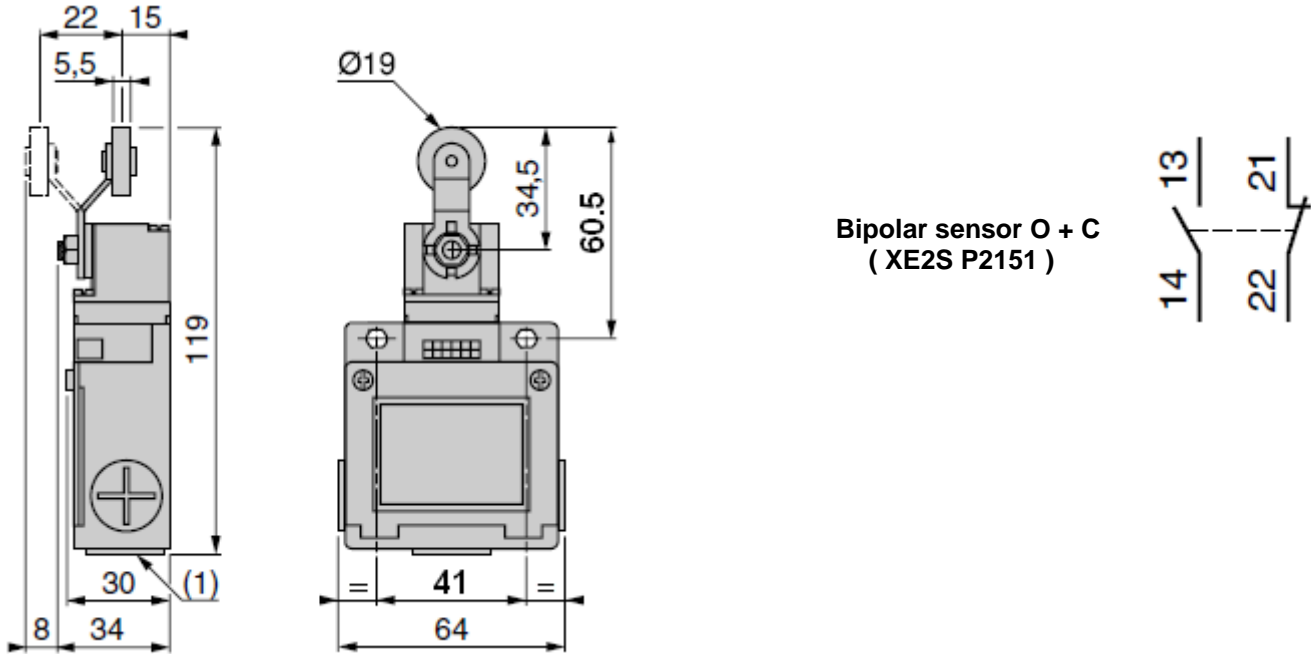
THREADED LENGHT FOR TOP BLIND HOLES :



DN	50	65	80	100	125	150	200	250	300
Ø K	125	145	160	180	210	240	295	350	400
Ø M	M16	M16	M16	M16	M16	M20	M20	M20	M20
Nb threaded hole	4	4	4	4	4	4	4	8	8
A	8	8	9	9	9	10	10	12	12

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SENSOR SIZE (in mm) AND SCHEMA :



STANDARDS :

- Between flanges GN10 according to EN 1092-2 PN10

ADVICE : Our opinion and our advice are not guaranteed and SFERACO shall not be liable for the consequences of damages. The customer must check the right choice of the products with the real service conditions.

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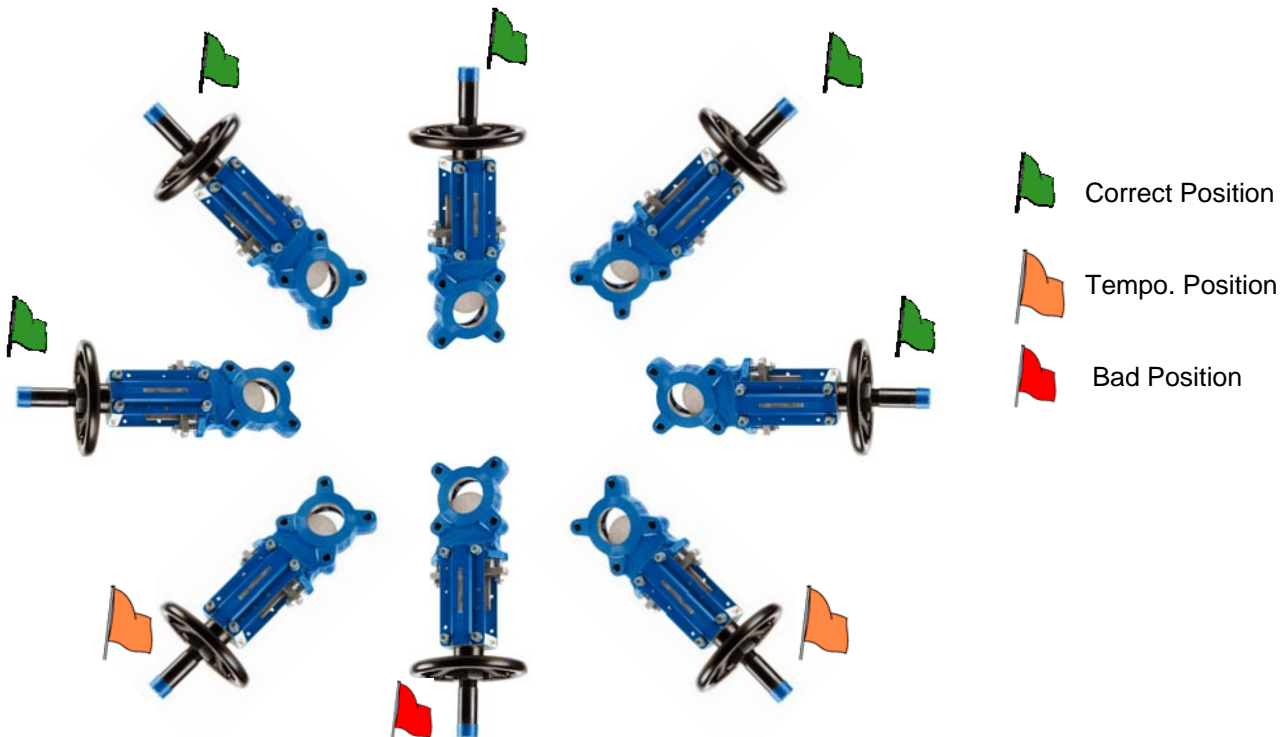
INSTALLATION INSTRUCTIONS :

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 :



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- 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