KNIFE GATE-VALVE WITH ELECTRIC ACTUATOR

FEATURES

The knife gate valve fitted with the electric actuator is dedicated to the automatic shut-off of line and tanks of heavy fluids, slurries and powders. Standard applications for these valves are water treatment, pulp and paper industry, cement industry, bulk handling and food industry. The electric actuator is IP67 tight. It makes it possible to install the valve assembly outdoor. This actuator has a declutchable manual override, 2 torque limiters, 4 limits switches and an anti-condensation heating resistor. The movement of the knife is protected by side covers.

IP 67

CE

AVAILABLE MODELS

94170/171 : cast iron body, stainless steel gate, NBR seat (94170), EPDM seat (94171)
94172 : stainless steel body, stainless steel gate, EPDM seat
94176 : cast iron body, stainless steel gate, metal seat (in-line leakage: 2% kvs)
94177 : cast iron body, stainless steel gate, EPDM seat, bi-directional tightness
94178 : cast iron body, stainless steel gate, NBR seat, bi-directional tightness Size 50 to 600, wafer-lug mounting between flanges EN 1092 PN10 Supply 230V CA.

LIMITS OF USE

Pressure of fluide : PS	DN 50 to 200	10 bar
	DN 250	8 bar
	DN 300	6 bar
Temperature of fluide : TS	See below	
Room temperature	-10°C / +55°C	
Electric protection	IP 67	
Duty factor	S4-25% / 10 cycles by hour.	

TS / seat	**NBR**	**EPDM**	**FPM**	**PTFE**	**METAL**
94170-171 : cast iron	-10°C +90°C	+15°C +130°C	-10°C +180°C	+0°C +180°C	- -
94172 : stainless steel					
94176 : cast iron	-	-	-	-	-10°C +90°C
94176 : cast iron+graphite	-	-	-	-	-10°C +200°C
94177-178 : cast iron	-10°C +90°C	-15°C +130°C	-10°C +130°C	-	-

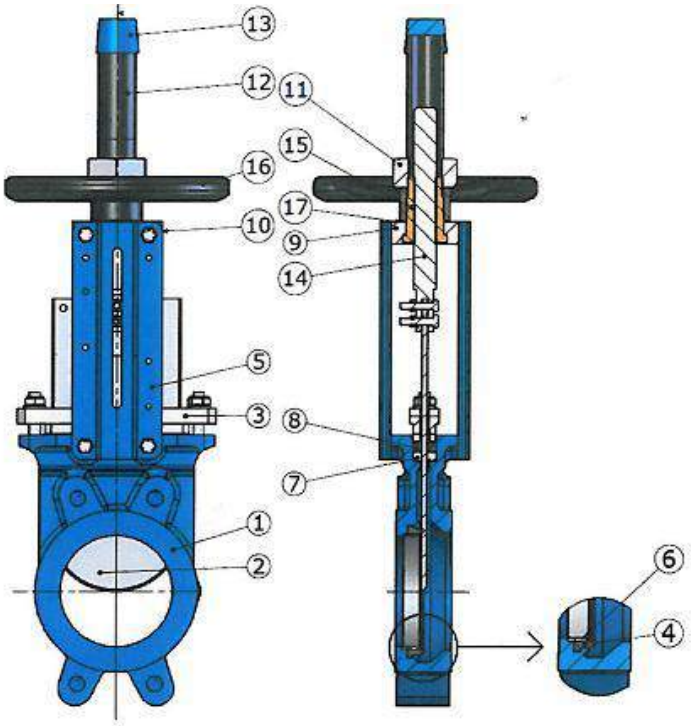
Modifications given as an indication only, and subject to possible modifications

KNIFE GATE-VALVE WITH ELECTRIC ACTUATOR

REGULATIONS AND STANDARD OF CONSTRUCTION

Item	Standard	Item	Standard
P.E.D. CE 97/23	Catégory I module A	Actuator connecting	ISO 5211
Flanges dimensions	EN 1092-2	Final testing	EN 12266-1
ANSI 150 flanges dimensions	ANSI B16.5		

UNI-DIRECTIONNAL CONSTRUCTION (94170-94171-94172-94176)



N°	Item	Cast iron 94170/94171	Cast iron 94176	Stainless steel 94172
1	Body	epoxy RAL 500S coated EN-GJL 250 cast iron		1.4408 stainless steel
2	Gate	AISI 304 stainless steel		AISI 316 stainless steel
3	Stuffing's box gland DN50-200	Aluminium		1.4408 stainless steel
3	Stuffing's box gland DN250-300	EN-GJL 250 cast iron		1.4408 stainless steel
4	Seat	NBR / EPDM	EPDM	EPDM
5	Support	Epoxy coated carbon steel		Epoxy coated carbon steel
6	Ring	AISI 304 stainless steel		AISI 316 stainless steel
7	Packing	PTFE		PTFE
8	O-ring	NBR		EPDM
9	Yoke	Carbon steel		
10	Grease box	Steel		
11	Handwheel nut	Steel		
12	Stem cap	Steel		
13	Cap	Plastic		
14	Stem	AISI 303 stainless steel		
15	Stem nut	Bronze		
16	Handwheel	Steel		
17	Friction washer	Brass		

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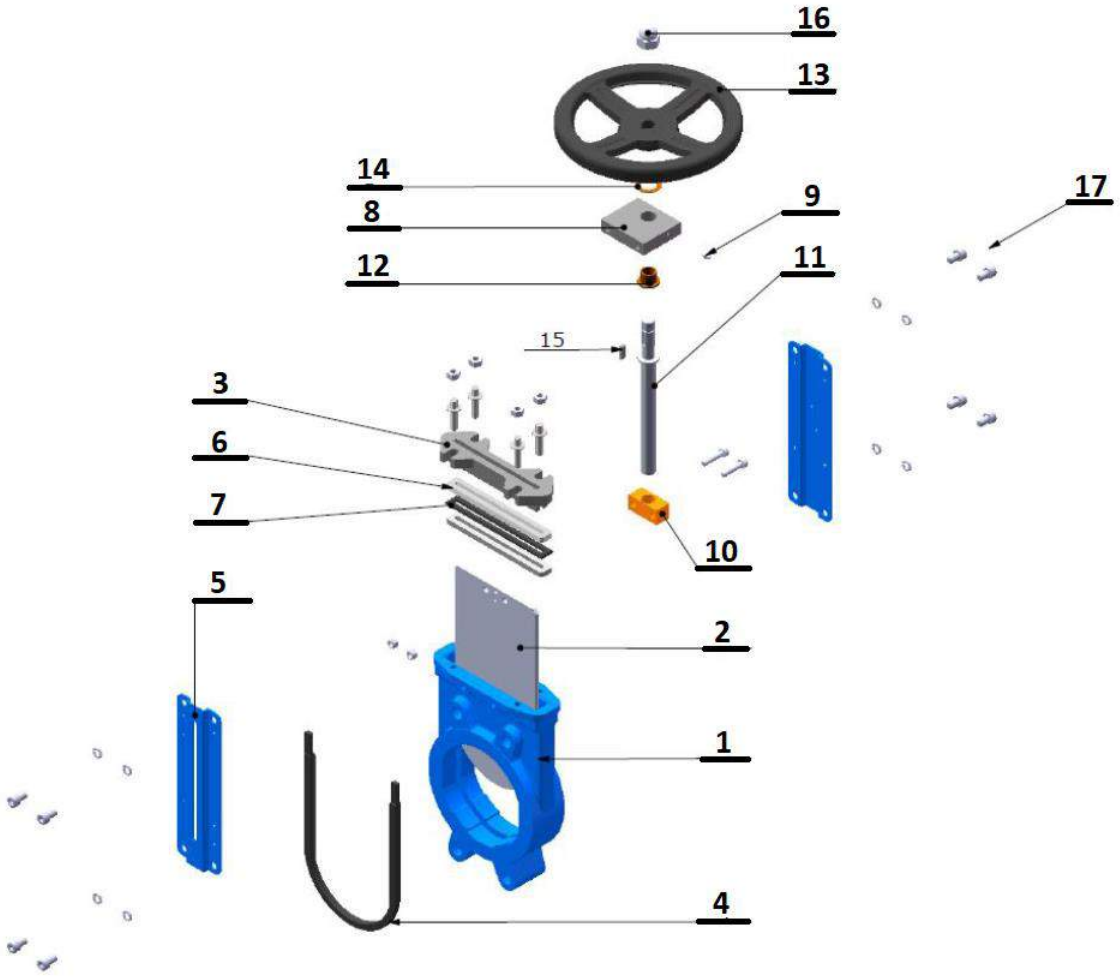
KNIFE GATE-VALVE WITH ELECTRIC ACTUATOR

BI-DIRECTIONNAL CONSTRUCTION (94177-94178)



No.	Name	Cast iron 94177 / 94178	
1	Body	Cast iron EN GJL-250	
2	Gate	AISI 304	
3	Packing gland	Cast iron EN GJL-250	
4	Seat	EPDM	NBR
5	Support	Painted steel	
6	Packing (Tress)	PTFE	
7	Packing (O ring)	EPDM	NBR
8	Yoke	Painted steel	
9	Greaser	Steel	
10	Stem nut	Bronze	
11	Stem	AISI 304	
12	Stem nut	Bronze	
13	Handwheel	Painted steel	
14	Ring	Bronze	
15	Pin	Steel	
16	Handwheel nut	Zinc-coated Steel	
17	Bolting	Zinc-coated 8.8 steel	

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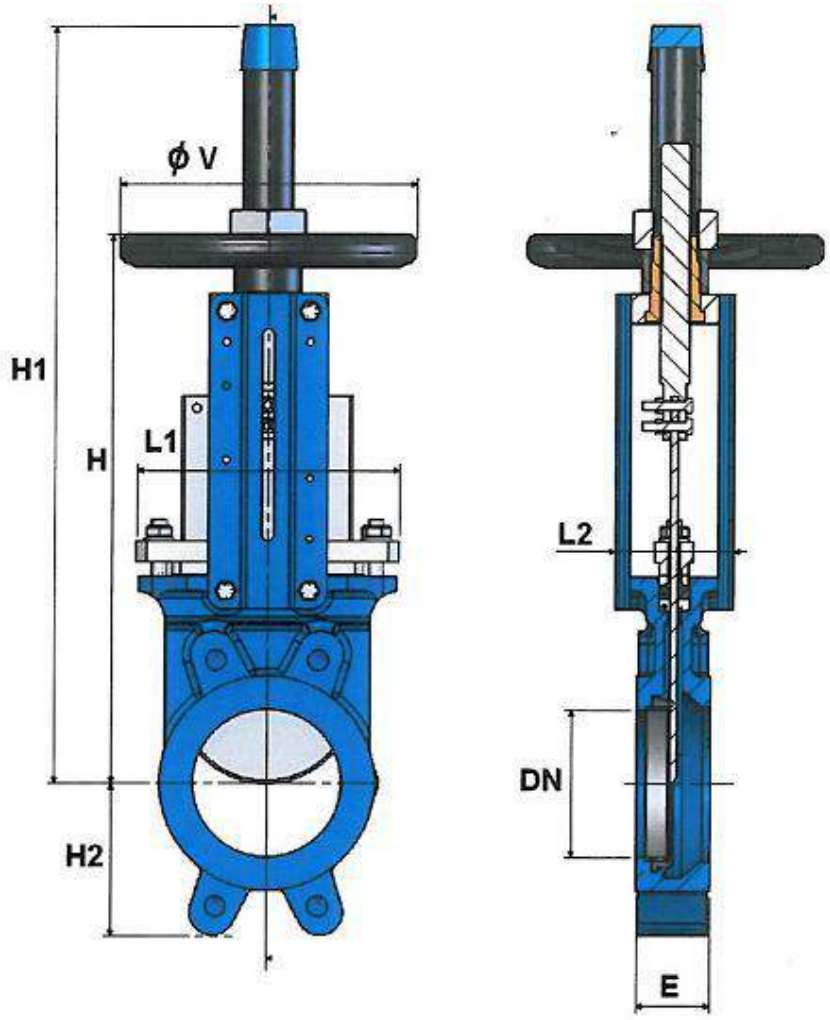
KNIFE GATE-VALVE WITH ELECTRIC ACTUATOR

DIMENSIONS (mm) (94170-94171-94172-94176)



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	370	410	462	502	585	637	815	1016	1116
H2	63	70	92	105	120	130	160	198	234
L1	124	139	154	174	170	200	250	326	360
L2	92	92	92	92	102	102	119	119	119
Φ V	200	200	200	200	250	250	300	300	300
Φ V (S-176)	185	185	185	185	225	225	325	325	380
Weight (kg) 94170-94171-94176	6,5	7,1	8,5	9,8	12,7	16,1	26,8	41	50
Weight (Kg) 94172	6,5	7,8	8,5	10	12,7	15,8	27,8	44,6	57

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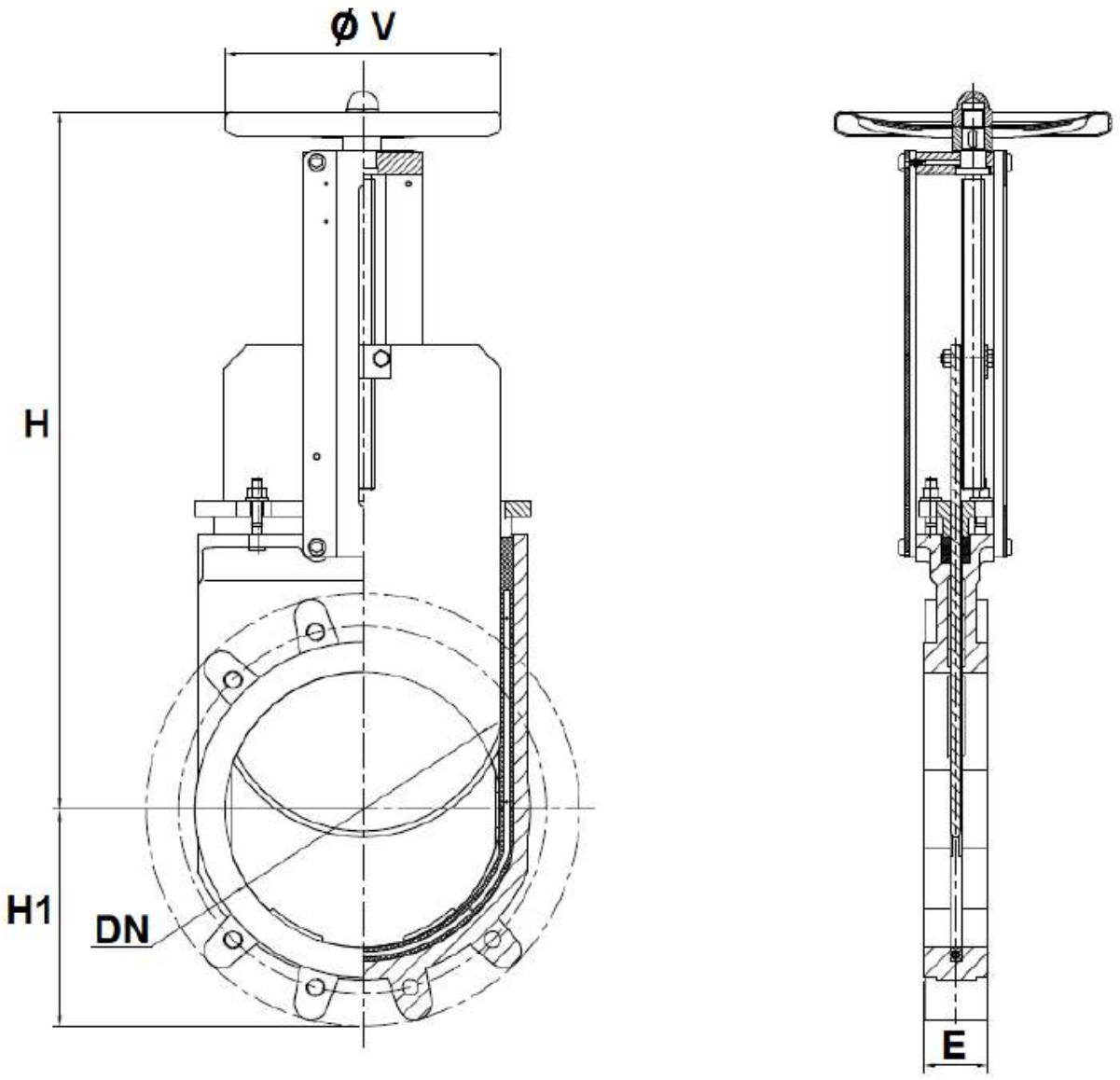
KNIFE GATE-VALVE WITH ELECTRIC ACTUATOR

DIMENSIONS (with REGADA 94178)



DN	50	65	80	100	125	150	200	250	300
E	40	40	50	50	50	60	60	70	70
H	286	316	342	382	415	458	575	676	776
H1	63	70	92	105	120	130	160	198	234
Φ V	200	200	200	200	250	250	300	300	300
Weight (Kg)	6,2	6,8	8	9,9	12,7	16,9	27	42,7	59

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KNIFE GATE-VALVE WITH REGADA ELECTRIC ACTUATOR

ACTUATION WITH ACTUATOR

The actuation with actuator is offered with following characteristics :
- IP67 actuator with aluminium epoxy coated housing and carbon steel gearbox,
- max. upstream / downstream pressure differential ΔP=10 bar.

Direct connection between valve and actuator following ISO 5211 - F10
The operators are protected from the movement of the gate through side covers.

DN	Actuator	Power (W)	I (A)	Resistancy (W)	Elec. Connect.	Speed	Operating time (s)*	Standard equipment
50	SO2	60	1,3	20 W	2x M20x1,5	20 tr. min.	39 s	2 adjustable limits switches 2 dry auxiliary switches 2 torque limiters Heating resistor Position indicator Declutchable manuel override ISO 5211 - F10 connection
65							48 s	
80							60 s	
100							75 s	
125							93 s	
150							114 s	
200	MO3	370	1	35 W	3x M25x1,5	40 tr. min.	60 s	
250							75 s	
300							90 s	

For any other working conditions, please consult.
*indicative operating time without pressure

OPTIONS FOR THE ACTUATOR

n°	Item
1	Three-phase 400V, 24 V ac and 24 V dc (SO2 only)
2	Actuator for low temperature -50°C
3	Feedback potentiometer

OPTIONS FOR THE VALVE

n°	Item
1	NBR, EPDM, PTFE, FPM, metal-metal seats
2	HT graphited packing
3	Deflector
4	ANSI 150 flanges drilling
5	PN 25 body
6	Flow deflector

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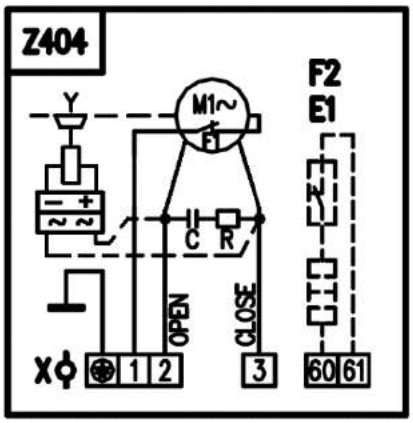
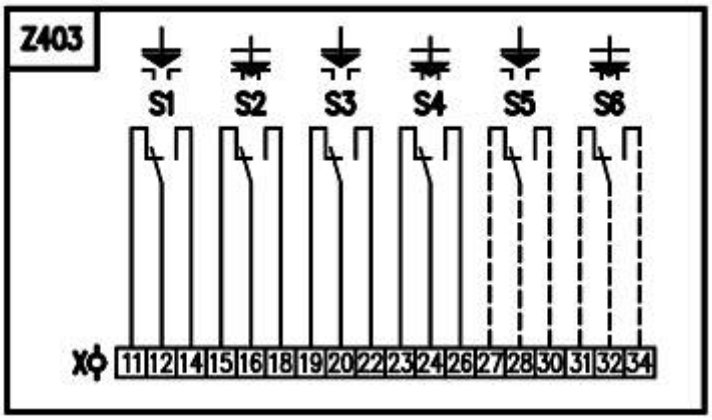
WIRING DIAGRAM ACTUATOR SO2

Supply resistancy heater



Adjustable limit switches and auxiliary switches

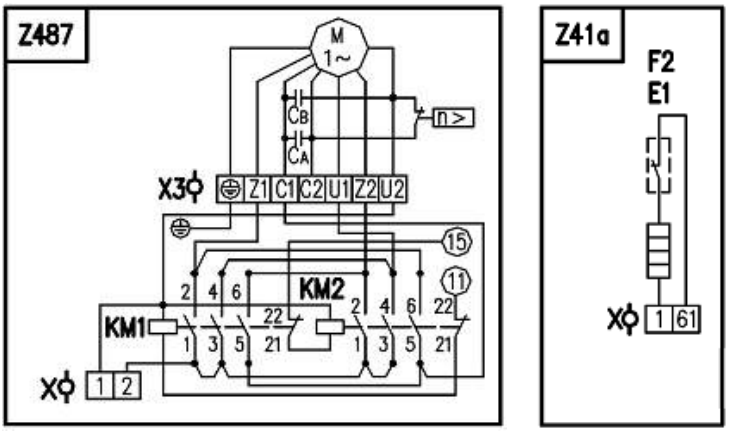


1	Connect on neutral supply
2	Make a bridge connection with the terminal block 11 (opening)
3	Make a bridge connection with the terminal block 15 (closing)
11	Make a bridge connection with the terminal block 2 (opening)
12	Make a bridge connection with the terminal block 19 (adjustable limit switches)
14	
15	Make a bridge connection with the terminal block 3 (closing)
16	Make a bridge connection with the terminal block 23 (adjustable limit switches)
18	
19	Make a bridge connection with the terminal block 12 (adjustable limit switches)
20	Connect on the phase (supply)
22	
23	Make a bridge connection with the terminal block 16 (adjustable limit switches)
24	Connect on the phase
26	
27	Auxiliary switches
28	
30	
31	
32	
34	

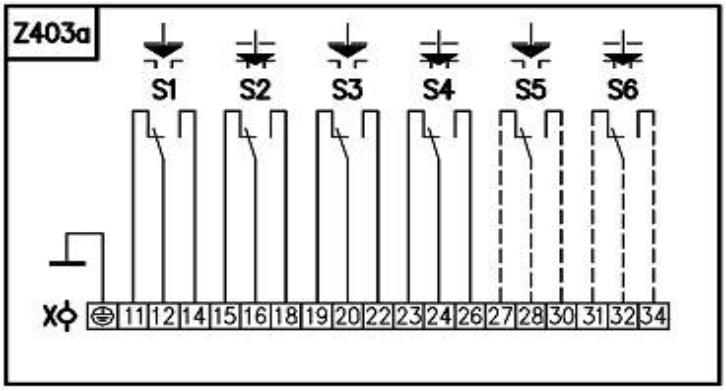
Modifications given as an indication only, and subject to possible modifications

WIRING DIAGRAM ACTUATOR MO3

Supply **resistancy heater**

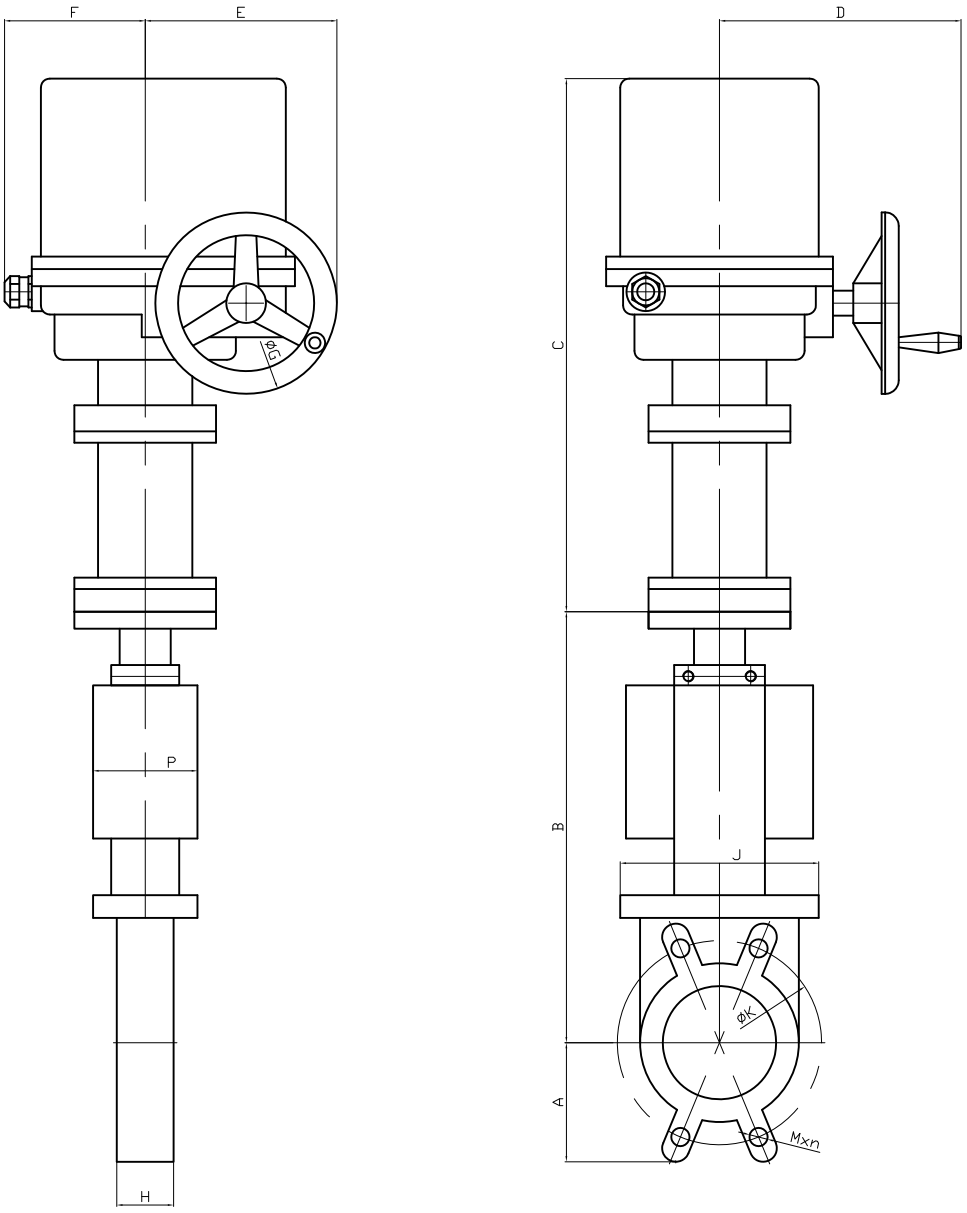


Adjustable limit switches and auxiliary switches



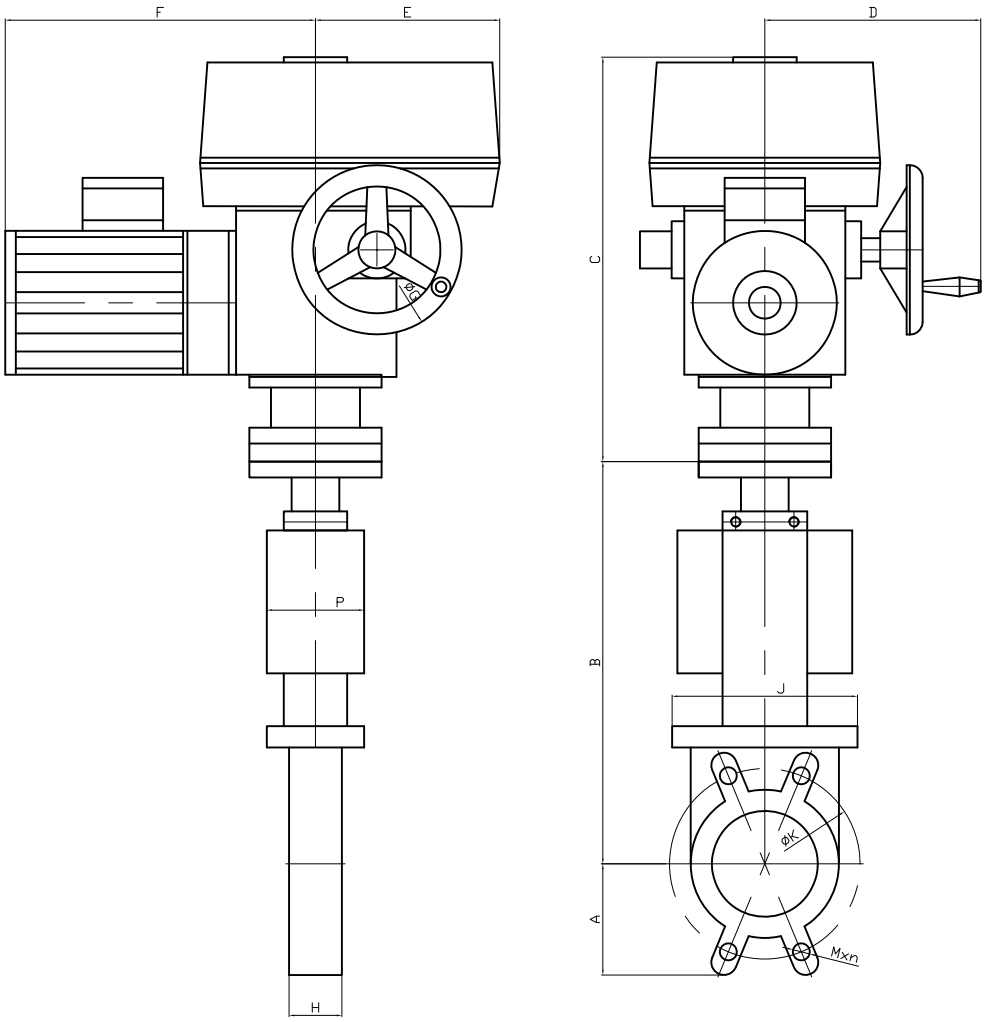
1	Connect on neutral supply
2	Connect on the phase (supply)
3	
11	
12	Make a bridge connection with the terminal block 19 (adjustable limit switches)
14	
15	
16	Make a bridge connection with the terminal block 23 (adjustable limit switches)
18	
19	Make a bridge connection with the terminal block 12 (adjustable limit switches)
20	Make a bridge connection with the terminal block 2 (supply for closing)
22	
23	Make a bridge connection with the terminal block 16 (adjustable limit switches)
24	Make a bridge connection with the terminal block 2 (supply for opening)
26	
27	Auxiliary switches
28	
30	
31	
32	
34	

Modifications given as an indication only, and subject to possible modifications



DN	50	65	80	100	125	150
MOTEUR	SO2	SO2	SO2	SO2	SO2	SO2
A	63	70	92	105	120	130
B	287	312	332	380	410	461
C	470	470	470	470	470	470
D	201	201	201	201	201	201
E	172	172	172	172	172	172
F	125	125	125	125	125	125
ØG	160	160	160	160	160	160
H	40	40	50	50	50	60
J	124	139	154	174	192	217
ØK	125	145	160	180	210	240
Mxn	M16x4	M16x4	M16x4	M16x4	M16x4	M20x4
P	92	92	92	92	102	102
KG FONTE	18.5	19.1	20.5	21.8	24.7	28.1
KG INOX	18.5	19.8	20.5	22	24.7	27.8

Ech:	Date :14/09/2011	Dessiné par : E.D.	Tolérances générales : +/- 0.2	Modifications	Date	REV.
				Matiére :		
				Poids (Kg) :		
				Traitement : SANS		



DN	200	250	300
MOTEUR	MO3	MO3	MO3
A	160	198	234
B	567	667	780
C	302	302	302
D	188	188	188
E	174	174	174
F	306	306	306
ØG	160	160	200
H	60	70	70
J	270	326	380
ØK	295	350	400
Mxn	M20x4	M20x8	M20x8
P	120	120	120
KG FONTE	53.8	70.5	84.5
KG INOX	54.8	71.6	85.6

Ech:	Date :21/09/2011	Dessiné par : E.D.	Tolérances générales : +/- 0.2	Modifications	Date	REV.
				Matiére :		
				Poids (Kg) :		
				Traitement : SANS		