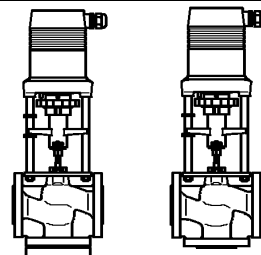


Flanschanschluss  
PN 6 / PN 16  
Grauguss

mit elektrischen Antrieben  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



**BR206GF**  
**BR216GF**

**BR306GF**  
**BR316GF**

## Merkmale

- Einsetzbar in Heizungs-, Lüftungs- und Klimaanlage zur Regelung des Heiß- und Kaltwasserdurchflusses von 0...+150°C. Ab 130°C Antriebsposition nur waagrecht zulässig.
- Mit Spindelheizung geeignet für Wasser mit Frostschutz bis -10°C
- Ventile in den Endlagen dichtschießend
- Microcontroller gesteuerter Hubantrieb
- Automatischer Selbstabgleich bei Inbetriebnahme

## Technische Daten Ventil

Baureihe	BR206GF	BR216GF	BR306GF	BR316GF
Form	Durchgang		Dreiwege	
Nennweite	DN 15 – DN 100	DN 15 – DN 150	DN 15 – DN 100	DN 15 – DN 150
Druckstufe	PN 6	PN 16	PN 6	PN 16
Kennlinie	A→AB gl%		A→AB gl% B→AB linear	
Hub	mm	14 (DN 15 – DN 50) 20 (DN 65) 30 (DN 65 – DN 100) 50 (DN 125 – DN 150)		
Stellverhältnis		DN 15: 50:1 DN 20 – 150: 100:1		

Funktion: BR206/216GF als Durchgangsventil  
BR306/316GF als Misch- oder Umschaltventil

Anschlussart: Flansche nach EN 1092-2 Typ 21

Baulänge: EN 558-1 Grundreihe 1

Leckrate: EN 1349 – Sitzleckage VI G 1 (dichtschießend)

Gehäuse: Grauguss EN-JL1040

Kegel: Messing CW614N

Spindel: CrMo-Stahl 1.4122

Abdichtung: O-Ringe EPDM

## Ventilvariante und Zubehör

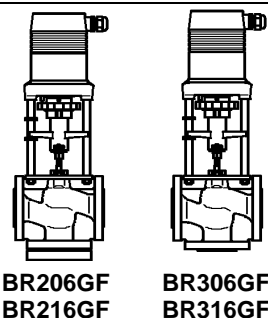
- Kegel aus CrNi-Stahl 1.4305
- Mit Spindelheizung geeignet für Wasser mit Frostschutz bis -10°C  
24 VAC, 50/60 Hz

DN 15 – DN 100 und DN 125 – DN 150 Leistungsaufnahme:  $P_{max.} \approx 400 \text{ VA}$   
 $P_N \approx 45 \text{ VA}$

- Epoxydharz-Sonderlackierung als Korrosionsschutz bei Schwitzwasserbildung, max. 80°C
- Einsetzbar für Medien auf Mineralölbasis mit Abdichtung aus FKM
- Technisch silikonfreie Ausführung

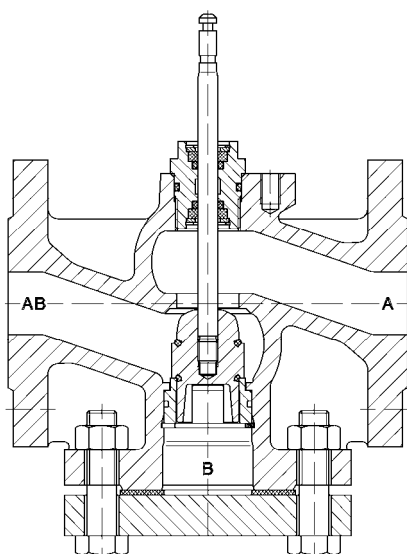
Flanschanschluss  
PN 6 / PN 16  
Grauguss

mit elektrischen Antrieben  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230

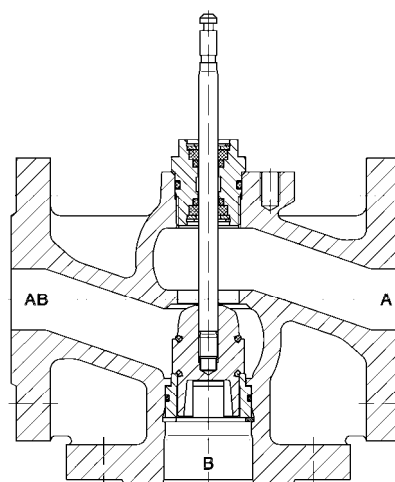


### Schnittzeichnung

DN 15 – DN 65 (Hub 20)

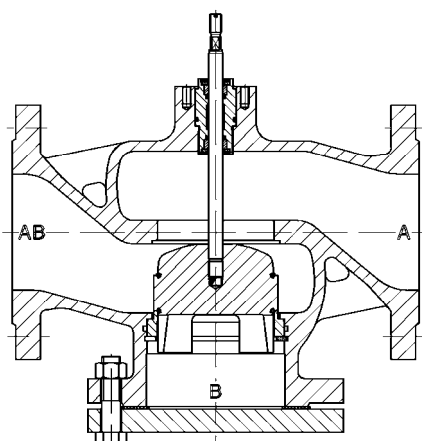


BR206GF / BR216GF

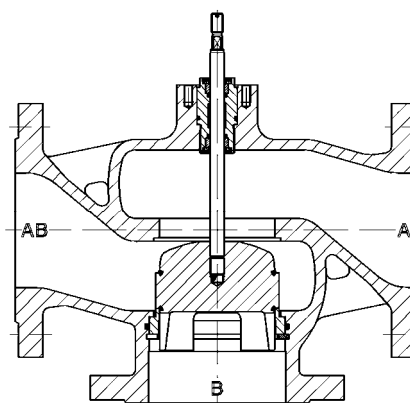


BR306GF / BR316GF

DN 65 (Hub 30) – DN 100



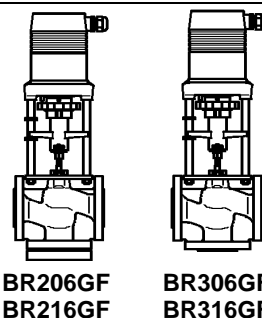
BR206GF / BR216GF



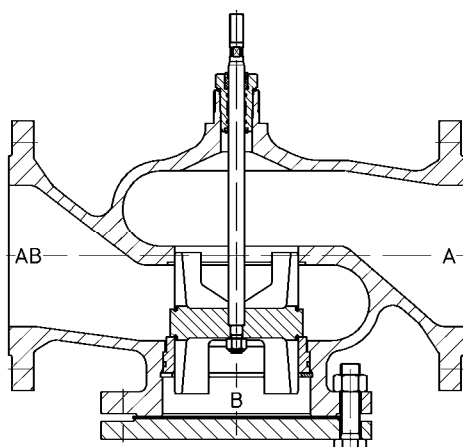
BR306GF / BR316GF

Flanschanschluss  
PN 6 / PN 16  
Grauguss

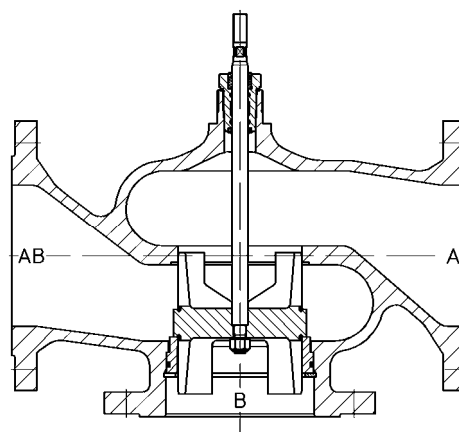
mit elektrischen Antrieben  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



DN 125 – DN 150



BR216GF



BR316GF

### Technische Daten Antrieb MC55 - MC65

Typ		MC55/24	MC65/24	MC55/230	MC65/230	MC55Y	MC65Y
Stellzeit <sup>1)</sup>	s/mm	9 · 5*		9 · 5*		9 · 5*	
Stellkraft	kN	0,6		0,6		0,6	
Hub	mm	max. 14	max. 20	max. 14	max. 20	max. 14	max. 20
Spannung	VAC	24 ±10%		230 +6% -10%		24 ±10%	
Spannung <sup>2)</sup>	VDC	24 ±10%				24 ±10%	
Frequenz	Hz	50/60 ±5%		50/60 ±5%		50/60 ±5%	
Leistungsaufnahme	VA	3,5		7		3,5	
Eingangssignal <sup>3)</sup>		3-Punkt		3-Punkt		0(2)...10 VDC 77 kOhm 0(4)...20 mA 0,51 kOhm	
Ausgangssignal <sup>3)</sup>		0...10 VDC max. 8 mA min. 1200 Ohm		0...10 VDC max. 8 mA min. 1200 Ohm		0...10 VDC max. 8 mA min. 1200 Ohm	
Hysterese	V	0,3		0,3		0,3	

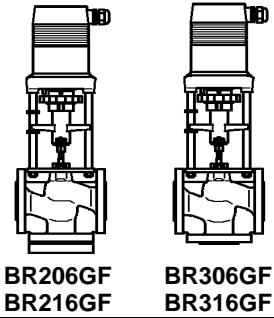
<sup>1)</sup> Stellzeit frei wählbar, Voreinstellung ist mit \* gekennzeichnet, vor Ort einstellbar

<sup>2)</sup> nur gleichgerichtete Wechselspannung

<sup>3)</sup> stetige Signale invertierbar

Flanschanschluss  
PN 6 / PN 16  
Grauguss

mit elektrischen Antrieben  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



Schutzart: IP 54 im Automatikbetrieb  
IP 30 bei Handbetätigung

Auflösung: elektrisch 0,04 VDC  
mechanisch 0,06 mm

Elektrischer Anschluss: Antrieb mit Klemmleiste

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

Endlagenabschaltung: lastabhängig

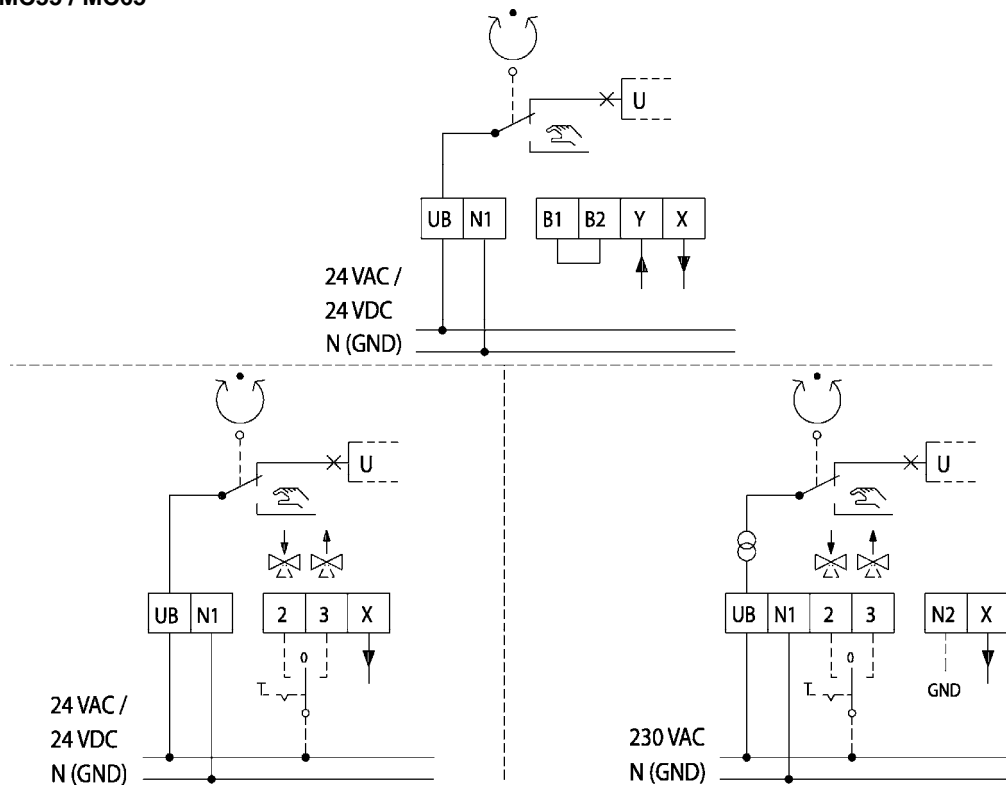
Umgebungstemperatur: 0...+60°C

Gewicht: 1,5 kg

### Antriebsvariante und Zubehör

- Sonderspannung: 115 VAC
- Adapter mit Aufnahme für Fremdfabrikate

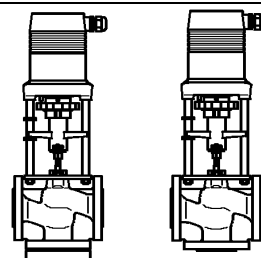
### Schaltplan MC55 / MC65



B1/B2 Anschlussmöglichkeit eines Binärsignals (z.B. Frostschutz)

Flanschanschluss  
PN 6 / PN 16  
Grauguss

mit elektrischen Antrieben  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



**BR206GF  
BR216GF**

**BR306GF  
BR316GF**

## Technische Daten Antrieb MC100 – MC1000

Typ		MC100/24	MC100/230
Stellzeit <sup>1)</sup>	s/mm	12 · 9* · 4 · 1,9	12 · 9* · 4 · 1,9
Stellkraft	kN	1,0	1,0
Hub	mm	max. 20	max. 20
Spannung	VAC	24 ±10%	230 +6% -10%
Spannung <sup>2)</sup>	VDC	24 ±10%	-
Frequenz	Hz	50/60 ±5%	50/60 ±5%
Leistungsaufnahme	VA	6	12
Eingangssignal <sup>3)</sup>		3-Punkt 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0,51 kOhm	3-Punkt 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0,51 kOhm
Ausgangssignal <sup>3)</sup>		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysterese <sup>4)</sup>	V	0,15 · 0,5	0,15 · 0,5

Typ		MC160/24	MC161/24	MC160/230	MC161/230
Stellzeit <sup>1)</sup>	s/mm	6 · 4*		6 · 4*	
Stellkraft	kN	1,6		1,6	
Hub	mm	max. 30	max. 20	max. 30	max. 20
Spannung	VAC	24 ±10%		230 +6% -10%	
Spannung <sup>2)</sup>	VDC	24 ±10%		-	
Frequenz	Hz	50/60 ±5%		50/60 ±5%	
Leistungsaufnahme	VA	6		12	
Eingangssignal <sup>3)</sup>		3-Punkt 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0,51 kOhm		3-Punkt 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0,51 kOhm	
Ausgangssignal <sup>3)</sup>		0...10 VDC max. 8 mA min. 1200 Ohm		0...10 VDC max. 8 mA min. 1200 Ohm	
Hysterese <sup>4)</sup>	V	0,05 · 0,15 · 0,3 · 0,5		0,05 · 0,15 · 0,3 · 0,5	

<sup>1)</sup> Stellzeit frei wählbar, Voreinstellung ist mit \* gekennzeichnet, vor Ort einstellbar

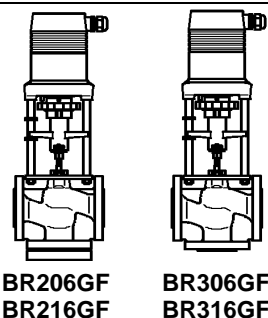
<sup>2)</sup> nur gleichgerichtete Wechselspannung

<sup>3)</sup> stetige Signale invertierbar

<sup>4)</sup> vor Ort einstellbar

Flanschanschluss  
PN 6 / PN 16  
Grauguss

mit elektrischen Antrieben  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



Typ		MC250/24	MC250/230
Stellzeit <sup>1)</sup>	s/mm	5 · 2,5*	5 · 2,5*
Stellkraft	kN	2,5	2,5
Hub	mm	max. 60	max. 60
Spannung	VAC	24 ±10%	230 +6% -10%
Spannung <sup>2)</sup>	VDC	24 ±10%	-
Frequenz	Hz	50/60 ±5%	50/60 ±5%
Leistungsaufnahme	VA	max. 18	max. 25
Eingangssignal <sup>3)</sup>		3-Punkt 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0,51 kOhm	3-Punkt 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0,51 kOhm
Ausgangssignal <sup>3)</sup>		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysterese <sup>4)</sup>	V	0,05 · 0,15 · 0,3 · 0,5	0,05 · 0,15 · 0,3 · 0,5

Typ		MC400/24	MC400/230
Stellzeit	s/mm	0,6 · 0,4*	0,6 · 0,4*
Stellkraft	kN	4,0	4,0
Hub	mm	max. 60	max. 60
Spannung	VAC	24 ±10%	230 +6% -10%
Frequenz	Hz	50/60 ±5%	50/60 ±5%
Leistungsaufnahme	VA	max. 50	max. 63
Eingangssignal <sup>3)</sup>		3-Punkt 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0,51 kOhm	3-Punkt 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0,51 kOhm
Ausgangssignal <sup>3)</sup>		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysterese <sup>4)</sup>	V	0,05 · 0,15 · 0,3 · 0,5	0,05 · 0,15 · 0,3 · 0,5

<sup>1)</sup> Stellzeit frei wählbar, Voreinstellung ist mit \* gekennzeichnet, vor Ort einstellbar

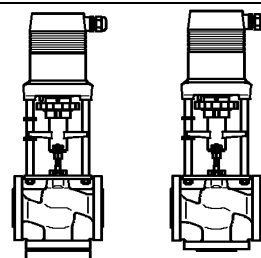
<sup>2)</sup> nur gleichgerichtete Wechselspannung

<sup>3)</sup> stetige Signale invertierbar

<sup>4)</sup> vor Ort einstellbar

Flanschanschluss  
PN 6 / PN 16  
Grauguss

mit elektrischen Antrieben  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



**BR206GF  
BR216GF**

**BR306GF  
BR316GF**

Typ		MC500/24	MC500/230
Stellzeit <sup>1)</sup>	s/mm	5 · 2,5*	5 · 2,5*
Stellkraft	kN	5,0	5,0
Hub	mm	max. 60	max. 60
Spannung	VAC	24 ±10%	230 +6% -10%
Spannung <sup>2)</sup>	VDC	24 ±10%	-
Frequenz	Hz	50/60 ±5%	50/60 ±5%
Leistungsaufnahme	VA	max. 18	max. 25
Eingangssignal <sup>3)</sup>		3-Punkt 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0,51 kOhm	3-Punkt 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0,51 kOhm
Ausgangssignal <sup>3)</sup>		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysterese <sup>4)</sup>	V	0,05 · 0,15 · 0,3 · 0,5	0,05 · 0,15 · 0,3 · 0,5

Typ		MC1000/24	MC1000/230
Stellzeit	s/mm	1	1
Stellkraft	kN	10	10
Hub	mm	max. 60	max. 60
Spannung	VAC	24 ±10%	230 +6% -10%
Frequenz	Hz	50/60 ±5%	50/60 ±5%
Leistungsaufnahme	VA	max. 50	max. 63
Eingangssignal <sup>3)</sup>		3-Punkt 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0,51 kOhm	3-Punkt 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0,51 kOhm
Ausgangssignal <sup>3)</sup>		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysterese <sup>4)</sup>	V	0,05 · 0,15 · 0,3 · 0,5	0,05 · 0,15 · 0,3 · 0,5

Schutzart: IP 54

Auflösung:

MC...	elektrisch	0,04 VDC
MC100	mechanisch	0,095 mm
MC160 / MC161	mechanisch	0,05 mm
MC250 / MC500	mechanisch	0,04 mm
MC400	mechanisch	0,12 mm
MC1000	mechanisch	0,05 mm

Betriebsart:

MC100 – MC500	S3-50% ED c/h 1200	EN 60034-1
MC400 / MC1000	S3-30% ED c/h 1200	EN 60034-1

Endlagenabschaltung: lastabhängig

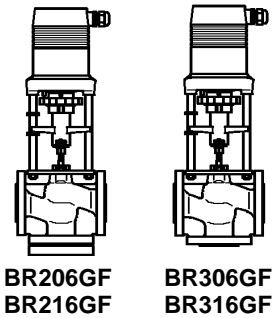
<sup>1)</sup> Stellzeit frei wählbar, Voreinstellung ist mit \* gekennzeichnet, vor Ort einstellbar

<sup>2)</sup> nur gleichgerichtete Wechselspannung

<sup>3)</sup> stetige Signale invertierbar

<sup>4)</sup> vor Ort einstellbar

Flanschanschluss	mit elektrischen Antrieben
PN 6 / PN 16	MC55/24 • MC55/230 • MC55Y
Grauguss	MC65/24 • MC65/230 • MC65Y
	MC100/24 • MC100/230
	MC160/24 • MC160/230
	MC161/24 • MC161/230
	MC250/24 • MC250/230
	MC400/24 • MC400/230
	MC500/24 • MC500/230
	MC1000/24 • MC1000/230



Umgebungstemperatur:	MC100 / MC160 / MC161	0...+60°C
	MC250 / MC400 / MC500 / MC1000	-10...+60°C
Gewicht:	MC100	2,5 kg
	MC160 und MC161	3,2 kg
	MC250/24 und MC500/24	7,0 kg
	MC250/230 und MC500/230	8,2 kg
	MC400	9,5 kg
	MC1000	11,0 kg

### Antriebsvariante und Zubehör

- Sonderspannung: 115 VAC
- Wegschaltereinheit <sup>1)</sup>: 2 Schalter (WE1/WE2), potentialfrei, stufenlos einstellbar
 

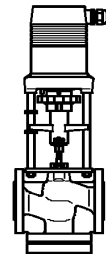
Nennlast:	8 A / 250 VAC
	8 A / 30 VDC
Schaltspannung:	max. 400 VAC
	max. 125 VDC
- Schutzart: IP 65
- Platine für Ausgangssignal X=0(4)...20 mA <sup>1)</sup>
- Adapter mit Aufnahme für Fremdfabrikate

<sup>1)</sup> MC100/MC160/MC161: Wegschaltereinheit und Ausgangssignal 0(4)...20 mA nicht kombinierbar

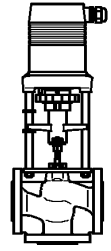


Flanschanschluss  
PN 6 / PN 16  
Grauguss

mit elektrischen Antrieben  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230

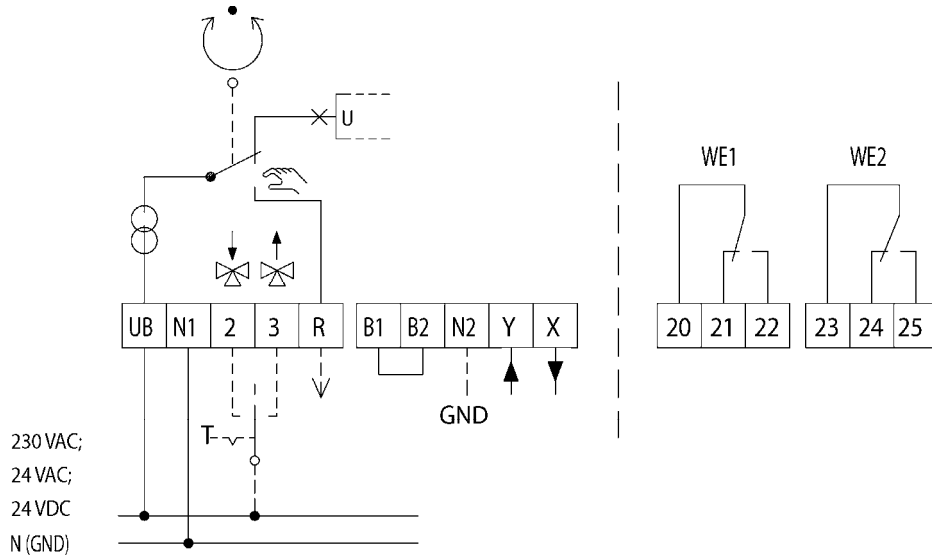


BR206GF  
BR216GF



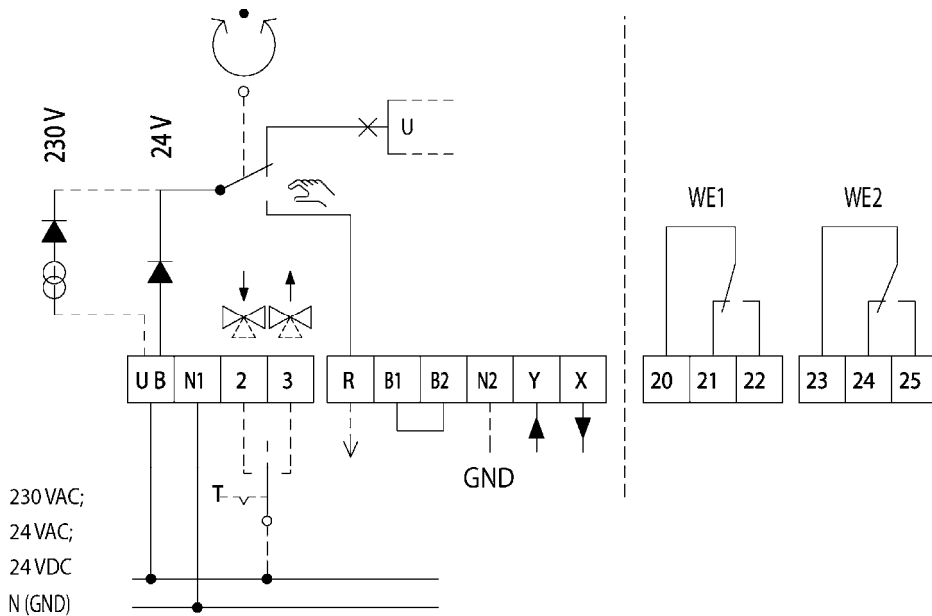
BR306GF  
BR316GF

## Schaltplan MC100 / MC160 / MC161



B1/B2 Anschlussmöglichkeit eines Binärsignals (z.B. Frostschutz)

## Schaltplan MC250 / MC400 / MC500 / MC1000



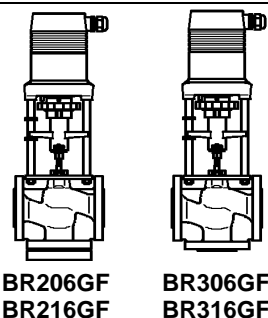
B1/B2 Anschlussmöglichkeit eines Binärsignals (z.B. Frostschutz)

# Motor-Durchgangs- und Dreiwegeventile bis 150°C

PN 6 / 16 **2.2.3**

Flanschanschluss  
PN 6 / PN 16  
Grauguss

mit elektrischen Antrieben  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



## Technische Daten Ventil mit Stellantrieb

### PN 6

DN		15	20	25	32	40	50	65	65	80	100	
kvs-Wert	m³/h	4	6,3	10	16	25	40	63	63	100	160	
		2,5	5	8	12,5	20	31,5	50	50	80	125	
		1,6										
		1,25										
	0,63											
Hub	mm	14						20	30			
MC55/24 MC55/230 MC55Y	Stellzeit <sup>1)</sup>	125										
	Schließdruck	70*										
MC65/24 MC65/230 MC65Y	Stellzeit <sup>1)</sup>							180				
	Schließdruck							100*				
MC65/24 MC65/230 MC65Y	Stellzeit <sup>1)</sup>							100				
	Schließdruck							100				
MC100/24 MC100/230	Stellzeit <sup>1)</sup>	170						240				
		125*						180*				
		55						80				
		30						40				
	Schließdruck	600	600	600	600	550	350	150				
MC161/24 MC161/230	Stellzeit <sup>1)</sup>							95	120			
	Schließdruck							55*	80*			
MC161/24 MC161/230	Stellzeit <sup>1)</sup>							600	600	350		
	Schließdruck							600	600	350		
MC160/24 MC160/230	Stellzeit <sup>1)</sup>							120	180			
	Schließdruck							80*	120*			
MC160/24 MC160/230	Stellzeit <sup>1)</sup>							350	230	140		
	Schließdruck							350	230	140		
MC250/24 MC250/230	Stellzeit <sup>1)</sup>							100	150			
	Schließdruck							50*	75*			
MC250/24 MC250/230	Stellzeit <sup>1)</sup>							600	350	250		
	Schließdruck							600	350	250		
MC400/24 MC400/230	Stellzeit <sup>1)</sup>							15	20			
	Schließdruck							10*	15*			
MC400/24 MC400/230	Stellzeit <sup>1)</sup>							600	600	400		
	Schließdruck							600	600	400		
MC500/24 MC500/230	Stellzeit <sup>1)</sup>							100	150			
	Schließdruck							50*	75*			
MC500/24 MC500/230	Stellzeit <sup>1)</sup>							600	600	500		
	Schließdruck							600	600	500		

100 kPa = 1 bar = 10 mWS

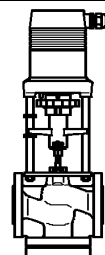
<sup>1)</sup> Stellzeit frei wählbar, Voreinstellung ist mit \* gekennzeichnet

# Motor-Durchgangs- und Dreiwegeventile bis 150°C

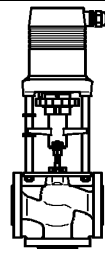
PN 6 / 16 **2.2.3**

Flanschanschluss  
PN 6 / PN 16  
Grauguss

mit elektrischen Antrieben  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



BR206GF  
BR216GF



BR306GF  
BR316GF

## PN 16

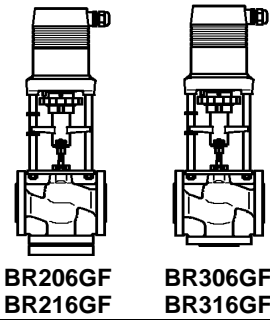
DN		15	20	25	32	40	50	65	65	80	100	125	150	
kvs-Wert	m <sup>3</sup> /h	4	6,3	10	16	25	40	63	63	100	160	250	315	
		2,5	5	8	12,5	20	31,5	50	50	80	125			
		1,6												
		1,25												
		0,63												
Hub	mm	14						20	30			50		
MC55/24 MC55/230 MC55Y	Stellzeit <sup>1)</sup>	s	125											
			70*											
	Schließdruck	kPa	1500	1250	750	450	250	150						
MC65/24 MC65/230 MC65Y	Stellzeit <sup>1)</sup>	s							180					
									100*					
	Schließdruck	kPa							100					
MC100/24 MC100/230	Stellzeit <sup>1)</sup>	s	170						240					
			125*						180*					
			55						80					
			30						40					
	Schließdruck	kPa	1600	1600	1500	900	550	350	150					
MC161/24 MC161/230	Stellzeit <sup>1)</sup>	s	95						120					
			55*						80*					
	Schließdruck	kPa				1500	950	600	350					
MC160/24 MC160/230	Stellzeit <sup>1)</sup>	s							120	180				
									80*	120*				
	Schließdruck	kPa							350	230	140			
MC250/24 MC250/230	Stellzeit <sup>1)</sup>	s							100	150		250		
									50*	75*		125*		
	Schließdruck	kPa							600	350	250	160	120	
MC400/24 MC400/230	Stellzeit <sup>1)</sup>	s							15	20		30		
									10*	15*		20*		
	Schließdruck	kPa							950	650	400	200	130	
MC500/24 MC500/230	Stellzeit <sup>1)</sup>	s							100	150		250		
									50*	75*		125*		
	Schließdruck	kPa							1250	850	500	370	270	
MC1000/24 MC1000/230	Stellzeit	s											50	
			Schließdruck	kPa										

100 kPa = 1 bar = 10 mWS

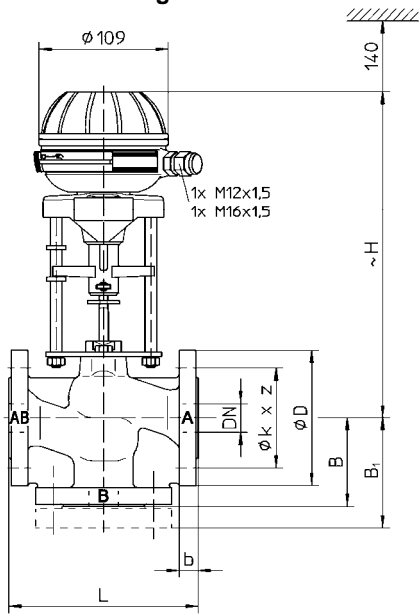
<sup>1)</sup> Stellzeit frei wählbar, Voreinstellung ist mit \* gekennzeichnet

Flanschanschluss  
PN 6 / PN 16  
Grauguss

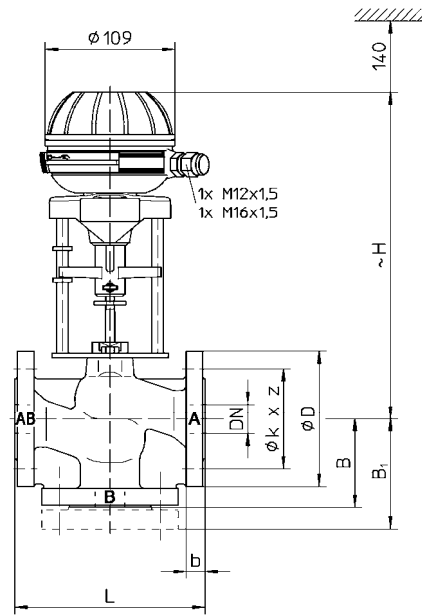
mit elektrischen Antrieben  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



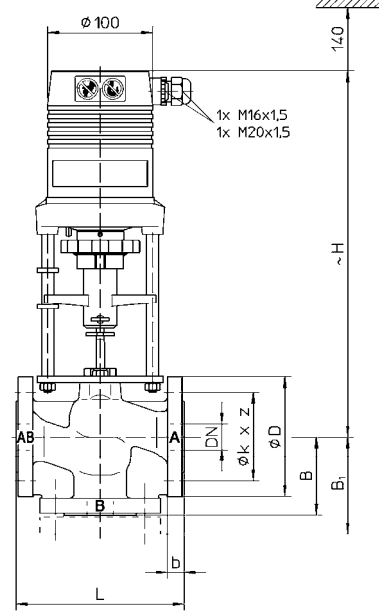
### Maßzeichnung



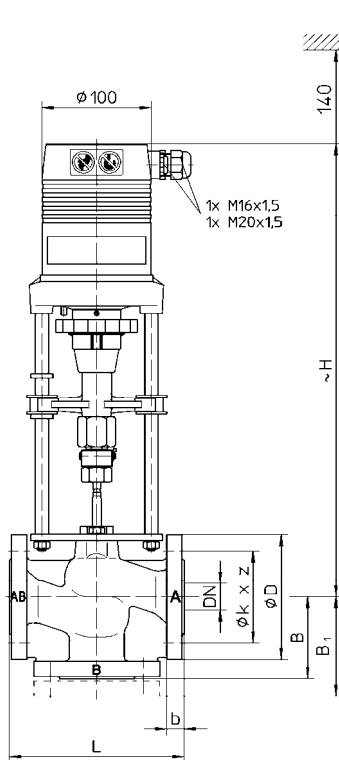
DN 15 – DN 50  
MC55



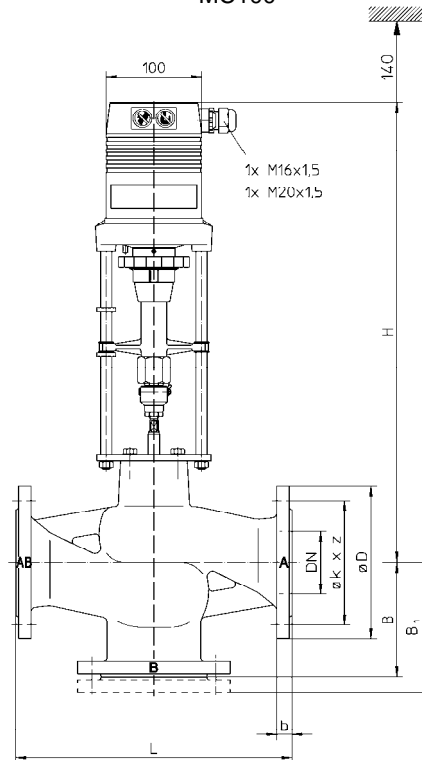
DN 65 (Hub 20)  
MC65



DN 15 – DN 65 (Hub 20)  
MC100



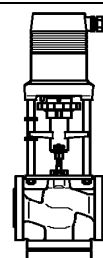
DN 32 – DN 65 (Hub 20)  
MC161



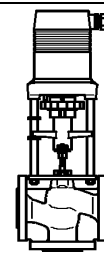
DN 65 (Hub 30) – DN 100  
MC160

Flanschanschluss  
PN 6 / PN 16  
Grauguss

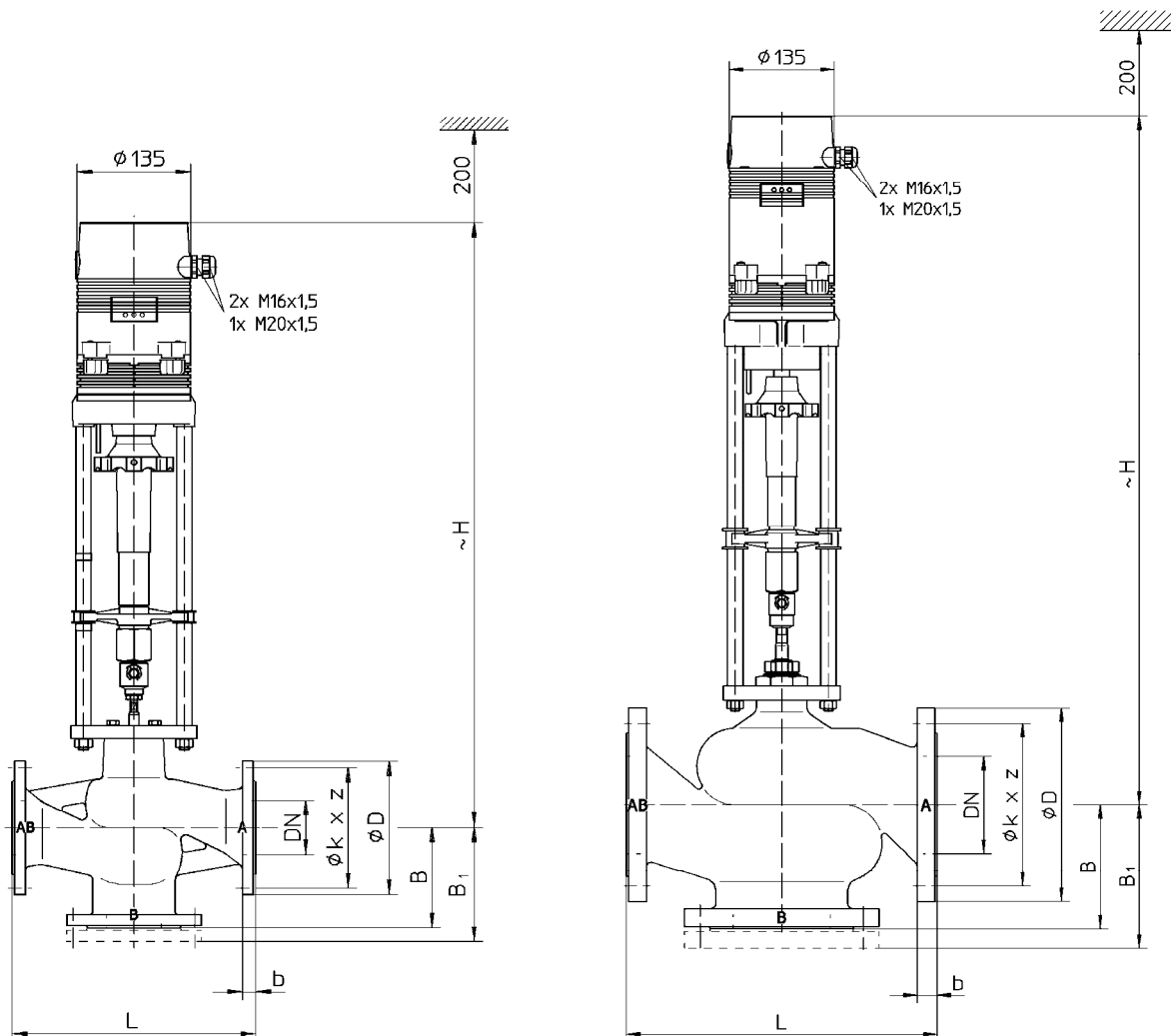
mit elektrischen Antrieben  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



**BR206GF**  
**BR216GF**



**BR306GF**  
**BR316GF**



DN 65 (Hub 30) – DN 100

DN 125 – DN 150

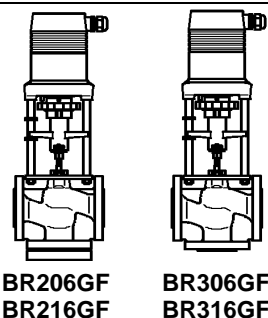
MC250 / MC400 / MC500 / MC1000

### Einbauhinweis:

Da Verunreinigungen im Rohrsystem sehr leicht den Ventilsitz beschädigen können, ist der Einbau eines Schmutzfängers zu empfehlen.

Flanschanschluss  
PN 6 / PN 16  
Grauguss

mit elektrischen Antrieben  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



### Abmessungen

#### PN 6

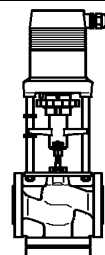
DN		15	20	25	32	40	50	65	80	100	
L	mm	130	150	160	180	200	230	290	310	350	
B	mm	65	70	75	95	100	100	120	130	150	
B <sub>1</sub>	mm	86	93	98	119	124	124	144	158	178	
∅ D	mm	80	90	100	120	130	140	160	190	210	
∅ k	mm	55	65	75	90	100	110	130	150	170	
z	mm	4x ∅11			4x ∅14			4x ∅18			
b	mm	12	14	14	16	16	16	16	18	18	
H	MC55	24 VAC/230 VAC	mm	267	272	277	277	282	282		
	MC65	24 VAC/230 VAC	mm						335		
	MC100	24 VAC	mm	343	348	353	353	358	358	408	
		230 VAC	mm	368	373	378	378	383	383	433	
	MC161	24 VAC	mm					448	448	486	
		230 VAC	mm					473	473	511	
	MC160	24 VAC	mm						486	496	506
		230 VAC	mm						511	521	531
	MC250	24 VAC/230 VAC	mm						645	655	665
	MC400	24 VAC/230 VAC	mm						695	705	715
MC500	24 VAC/230 VAC	mm						645	655	665	
m	MC55	BR206GF	kg	4,3	5,4	6,3	8,6	10,3	12,0		
		BR306GF	kg	3,7	4,5	5,2	7,1	8,5	9,9		
	MC65	BR206GF	kg							19,4	
		BR306GF	kg							16,2	
	MC100	BR206GF	kg	5,3	6,4	7,3	9,6	11,3	13,0	20,4	
		BR306GF	kg	4,7	5,5	6,2	8,1	9,5	10,9	17,2	
	MC161	BR206GF	kg					12,0	13,7	21,1	
		BR306GF	kg					10,2	11,6	17,9	
	MC160	BR206GF	kg						21,1	29,5	40,3
		BR306GF	kg						17,9	25,2	34,2
	MC250/ MC500 24 VAC	BR206GF	kg						24,9	33,3	44,1
		BR306GF	kg						21,7	29,0	38,0
	MC250/ MC500 230 VAC	BR206GF	kg						26,1	34,5	45,3
		BR306GF	kg						22,9	30,2	39,2
	MC400	BR206GF	kg						27,4	35,8	46,6
		BR306GF	kg						24,2	31,5	40,5

# Motor-Durchgangs- und Dreiwegeventile bis 150°C

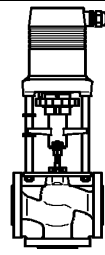
PN 6 / 16 **2.2.3**

Flanschanschluss  
PN 6 / PN 16  
Grauguss

mit elektrischen Antrieben  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



BR206GF  
BR216GF



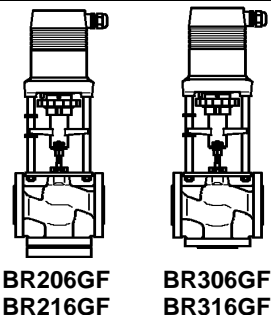
BR306GF  
BR316GF

## PN 16

DN		15	20	25	32	40	50	65	80	100	125	150	
L	mm	130	150	160	180	200	230	290	310	350	400	480	
B	mm	65	70	75	95	100	100	120	130	150	160	170	
B <sub>1</sub>	mm	89	96	101	123	128	130	150	162	182	194	207	
∅ D	mm	95	105	115	140	150	165	185	200	220	250	285	
∅ k	mm	65	75	85	100	110	125	145	160	180	210	240	
z	mm	4x ∅14			4x ∅18				8x ∅18			8x	
b	mm	14	16	16	18	18	20	20	22	24	26	26	
H	MC55	24 VAC/230 VAC	mm	267	272	277	277	282	282				
	MC65								335				
	MC100	24 VAC	mm	343	348	353	353	358	358	408			
		230 VAC	mm	368	373	378	378	383	383	433			
	MC161	24 VAC	mm				443	448	448	486			
		230 VAC	mm				468	473	473	511			
	MC160	24 VAC	mm						486	496	506		
		230 VAC	mm						511	521	531		
	MC250	24 VAC/230 VAC	mm						645	655	665	805	805
	MC400	24 VAC/230 VAC	mm						695	705	715	855	855
MC500	24 VAC/230 VAC	mm						645	655	665	805	805	
MC1000	24 VAC/230 VAC	mm									895	895	
m	MC55	BR216GF	kg	5,6	6,8	8,1	11,5	13,3	16,8				
		BR316GF	kg	4,6	5,5	6,5	9,1	10,6	13,1				
	MC65	BR216GF	kg							26,3			
		BR316GF	kg							21,5			
	MC100	BR216GF	kg	6,6	7,8	9,1	12,5	14,3	17,8	27,3			
		BR316GF	kg	5,6	6,5	7,5	10,1	11,6	14,1	22,5			
	MC161	BR216GF	kg				13,2	15,0	18,5	28,0			
		BR316GF	kg				10,8	12,3	14,8	23,2			
	MC160	BR216GF	kg							28,0	33,0	46,1	
		BR316GF	kg							23,2	27,2	39,2	
MC250/ MC500 24 VAC	BR216GF	kg							31,8	36,8	49,9	69,0	97,0
	BR316GF	kg							27,0	31,0	43,0	59,0	84,0
MC250/ MC500 230 VAC	BR216GF	kg							33,0	38,0	51,1	70,2	98,2
	BR316GF	kg							28,2	32,2	44,2	60,2	85,2
MC400	BR216GF	kg							34,3	39,3	52,4	71,5	99,5
	BR316GF	kg							29,5	33,5	45,5	61,5	86,5
MC1000	BR216GF	kg										73	101
	BR316GF	kg										63	88

Flanged connection  
PN 6 / PN 16  
Cast iron

with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



## Features

- Suitable for the control of hot and chilled water (0...+150°C) in HEVAC systems control of heating plants. Above 130°C valves should only be mounted in the horizontal position.
- With stem heater suitable for water with antifreeze compounds down to -10°C
- Tight shut-off in the closed position
- Microprocessor controlled
- Automatic self-calibration on start up

## Technical data valve

Series	BR206GF	BR216GF	BR306GF	BR316GF
Form	Two-way		Three-way	
Diameter nominal	DN 15 – DN 100	DN 15 – DN 150	DN 15 – DN 100	DN 15 – DN 150
Pressure rating	PN 6	PN 16	PN 6	PN 16
Characteristic	A→AB equal %		A→AB B→AB	equal % linear
Stroke	mm	14 (DN 15 – DN 50) 20 (DN 65) 30 (DN 65 – DN 100) 50 (DN 125 – DN 150)		
Rangeability	DN 15: 50:1 DN 20 – 150: 100:1			

Function: BR206/216GF as two-way valve  
BR306/316GF as mixing or on-off valve

Connection type: Flanges acc. EN 1092-2 type 21

Face to face dimension: Acc. EN 558-1 basic series 1

Leakage rate: EN 1349 – seat-leakage VI G 1 (tight sealing)

Body: Cast iron EN-JL1040  
Plug: Brass CW614N  
Stem: CrMo-steel 1.4122  
Stem sealing: O-rings EPDM

## Valve variant and accessories

- Plug made of CrNi-steel 1.4305
- With stem heater suitable for water with antifreeze compounds down to -10°C  
24 VAC, 50/60 Hz  
DN 15 – DN 100 and DN 125 – DN 150 Power consumption:  $P_{max.} \approx 400 \text{ VA}$   
 $P_N \approx 45 \text{ VA}$
- Epoxy resin special varnish as a corrosion resistant in case of condensed water, max. 80°C
- Usable for media based on mineral oil basis (stem sealing made of FKM)
- Technical silicon free version

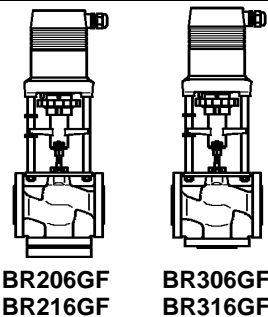


# Control valves with electric actuators up to 150°C

PN 6 / 16 **2.2.3**

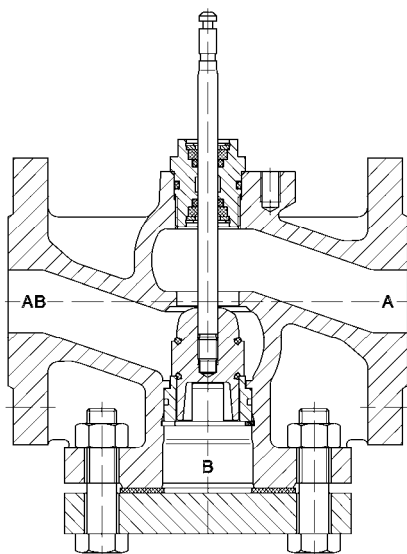
Flanged connection  
PN 6 / PN 16  
Cast iron

with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230

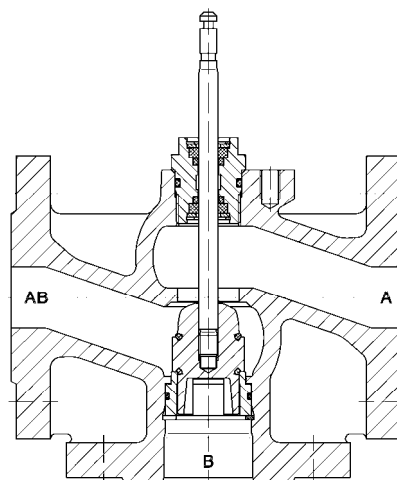


## Drawing

DN 15 – DN 65 (stroke 20)

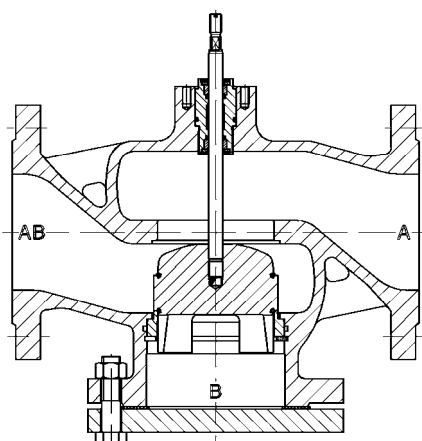


BR206GF / BR216GF

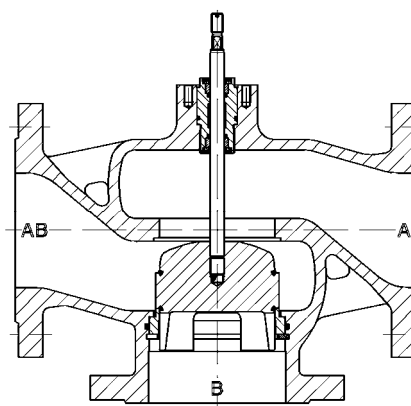


BR306GF / BR316GF

DN 65 (Stroke 30) – DN 100



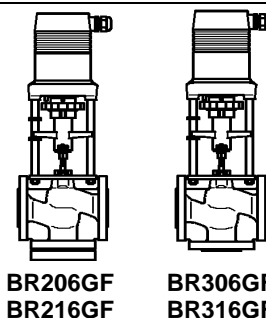
BR206GF / BR216GF



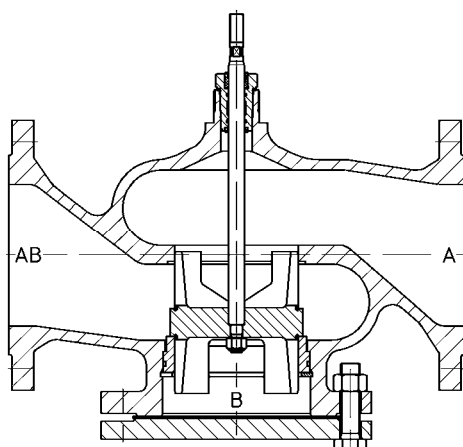
BR306GF / BR316GF

Flanged connection  
PN 6 / PN 16  
Cast iron

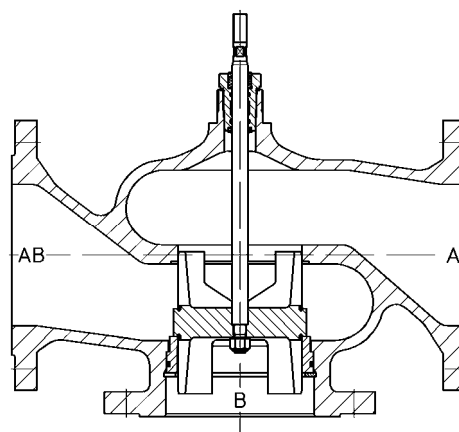
with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



DN 125 – DN 150



BR216GF



BR316GF

### Technical data actuator MC55 · MC65

Type		MC55/24	MC65/24	MC55/230	MC65/230	MC55Y	MC65Y
Actuating time <sup>1)</sup>	s/mm	9 · 5*		9 · 5*		9 · 5*	
Actuating thrust	kN	0.6		0.6		0.6	
Stroke	mm	max. 14	max. 20	max. 14	max. 20	max. 14	max. 20
Power supply	VAC	24 ±10%		230 +6% -10%		24 ±10%	
Power supply <sup>2)</sup>	VDC	24 ±10%				24 ±10%	
Frequency	Hz	50/60 ±5%		50/60 ±5%		50/60 ±5%	
Power consumption	VA	3.5		7		3.5	
Input signal <sup>3)</sup>		3-point		3-point		0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm	
Output signal <sup>3)</sup>		0...10 VDC max. 8 mA min. 1200 Ohm		0...10 VDC max. 8 mA min. 1200 Ohm		0...10 VDC max. 8 mA min. 1200 Ohm	
Hysteresis	V	0.3		0.3		0.3	

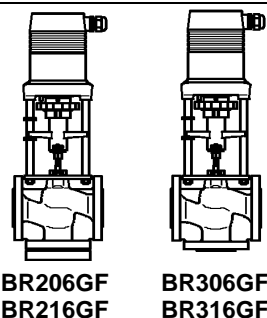
<sup>1)</sup> Actuating time freely adjustable, presetting is marked with \*

<sup>2)</sup> only rectified alternating voltage

<sup>3)</sup> Invertible input and output signal

Flanged connection  
PN 6 / PN 16  
Cast iron

with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230

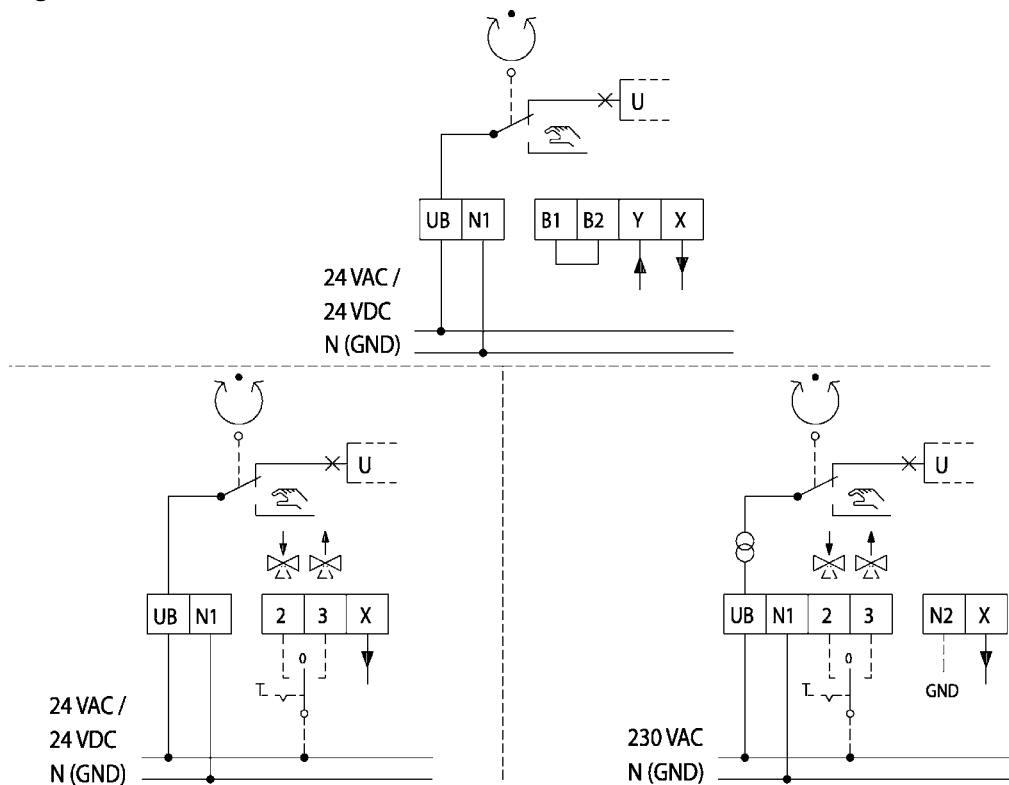


Enclosure protection:	IP 54 in automatic operation IP 30 in manual operation	
Resolution:	electric mechanical	0.04 VDC 0.06 mm
Mains connection:	Actuator with terminal	
Operating mode:	S3-50% ED c/h 1200	EN 60034-1
End position switch-off:	load-dependent	
Ambient temperature:	0...+60°C	
Weight:	1.5 kg	

### Actuator variant and accessories

- Voltage: 115 VAC
- Adapter with coupling for external products

### Circuit diagram MC55 / MC65

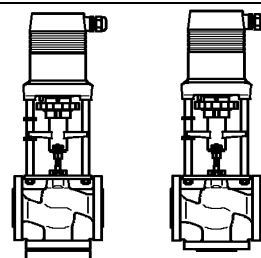


B1/B2 Connection of a binary signal (e.g. frost safety)

01/03/2011 Data subject to change without notice

Flanged connection  
PN 6 / PN 16  
Cast iron

with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



**BR206GF**  
**BR216GF**

**BR306GF**  
**BR316GF**

## Technical data actuator MC100 – MC1000

Type		MC100/24	MC100/230
Actuating time <sup>1)</sup>	s/mm	12 · 9* · 4 · 1.9	12 · 9* · 4 · 1.9
Actuating thrust	kN	1.0	1.0
Stroke	mm	max. 20	max. 20
Power supply	VAC	24 ±10%	230 +6% -10%
Power supply <sup>2)</sup>	VDC	24 ±10%	-
Frequency	Hz	50/60 ±5%	50/60 ±5%
Power consumption	VA	6	12
Input signal <sup>3)</sup>		3-point 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm	3-point 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm
Output signal <sup>3)</sup>		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysteresis <sup>4)</sup>	V	0.15 · 0.5	0.15 · 0.5

Type		MC160/24	MC161/24	MC160/230	MC161/230
Actuating time <sup>1)</sup>	s/mm	6 · 4*		6 · 4*	
Actuating thrust	kN	1.6		1.6	
Stroke	mm	max. 30	max. 20	max. 30	max. 20
Power supply	VAC	24 ±10%		230 +6% -10%	
Power supply <sup>2)</sup>	VDC	24 ±10%		-	
Frequency	Hz	50/60 ±5%		50/60 ±5%	
Power consumption	VA	6		12	
Input signal <sup>3)</sup>		3-point 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm		3-point 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm	
Output signal <sup>3)</sup>		0...10 VDC max. 8 mA min. 1200 Ohm		0...10 VDC max. 8 mA min. 1200 Ohm	
Hysteresis <sup>4)</sup>	V	0.05 · 0.15 · 0.3 · 0.5		0.05 · 0.15 · 0.3 · 0.5	

<sup>1)</sup> Actuating time freely adjustable, presetting is marked with \*

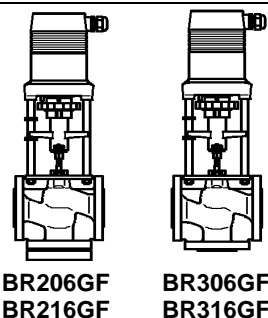
<sup>2)</sup> only rectified alternating voltage

<sup>3)</sup> Invertible input and output signal

<sup>4)</sup> Freely adjustable

Flanged connection  
PN 6 / PN 16  
Cast iron

with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



Type		MC250/24	MC250/230
Actuating time <sup>1)</sup>	s/mm	5 · 2.5*	5 · 2.5*
Actuating thrust	kN	2.5	2.5
Stroke	mm	max. 60	max. 60
Power supply	VAC	24 ±10%	230 +6% -10%
Power supply <sup>2)</sup>	VDC	24 ±10%	-
Frequency	Hz	50/60 ±5%	50/60 ±5%
Power consumption	VA	max. 18	max. 25
Input signal <sup>3)</sup>		3-point 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm	3-point 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm
Output signal <sup>3)</sup>		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysteresis <sup>4)</sup>	V	0.05 · 0.15 · 0.3 · 0.5	0.05 · 0.15 · 0.3 · 0.5

Type		MC400/24	MC400/230
Actuating time <sup>1)</sup>	s/mm	0.6 · 0.4*	0.6 · 0.4*
Actuating thrust	kN	4.0	4.0
Stroke	mm	max. 60	max. 60
Power supply	VAC	24 ±10%	230 +6% -10%
Power supply <sup>2)</sup>	VDC	50/60 ±5%	50/60 ±5%
Frequency	Hz	max. 50	max. 63
Power consumption	VA	3-point 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm	3-point 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm
Input signal <sup>3)</sup>		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Output signal <sup>3)</sup>		0.05 · 0.15 · 0.3 · 0.5	0.05 · 0.15 · 0.3 · 0.5

<sup>1)</sup> Actuating time freely adjustable, presetting is marked with \*

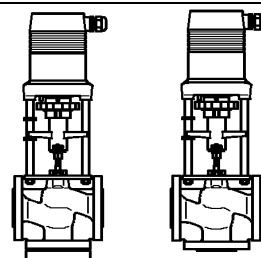
<sup>2)</sup> only rectified alternating voltage

<sup>3)</sup> Invertible input and output signal

<sup>4)</sup> Freely adjustable

Flanged connection  
PN 6 / PN 16  
Cast iron

with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



**BR206GF  
BR216GF**

**BR306GF  
BR316GF**

Type		MC500/24	MC500/230
Actuating time <sup>1)</sup>	s/mm	5 · 2.5*	5 · 2.5*
Actuating thrust	kN	5.0	5.0
Stroke	mm	max. 60	max. 60
Power supply	VAC	24 ±10%	230 +6% -10%
Power supply <sup>2)</sup>	VDC	24 ±10%	-
Frequency	Hz	50/60 ±5%	50/60 ±5%
Power consumption	VA	max. 18	max. 25
Input signal <sup>3)</sup>		3-point 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm	3-point 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm
Output signal <sup>3)</sup>		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysteresis <sup>4)</sup>	V	0.05 · 0.15 · 0.3 · 0.5	0.05 · 0.15 · 0.3 · 0.5

Type		MC1000/24	MC1000/230
Actuating time	s/mm	1	1
Actuating thrust	kN	10	10
Stroke	mm	max. 60	max. 60
Power supply	VAC	24 ±10%	230 +6% -10%
Frequency	Hz	50/60 ±5%	50/60 ±5%
Power consumption	VA	max. 50	max. 63
Input signal <sup>1)</sup>		3-Punkt 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm	3-Punkt 0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm
Output signal <sup>1)</sup>		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysteresis <sup>2)</sup>	V	0.05 · 0.15 · 0.3 · 0.5	0.05 · 0.15 · 0.3 · 0.5

Enclosure protection: IP 54

Resolution:

MC...	electric	0.04 VDC
MC100	mechanical	0.095 mm
MC160 / MC161	mechanical	0.05 mm
MC250 / MC500	mechanical	0.04 mm
MC400	mechanical	0.12 mm
MC1000	mechanical	0.05 mm

Operating mode:

MC100 – MC500	S3-50% ED c/h 1200	EN 60034-1
MC400 / MC1000	S3-30% ED c/h 1200	EN 60034-1

End position switch-off: load-dependent

<sup>1)</sup> Stellzeit frei wählbar, Voreinstellung ist mit \* gekennzeichnet, vor Ort einstellbar

<sup>2)</sup> nur gleichgerichtete Wechselspannung

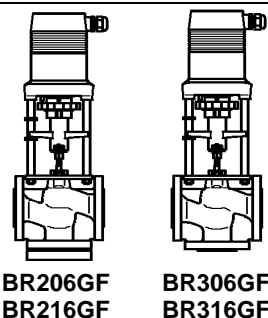
<sup>3)</sup> stetige Signale invertierbar

<sup>4)</sup> vor Ort einstellbar

Ambient temperature: MC100 / MC160 / MC161 0...+60°C

Flanged connection  
PN 6 / PN 16  
Cast iron

with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



MC250 / MC400 / MC500 / MC1000    -10...+60°C

Weight:

MC100	2.5 kg
MC160 and MC161	3.2 kg
MC250/24 and MC500/24	7.0 kg
MC250/230 and MC500/230	8.2 kg
MC400	9.5 kg
MC1000	11.0 kg

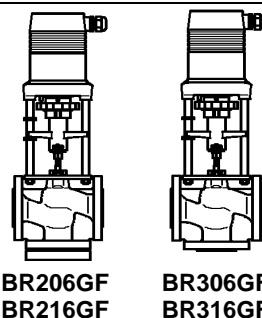
### Actuator variant and accessories

- Voltage: 115 VAC
- Position switch unit <sup>1)</sup>: 2 switches (WE1/WE2), potential free, infinitely adjustable  
 Rated load: 8 A / 250 VAC  
 8 A / 30 VDC  
 Turn-on voltage: max. 400 VAC  
 max. 125 VDC
- Enclosure protection: IP 65
- Board for output signal X=0(4)...20 mA <sup>1)</sup>
- Adapter with coupling for external products

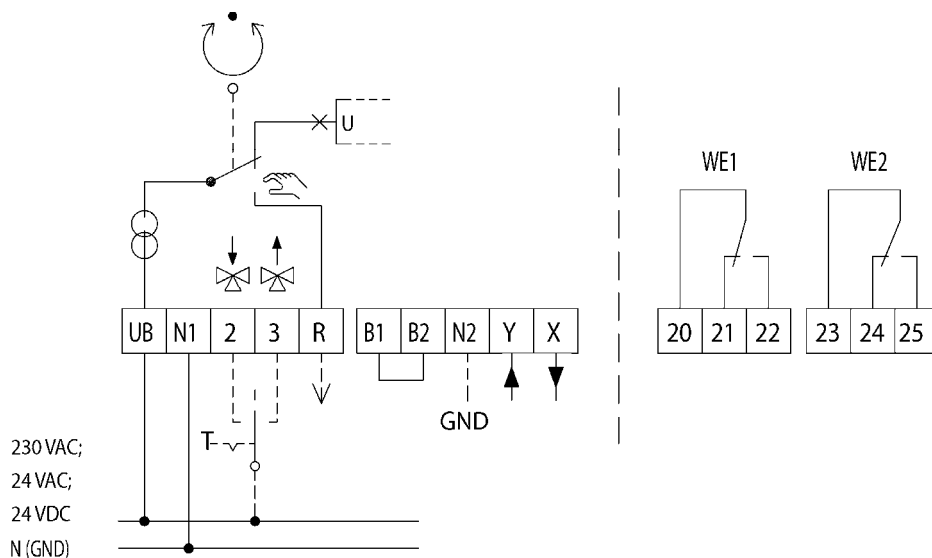
<sup>3)</sup> MC100/MC160/MC161: Position switch unit and output signal 0(4)...20 mA not in combination

Flanged connection  
PN 6 / PN 16  
Cast iron

with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230

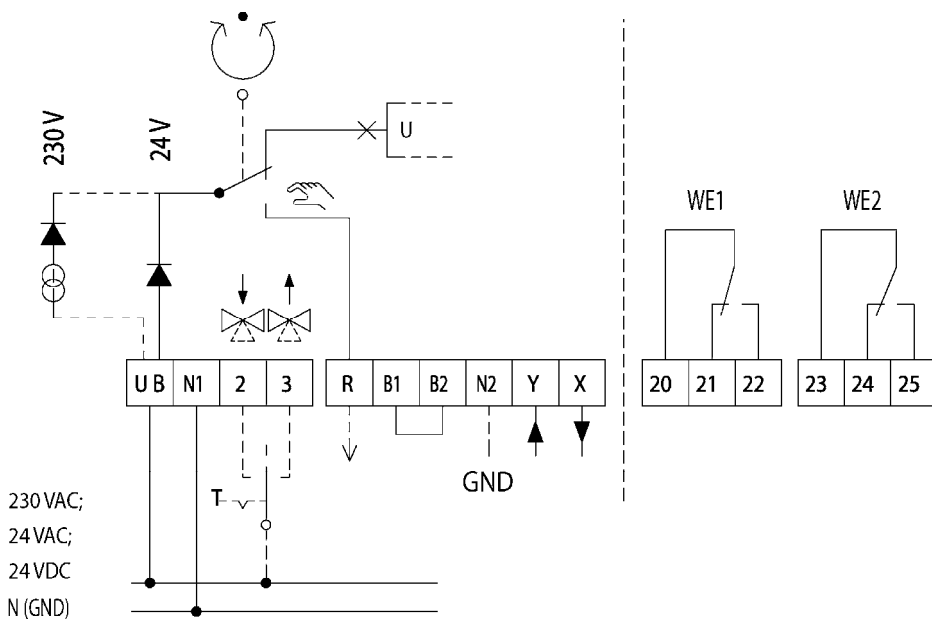


### Circuit diagram MC100 / MC160 / MC161



B1/B2 Connection of a binary signal (e.g. frost safety)

### Circuit diagram MC250 / MC400 / MC500 / MC1000



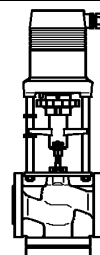
B1/B2 Connection of a binary signal (e.g. frost safety)

01/03/2011 Data subject to change without notice

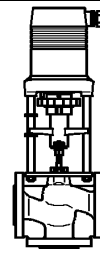


Flanged connection  
PN 6 / PN 16  
Cast iron

with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



**BR206GF  
BR216GF**



**BR306GF  
BR316GF**

### Technical data valve with actuator

#### PN 6

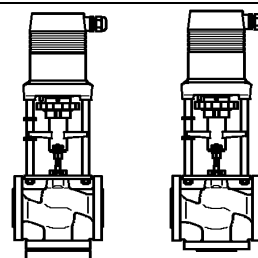
DN		15	20	25	32	40	50	65	65	80	100	
kvs-value	m <sup>3</sup> /h	4	6.3	10	16	25	40	63	63	100	160	
		2.5	5	8	12.5	20	31.5	50	50	80	125	
		1.6										
		1.25										
		0.63										
Stroke	mm	14						20	30			
MC55/24 MC55/230 MC55Y	Actuating time <sup>1)</sup>	125										
		70*										
	Closing pressure	kPa	600	600	600	450	250	150				
MC65/24 MC65/230 MC65Y	Actuating time <sup>1)</sup>	s							180			
									100*			
	Closing pressure	kPa							100			
MC100/24 MC100/230	Actuating time <sup>1)</sup>	s	170						240			
			125*						180*			
			55						80			
			30						40			
	Closing pressure	kPa	600	600	600	600	550	350	150			
MC161/24 MC161/230	Actuating time <sup>1)</sup>	s					95		120			
							55*		80*			
	Closing pressure	kPa					600	600	350			
MC160/24 MC160/230	Actuating time <sup>1)</sup>	s							120	180		
									80*	120*		
	Closing pressure	kPa							350	230	140	
MC250/24 MC250/230	Actuating time <sup>1)</sup>	s							100	150		
									50*	75*		
	Closing pressure	kPa							600	350	250	
MC400/24 MC400/230	Actuating time <sup>1)</sup>	s							15	20		
									10*	15*		
	Closing pressure	kPa							600	600	400	
MC500/24 MC500/230	Actuating time <sup>1)</sup>	s							100	150		
									50*	75*		
	Closing pressure	kPa							600	600	500	

100 kPa = 1 bar = 10 mWS

<sup>1)</sup> Actuating time freely adjustable, presetting is marked with \*

Flanged connection  
PN 6 / PN 16  
Cast iron

with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



**BR206GF**  
**BR216GF**

**BR306GF**  
**BR316GF**

## PN 16

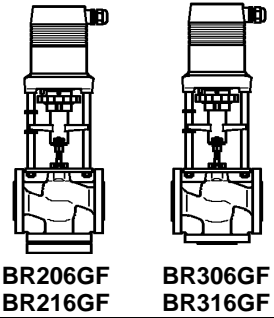
DN	15	20	25	32	40	50	65	65	80	100	125	150		
kvs-value	4 2.5 1.6 1.25 0.63	6.3 5	10 8	16 12.5	25 20	40 31.5	63 50	63 50	100 80	160 125	250	315		
Stroke	mm						14	20	30		50			
MC55/24 MC55/230 MC55Y	Actuating time <sup>1)</sup>	s						125		70*				
	Closing pressure	kPa	1500	1250	750	450	250	150						
MC65/24 MC65/230 MC65Y	Actuating time <sup>1)</sup>	s						180	100*					
	Closing pressure	kPa							100					
MC100/24 MC100/230	Actuating time <sup>1)</sup>	s						170		240				
		s						125*		180*				
		s						55		80				
	Closing pressure	kPa	1600	1600	1500	900	550	350	150					
MC161/24 MC161/230	Actuating time <sup>1)</sup>	s						95		120				
	Closing pressure	kPa							1500	950	600	350		
MC160/24 MC160/230	Actuating time <sup>1)</sup>	s						120	180					
	Closing pressure	kPa							80*	120*				
MC250/24 MC250/230	Actuating time <sup>1)</sup>	s						100	150	250				
	Closing pressure	kPa							50*	75*		125*		
MC400/24 MC400/230	Actuating time <sup>1)</sup>	s						15	20	30				
	Closing pressure	kPa							10*	15*		20*		
MC500/24 MC500/230	Actuating time <sup>1)</sup>	s						100	150	250				
	Closing pressure	kPa							50*	75*		125*		
MC1000/24 MC1000/230	Actuating time <sup>1)</sup>	s											50	
	Closing pressure	kPa												800

100 kPa = 1 bar = 10 mWS

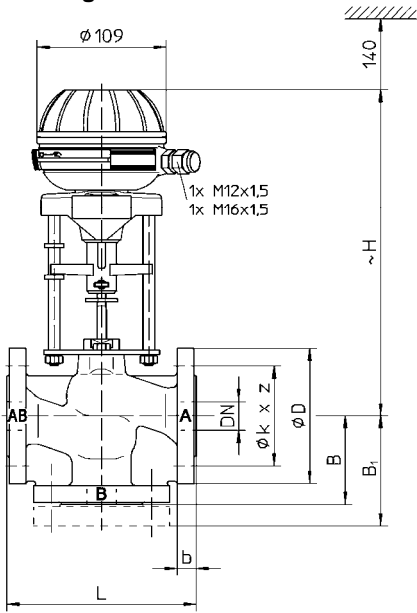
<sup>1)</sup> Actuating time freely adjustable, presetting is marked with \*

Flanged connection  
PN 6 / PN 16  
Cast iron

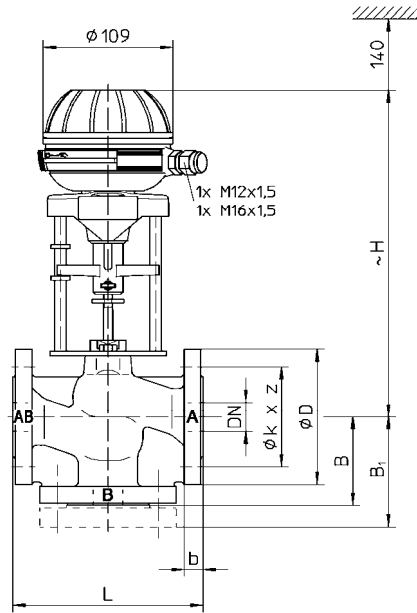
with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



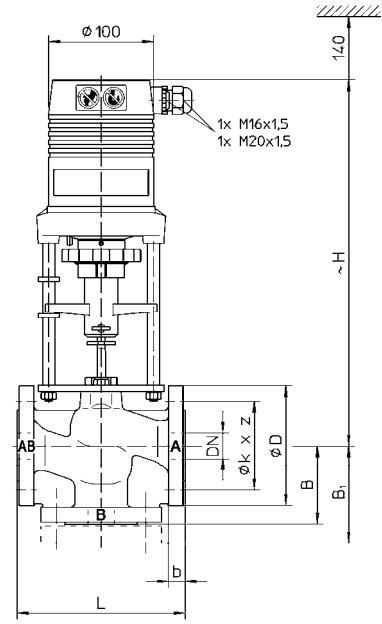
## Drawing



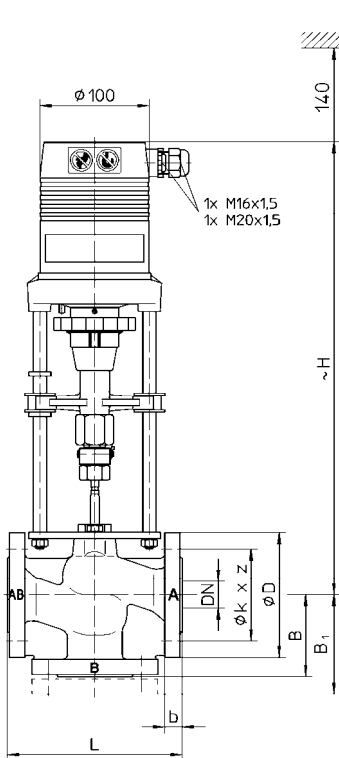
DN 15 – DN 50  
MC55



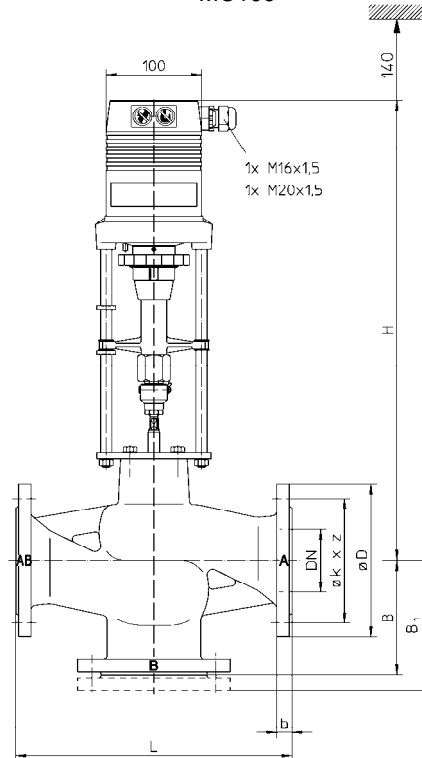
DN 65 (stroke 20)  
MC65



DN 15 – DN 65 (stroke 20)  
MC100



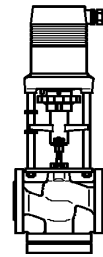
DN 32 – DN 65 (stroke 20)  
MC161



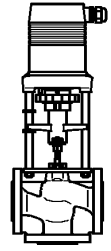
DN 65 (stroke 30) – DN 100  
MC160

Flanged connection  
PN 6 / PN 16  
Cast iron

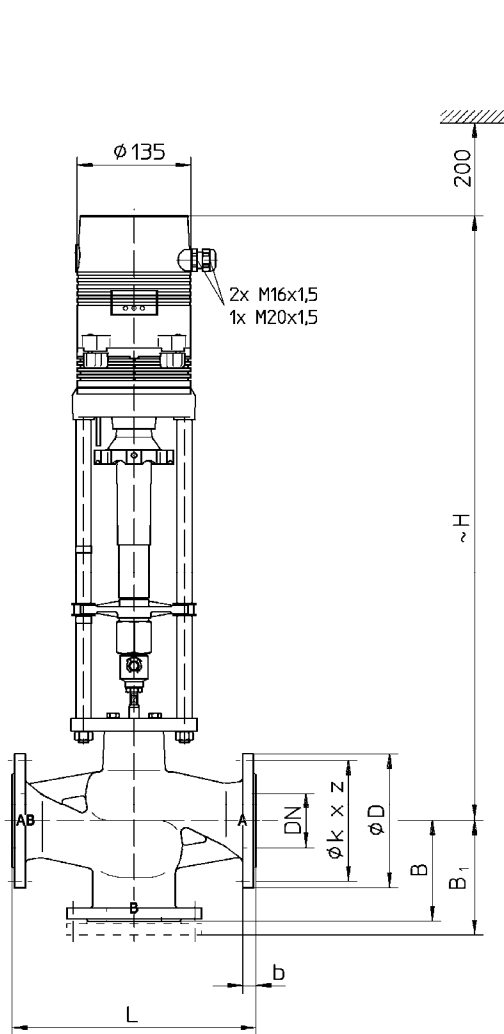
with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



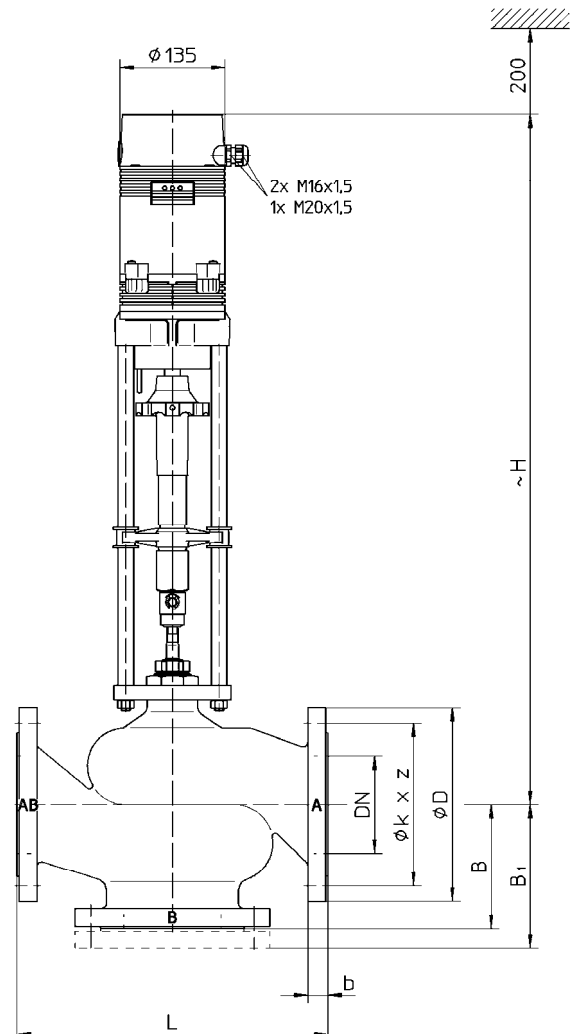
**BR206GF**  
**BR216GF**



**BR306GF**  
**BR316GF**



DN 65 (stroke 30) – DN 100



DN 125 – DN 150

MC250 / MC400 / MC500 / MC1000

Installation instruction:

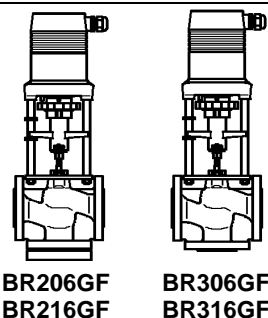
Valve trim could be damaged by dirt in the pipe system. Therefore we recommend the installation of strainers.

# Control valves with electric actuators up to 150°C

PN 6 / 16 **2.2.3**

Flanged connection  
PN 6 / PN 16  
Cast iron

with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



## Dimension

### PN 6

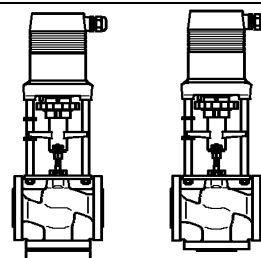
DN		15	20	25	32	40	50	65	80	100	
L	mm	130	150	160	180	200	230	290	310	350	
B	mm	65	70	75	95	100	100	120	130	150	
B <sub>1</sub>	mm	86	93	98	119	124	124	144	158	178	
∅ D	mm	80	90	100	120	130	140	160	190	210	
∅ k	mm	55	65	75	90	100	110	130	150	170	
z	mm	4x ∅11			4x ∅14			4x ∅18			
b	mm	12	14	14	16	16	16	16	18	18	
H	MC55	24 VAC/230 VAC	mm	267	272	277	277	282	282		
	MC65	24 VAC/230 VAC	mm						335		
	MC100	24 VAC	mm	343	348	353	353	358	358	408	
		230 VAC	mm	368	373	378	378	383	383	433	
	MC161	24 VAC	mm					448	448	486	
		230 VAC	mm					473	473	511	
	MC160	24 VAC	mm						486	496	506
		230 VAC	mm						511	521	531
	MC250	24 VAC/230 VAC	mm						645	655	665
	MC400	24 VAC/230 VAC	mm						695	705	715
MC500	24 VAC/230 VAC	mm						645	655	665	
m	MC55	BR206GF	kg	4.3	5.4	6.3	8.6	10.3	12.0		
		BR306GF	kg	3.7	4.5	5.2	7.1	8.5	9.9		
	MC65	BR206GF	kg							19.4	
		BR306GF	kg							16.2	
	MC100	BR206GF	kg	5.3	6.4	7.3	9.6	11.3	13.0	20.4	
		BR306GF	kg	4.7	5.5	6.2	8.1	9.5	10.9	17.2	
	MC161	BR206GF	kg					12.0	13.7	21.1	
		BR306GF	kg					10.2	11.6	17.9	
	MC160	BR206GF	kg						21.1	29.5	40.3
		BR306GF	kg						17.9	25.2	34.2
	MC250/ MC500 24 VAC	BR206GF	kg						24.9	33.3	44.1
		BR306GF	kg						21.7	29.0	38.0
	MC250/ MC500 230 VAC	BR206GF	kg						26.1	34.5	45.3
		BR306GF	kg						22.9	30.2	39.2
	MC400	BR206GF	kg						27.4	35.8	46.6
		BR306GF	kg						24.2	31.5	40.5

# Control valves with electric actuators up to 150°C

PN 6 / 16 **2.2.3**

Flanged connection  
PN 6 / PN 16  
Cast iron

with electric actuators  
MC55/24 • MC55/230 • MC55Y  
MC65/24 • MC65/230 • MC65Y  
MC100/24 • MC100/230  
MC160/24 • MC160/230  
MC161/24 • MC161/230  
MC250/24 • MC250/230  
MC400/24 • MC400/230  
MC500/24 • MC500/230  
MC1000/24 • MC1000/230



**BR206GF**  
**BR216GF**

**BR306GF**  
**BR316GF**

## PN 16

DN		15	20	25	32	40	50	65	80	100	125	150	
L	mm	130	150	160	180	200	230	290	310	350	400	480	
B	mm	65	70	75	95	100	100	120	130	150	160	170	
B <sub>1</sub>	mm	89	96	101	123	128	130	150	162	182	194	207	
∅ D	mm	95	105	115	140	150	165	185	200	220	250	285	
∅ k	mm	65	75	85	100	110	125	145	160	180	210	240	
z	mm	4x ∅14			4x ∅18				8x ∅18			8x	
b	mm	14	16	16	18	18	20	20	22	24	26	26	
H	MC55	24 VAC/230 VAC	mm	267	272	277	277	282	282				
	MC65							335					
	MC100	24 VAC	mm	343	348	353	353	358	358	408			
		230 VAC	mm	368	373	378	378	383	383	433			
	MC161	24 VAC	mm				443	448	448	486			
		230 VAC	mm				468	473	473	511			
	MC160	24 VAC	mm						486	496	506		
		230 VAC	mm						511	521	531		
	MC250	24 VAC/230 VAC	mm						645	655	665	805	805
	MC400	24 VAC/230 VAC	mm						695	705	715	855	855
MC500	24 VAC/230 VAC	mm						645	655	665	805	805	
MC1000	24 VAC/230 VAC	mm									895	895	
m	MC55	BR216GF	kg	5.6	6.8	8.1	11.5	13.3	16.8				
		BR316GF	kg	4.6	5.5	6.5	9.1	10.6	13.1				
	MC65	BR216GF	kg							26.3			
		BR316GF	kg							21.5			
	MC100	BR216GF	kg	6.6	7.8	9.1	12.5	14.3	17.8	27.3			
		BR316GF	kg	5.6	6.5	7.5	10.1	11.6	14.1	22.5			
	MC161	BR216GF	kg				13.2	15.0	18.5	28.0			
		BR316GF	kg				10.8	12.3	14.8	23.2			
	MC160	BR216GF	kg							28.0	33.0	46.1	
		BR316GF	kg							23.2	27.2	39.2	
MC250/ MC500 24 VAC	BR216GF	kg							31.8	36.8	49.9	69.0	97.0
	BR316GF	kg							27.0	31.0	43.0	59.0	84.0
MC250/ MC500 230 VAC	BR216GF	kg							33.0	38.0	51.1	70.2	98.2
	BR316GF	kg							28.2	32.2	44.2	60.2	85.2
MC400	BR216GF	kg							34.3	39.3	52.4	71.5	99.5
	BR316GF	kg							29.5	33.5	45.5	61.5	86.5
MC1000	BR216GF	kg										73	101
	BR316GF	kg										63	88