

DR16 EVS



Standard control valves

Control shut-off butterfly valves



Engineering
GREAT Solutions

DR16 EVS

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

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:

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 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:

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:

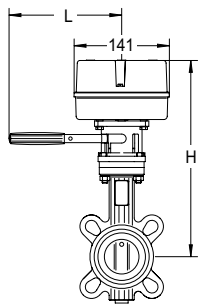
- Special varnish, max. 80°C
- Technical silicon free version

Technical data – Butterfly valve with actuator

DN			25	32	40	50	65	80	100	125	150 ¹⁾	200 ¹⁾			
Kvs-value		m ³ /h	36	40	85	95	230	490	690	1450	1945	4095			
M125	I	Actuating time/90°	s									130			
	Closing pressure		kPa	1600	1600	1600	1600	1000	1000	300					
M135	I	Actuating time/90°	s									130			
	Closing pressure		kPa	1600	1600	1600	1600	1600	1600	600					
	II	Actuating time/90°	s									70			
	Closing pressure		kPa	1600	1600	1600	1600	1000							
M140	I	Actuating time/90°	s									10			
	Closing pressure		kPa	1600	1600	1600	1600	1600	1600	1600	600	600			
M150	I	Actuating time/90°	s									130			
	Closing pressure		kPa							1600	1600	1600	600	600	
	II	Actuating time/90°	s									70			
	Closing pressure		kPa							1600	1600	600	250	250	
M180	I	Actuating time/90°	s									130			
	Closing pressure		kPa										600	600	600
	II	Actuating time/90°	s									70			
	Closing pressure		kPa										600	600	600

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

1) Torque reduced

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

Technical description

		M125
Actuating time at 50 Hz/90°¹⁾	s	130
Nominal torque	Nm	25
Power supply	VAC	230 +6% -10%
Frequency	Hz	50/60 ±5%
Power consumption	VA	6,5
Input signal²⁾		3-point
Output signal²⁾		-

1) Please state when ordering

2) Invertible input signal

Enclosure class:

IP 43

Ambient temperature:

0 - 50°C

Operation mode:

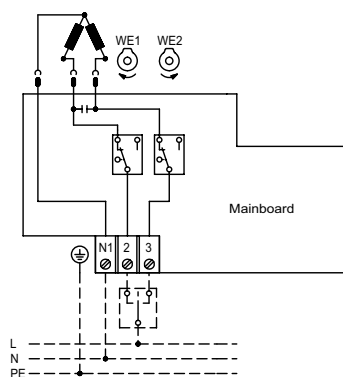
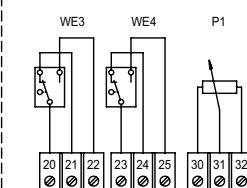
S1-100% ED c/h 1200 EN 60034-1

End position switch-off:

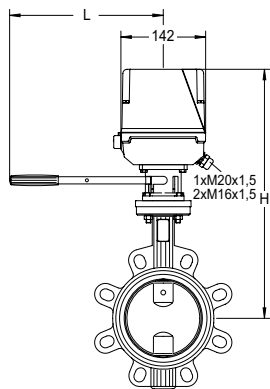
Position dependent adjustable

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


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

Technical description

		M135	
Actuating time at 50 Hz/90° ¹⁾	s	I = 130	II = 70
Nominal torque	Nm	35	15
Power supply	VAC	230 +6% -10%	
Frequency ¹⁾	Hz	50/60 ±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

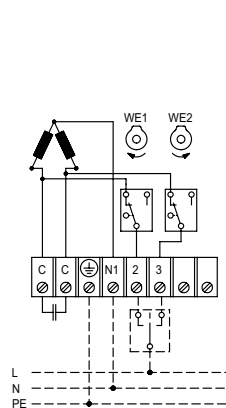
End position switch-off:

Position dependent adjustable

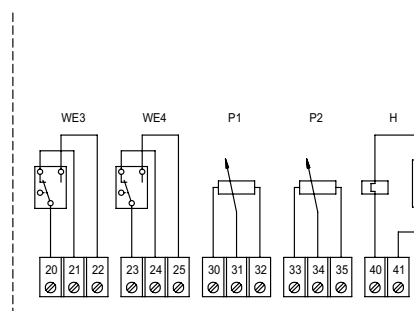
Actuator variants:

- 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

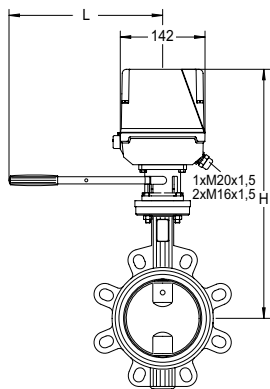
Wiring diagram: Standard design



Special accessories



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

Technical description

		M140
Actuating time at 50 Hz/90° ¹⁾	s	10
Nominal torque	Nm	50
Power supply	VAC	230 +6% -10%
Frequency ¹⁾	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

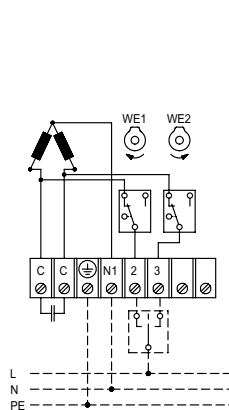
End position switch-off:

Position dependent adjustable

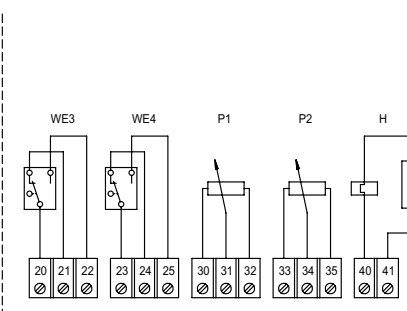
Actuator variants:

- 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

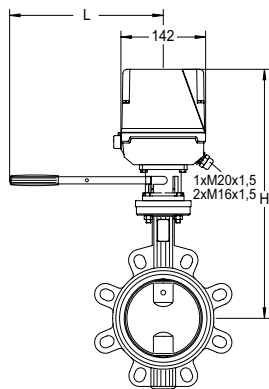
Wiring diagram: Standard design



Special accessories



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

Technical description

		M150	
Actuating time at 50 Hz/90° ¹⁾	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

Ambient temperature:

0 - 50°C

Operation mode:

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

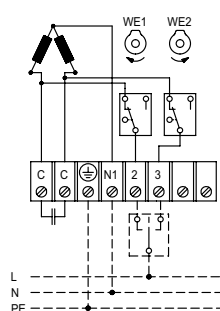
End position switch-off:

Position dependent adjustable

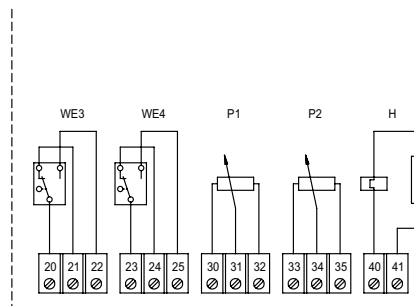
Actuator variants:

- 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

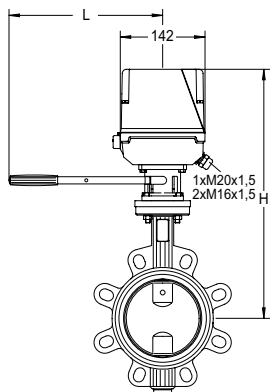
Wiring diagram: Standard design



Special accessories



M180



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

Technical description

		M180	
Actuating time at 50 Hz/90° ¹⁾	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

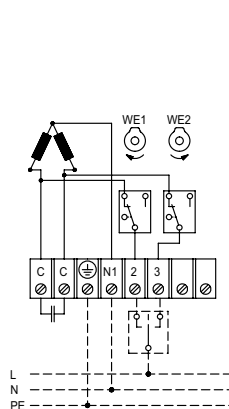
End position switch-off:

Position dependent adjustable

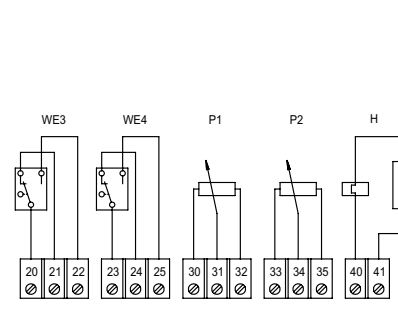
Actuator variants:

- 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

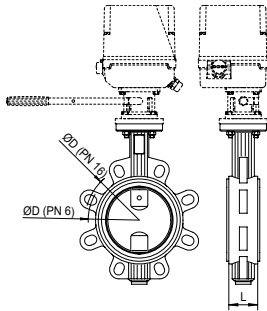
Wiring diagram: Standard design



Special accessories



DR16 EVS

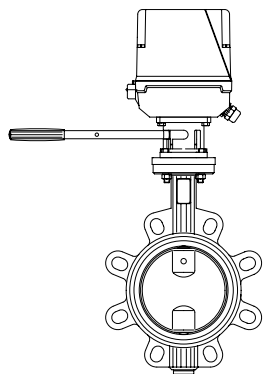


DN	D PN 6	D PN 10/ PN 16	L	No of bolts PN 6	No of bolts PN 10 / PN 16	Kg	Article No
25	75	85	33	4 x Ø11	4 x Ø18	3,4	60-431-025
32	90	100	33	4 x Ø11	4 x Ø18	3,4	60-431-032
40	100	110	33	4 x Ø14	4 x Ø18	3,6	60-431-040
50	110	125	43	4 x Ø14	4 x Ø18	4,0	60-431-050
65	130	145	46	4 x Ø14	4 x Ø18	4,6	60-431-065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

Actuators

Type	Power supply	Nominal torque [Nm]	Input signal	Article No
M125	230 VAC	25	3-point	65-125-001
M135 I	230 VAC	35	3-point	65-135-001
M135 II	230 VAC	15	3-point	65-135-003
M140	230 VAC	50	3-point	65-140-001
M150 I	230 VAC	50	3-point	65-150-001
M150 II	230 VAC	40	3-point	65-150-003
M180 I	230 VAC	80	3-point	65-180-001
M180 II	230 VAC	80	3-point	65-180-003

DR16 EVS – Sets with actuator



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

DN	Actuator	Article No
25	M125	69-431-025
25	M135 I	69-431-225
25	M135 II	69-431-325
25	M140	69-431-425
32	M125	69-431-032
32	M135 I	69-431-232
32	M135 II	69-431-332
32	M140	69-431-432
40	M125	69-431-040
40	M135 I	69-431-240
40	M135 II	69-431-340
40	M140	69-431-440
50	M125	69-431-050
50	M135 I	69-431-250
50	M135 II	69-431-350
50	M140	69-431-450
65	M125	69-431-065
65	M135 I	69-431-265
65	M135 II	69-431-365
65	M140	69-431-465
65	M150 I	69-431-665
65	M150 II	69-431-765
80	M125	69-431-080
80	M135 I	69-431-280
80	M135 II	69-431-380
80	M140	69-431-480
80	M150 I	69-431-680
80	M150 II	69-431-780
100	M125	69-431-090
100	M135 I	69-431-290
100	M135 II	69-431-390
100	M140	69-431-490
100	M150 I	69-431-690
100	M150 II	69-431-790
125	M140	69-431-491
125	M150 I	69-431-691
125	M150 II	69-431-791
125	M180 I	69-431-891
125	M180 II	69-431-991
150	M140	69-431-492
150	M150 I	69-431-692
150	M150 II	69-431-792
150	M180 I	69-431-892
150	M180 II	69-431-992
200	M180 I	69-431-893
200	M180 II	69-431-993

