

# DR16 EVS

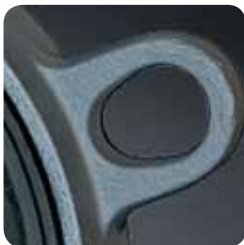
CONTROL

## CONTROL VALVES / 2-WAY CONTROL VALVES



### CONTROL SHUT-OFF BUTTERFLY VALVES

*For HVAC systems, sanitary and industrial plants for control or shut-off of water and steam for open and closed circuits.*



#### EYELETS

*Easy mounting by eyelets.*



#### TIGHT SEALING – STAINLESS STEEL FLAP

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

*we knowhow*

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## 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 fluor methane® N+L.

### Function:

Control  
Shut-off

### Dimensions:

DN 25-200

### Pressure class:

PN 6 - PN 16

### Temperature:

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

### 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:

Fully lugged type

### Face to face:

According to EN 558-1 basic series 20.

### Leakage rate:

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

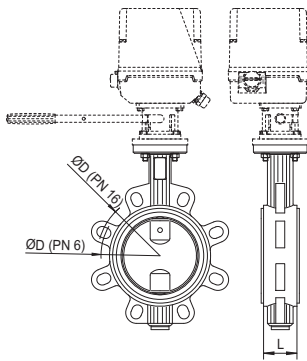
### Valve variants:

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

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Order code	DN	D PN 6	D PN 10/ PN 16	L	No of bolts PN 6	No of bolts PN 10 / PN 16	Kg
60-431-025	25	75	85	33	4 x Ø11	4 x Ø18	3,4
60-431-032	32	90	100	33	4 x Ø11	4 x Ø18	3,4
60-431-040	40	100	110	33	4 x Ø14	4 x Ø18	3,6
60-431-050	50	110	125	43	4 x Ø14	4 x Ø18	4,0
60-431-065	65	130	145	46	4 x Ø14	4 x Ø18	4,6
60-431-080	80	150	160	46	4 x Ø18	4 x Ø18	5,2
60-431-090	100	170	180	52	4 x Ø18	4 x Ø18	6,0
60-431-091	125	200	210	56	8 x Ø18	8 x Ø18	9,3
60-431-192	150	225	240	56	8 x Ø18	4 x Ø22	11,3
60-431-193	200	280	295	60	8 x Ø18	4 x Ø22	15,3

## ACTUATORS

Order code	Type	Power supply	Nominal torque [Nm]	Input signal
65-125-001	M125	230 VAC	25	3-point
65-135-001	M135 I	230 VAC	35	3-point
65-135-003	M135 II	230 VAC	15	3-point
65-140-001	M140	230 VAC	50	3-point
65-150-001	M150 I	230 VAC	50	3-point
65-150-003	M150 II	230 VAC	40	3-point
65-180-001	M180 I	230 VAC	80	3-point
65-180-003	M180 II	230 VAC	80	3-point

## ATTACHMENTS

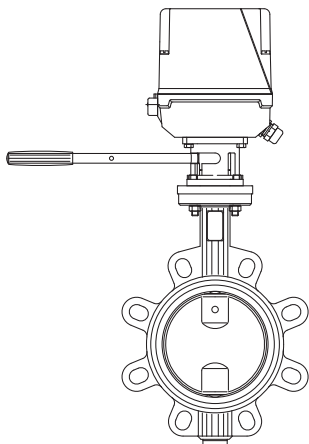
Order code	Part of attachment
<b>DN 25-100 / M125-M150</b>	
68-491-025	Console
68-491-125	Clutch
68-491-225	Complete attachment
<b>DN 125-150 / M140-M150</b>	
68-491-050	Console
68-491-150	Clutch
68-491-250	Complete attachment
<b>DN 125-200 / M180</b>	
68-491-090	Console
68-491-190	Clutch
68-491-290	Complete attachment

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## DR16 EVS – SETS WITH ACTUATOR

It is strongly recommended to order sets because of proper actuator's adjustment.



Order code	DN	Actuator
69-431-025	25	M125
69-431-225	25	M135 I
69-431-325	25	M135 II
69-431-425	25	M140
69-431-032	32	M125
69-431-232	32	M135 I
69-431-332	32	M135 II
69-431-432	32	M140
69-431-040	40	M125
69-431-240	40	M135 I
69-431-340	40	M135 II
69-431-440	40	M140
69-431-050	50	M125
69-431-250	50	M135 I
69-431-350	50	M135 II
69-431-450	50	M140
69-431-065	65	M125
69-431-265	65	M135 I
69-431-365	65	M135 II
69-431-465	65	M140
69-431-665	65	M150 I
69-431-765	65	M150 II
69-431-080	80	M125
69-431-280	80	M135 I
69-431-380	80	M135 II
69-431-480	80	M140
69-431-680	80	M150 I
69-431-780	80	M150 II
69-431-090	100	M125
69-431-290	100	M135 I
69-431-390	100	M135 II
69-431-490	100	M140
69-431-690	100	M150 I
69-431-790	100	M150 II
69-431-491	125	M140
69-431-691	125	M150 I
69-431-791	125	M150 II
69-431-891	125	M180 I
69-431-991	125	M180 II
69-431-492	150	M140
69-431-692	150	M150 I
69-431-792	150	M150 II
69-431-892	150	M180 I
69-431-992	150	M180 II
69-431-893	200	M180 I
69-431-993	200	M180 II

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## TECHNICAL DATA – BUTTERFLY VALVE WITH ACTUATOR

DN			25	32	40	50	65	80	100	125	150 <sup>1)</sup>	200 <sup>1)</sup>
Kvs-value		m <sup>3</sup> /h	36	40	85	95	230	490	690	1450	1945	4095
M125	I	Actuating time/90°	s									
		Closing pressure	kPa									
M135	I	Actuating time/90°	s									
		Closing pressure	kPa									
	II	Actuating time/90°	s									
		Closing pressure	kPa									
M140	I	Actuating time/90°	s									
		Closing pressure	kPa									
M150	I	Actuating time/90°	s									
		Closing pressure	kPa									
	II	Actuating time/90°	s									
		Closing pressure	kPa									
M180	I	Actuating time/90°	s									
		Closing pressure	kPa									
	II	Actuating time/90°	s									
		Closing pressure	kPa									

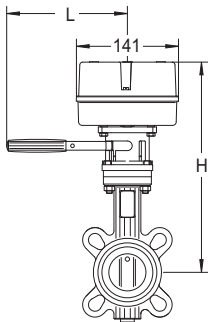
The closing pressure is limited by the nominal pressure  
100 kPa = 1 bar = 10 mWS

1) Torque reduced

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## M125



DN	H	L	Kg
25-32	278	165	1,2
40	284	165	1,2
50	290	165	1,2
65	300	165	1,2
80	308	165	1,2
100	329	165	1,2

		M125
Actuating time at 50 Hz/90° <sup>1)</sup>	s	130
Nominal torque	Nm	25
Power supply	VAC	230 +6% -10%
Frequency	Hz	50/60 ±5%
Power consumption	VA	6,5
Input signal <sup>2)</sup>		3-point
Output signal <sup>2)</sup>		-

- 1) Please state when ordering  
2) Invertible input signal

**Enclosure class:**  
IP 43

**Ambient temperature:**  
0 - 50°C

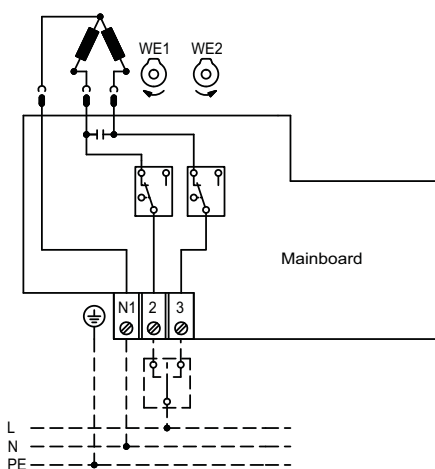
**Operation mode:**  
S1-100% ED c/h 1200 EN 60034-1

**End position switch-off:**  
Position dependent adjustable

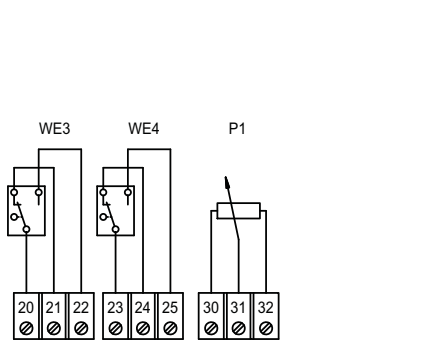
**Actuator variants:**  
- Voltage: 24 VAC  
- Position switch unit:  
2 switches (WE3/WE4), potential free, infinitely adjustable.  
Rated load: 10 A / 250 VAC  
- Potentiometer with attachment: 0.2 / 1 / 10 kΩ (1.5 VA)

### Wiring diagram:

Standard design



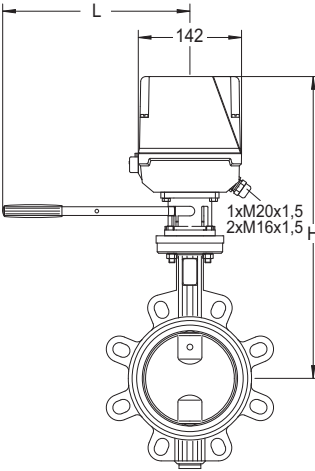
Special accessories



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## M135



DN	H	L	Kg
25-32	348	165	2,5
40	354	165	2,5
50	360	165	2,5
65	370	165	2,5
80	378	165	2,5
100	399	165	2,5

		M135	
Actuating time at 50 Hz/90° <sup>1)</sup>	s	I = 130	II = 70
Nominal torque	Nm	35	15
Power supply	VAC	230 +6% -10%	
Frequency <sup>1)</sup>	Hz	50 or 60 ±5%	
Power consumption	VA	9	
Input signal		3-point	

1) Please state when ordering

**Enclosure class:**

IP 54

**Ambient temperature:**

0 - 50°C

**Operation mode:**

S1-100% ED c/h 1200 EN 60034-1

**End position switch-off:**

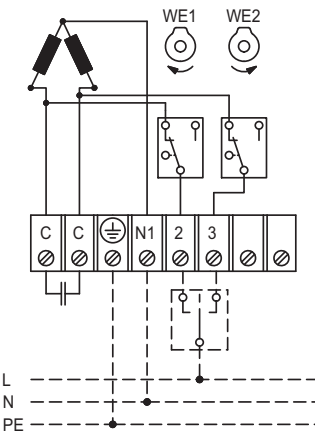
Position dependent adjustable

**Actuator variants:**

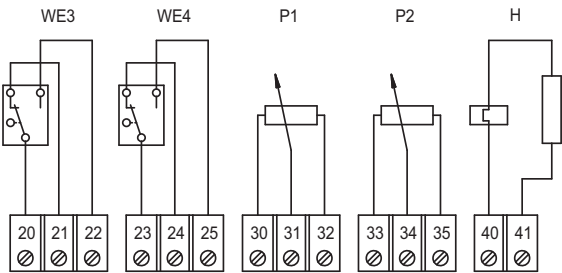
- Voltage: 24 VAC
- Position switch unit:
  - 2 switches (WE3/WE4), potential free, infinitely adjustable.
  - Rated load: 10 A / 250 VAC
- Potentiometer with attachment: 0.2 / 1 / 10 kΩ (1.5 VA)
- Enclosure protection: IP 65
- Heater:
  - 20 - 50°C: 25 VA
  - 24, 115, 230 VAC: 50/60 Hz

**Wiring diagram:**

Standard design



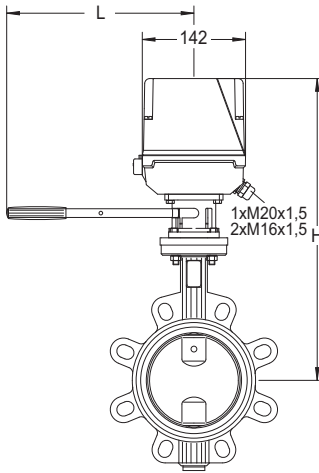
Special accessories



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## M140



DN	H	L	Kg
40	348	165	3
50	360	165	3
65	370	165	3
80	378	165	3
100	399	165	3
125	416	255	3
150	432	255	3

		M140
Actuating time at 50 Hz/90° <sup>1)</sup>	s	10
Nominal torque	Nm	50
Power supply	VAC	230 +6% -10%
Frequency <sup>1)</sup>	Hz	50/60 ±5%
Power consumption	VA	55
Input signal		3-point

1) Please state when ordering

### Enclosure class:

IP 54

### Ambient temperature:

0 - 50°C

### Operation mode:

S3-50% ED c/h 1200 EN 60034-1

### End position switch-off:

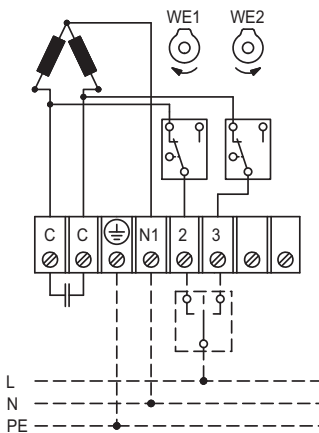
Position dependent adjustable

### Actuator variants:

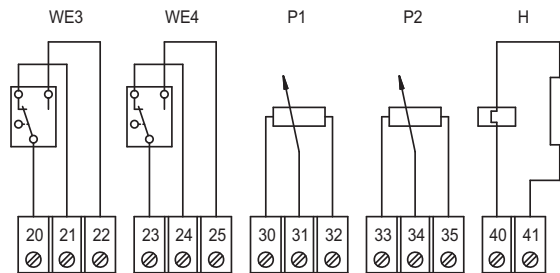
- Voltage: 24 VAC
- Position switch unit:  
2 switches (WE3/WE4), potential free, infinitely adjustable.  
Rated load: 10 A / 250 VAC
- Potentiometer with attachment: 0.2 / 1 / 10 kΩ (1.5 VA)
- Enclosure protection: IP 65
- Heater:  
-20 - 50°C: 25 VA  
24, 115, 230 VAC: 50/60 Hz

### Wiring diagram:

Standard design



Special accessories

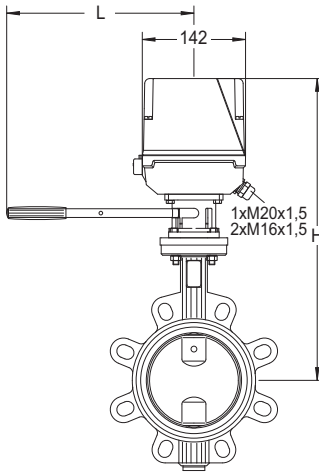




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## M150



DN	H	L	Kg
65	370	165	2,5
80	378	165	2,5
100	399	165	2,5
125	416	255	2,5
150	432	255	2,5

M150		
Actuating time at 50 Hz/90° <sup>1)</sup>	s	I = 130      II = 70
Nominal torque	Nm	50      40
Power supply	VAC	230 +6% -10%
Frequency	Hz	50/60 ±5%
Power consumption	VA	12
Input signal		3-point

1) Please state when ordering

### Enclosure class:

IP 54

### End position switch-off:

Position dependent adjustable

### Ambient temperature:

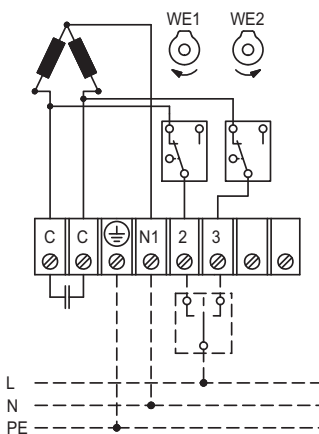
0 - 50°C

### Actuator variants:

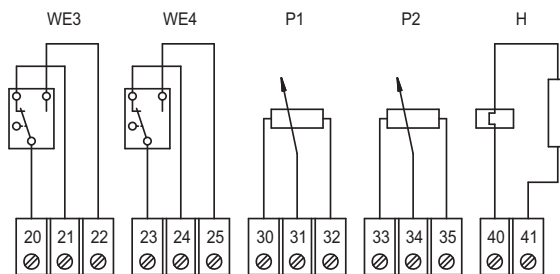
- Voltage: 24 VAC
- Position switch unit:
  - 2 switches (WE3/WE4), potential free, infinitely adjustable.
  - Rated load: 10 A / 250 VAC
- Potentiometer with attachment: 0.2 / 1 / 10 kΩ (1.5 VA)
- Enclosure protection: IP 65
- Heater:
  - 20 - 50°C: 25 VA
  - 24, 115, 230 VAC: 50/60 Hz

### Wiring diagram:

Standard design



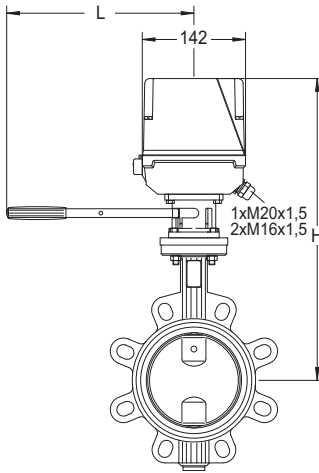
Special accessories



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## M180



DN	H	L	Kg
125	416	255	3
150	432	255	3
200	466	255	3

		M180	
Actuating time at 50 Hz/90° <sup>1)</sup>	s	I = 130	II = 70
Nominal torque	Nm	80	
Power supply	VAC	230 +6% -10%	
Frequency	Hz	50/60 ±5%	
Power consumption	VA	24	
Input signal		3-point	

1) Please state when ordering

### Enclosure class:

IP 54

### Ambient temperature:

0 - 50°C

### Operation mode:

S3-60% ED c/h 1200 EN 60034-1

### End position switch-off:

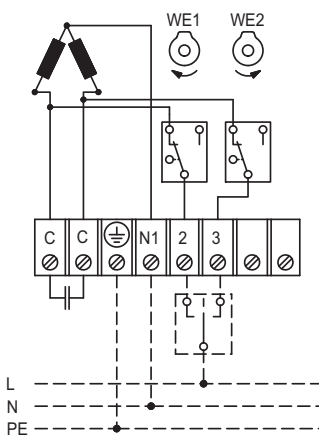
Position dependent adjustable

### Actuator variants:

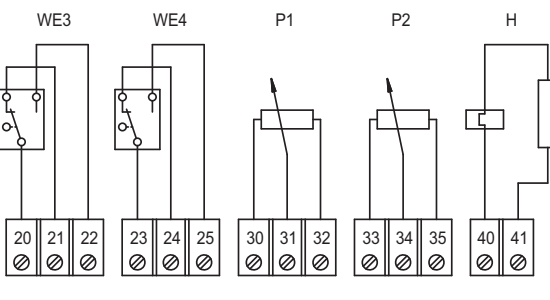
- Voltage: 24 VAC
- Position switch unit:
  - 2 switches (WE3/WE4), potential free, infinitely adjustable.
  - Rated load: 10 A / 250 VAC
- Potentiometer with attachment: 0.2 / 1 / 10 kΩ (1.5 VA)
- Enclosure protection: IP 65
- Heater:
  - 20 - 50°C: 25 VA
  - 24, 115, 230 VAC: 50/60 Hz

### Wiring diagram:

Standard design



Special accessories



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