

# DR16 EVSA/EVSR

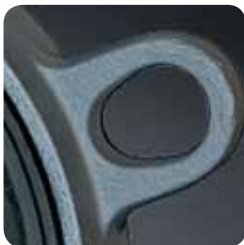
CONTROL

CONTROL VALVES / 2-WAY CONTROL VALVES



## CONTROL SHUT-OFF BUTTERY VALVES

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



### EYELETS

*Easy mounting by eyelets.*



### TIGHT SEALING – STAINLESS STEEL FLAP

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

*we knowhow*

**TA**

# DR16 EVSA/EVSR

CONTROL

## TECHNICAL DESCRIPTION

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### 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 uor 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 International.

### Material:

Body: Spherioidal 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).

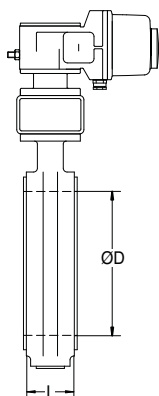
### Valve variants:

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

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## DR16 EVSA – SETS WITH ACTUATOR

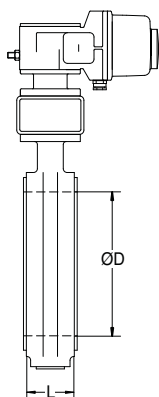


| Order code | DN  | D   | L  | Pressure rating | Actuator | Kg  |
|------------|-----|-----|----|-----------------|----------|-----|
| 69-432-050 | 50  | 125 | 43 | PN 6-16         | OA6      | 8,0 |
| 69-432-065 | 65  | 145 | 46 | PN 6-16         | OA6      | 8,5 |
| 69-432-080 | 80  | 160 | 46 | PN 6-16         | OA6      | 9,0 |
| 69-432-090 | 100 | 180 | 52 | PN 6-16         | OA6      | 10  |
| 69-432-091 | 125 | 210 | 56 | PN 6-16         | OA6      | 13  |
| 69-432-192 | 150 | 240 | 56 | PN 10-16        | OA8      | 15  |
| 69-432-293 | 200 | 295 | 60 | PN 10-16        | AS18     | 28  |
| 69-422-394 | 250 | 350 | 68 | 10              | ASP25    | 38  |
| 69-422-495 | 300 | 400 | 78 | PN 10           | AS50     | 45  |
| 69-422-496 | 350 | 460 | 78 | PN 10           | AS50     | 61  |

## ACTUATORS FOR EVSA

| Order code | Type       | Power supply | Nominal torque [Nm] | Input signal |
|------------|------------|--------------|---------------------|--------------|
| 66-006-001 | OA6        | 230 VAC      | 63                  | 3-point      |
| 66-008-001 | OA8        | 230 VAC      | 80                  | 3-point      |
| 66-018-001 | AS18       | 230 VAC      | 180                 | 3-point      |
| 66-025-001 | ASP25 30 s | 230 VAC      | 250                 | 3-point      |
| 66-050-001 | AS50 30 s  | 230 VAC      | 500                 | 3-point      |

## DR16 EVSR – SETS WITH ACTUATOR



| Order code | DN  | D   | L  | Pressure rating | Actuator | Kg  |
|------------|-----|-----|----|-----------------|----------|-----|
| 69-433-550 | 50  | 125 | 43 | PN 6-16         | OAP8     | 9,0 |
| 69-433-565 | 65  | 145 | 46 | PN 6-16         | OAP8     | 9,0 |
| 69-433-580 | 80  | 160 | 46 | PN 6-16         | OAP8     | 10  |
| 69-433-590 | 100 | 180 | 52 | PN 6-16         | OAP8     | 11  |
| 69-433-591 | 125 | 210 | 56 | PN 6-16         | OAP8     | 14  |
| 69-433-592 | 150 | 240 | 56 | PN 10-16        | OAP8     | 15  |
| 69-433-692 | 150 | 240 | 56 | PN 10-16        | ASP25    | 25  |
| 69-433-693 | 200 | 295 | 60 | PN 10-16        | ASP25    | 28  |
| 69-423-694 | 250 | 350 | 68 | PN 10           | ASP25    | 38  |
| 69-423-795 | 300 | 400 | 78 | PN 10           | AS50     | 46  |
| 69-423-796 | 350 | 460 | 78 | PN 10           | AS50     | 61  |

## ACTUATORS FOR EVSR

| Order code | Type       | Power supply | Nominal torque [Nm] | Input signal |
|------------|------------|--------------|---------------------|--------------|
| 66-008-002 | OAP8       | 230 VAC      | 80                  | 3-point      |
| 66-025-002 | ASP25 60 s | 230 VAC      | 250                 | 3-point      |
| 66-050-002 | AS50 60 s  | 230 VAC      | 500                 | 3-point      |

# DR16 EVSA/EVSR

CONTROL

## 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

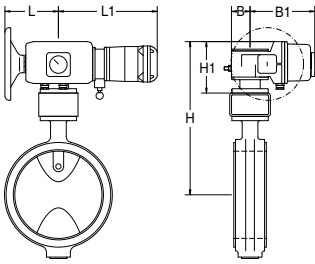
| DN        |                     | 50                | 65   | 80   | 100  | 125  | 150  | 200  | 250  | 300  | 350  |       |
|-----------|---------------------|-------------------|------|------|------|------|------|------|------|------|------|-------|
| Kvs value |                     | m <sup>3</sup> /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

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## 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  |

|                             |     | 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

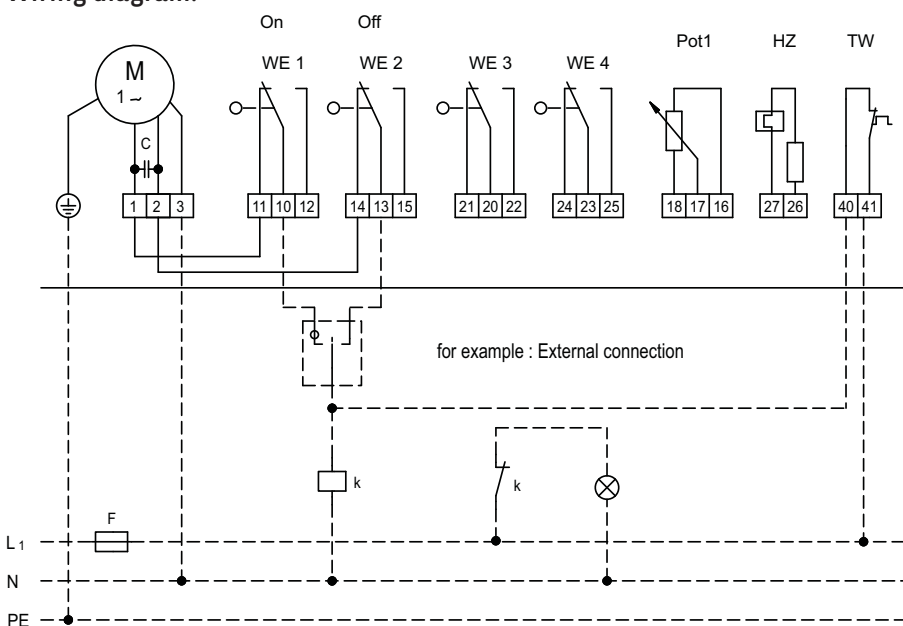
### End position switch-off:

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

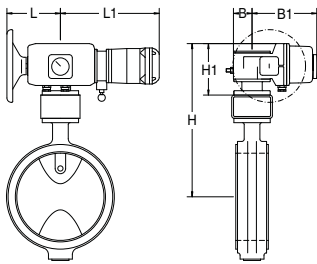
### Wiring diagram:



# DR16 EVSA/EVSR

CONTROL

## 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  |

|                             |     | 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

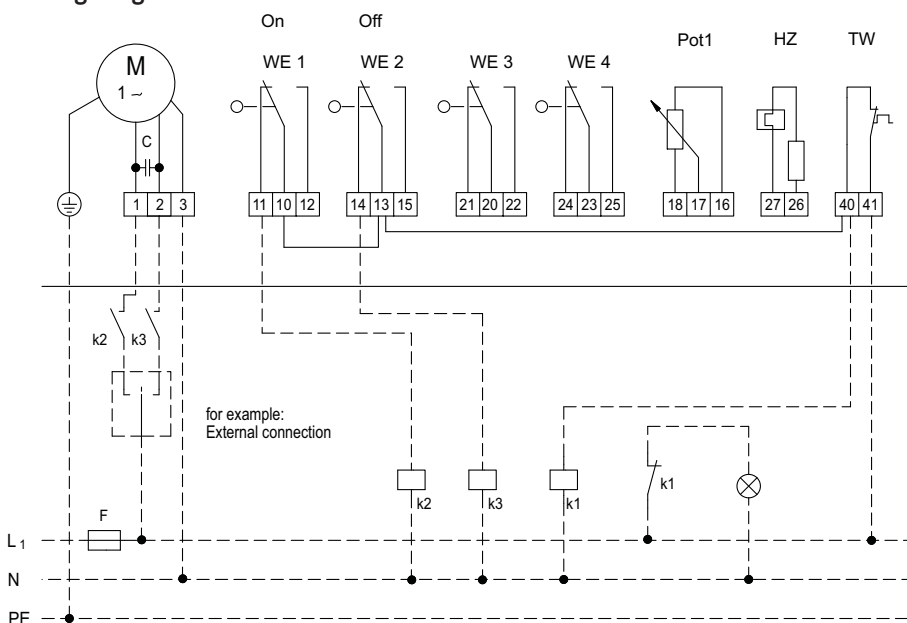
### End position switch-off:

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

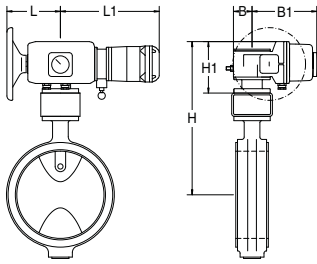
### Wiring diagram:



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CONTROL

## 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 |

|                             |     | 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

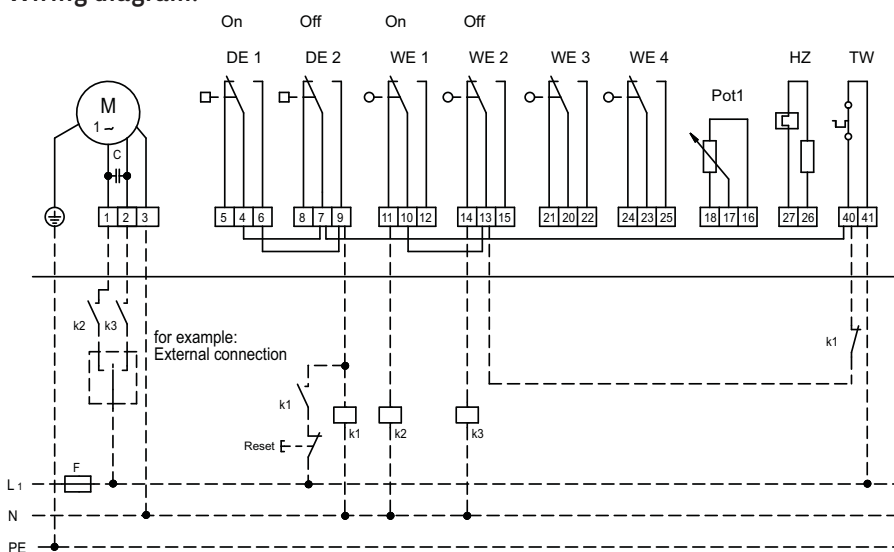
### End position switch-off:

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

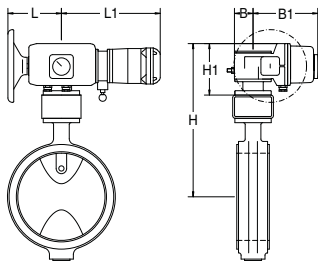
### Wiring diagram:



# DR16 EVSA/EVSR

CONTROL

## 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 |

|                             |     | 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

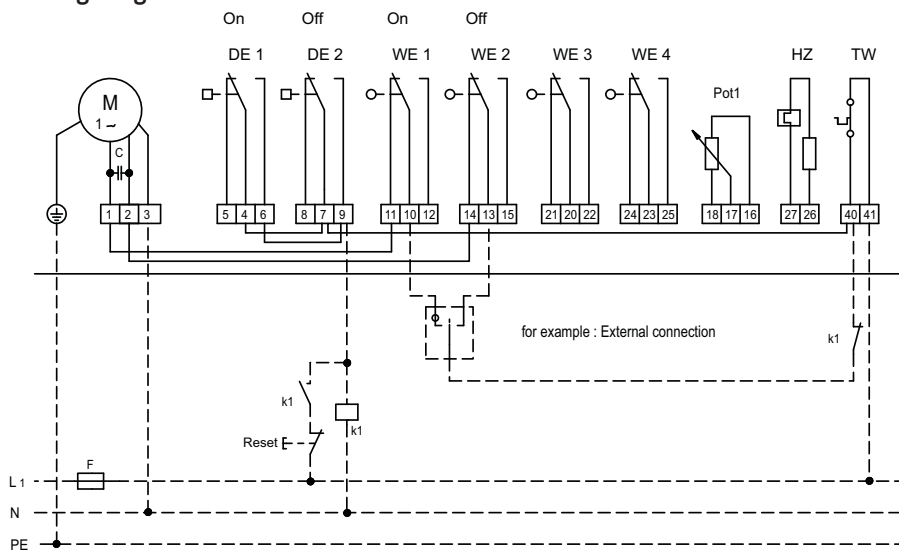
### End position switch-off:

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:

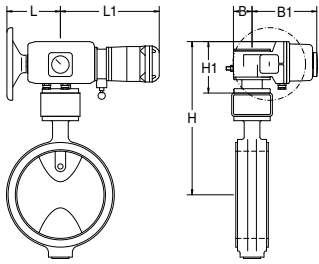




# DR16 EVSA/EVSR

CONTROL

## 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 |

|                             |     | 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

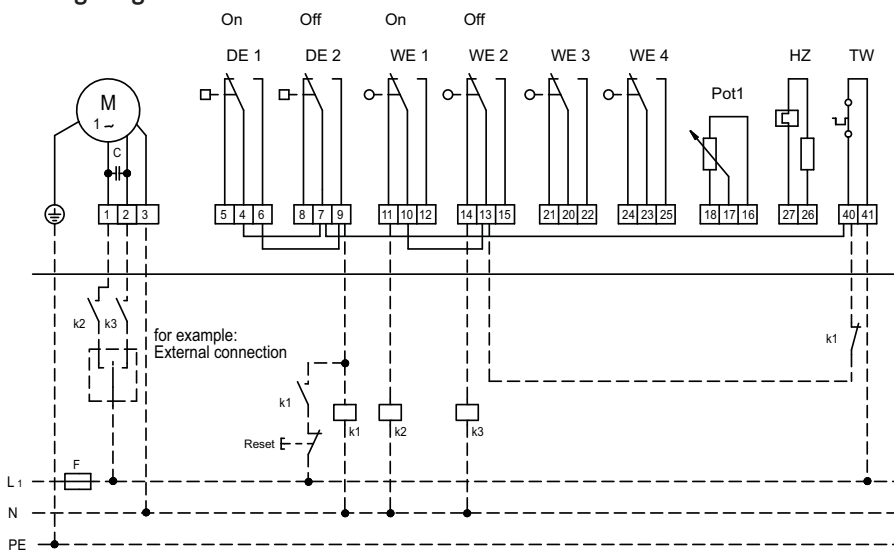
### End position switch-off:

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 (WE<sub>3</sub>/WE<sub>4</sub>)
  - 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

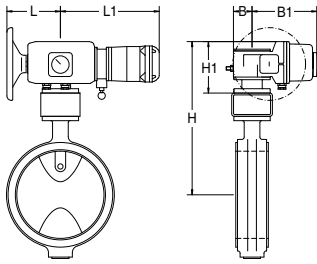
### Wiring diagram:



# DR16 EVSA/EVSR

CONTROL

## 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  |

|                             |     | 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

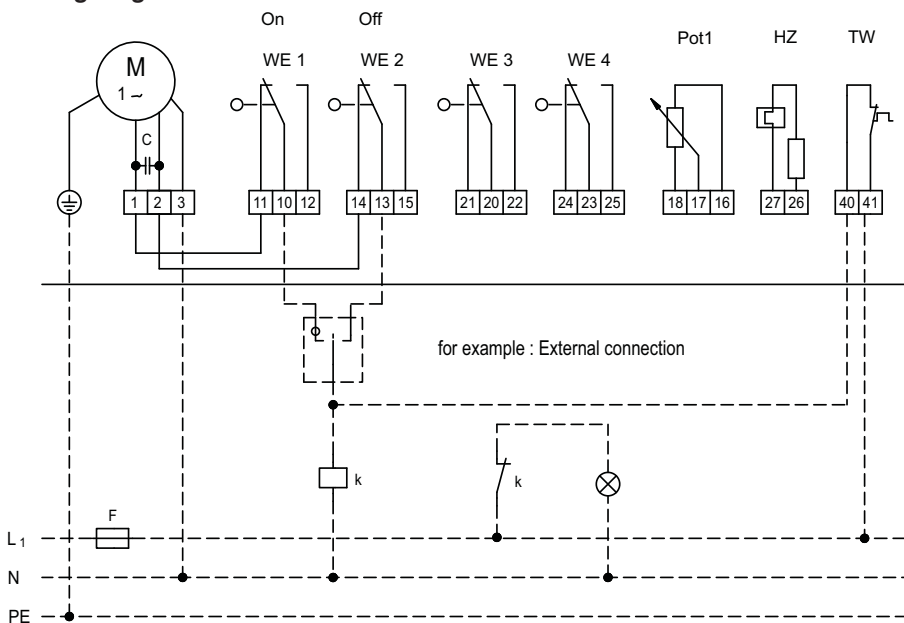
### End position switch-off:

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

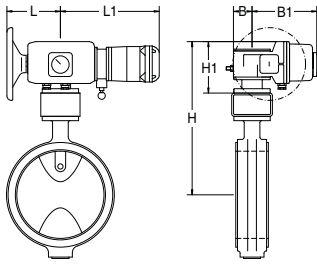
### Wiring diagram:



# DR16 EVSA/EVSR

CONTROL

## 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 |

|                             |     | 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

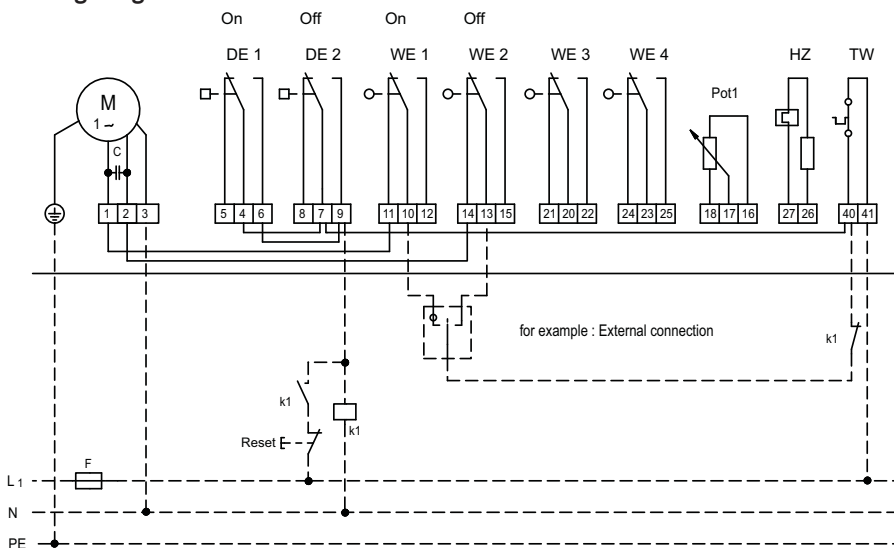
### End position switch-off:

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

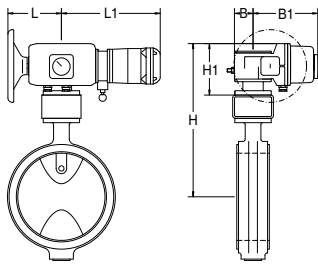
### Wiring diagram:



# DR16 EVSA/EVSR

CONTROL

## 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 | 340 | 89 | 226 | 15 |

|                             |     | 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

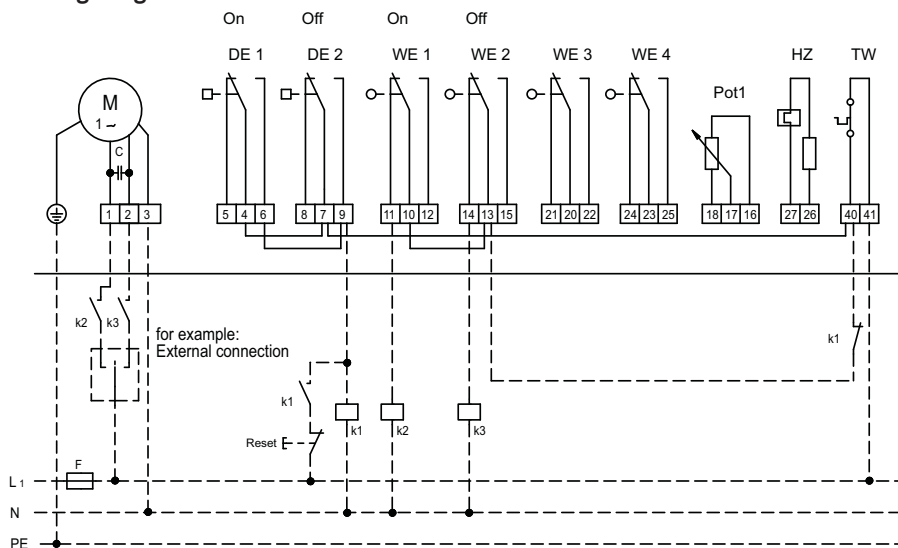
### End position switch-off:

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 (WE<sub>3</sub>/WE<sub>4</sub>)
  - 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:



The products, texts, photographs, graphics and diagrams in this brochure may be subject to alteration without prior notice or reasons being given.

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