

# BR12WT



## Standard control valves

Butterfly valves, DN 25-200

# BR12WT

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

## Key features

- > Easy mounting by eyelets
- > Centralised flap
- > Manual operation with lever
- > Rotation direction indication
- > Flap and tight EPDM sealing for wide medium range



## Technical description

### Application:

Chilled-, hot- and industrial water, water with antifreeze and anticorrosive compounds (approx. 50%): glycol, glycerine, ethylene glycol, propylene glycol, mono ethylene, ethanol, methyl alcohol, antifrogen® 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.

### Leakage rate:

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

### Material:

Body: Cast iron GG25  
Seat ring: EPDM  
Flap:  
DN 25-40: Stainless steel 1.4408  
DN 50-200: Ductile iron GGG-40  
EN-JS1030 with Nylon11 coating  
Shaft: CrNi-steel 1.4405  
Shaft sealing: EPDM

### Surface treatment:

Red polyester powder coating.

### Marking:

DN and PN.

### Flow direction:

Both directions.

### Connection type:

Wafer type

### Face to face:

According to EN 558-1 basic series 20.

### Connection to actuator:

DN 25-150: F05/F07 according to EN ISO 5211.  
DN 200: F07/F10 according to EN ISO 5211.

### Valve variants:

- Technical silicon free version
- IP65 version

## Technical data

### Kvs values – Butterfly valve

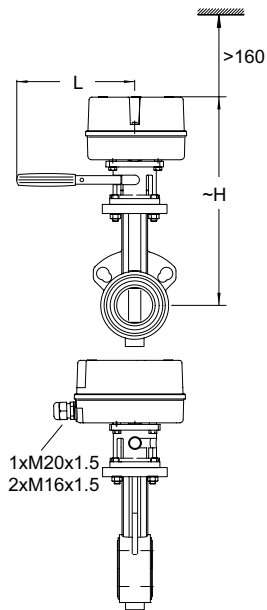
DN	25	32	40	50	65	80	100	125	150	200
Kvs	52	72	126	124	243	397	723	1083	1591	2852

### Butterfly valve with quarter-turn actuator

		DN	25	32	40	50	65	80	100	125	150	200
<b>BR12WT+M130</b>	Actuating time/90° <sup>1)</sup>	s	130	130	130	130	130	130	-	-	-	-
	$\Delta pV_{close}$	kPa	1000	1000	1000	1200	1200	1200	-	-	-	-
<b>BR12WT+M140</b>	Actuating time/90° <sup>1)</sup>	s	10	10	10	10	10	10	10	-	-	-
	$\Delta pV_{close}$	kPa	1000	1000	1000	1200	1200	1200	350	-	-	-
<b>BR12WT+M180</b>	Actuating time/90° <sup>1)</sup>	s	-	-	-	-	-	-	-	130	130	130
	$\Delta pV_{close}$	kPa	-	-	-	-	-	-	-	350	350	350

1) At 60 Hz the actuating time is reduced by ~15%.

$\Delta pV_{close}$  = The maximum pressure drop that the valve can close against from an opened position, with a specified torque (actuator) without exceeding stated leakage rate.

**M130**

**M130**

DN	H	L	Kg*
25	246	165	1,2
32	261	165	1,2
40	261	165	1,2
50	303	165	1,2
65	315	165	1,2
80	322	165	1,2

\*) Actuator

**Technical description**

		M130/230	M130/24
Actuating time at 50 Hz/90° <sup>1)</sup>	s	130	
Nominal torque	Nm	35	
Power supply	VAC	230 +6% -10%	24 +6% -10%
Frequency <sup>1)</sup>	Hz	50/60 ±5%	
Power consumption	VA	6,5	
Input signal		3-point	

1) At 60 Hz the actuating time is reduced by ~15%.

**Ingress protection:**  
IP54

**Ambient temperature:**  
0 - 50°C

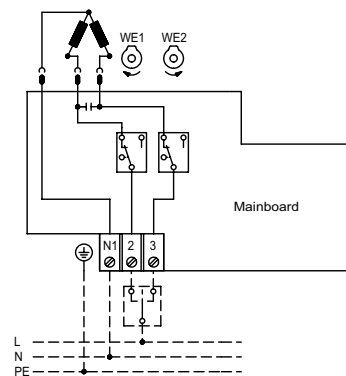
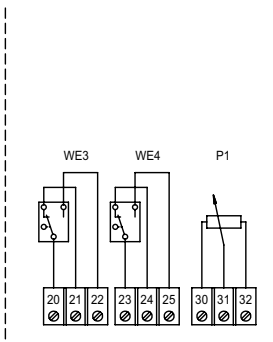
**Operation mode:**  
S1-100% ED c/h 1200 EN 60034-1.

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

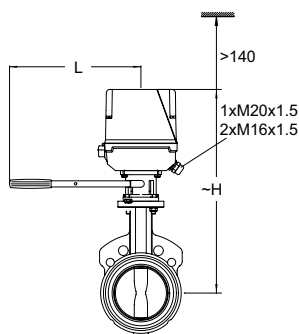
**Actuator variants:**

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

See "Accessories"

**Wiring diagram:  
Standard design**

**Special accessories**


## M140



### M140

DN	H	L	Kg*
25	318	165	3
32	333	165	3
40	333	165	3
50	375	165	3
65	387	165	3
80	394	165	3
100	413	165	3

\*) Actuator

### Technical description

		M140/230	M140/24
Actuating time at 50 Hz/90° <sup>1)</sup>	s	10	
Nominal torque	Nm	50	
Power supply	VAC	230 +6% -10%	24 +6% -10%
Frequency <sup>1)</sup>	Hz	50/60 ±5%	
Power consumption	VA	55	
Input signal		3-point	

1) At 60 Hz the actuating time is reduced by ~15%.

**Ingress protection:**  
IP54

**Ambient temperature:**  
0 - 50°C

**Operation mode:**  
S3-50% ED c/h 1200 EN 60034-1.

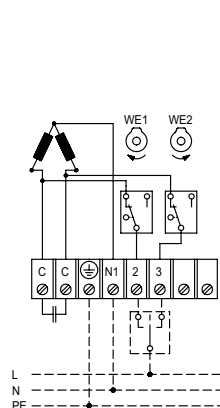
**End position switch-off:**  
Position dependent adjustable

#### Actuator variants:

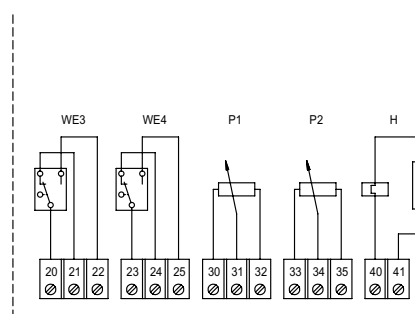
- Position switch unit:  
2 switches (WE3/WE4), potential free, infinitely adjustable.  
Rated load: max. 10 A / 250 VAC
- Potentiometer with attachment: 0.2 / 1 / 10 kΩ (1.5 VA)
- Enclosure protection: IP 65
- Heater:  
-20 - +50°C: 25 VA  
24, 115, 230 VAC: 50/60 Hz

See "Accessories"

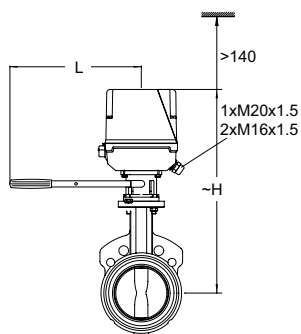
#### Wiring diagram: Standard design



#### Special accessories



## M180



### M180

DN	H	L	Kg*
125	425	255	3
150	438	255	3
200	476	255	3

\*) Actuator

### Technical description

		M180/230	M180/24
Actuating time at 50 Hz/90° <sup>1)</sup>	s	130	
Nominal torque	Nm	80	
Power supply	VAC	230 +6% -10%	24 +6% -10%
Frequency <sup>1)</sup>	Hz	50/60 ±5%	
Power consumption	VA	26	
Input signal		3-point	

1) At 60 Hz the actuating time is reduced by ~15%.

### Ingress protection:

IP54

### Ambient temperature:

0 - 50°C

### Operation mode:

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

### End position switch-off:

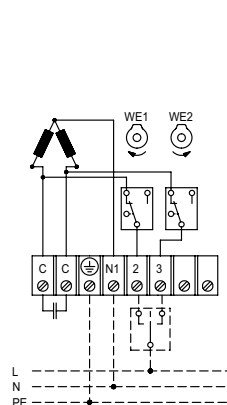
Position dependent adjustable

### Actuator variants:

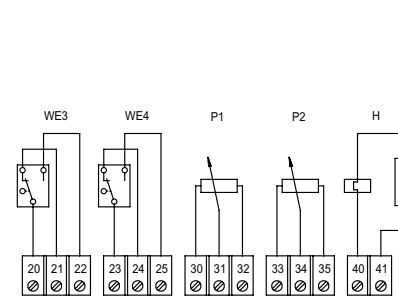
- Position switch unit:  
2 switches (WE3/WE4), potential free, infinitely adjustable.  
Rated load: max. 10 A / 250 VAC
- Potentiometer with attachment: 0.2 / 1 / 10 kΩ (1.5 VA)
- Enclosure protection: IP 65
- Heater:  
-20 - +50°C: 25 VA  
24, 115, 230 VAC: 50/60 Hz

See "Accessories"

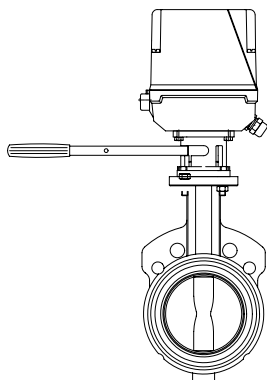
### Wiring diagram: Standard design



### Special accessories



## Articles



### BR12WT – Sets with actuator

DN	Actuator	Kvs	Kg	EAN	Article No
25	M130/230	52	5,0	5902276896187	322030-50613
25	M130/24	52	5,0	5902276899362	322030-50623
25	M140/230	52	6,5	5902276896194	322030-50614
25	M140/24	52	6,5	5902276899379	322030-50624
32	M130/230	72	5,0	5902276896200	322030-50713
32	M130/24	72	5,0	5902276899386	322030-50723
32	M140/230	72	6,5	5902276896217	322030-50714
32	M140/24	72	6,5	5902276899393	322030-50724
40	M130/230	126	5,0	5902276896224	322030-50813
40	M130/24	126	5,0	5902276899409	322030-50823
40	M140/230	126	7,0	5902276896231	322030-50814
40	M140/24	126	7,0	5902276899416	322030-50824
50	M130/230	124	5,5	5902276896248	322030-50913
50	M130/24	124	5,5	5902276899423	322030-50923
50	M140/230	124	7,0	5902276896255	322030-50914
50	M140/24	124	7,0	5902276899423	322030-50924
65	M130/230	243	6,0	5902276896262	322030-51013
65	M130/24	243	6,0	5902276899447	322030-51023
65	M140/230	243	8,0	5902276896279	322030-51014
65	M140/24	243	8,0	5902276899454	322030-51024
80	M130/230	397	6,5	5902276896286	322030-51113
80	M130/24	397	6,5	5902276899461	322030-51123
80	M140/230	397	8,5	5902276896293	322030-51114
80	M140/24	397	8,5	5902276899478	322030-51124
100	M140/230	723	9,0	5902276896316	322030-51214
100	M140/24	723	9,0	5902276899485	322030-51224
125	M180/230	1083	12,5	5902276896330	322030-51318
125	M180/24	1083	12,5	5902276899492	322030-51328
150	M180/230	1591	14,5	5902276896347	322030-51418
150	M180/24	1591	14,5	5902276899508	322030-51428
200	M180/230	2852	18,5	5902276896354	322030-51518
200	M180/24	2852	18,5	5902276899515	322030-51528

Technical silicon free version – contact IMI Hydronic Engineering.

### M140/M180 – IP65 version:

Add "IP" after the Article No., example 322030-50614**IP**

## Accessories

### ACA 32 Position switch unit

Potential free, infinitely adjustable.  
2 switches (WE3/WE4)

For actuator	EAN	Article No
M130	5902276896354	322042-10050
M140, M180	5901688829271	322042-10051

### ACA 33 Potentiometer

With attachment  
200  $\Omega$  (1 k $\Omega$  and 10 k $\Omega$  on request)  
1,5 VA

For actuator	EAN	Article No
M130	5902276899652	322042-10009
M140, M180	5902276804175	322042-10078

### ACA 38 Heater

-20°C – +50°C  
25 VA  
50/60 Hz

For actuator	EAN	Article No
<b>M140</b>		
230 VAC / 115 VAC	5902276804182	322042-10079
24 VAC	5902276804199	322042-10080
<b>M180</b>		
230 VAC / 115 VAC	5902276804205	322042-10081
24 VAC	5902276804212	322042-10082

**For IP65 version:** See "Articles".

Technical silicon free version – contact IMI Hydronic Engineering.