EA4235/6

Multi-turn Electric Actuated Unidirectional Knife Gate Valve

- Size Range DN50 – DN300
- PN10
- NBR, EPDM and Metal Seat Options
- 230 Volt for On/Off Operation
- Manual Safety Handwheel Override
- Cast Iron & Stainless Steel Body Option

Cast Iron EA4235
Stainless Steel EA4236

DESCRIPTION

A unidirectional knife gate valve fitted with a multi-turn 230 V AC electric actuator, dedicated for the on/off control of fluids and slurries. Wafer pattern suitable to fit between PN10 flanges. The valve lends itself to a multitude of applications, offering trouble free operation, in both cast iron and stainless steel bodies. The movement of the gate is protected by side covers. The electric actuator is IP67 protected, it has a de-clutchable manual override, torque limiters, 4 limit switches and anti condensation heaters.

- **Optional extras:**
- Faster Closing Times
- Bi-Directional Version
- Local Control

Typical applications include:
water treatment, cement industry, bulk handling and food industries.

Description
Dedicated to the automatic shut-off of fluids, we offer a combination of a multi-turn electric actuator and knife gate valve. Offered in both Cast Iron and Stainless steel in sizes ranging from DN50-DN300.

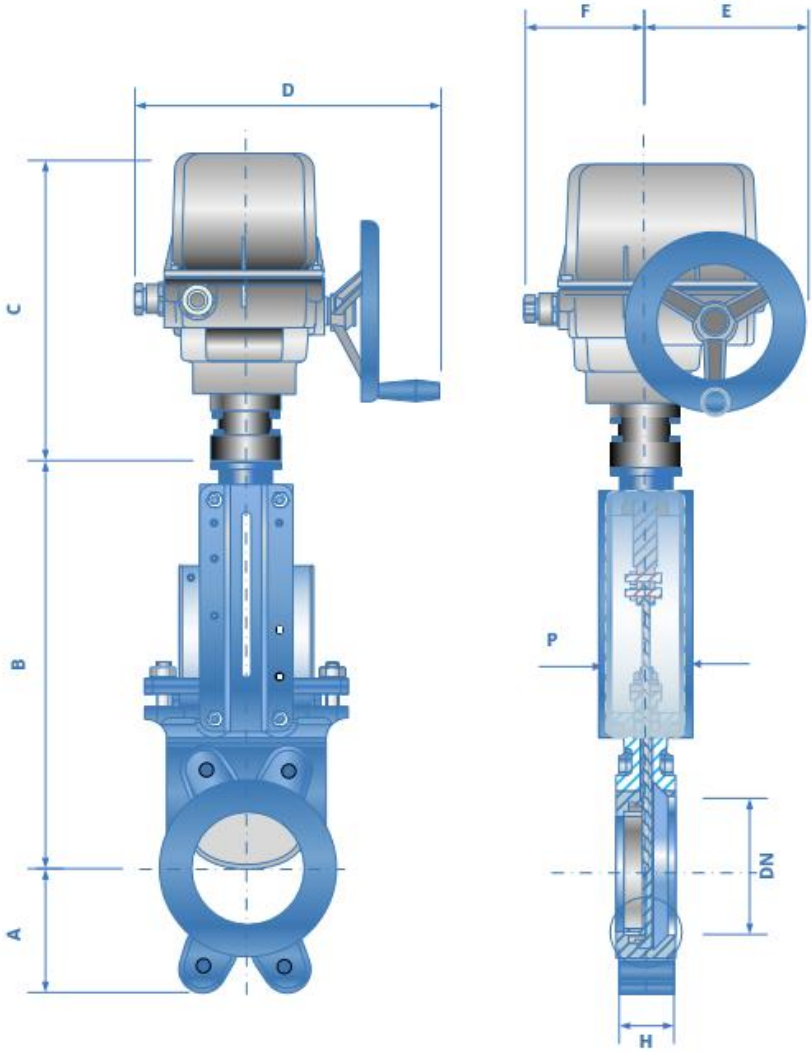
Beschreibung
Wir sind auf die automatische Absperrung von Flüssigkeiten ausgerichtet und bieten eine Kombination aus einem elektrischen Mehrdrehantrieb und einem Messerschieber. Wird sowohl in Gusseisen als auch in Edelstahl in Größen von DN50 bis DN300 angeboten.

Descripción
Dedicados al cierre automático de fluidos, ofrecemos una combinación de un actuador eléctrico de múltiples vueltas y una válvula de guillotina. Se ofrece tanto en hierro fundido como en acero inoxidable en tamaños que van desde DN50-DN300.

Description
Dédiés à l'arrêt automatique des fluides, nous proposons une combinaison d'un actionneur électrique multi-tours et d'une vanne à guillotine. Offert en fonte et en acier inoxydable dans des tailles allant de DN50 à DN300.

EA4235/6

S02 Electric Actuator



This unit 50mm – 150mm

Knife Gate Details	
Ends Lug	Between PN10 Flanges
Max pressure	10 Bar up to DN200
Stem	Rising rotating
Direction	Unidirectional
Side covers	Painted steel
Body C.I.	Cast Iron GG25
Gate	Stainless steel AISI 304
Body St. St	1.4408 Stainless Steel
Gate	Stainless steel AISI 316
Stuffing Box Gland	Aluminium
Packing	PTFE
Paint	Risilian Finish

Electric Unidirectional Knife Gate								
Size DN	Bar	Actuator	Seat Material			Closing Time	Operating Speed RPM	Enclosure
50	10	SO2	NBR	EPDM	Metal	39	20	IP67
65	10	SO2	NBR	EPDM	Metal	48	20	IP67
80	10	SO2	NBR	EPDM	Metal	60	20	IP67
100	10	SO2	NBR	EPDM	Metal	75	20	IP67
125	10	SO2	NBR	EPDM	Metal	93	20	IP67
150	10	SO2	NBR	EPDM	Metal	114	20	IP67
200	10	MO3	NBR	EPDM	Metal	60	40	IP67
250	8	MO3	NBR	EPDM	Metal	75	40	IP67
300	6	MO3	NBR	EPDM	Metal	90	40	IP67

TEMPERATURES	
NBR	–10°C/+80°C
EPDM	–10°C/+110°C
Metal	–10°C/+90°C

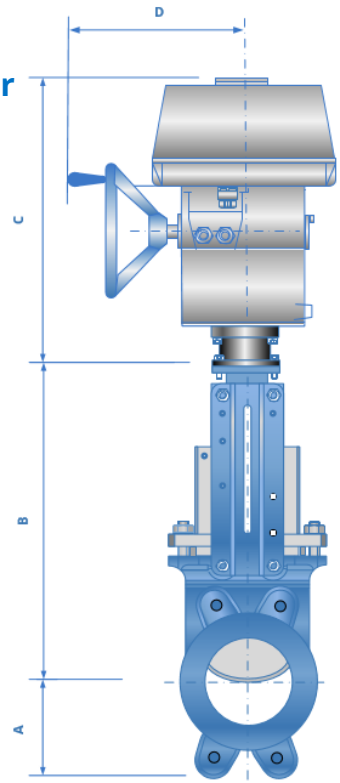
Dimensions and Weights											
Size DN	Act	A	B	C	D	E	F	H	P	KG CAST IRON	KG STAINLESS
50	S02	63	287	470	201	172	125	40	92	18.5	25
65	S02	70	312	470	201	172	125	40	92	19.8	25.6
80	S02	92	332	470	201	172	125	50	92	20.5	28
100	S02	105	380	470	201	172	125	50	92	22	30
125	S02	120	410	470	201	172	125	50	102	24.7	31.3
150	S02	130	461	470	201	172	125	60	102	27.8	34.7
200											
250											
300											

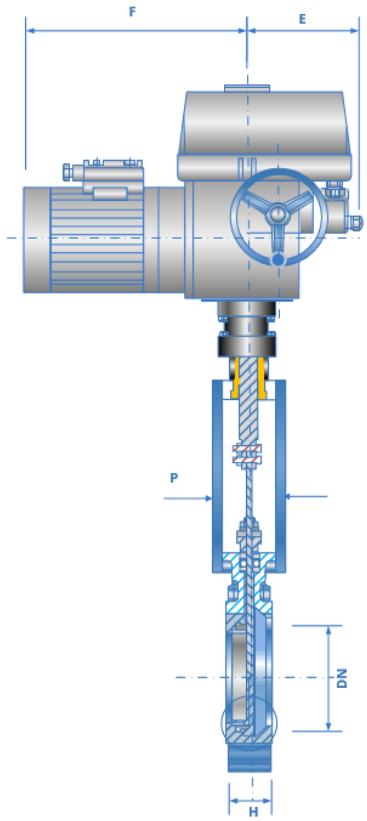
Electric Actuator 1 – phase for On/Off Duty

Cast Iron EA4235
St St EA4236

EA4235/6

M03 Electric Actuator 1 – phase for On/Off Duty





This unit 200mm – 300mm

Knife Gate Details	
Ends Lug	Between PN10 Flanges
Max pressure	10 Bar up to DN200
Stem	Rising rotating
Direction	Unidirectional
Side covers	Painted steel
Body St.St.	1.4408 stainless Steel
Gate	Stainless steel AISI 316
Body C.I.	Cast Iron GG25
Gate	Stainless steel AISI 304
Stuffing Box Gland	1.4408 stainless Steel
Packing	PTFE
Paint	Risilian Finish

Electric Unidirectional Knife Gate

Size DN	Bar	Actuator	Seat Material			Closing Time	Operating Speed RPM	Enclosure
50	10	SO2	NBR	EPDM	Metal	39	20	IP67
65	10	SO2	NBR	EPDM	Metal	48	20	IP67
80	10	SO2	NBR	EPDM	Metal	60	20	IP67
100	10	SO2	NBR	EPDM	Metal	75	20	IP67
125	10	SO2	NBR	EPDM	Metal	93	20	IP67
150	10	SO2	NBR	EPDM	Metal	114	20	IP67
200	10	MO3	NBR	EPDM	Metal	60	40	IP67
250	8	MO3	NBR	EPDM	Metal	75	40	IP67
300	6	MO3	NBR	EPDM	Metal	90	40	IP67

TEMPERATURES	
NBR	–10°C/+80°C
EPDM	–10°C/+110°C
Metal	–10°C/+90°C

Cast Iron EA4235
St St EA4236

Dimensions and Weights

Size DN	Act	A	B	C	D	E	F	H	P	KG CAST IRON	KG STAINLESS
50											
65											
80											
100											
125											
150											
200	M03	160	567	302	188	174	306	60	120	53.8	54.8
250	M03	198	667	302	188	174	306	70	120	70.5	71.6
300	M03	234	780	302	188	174	306	70	120	84.5	85.6

SO2 Electric Actuator

Standard Specification
Supply Voltage 230 V AC
ON/Off multi-turn operation
Terminal Board Connection
2 torque switches
2 position switches
2 additional position switches
Mechanical connection ISO 5210 – flange F10
Space heater with thermal indicator
Manual safety handwheel override control
IP67 protection
-25°C/+55°C room temperature
S4 duty service: 25% of time / 10 cycles/hour
M20 x 1.5 (SO2)

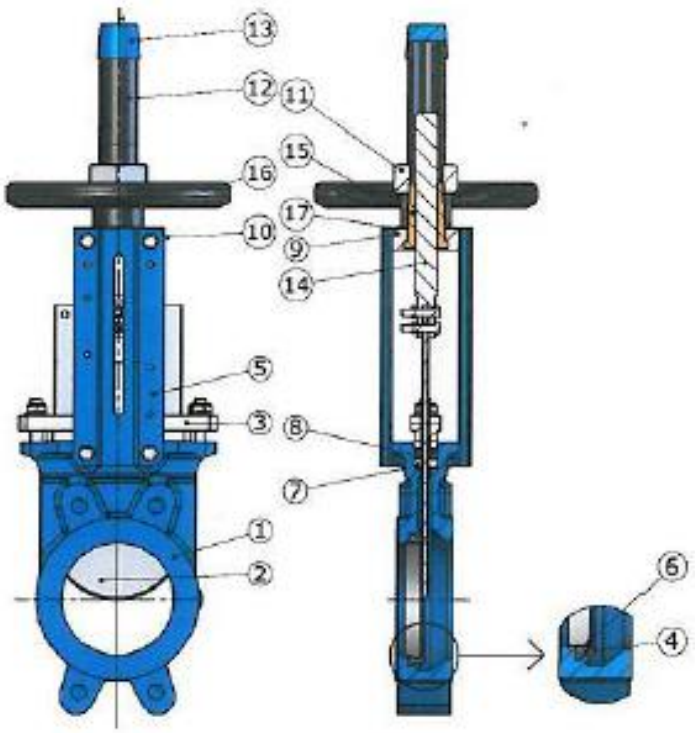
MO3 Electric Actuator

Standard Specification
Supply Voltage 230 V AC
ON/Off multi-turn operation
Terminal Board Connection
2 torque switches
2 position switches
2 additional position switches
Mechanical connection ISO 5210 – flange F10
Space heater with thermal indicator
Manual safety handwheel override control
IP67 protection
-25°C/+55°C room temperature
S4 duty service: 25% of time / 10 cycles/hour
M25 x 1.5 (MO3)

REGULATIONS AND STANDARD OF CONSTRUCTION

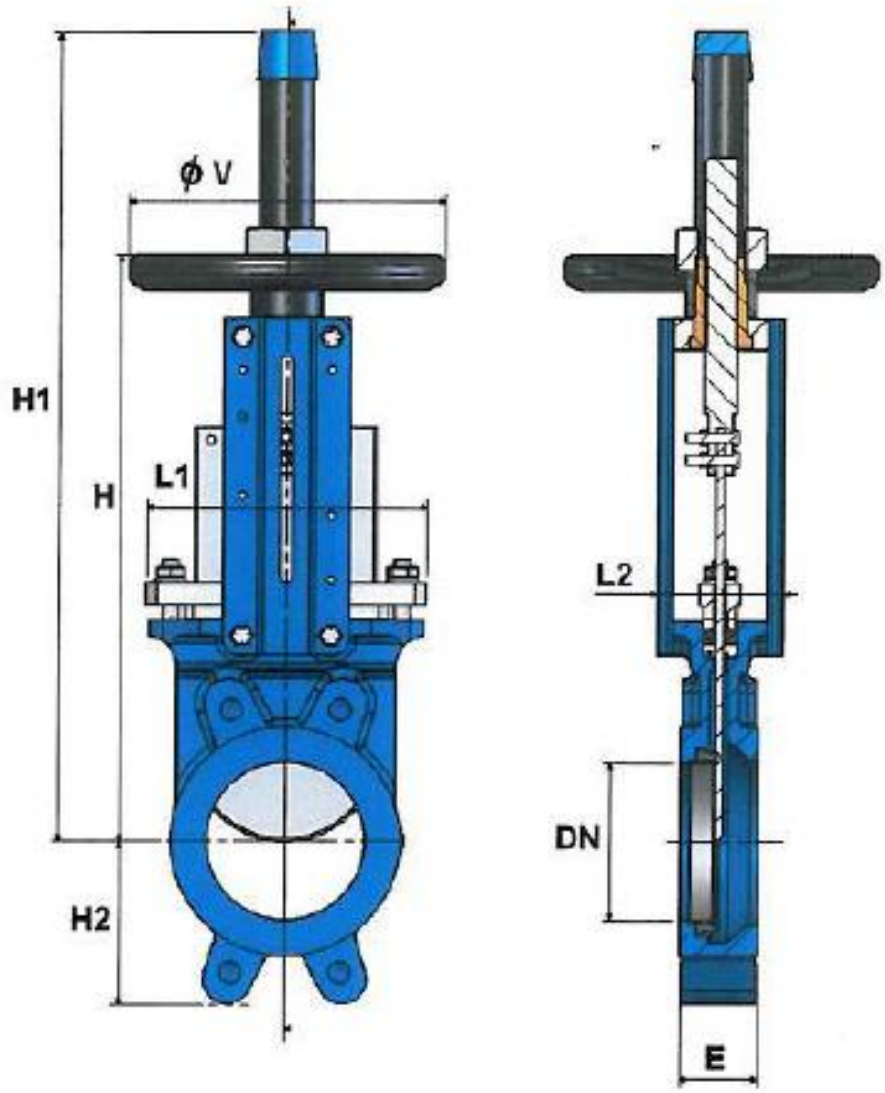
Item	Standard	Item	Standard
P.E.D. CE 97/23	Catégory I module A	Actuator connecting	ISO 5211
Flanges dimensions	EN 1092-2	Final testing	EN 12266-1
ANSI 150 flanges dimensions	ANSI B16.5		

UNI-DIRECTIONNAL CONSTRUCTION



N°	Item	Cast iron S-170	Cast iron S-176	Stainless steel S-172
1	Body	epoxy RAL 5005 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
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		

DIMENSIONS (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
Φ V	185	185	185	185	225	225	325	325	380
170 - weight (kg)	6,5	7,1	8,5	9,8	12,7	16,1	26,8	43,5	57,5
172 - weight (kg)	6,5	7,8	8,5	10	12,7	15,8	27,8	44,6	58,6

ACTUATION WITH REGADA

The actuation with AUMA 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

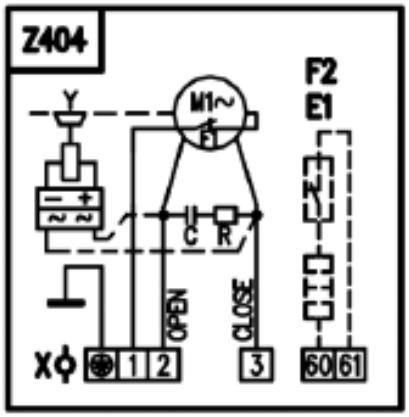
n°	Item
1	Three-phase 400V, 24 V ac and 24 V dc (SO2 only)
2	Actuator for low temperature -50°C
3	Feedback potentiometer

OPTIONS FOR THE VALVE

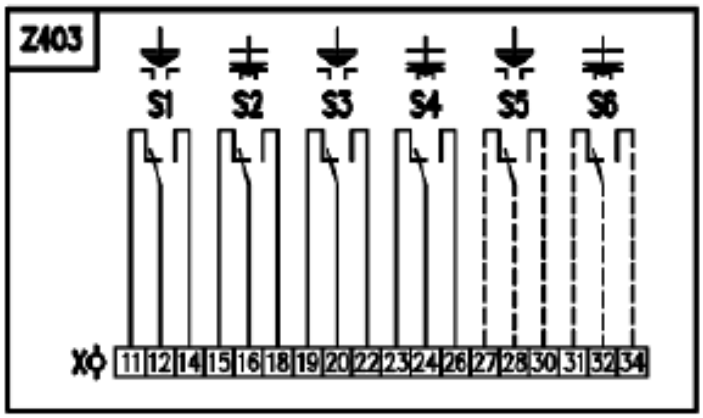
n°	Item
1	NBR, EPDM, PTFE, FPM, metal-metal seats
2	HT graphited packing
3	Deflector
4	ANSI 150 flanges drilling
5	PN 25 body
6	Flow deflector

WIRING DIAGRAM ACTUATOR SO2

Supply resistancy heater



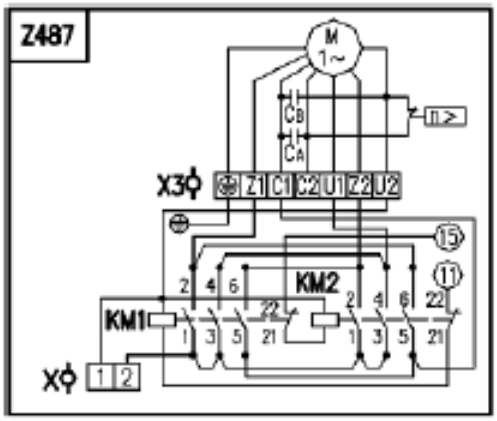
Adjustable limit switches and auxiliary switches



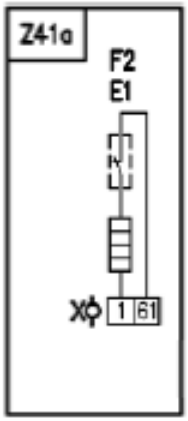
1	Connect on neutral supply
2	Make a bridge connection with the terminal block 11 (opening)
3	Make a bridge connection with the terminal block 15 (closing)
11	Make a bridge connection with the terminal block 2 (opening)
12	Make a bridge connection with the terminal block 19 (adjustable limit switches)
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	

WIRING DIAGRAM ACTUATOR MO3

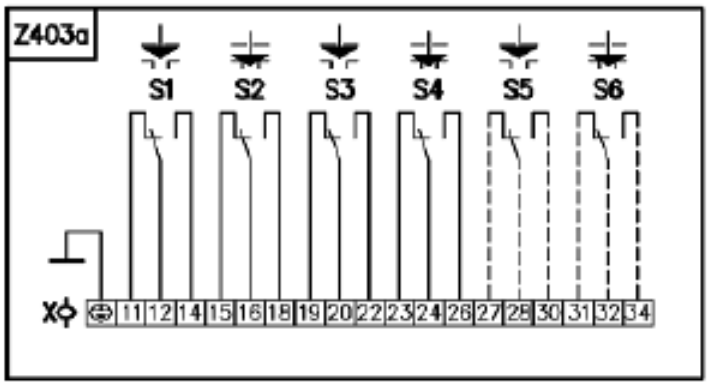
Supply



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	

NOTES