

# DR16 EVSA / EVSR



## **Standard control valves**

Control shut-off butterfly valves



Engineering  
**GREAT** Solutions

# DR16 EVSA / EVSR

Control and shut-off butterfly valves for open and closed circuits with electric quarter-turn actuator for HVAC systems, sanitary and industrial plants.

## Key features

### > Eyelets

Easy mounting by eyelets.

### > Tight sealing – Stainless steel flap

Stainless steel flap and tight EPDM sealing for wide medium range.



## Technical description

### Application:

Chilled-, hot- and industrial water, low pressure steam, water with antifreeze and anticorrosive compounds (approx. 50%): glycol, glycerine, ethyl alcohol, propylene dichloride alcohol, mono ethyl alcohol, ethyl, methyl alcohol, antidichloride fluor methane® N+L.

### Function:

DR16 EVSA: Shut-off  
DR16 EVSR: Control

### Dimensions:

DN 50-350

### Pressure class:

DN 50-125: PN 6 - PN 16 (PN 6 please state when ordering)  
DN 150-200: PN 10-16  
DN 250-350: PN 10

### Temperature:

Max. working temperature: 110°C  
Min. working temperature: -10°C  
For lower and higher temperatures please contact IMI Hydronic Engineering.

### Material:

Body: Spheroidal graphite EN-JS1030  
Seat ring: EPDM  
Flap: CrNi-steel 1.4581  
Shaft: CrNi-steel 1.4021  
Shaft sealing: EPDM

### Marking:

DN and PN.

### Flow direction:

Optionally from both side.

### Connection type:

Flangeless wafer type PN 6-16.

### Face to face:

According to EN 558-1 basic series 20.

### Leakage rate:

EN 1349 – seat-leakage VI G1 (tight sealing).

### Valve variants:

- Technical silicon free version.  
- Special varnish, max. 80°C

## Technical data – Butterfly valve with actuator

### Shut-off butterfly valves DR16 EVSA

DN			50	65	80	100	125	150	200	250	300	350	
Kvs value		m <sup>3</sup> /h	95	230	490	690	1450	1945	4095	6085	9570	13500	
OA6	Actuating time /90°	s	6										
	Closing pressure	kPa	1600	1600	1600	1600	1600						
OA8	Actuating time /90°	s						6					
	Closing pressure	kPa						600					
AS18	Actuating time /90°	s							6				
	Closing pressure	kPa							600				
ASP25	Actuating time /90°	s								30			
	Closing pressure	kPa								1000			
AS50	Actuating time /90°	s									30		
	Closing pressure	kPa									1000	1000	

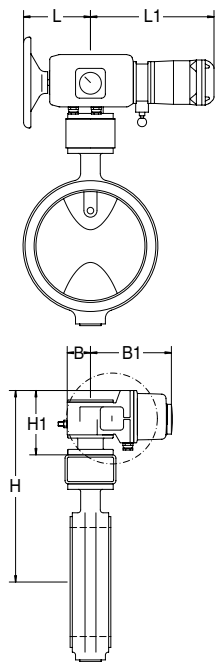
### Control butterfly valves DR16 EVSR

DN			50	65	80	100	125	150	200	250	300	350	
Kvs value		m <sup>3</sup> /h	95	230	490	690	1450	1945	4095	6085	9570	13500	
OAP8	Actuating time /90°	s	30										
	Closing pressure	kPa	1600	1600	1600	1600	1600	1000					
ASP25	Actuating time /90°	s						60					
	Closing pressure	kPa						600	600	1000			
AS50	Actuating time /90°	s									60		
	Closing pressure	kPa									1000	1000	

The closing pressure is limited by the nominal pressure

100 kPa = 1 bar = 10 mWS

## OA6 – For EVSA



DN	H	H1	L	L1	B	B1	Kg
50	364	224	90	202	65	125	6
65	374	224	90	202	65	125	6
80	382	224	90	202	65	125	6
100	403	224	90	202	65	125	6
125	420	224	90	202	65	125	6
150	436	224	90	202	65	125	6

### Technical description

		OA6
Actuating time at 50 Hz/90°	s	6
Nominal torque	Nm	63
Power supply	VAC	230 +6% -10%
Frequency <sup>1)</sup>	Hz	50/60 ±5%
Power consumption	VA	30

1) Please state when ordering

### Enclosure class:

IP 67

### Ambient temperature:

0 - 50°C

### Operation mode:

S4-30% ED c/h 300: EN 60034-1

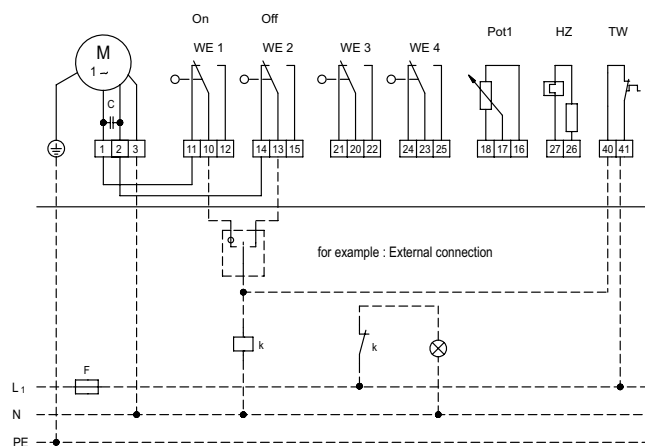
### End position switch-off:

In each end position 1 position switch is mechanically limited to 90°.

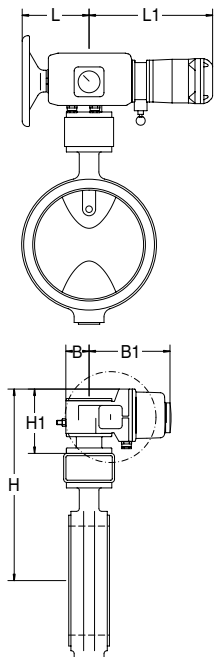
### Actuator variants and accessories:

- Voltage/Frequency: 3 ~ 400 VAC
- Tropic version
- Low temperature version:
  - 45 - 50°C
  - 5 VA / 230 VAC
- Position switch unit:
  - max. 2 pieces (WE3/WE4)
  - Rated load: max.10 A / 250 VAC
- Potentiometer:
  - 0.1 / 0.2 / 1 kOhm
  - 1.0 VA
- Heater:
  - 20 - 50°C
  - 5 VA / 230 VAC
- Intermediate console and clutch

### Wiring diagram:



## OA8 – For EVSA



DN	H	H1	L	L1	B	B1	Kg
50	364	224	90	202	65	125	8
65	374	224	90	202	65	125	8
80	382	224	90	202	65	125	8
100	403	224	90	202	65	125	8
125	420	224	90	202	65	125	8
150	436	224	90	202	65	125	8

### Technical description

		OA8
Actuating time at 50 Hz/90°	s	6
Nominal torque	Nm	80
Power supply	VAC	230 +6% -10%
Frequency <sup>1)</sup>	Hz	50/60 ±5%
Power consumption	VA	60

1) Please state when ordering

### Enclosure class:

IP 67

### Ambient temperature:

0 - 50°C

### Operation mode:

S4-30% ED c/h 300; EN 60034-1

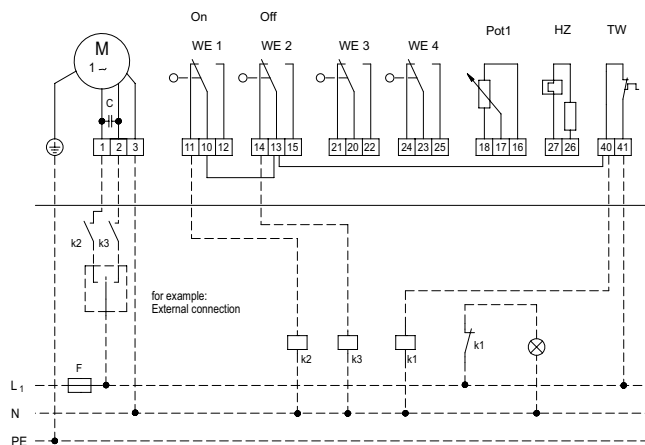
### End position switch-off:

In each end position 1 position switch is mechanically limited to 90°.

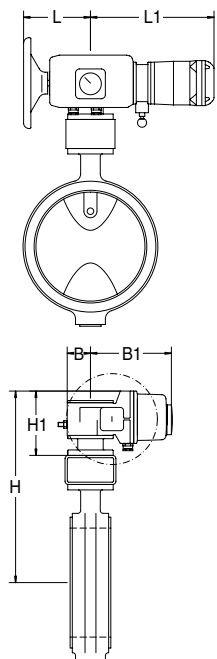
### Actuator variants and accessories:

- Voltage/Frequency: 3 ~ 400 VAC
- Tropic version
- Low temperature version:
  - 45 - 50°C
  - 5 VA / 230 VAC
- Position switch unit:
  - max. 2 pieces (WE3/WE4)
  - Rated load: max.10 A / 250 VAC
- Potentiometer:
  - 0.1 / 0.2 / 1 kOhm
  - 1.0 VA
- Heater:
  - 20 - 50°C
  - 5 VA / 230 VAC
- Intermediate console and clutch

### Wiring diagram:



## AS18 – For EVSA



DN	H	H1	L	L1	B	B1	Kg
200	423	177	167	340	89	226	12
250	450	177	167	340	89	226	12
300	479	177	167	340	89	226	12
350	535	177	167	340	89	226	12

### Technical description

		AS18
Actuating time at 50 Hz/90°	s	6
Nominal torque	Nm	180
Power supply	VAC	230 +6% -10%
Frequency <sup>1)</sup>	Hz	50/60 ±5%
Power consumption	VA	200

1) Please state when ordering

### Enclosure class:

IP 67

### Ambient temperature:

0 - 50°C

### Operation mode:

S4-30% ED c/h 300: EN 60034-1

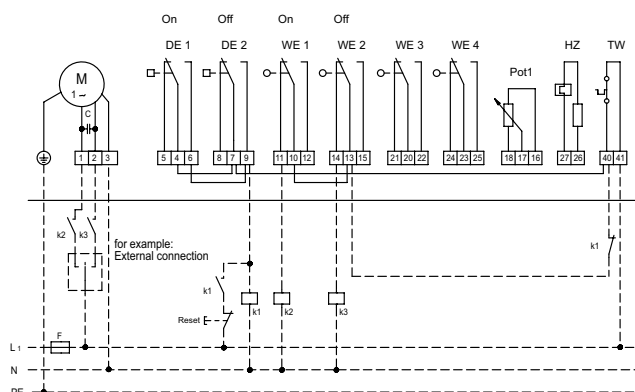
### End position switch-off:

In each end position 1 position switch and 1 torque switch is mechanically limited to 90°.

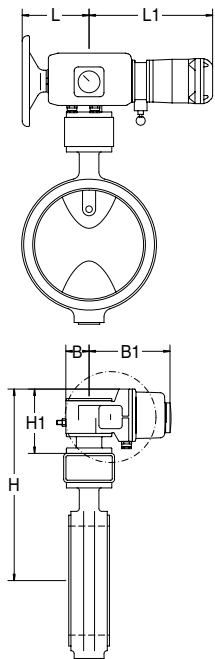
### Actuator variants and accessories:

- Voltage/Frequency: 3 ~ 400 VAC
- Tropic version
- Low temperature version:
  - 45 - 50°C
  - 5 VA / 230 VAC
- Position switch unit:
  - max. 2 pieces (WE3/WE4)
  - Rated load: max.10 A / 250 VAC
- Potentiometer:
  - 0.1 / 0.2 / 1 kOhm
  - 1.0 VA
- Heater:
  - 20 - 50°C
  - 5 VA / 230 VAC
- Intermediate console and clutch

### Wiring diagram:



## ASP25 – For EVSA



DN	H	H1	L	L1	B	B1	Kg
200	423	177	167	340	89	226	15
250	450	177	167	340	89	226	15
300	479	177	167	340	89	226	15
350	535	177	167	340	89	226	15

### Technical description

		ASP25
Actuating time at 50 Hz/90°	s	30
Nominal torque	Nm	250
Power supply	VAC	230 +6% -10%
Frequency <sup>1)</sup>	Hz	50/60 ±5%
Power consumption	VA	30

1) Please state when ordering

### Enclosure class:

IP 67

### Ambient temperature:

0 - 50°C

### Operation mode:

S4-30% ED c/h 300: EN 60034-1

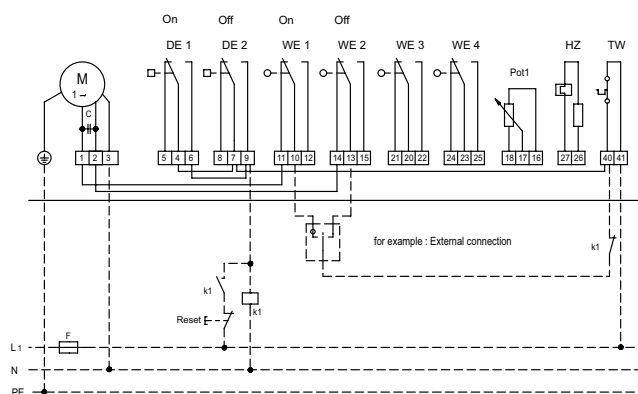
### End position switch-off:

In each end position 1 position switch and 1 torque switch is mechanically limited to 90°.

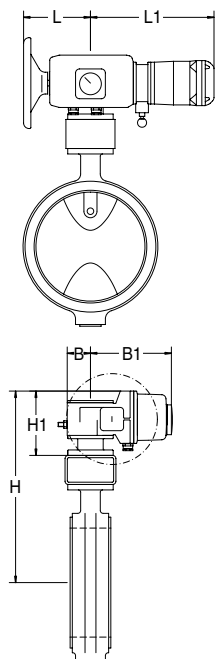
### Actuator variants and accessories:

- Voltage/Frequency: 3 ~ 400 VAC
- Tropic version
- Low temperature version:
  - 45 - 50°C
  - 5 VA / 230 VAC
- Position switch unit:
  - max. 2 pieces (WE3/WE4)
  - Rated load: max. 10 A / 250 VAC
- Potentiometer:
  - 0.1 / 0.2 / 1 kOhm
  - 1.0 VA
- Heater:
  - 20 - 50°C
  - 5 VA / 230 VAC
- Intermediate console and clutch

### Wiring diagram:



## AS50 – For EVSA



DN	H	H1	L	L1	B	B1	Kg
200	423	177	167	340	89	226	15
250	450	177	167	340	89	226	15
300	479	177	167	340	89	226	15
350	535	177	167	340	89	226	15

### Technical description

		AS50
Actuating time at 50 Hz/90°	s	30
Nominal torque	Nm	500
Power supply	VAC	230 +6% -10%
Frequency <sup>1)</sup>	Hz	50/60 ±5%
Power consumption	VA	60

1) Please state when ordering

### Enclosure class:

IP 67

### Ambient temperature:

0 - 50°C

### Operation mode:

S4-50% ED c/h 1200; EN 60034-1

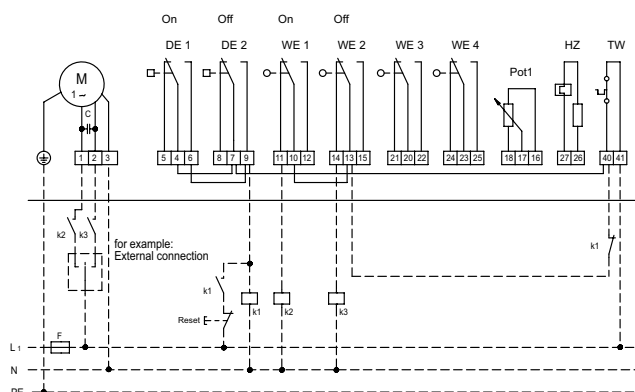
### End position switch-off:

In each end position 1 position switch and 1 torque switch is mechanically limited to 90°.

### Actuator variants and accessories:

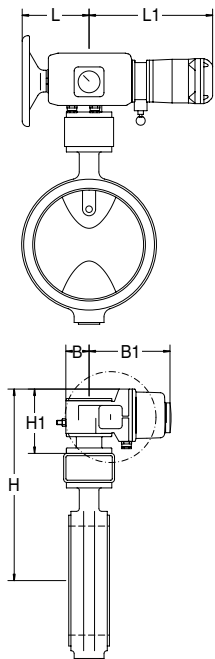
- Voltage/Frequency: 3 ~ 400 VAC
- Tropic version
- Low temperature version:
  - 45 - 50°C
  - 5 VA / 230 VAC
- Position switch unit:
  - max. 2 pieces (WE3/WE4)
  - Rated load: max.10 A / 250 VAC
- Potentiometer:
  - 0.1 / 0.2 / 1 kOhm
  - 1.0 VA
- Heater:
  - 20 - 50°C
  - 5 VA / 230 VAC
- Intermediate console and clutch

### Wiring diagram:





## OAP8 – For EVSR



DN	H	H1	L	L1	B	B1	Kg
50	364	224	90	202	65	125	8
65	374	224	90	202	65	125	8
80	382	224	90	202	65	125	8
100	403	224	90	202	65	125	8
125	420	224	90	202	65	125	8
150	436	224	90	202	65	125	8

### Technical description

		OAP8
Actuating time at 50 Hz/90°	s	30
Nominal torque	Nm	80
Power supply	VAC	230 +6% -10%
Frequency <sup>1)</sup>	Hz	50/60 ±5%
Power consumption	VA	30

1) Please state when ordering

### Enclosure class:

IP 67

### Ambient temperature:

0 - 50°C

### Operation mode:

S4-50% ED c/h 1200: EN 60034-1

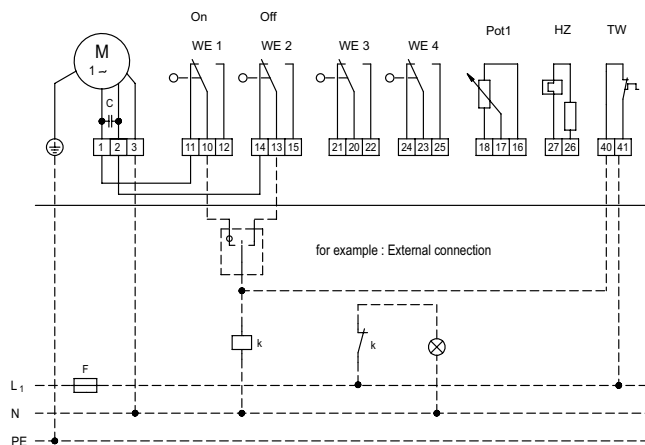
### End position switch-off:

In each end position 1 position switch is mechanically limited to 90°.

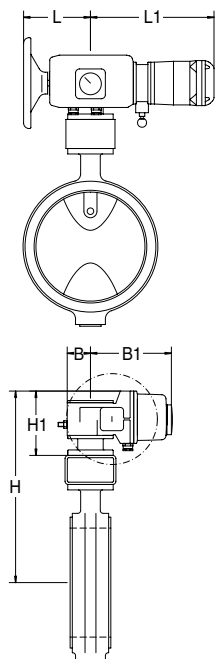
### Actuator variants and accessories:

- Voltage/Frequency: 3 ~ 400 VAC
- Tropic version
- Low temperature version:
  - 45 - 50°C
  - 5 VA / 230 VAC
- Position switch unit:
  - max. 2 pieces (WE3/WE4)
  - Rated load: max.10 A / 250 VAC
- Potentiometer:
  - 0.1 / 0.2 / 1 kOhm
  - 1.0 VA
- Heater:
  - 20 - 50°C
  - 5 VA / 230 VAC
- Intermediate console and clutch

### Wiring diagram:



## ASP25 – For EVSR



DN	H	H1	L	L1	B	B1	Kg
200	423	177	167	340	89	226	15
250	450	177	167	340	89	226	15
300	479	177	167	340	89	226	15
350	535	177	167	340	89	226	15

### Technical description

		ASP25
Actuating time at 50 Hz/90°	s	60
Nominal torque	Nm	250
Power supply	VAC	230 +6% -10%
Frequency <sup>1)</sup>	Hz	50/60 ±5%
Power consumption	VA	30

1) Please state when ordering

### Enclosure class:

IP 67

### Ambient temperature:

0 - 50°C

### Operation mode:

S4-50% ED c/h 1200; EN 60034-1

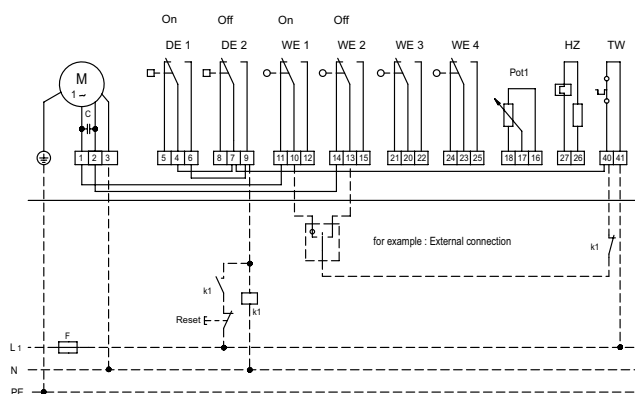
### End position switch-off:

In each end position 1 position switch and 1 torque switch is mechanically limited to 90°.

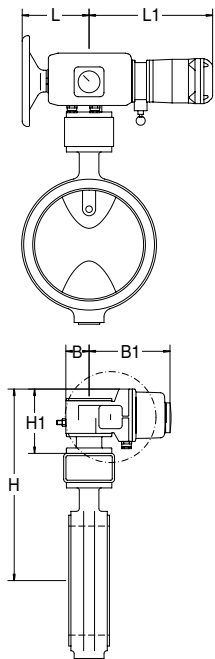
### Actuator variants and accessories:

- Voltage/Frequency: 3 ~ 400 VAC
- Tropic version
- Low temperature version:
  - 45 - 50°C
  - 5 VA / 230 VAC
- Position switch unit:
  - max. 2 pieces (WE3/WE4)
  - Rated load: max.10 A / 250 VAC
- Potentiometer:
  - 0.1 / 0.2 / 1 kOhm
  - 1.0 VA
- Heater:
  - 20 - 50°C
  - 5 VA / 230 VAC
- Intermediate console and clutch

### Wiring diagram:



## AS50 – For EVSR



DN	H	H1	L	L1	B	B1	Kg
200	423	177	167	340	89	226	15
250	450	177	167	340	89	226	15
300	479	177	167	340	89	226	15
350	535	177	167 <td 340	89	226	15	

### Technical description

		AS50
Actuating time at 50 Hz/90°	s	60
Nominal torque	Nm	500
Power supply	VAC	230 +6% -10%
Frequency <sup>1)</sup>	Hz	50/60 ±5%
Power consumption	VA	40

1) Please state when ordering

### Enclosure class:

IP 67

### Ambient temperature:

0 - 50°C

### Operation mode:

S4-50% ED c/h 1200; EN 60034-1

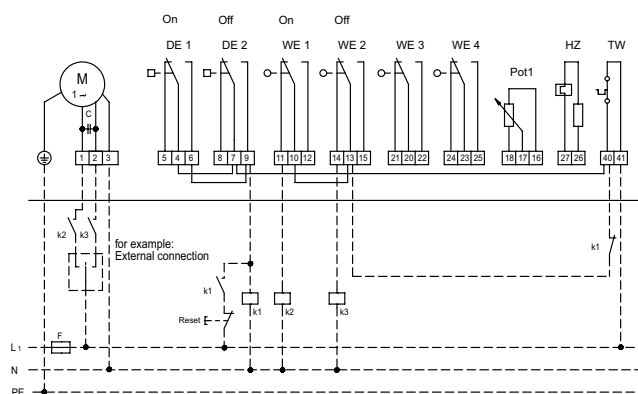
### End position switch-off:

In each end position 1 position switch and 1 torque switch is mechanically limited to 90°.

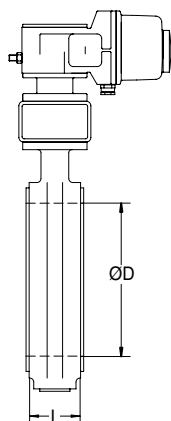
### Actuator variants and accessories:

- Voltage/Frequency: 3 ~ 400 VAC
- Tropic version
- Low temperature version:
  - 45 - 50°C
  - 5 VA / 230 VAC
- Position switch unit:
  - max. 2 pieces (WE3/WE4)
  - Rated load: max. 10 A / 250 VAC
- Potentiometer:
  - 0.1 / 0.2 / 1 kOhm
  - 1.0 VA
- Heater:
  - 20 - 50°C
  - 5 VA / 230 VAC
- Intermediate console and clutch

### Wiring diagram:



## DR16 EVSA – Sets with actuator



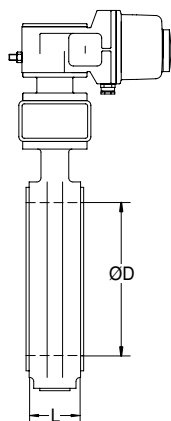
### Sets with actuator

DN	D	L	Pressure rating	Actuator	Kg	Article No
50	125	43	PN 6-16	OA6	8,0	69-432-050
65	145	46	PN 6-16	OA6	8,5	69-432-065
80	160	46	PN 6-16	OA6	9,0	69-432-080
100	180	52	PN 6-16	OA6	10	69-432-090
125	210	56	PN 6-16	OA6	13	69-432-091
150	240	56	PN 10-16	OA8	15	69-432-192
200	295	60	PN 10-16	AS18	28	69-432-293
250	350	68	PN 10	ASP25	38	69-422-394
300	400	78	PN 10	AS50	45	69-422-495
350	460	78	PN 10	AS50	61	69-422-496

## Actuators for EVSA

Type	Power supply	Nominal torque [Nm]	Input signal	Article No
OA6	230 VAC	63	3-point	66-006-001
OA8	230 VAC	80	3-point	66-008-001
AS18	230 VAC	180	3-point	66-018-001
ASP25 30 s	230 VAC	250	3-point	66-025-001
AS50 30 s	230 VAC	500	3-point	66-050-001

## DR16 EVSR – Sets with actuator



### Sets with actuator

DN	D	L	Pressure rating	Actuator	Kg	Article No
50	125	43	PN 6-16	OAP8	9,0	69-433-550
65	145	46	PN 6-16	OAP8	9,0	69-433-565
80	160	46	PN 6-16	OAP8	10	69-433-580
100	180	52	PN 6-16	OAP8	11	69-433-590
125	210	56	PN 6-16	OAP8	14	69-433-591
150	240	56	PN 10-16	OAP8	15	69-433-592
150	240	56	PN 10-16	ASP25	25	69-433-692
200	295	60	PN 10-16	ASP25	28	69-433-693
250	350	68	PN 10	ASP25	38	69-423-694
300	400	78	PN 10	AS50	46	69-423-795
350	460	78	PN 10	AS50	61	69-423-796

## Actuators for EVSR

Type	Power supply	Nominal torque [Nm]	Input signal	Article No
OAP8	230 VAC	80	3-point	66-008-002
ASP25 60 s	230 VAC	250	3-point	66-025-002
AS50 60 s	230 VAC	500	3-point	66-050-002