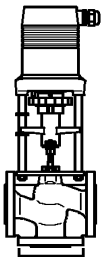
Motor-Durchgangs- und Dreiwegeventile bis 150°C PN 6 / 16 **2.2.3**

Flanschanschluss
PN 6 / PN 16
Grauguss



mit elektrischen Antrieben
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

Merkmale

- Einsetzbar in Heizungs-, Lüftungs- und Klimaanlagen zur Regelung des Heiß- und Kaltwasserdurchflusses von 0...+150°C. Ab 130°C Antriebsposition nur waagerecht zulässig.
- Mit Spindelheizung geeignet für Wasser mit Frostschutz bis –10°C
- Ventile in den Endlagen dichtschließend
- 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 200	DN 15 – DN 100	DN 15 – DN 200
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) 60 (DN 200)			
Stellverhältnis	DN 15: 50:1 DN 20 – 200: 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: DN 15 – DN 150 EN 1349 – Sitzleckage VI G 1 (dichtschließend)
DN 200 EN 1349 – Sitz-Leckage IV L 1 (≤ 0,01% vom kvs-Wert)

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	Leistungsaufnahme:	$P_{max.}$	≈ 30 VA	P_N	≈ 30 VA
DN 125 – DN 200	Leistungsaufnahme:	$P_{max.}$	≈ 250 VA	P_N	≈ 45 VA

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

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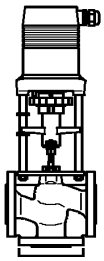
www.hora.de

Flanschanschluss
PN 6 / PN 16
Grauguss

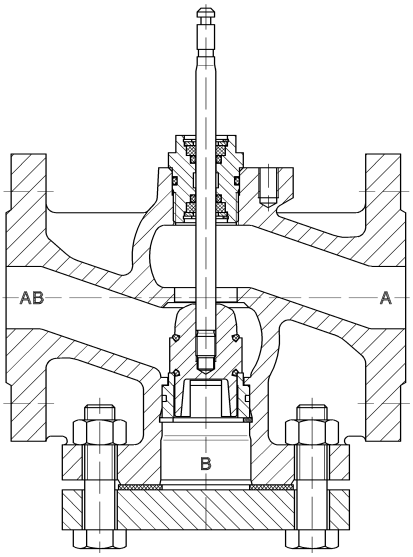


mit elektrischen Antrieben
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

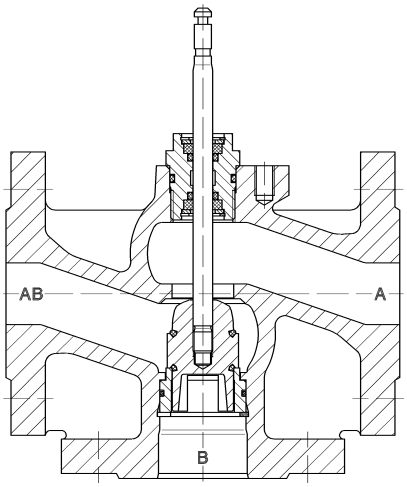
BR206GF BR306GF
BR216GF BR316GF

Schnittzeichnung

DN 15 – DN 65 (Hub 20)

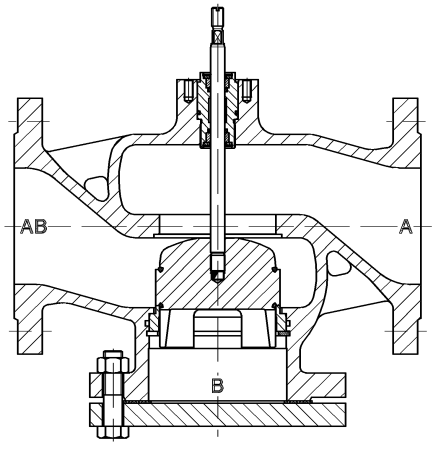


BR206GF / BR216GF

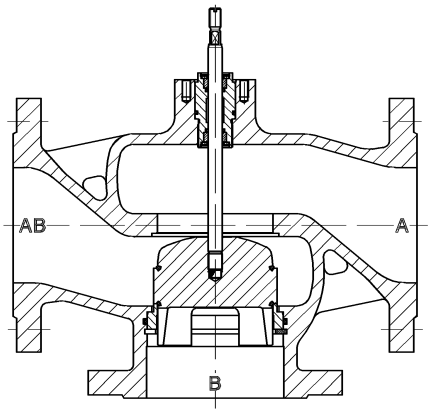


BR306GF / BR316GF

DN 65 (Hub 30) – DN 100



BR206GF / BR216GF



BR306GF / BR316GF

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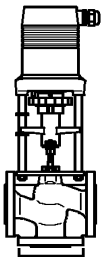
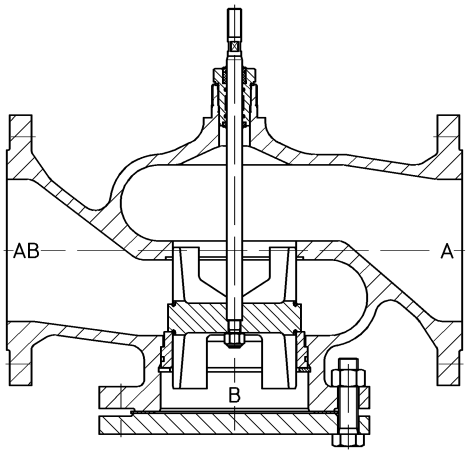
Flanschanschluss
PN 6 / PN 16
Grauguss



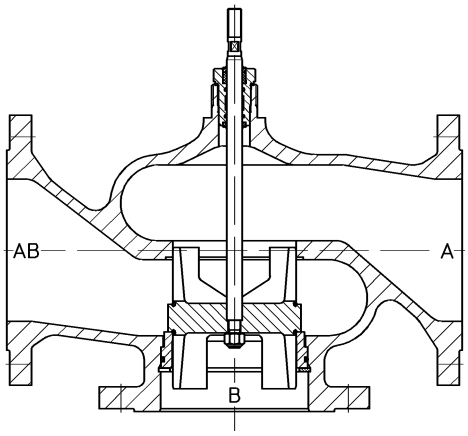
mit elektrischen Antrieben
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF **BR306GF**
BR216GF **BR316GF**

DN 125 – DN 200



BR216GF



BR316GF

Technische Daten Antrieb MC55

Typ		**MC55/24**		**MC55/230**		**MC55Y**	
Stellzeit [1]	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 [2]	VDC	24 ±10%				24 ±10%	
Frequenz	Hz	50/60 ±5%		50/60 ±5%		50/60 ±5%	
Leistungsaufnahme	VA	3,5		7		3,5	
Eingangssignal [3]		3-Punkt		3-Punkt		0(2)...10 VDC 77 kOhm 0(4)...20 mA 0,51 kOhm	
Ausgangssignal [3]		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	

[1] Stellzeit frei wählbar, Voreinstellung ist mit * gekennzeichnet, vor Ort einstellbar
[2] nur gleichgerichtete Wechselspannung
[3] stetige Signale invertierbar

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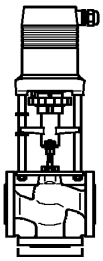
Flanschanschluss
PN 6 / PN 16
Grauguss



mit elektrischen Antrieben
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

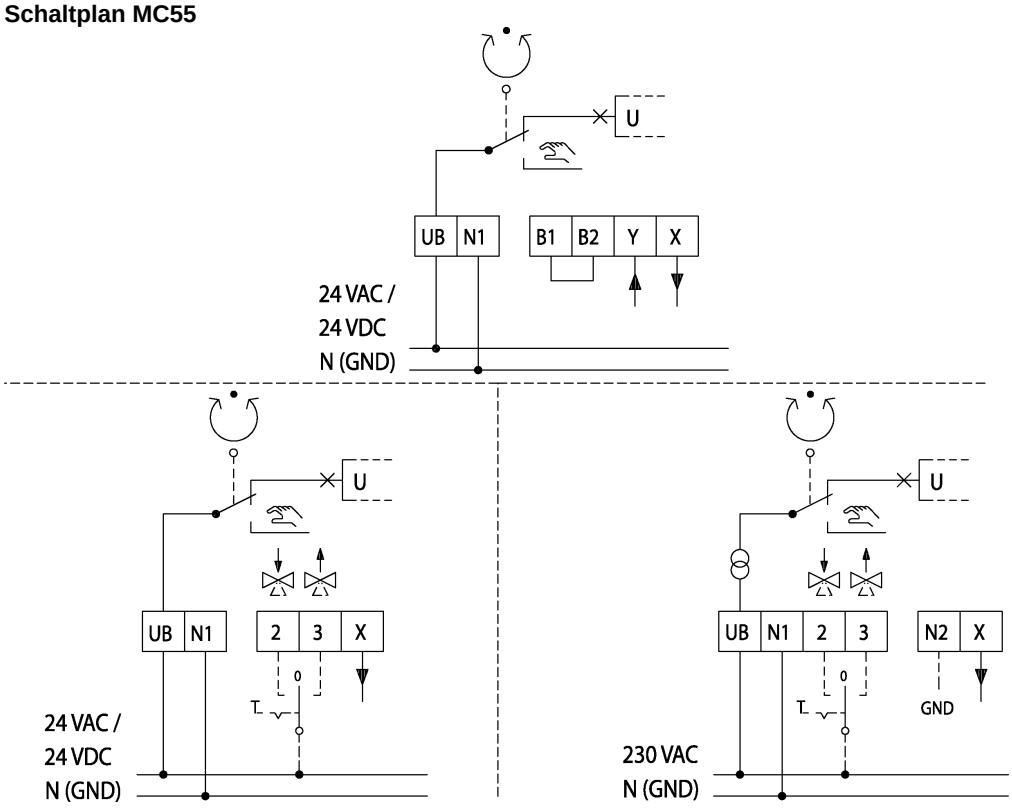
BR206GF **BR306GF**
BR216GF **BR316GF**

Schutzart:	IP 54 im Automatikbetrieb IP 30 bei Handbetätigung	
Auflösung:	elektrisch mechanisch	0,04 VDC 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



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

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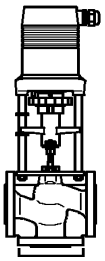
Flanschanschluss
PN 6 / PN 16
Grauguss



mit elektrischen Antrieben
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

Technische Daten Antrieb MC100 – MC1000

Typ		**MC100/24**	**MC100/230**
Stellzeit [1]	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 [2]	VDC	24 ±10%	-
Frequenz	Hz	50/60 ±5%	50/60 ±5%
Leistungsaufnahme	VA	6	12
Eingangssignal [3]		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 [3]		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysterese [4]	V	0,15 · 0,5	0,15 · 0,5

Typ		**MC160/24**	**MC160/24**	**MC160/230**	**MC160/230**
Stellzeit [1]	s/mm	6 · 4*		6 · 4*	
Stellkraft	kN	1,6		1,6	
Hub	mm	max. 30	max. 14 / 20	max. 30	max. 14 / 20
Spannung	VAC	24 ±10%		230 +6% -10%	
Spannung [2]	VDC	24 ±10%		-	
Frequenz	Hz	50/60 ±5%		50/60 ±5%	
Leistungsaufnahme	VA	6		12	
Eingangssignal [3]		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 [3]		0...10 VDC max. 8 mA min. 1200 Ohm		0...10 VDC max. 8 mA min. 1200 Ohm	
Hysterese [4]	V	0,05 · 0,15 · 0,3 · 0,5		0,05 · 0,15 · 0,3 · 0,5	

[1] Stellzeit frei wählbar, Voreinstellung ist mit * gekennzeichnet, vor Ort einstellbar
[2] nur gleichgerichtete Wechselspannung
[3] stetige Signale invertierbar
[4] vor Ort einstellbar

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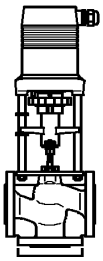
Motor-Durchgangs- und Dreiwegeventile bis 150°C PN 6 / 16 **2.2.3**

Flanschanschluss
PN 6 / PN 16
Grauguss



mit elektrischen Antrieben
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

Typ		**MC220/24**	**MC220/230**
Stellzeit [1]	s/mm	3	3
Stellkraft	kN	2,2	2,2
Hub	mm	max. 30	max. 30
Spannung	VAC	24 ±10%	230 ±10%
Spannung [2]	VDC	24 ±10%	-
Frequenz	Hz	50/60 ±5%	50/60 ±5%
Leistungsaufnahme	VA	6	12
Eingangssignal [3]		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 [3]		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysterese [4]	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 [3]		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 [3]		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysterese [4]	V	0,05 · 0,15 · 0,3 · 0,5	0,05 · 0,15 · 0,3 · 0,5

[1] Stellzeit frei wählbar, Voreinstellung ist mit * gekennzeichnet, vor Ort einstellbar
[2] nur gleichgerichtete Wechselspannung
[3] stetige Signale invertierbar
[4] vor Ort einstellbar

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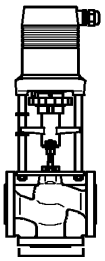
Motor-Durchgangs- und Dreiwegeventile bis 150°C PN 6 / 16 **2.2.3**

Flanschanschluss
PN 6 / PN 16
Grauguss



mit elektrischen Antrieben
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

Typ		**MC500/24**	**MC500/230**
Stellzeit [1]	s/mm	5 · 3,5*	5 · 3,5*
Stellkraft	kN	5,0	5,0
Hub	mm	max. 60	max. 60
Spannung	VAC	24 ±10%	230 +6% -10%
Spannung [2]	VDC	24 ±10%	-
Frequenz	Hz	50/60 ±5%	50/60 ±5%
Leistungsaufnahme	VA	max. 18	max. 25
Eingangssignal [3]		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 [3]		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysterese [4]	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 [3]		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 [3]		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysterese [4]	V	0,05 · 0,15 · 0,3 · 0,5	0,05 · 0,15 · 0,3 · 0,5

Schutzart: IP 54

Auflösung:

MC55	elektrisch	0,04 VDC
MC100	mechanisch	0,095 mm
MC160 / MC220	mechanisch	0,05 mm
MC500	mechanisch	0,04 mm
MC400	mechanisch	0,12 mm
MC1000	mechanisch	0,05 mm

Betriebsart:

MC55	S3-50% ED c/h 1200	EN 60034-1
MC100 – MC500	S3-50% ED c/h 1200	EN 60034-1
MC400 / MC1000	S3-30% ED c/h 1200	EN 60034-1

Endlagenabschaltung: lastabhängig

[1] Stellzeit frei wählbar, Voreinstellung ist mit * gekennzeichnet, vor Ort einstellbar
[2] nur gleichgerichtete Wechselspannung
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[4] vor Ort einstellbar

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Flanschanschluss
PN 6 / PN 16
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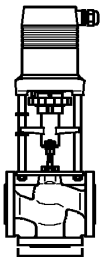

mit elektrischen Antrieben
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MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

		BR206GF BR216GF	**BR306GF BR316GF**
Umgebungstemperatur:	MC55	0...+60°C	
	MC100 / MC160 / MC220	0...+60°C	
	MC400 / MC500 / MC1000	-10...+60°C	
Gewicht:	MC55	1,5 kg	
	MC100	2,5 kg	
	MC160 und MC220	3,2 kg	
	MC500/24	7,0 kg	
	MC500/230	8,2 kg	
	MC400	9,5 kg	
	MC1000	11,0 kg	

Antriebsvariante und Zubehör

- Sonderspannung: 115 VAC
- Wegschaltereinheit [1]: 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 [1]
- Adapter mit Aufnahme für Fremdfabrikate

[1] MC100/MC160/MC220: Wegschaltereinheit und Ausgangssignal 0(4)...20 mA nicht kombinierbar

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Flanschanschluss
PN 6 / PN 16
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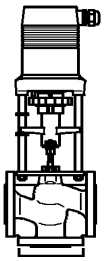

mit elektrischen Antrieben
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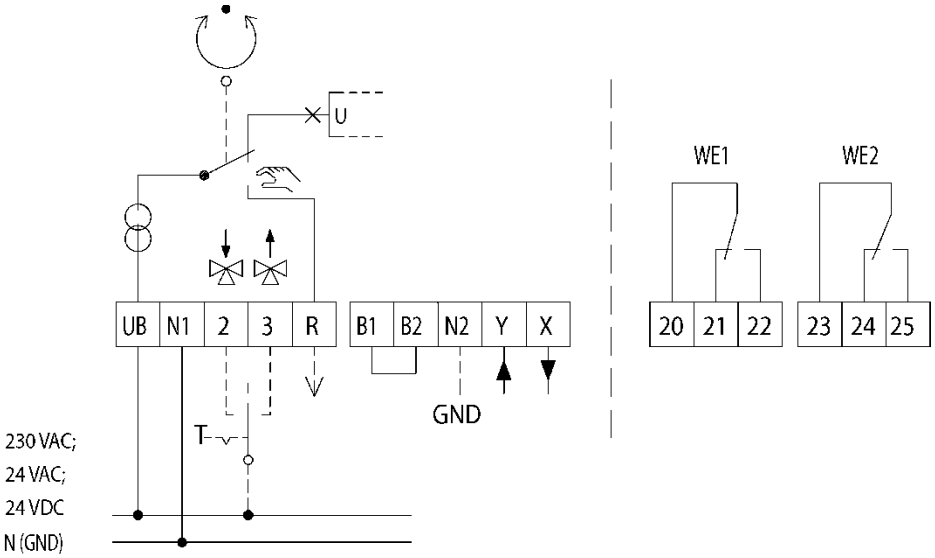
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

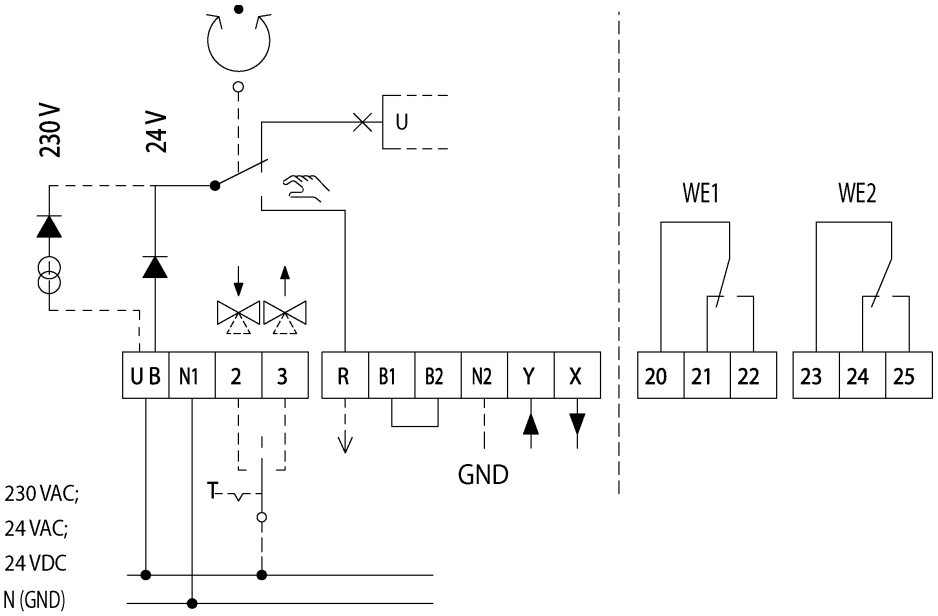
BR206GF **BR306GF**
BR216GF **BR316GF**

Schaltplan MC100 / MC160 / MC220



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

Schaltplan MC400 / MC500 / MC1000



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

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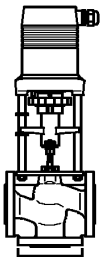
Flanschanschluss
PN 6 / PN 16
Grauguss



mit elektrischen Antrieben
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

Technische Daten Ventil mit Stellantrieb

PN 6

DN			**15**	**20**	**25**	**32**	**40**	**50**	**65**	**65**	**80**	**100**
kvs-Wert		m³/h	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
Hub		mm	14						20	30		
MC55/24 MC55/230 MC55Y	Stellzeit [1]	s	125									
			70*									
	Schließdruck	kPa	600	600	600	450	250	150				
MC100/24 MC100/230	Stellzeit [1]	s	170						240			
			125*						180*			
			55						80			
			30						40			
	Schließdruck	kPa	600	600	600	600	550	350	150			
MC160/24 MC160/230	Stellzeit [1]	s					95		120			
							55*		80*			
	Schließdruck	kPa					600	600	350			
MC160/24 MC160/230	Stellzeit [1]	s								120	180	
										80*	120*	
	Schließdruck	kPa								350	230	140
MC220/24 MC220/230	Stellzeit [1]	s								90		
	Schließdruck	kPa								500	300	200
MC400/24 MC400/230	Stellzeit [1]	s								15	20	
										10*	15*	
	Schließdruck	kPa								600	600	400
MC500/24 MC500/230	Stellzeit [1]	s								150	150	
										105*	105*	
	Schließdruck	kPa								600	600	500

100 kPa = 1 bar = 10 mWS

[1] Stellzeit frei wählbar, Voreinstellung ist mit * gekennzeichnet

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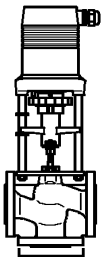
Motor-Durchgangs- und Dreiwegeventile bis 150°C PN 6 / 16 **2.2.3**

Flanschanschluss
PN 6 / PN 16
Grauguss



mit elektrischen Antrieben
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

PN 16

DN			**15**	**20**	**25**	**32**	**40**	**50**	**65**	**65**	**80**	**100**	**125**	**150**	**200** BR216 GF	**200** BR316GF
kvs-Wert		m³/h	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	500	
Hub		mm	14						20	30			50		60	
MC55/24 MC55/230 MC55Y	Stellzeit [1]	s	125						180							
			70*						100*							
	Schließdruck	kPa	1500	1250	750	450	250	150	100							
MC100/24 MC100/230	Stellzeit [1]	s	170						240							
			125*						180*							
			55						80							
			30						40							
	Schließdruck	kPa	1600	1600	1500	900	550	350	150							
MC160/24 MC160/230	Stellzeit [1]	s				95			120							
						55*			80*							
	Schließdruck	kPa				1500	950	600	350							
MC160/24 MC160/230	Stellzeit [1]	s								120	180					
										80*	120*					
	Schließdruck	kPa								350	230	140				
MC220/24 MC220/230	Stellzeit [1]	s								90						
	Schließdruck	kPa								500	300	200				
MC400/24 MC400/230	Stellzeit [1]	s								15	20		30		40	
										10*	15*		20*		30*	
	Schließdruck	kPa								950	650	400	300	200	300	
MC500/24 MC500/230	Stellzeit [1]	s								150	150		250		300	
										105*	105*		175*		210*	
	Schließdruck	kPa								1250	850	500	370	270	600	110
MC1000/24 MC1000/230	Stellzeit	s											50		60	
	Schließdruck	kPa											800	550	1200	240

100 kPa = 1 bar = 10 mWS

[1] Stellzeit frei wählbar, Voreinstellung ist mit * gekennzeichnet

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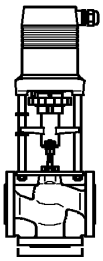
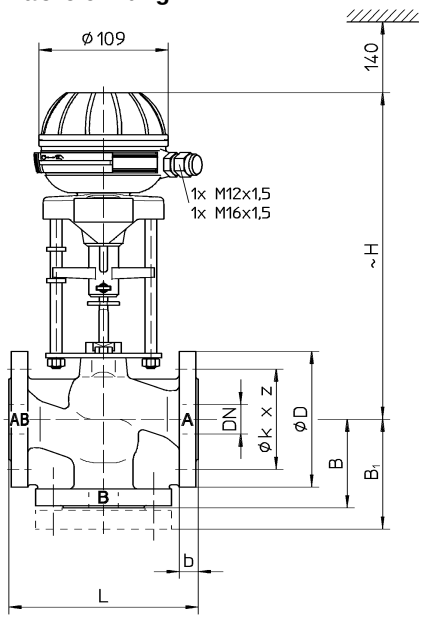
Flanschanschluss
PN 6 / PN 16
Grauguss



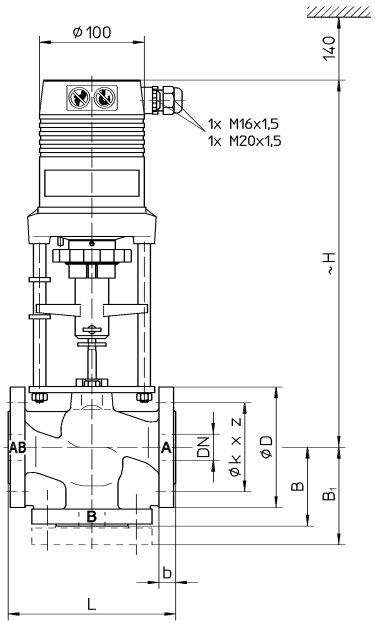
mit elektrischen Antrieben
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

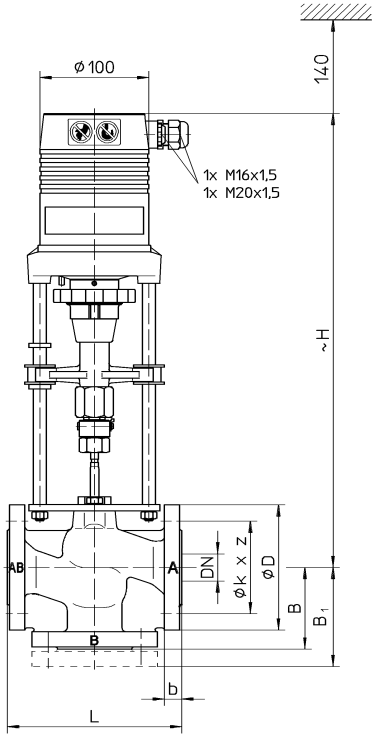
Maßzeichnung



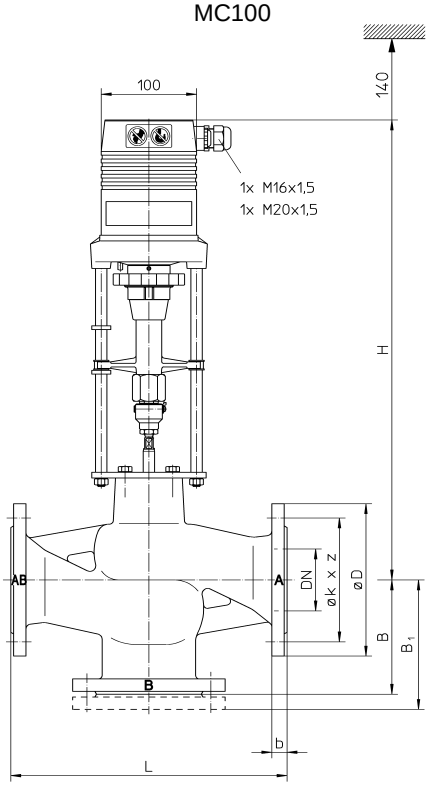
DN 15 – DN 50
MC55



DN 15 – DN 65 (Hub 20)
MC100



DN 32 – DN 65 (Hub 14 / 20)
MC160



DN 65 (Hub 30) – DN 100
MC160 / MC220

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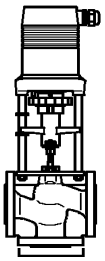
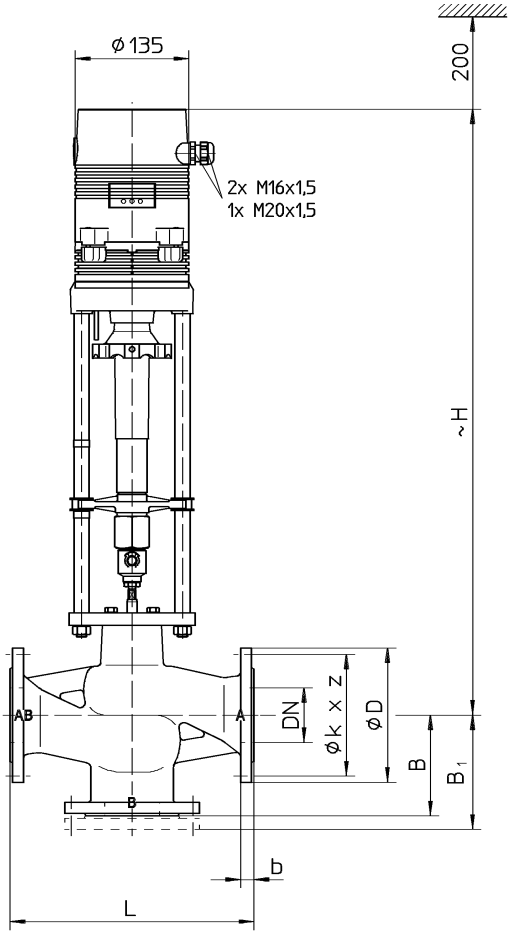
Flanschanschluss
PN 6 / PN 16
Grauguss

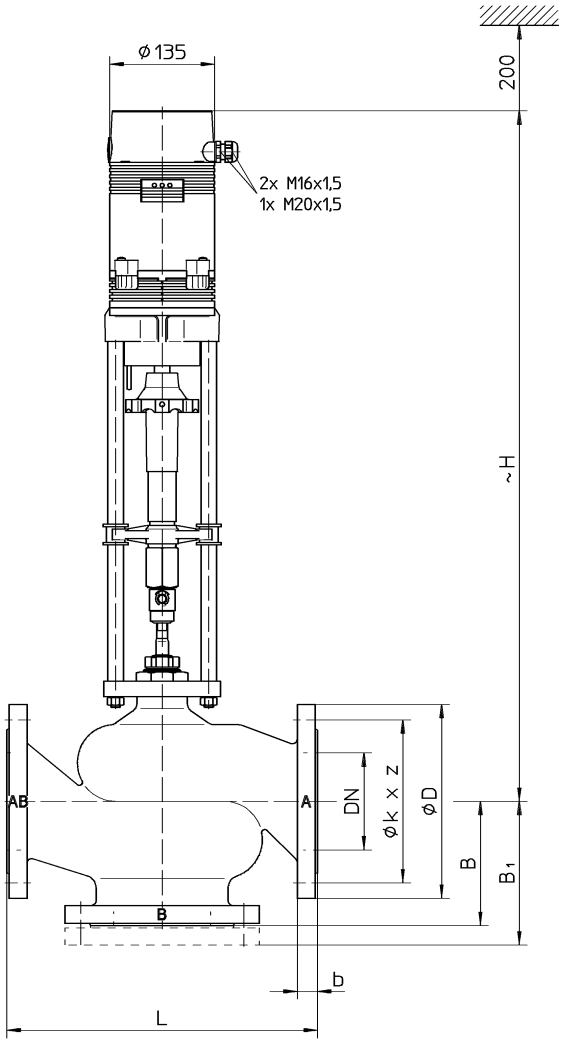


mit elektrischen Antrieben
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF **BR306GF**
BR216GF **BR316GF**



DN 65 (Hub 30) – DN 100



DN 125 – DN 200

MC400 / MC500 / MC1000

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

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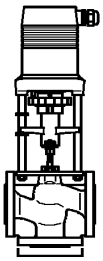
Flanschanschluss
PN 6 / PN 16
Grauguss



mit elektrischen Antrieben
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

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_1			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			
	MC100	24 VAC	mm	343	348	353	353	358	358	408		
		230 VAC	mm	368	373	378	378	383	383	433		
	MC160	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
	MC220	24 VAC	mm							486	496	506
		230 VAC	mm							511	521	531
	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			
	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		
	MC160	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
	MC220	BR206GF	kg							21,1	29,5	40,3
		BR306GF	kg							17,9	25,2	34,2
	MC500 24 VAC	BR206GF	kg							24,9	33,3	44,1
		BR306GF	kg							21,7	29,0	38,0
	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

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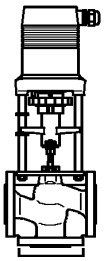
Motor-Durchgangs- und Dreiwegeventile bis 150°C PN 6 / 16 **2.2.3**

Flanschanschluss
PN 6 / PN 16
Grauguss



mit elektrischen Antrieben
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

PN 16

DN					**15**	**20**	**25**	**32**	**40**	**50**	**65**	**80**	**100**	**125**	**150**	**200**
L				mm	130	150	160	180	200	230	290	310	350	400	480	600
B				mm	65	70	75	95	100	100	120	130	150	160	170	215
B_1				mm	89	96	101	123	128	130	150	162	182	194	207	254
∅ D				mm	95	105	115	140	150	165	185	200	220	250	285	340
∅ k				mm	65	75	85	100	110	125	145	160	180	210	240	295
z				mm	4x ∅14			4x ∅18				8x ∅18			8x ∅22	12x ∅22
b				mm	14	16	16	18	18	20	20	22	24	26	26	24
H	MC55	24 VAC/230 VAC		mm	267	272	277	277	282	282						
	MC100	24 VAC		mm	343	348	353	353	358	358	408					
		230 VAC		mm	368	373	378	378	383	383	433					
	MC160	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			
	MC220	24 VAC		mm							486	496	506			
		230 VAC		mm							511	521	531			
	MC400	24 VAC/230 VAC		mm							695	705	715	855	855	875
	MC500	24 VAC/230 VAC		mm							645	655	665	805	805	825
	MC1000	24 VAC/230 VAC		mm										895	895	920
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						
	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					
	MC160		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			
	MC220		BR216GF	kg							28,0	33,0	46,1			
			BR316GF	kg							23,2	27,2	39,2			
	MC500 24 VAC		BR216GF	kg							31,8	36,8	49,9	69,0	97,0	163
			BR316GF	kg							27,0	31,0	43,0	59,0	84,0	143
	MC500 230 VAC		BR216GF	kg							33,0	38,0	51,1	70,2	98,2	164
			BR316GF	kg							28,2	32,2	44,2	60,2	85,2	144
	MC400		BR216GF	kg							34,3	39,3	52,4	71,5	99,5	183
			BR316GF	kg							29,5	33,5	45,5	61,5	86,5	
	MC1000		BR216GF	kg										73	101	184
			BR316GF	kg										63	88	165

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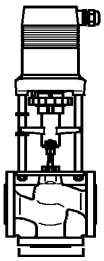
Control valves with electric actuators up to 150°C PN 6 / 16 2.2.3

Flanged connection
PN 6 / PN 16
Cast iron



with electric actuators
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

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 200	DN 15 – DN 100	DN 15 – DN 200
Pressure rating	PN 6	PN 16	PN 6	PN 16
Characteristic	A→AB equal %		A→AB equal % B→AB linear	
Stroke mm	14 (DN 15 – DN 50) 20 (DN 65) 30 (DN 65 – DN 100) 50 (DN 125 – DN 150) 60 (DN 200)			
Rangeability	DN 15: 50:1 DN 20 – 200: 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: DN 15 – DN 150 EN 1349 – seat-leakage VI G 1 (tight sealing)
DN 200 EN 1349 – seat-leakage IV L 1 (≤ 0,01% of kvs-value)

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	Power consumption:	$P_{max.}$	≈ 30 VA	P_N	≈ 30 VA
DN 125 – DN 200	Power consumption:	$P_{max.}$	≈ 250 VA	P_N	≈ 45 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

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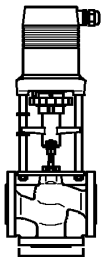
Flanged connection
PN 6 / PN 16
Cast iron

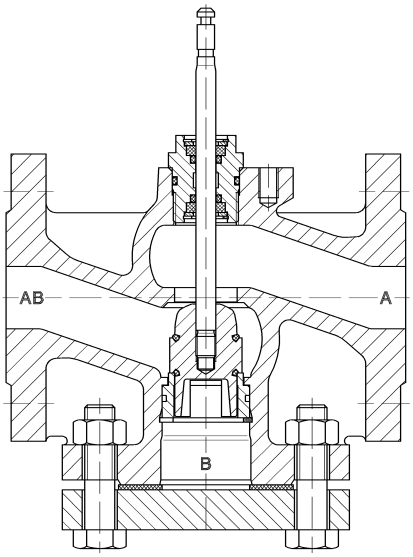


with electric actuators
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

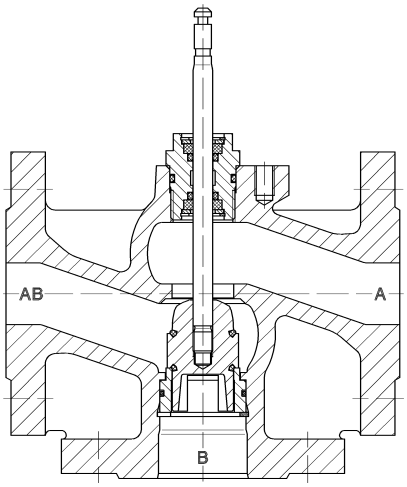
BR206GF BR306GF
BR216GF BR316GF

Drawing

DN 15 – DN 65 (stroke 20)

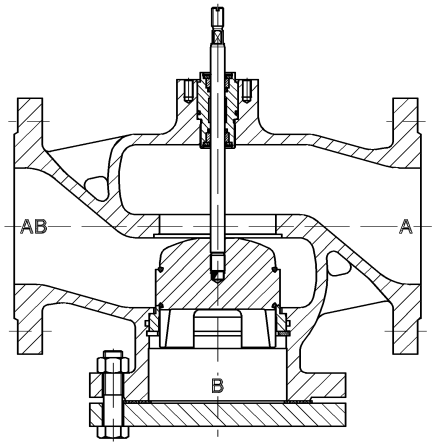


BR206GF / BR216GF

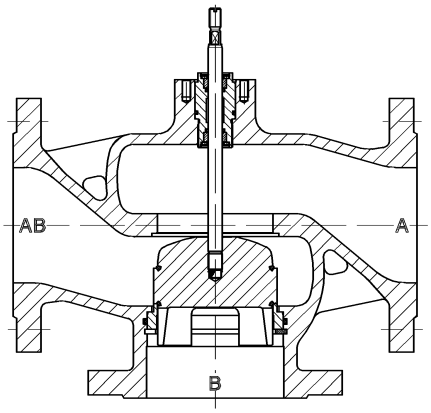


BR306GF / BR316GF

DN 65 (Stroke 30) – DN 100



BR206GF / BR216GF



BR306GF / BR316GF

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Germany

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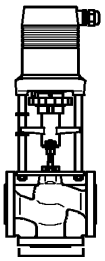
mail: fc@hora.de
www.hora.de

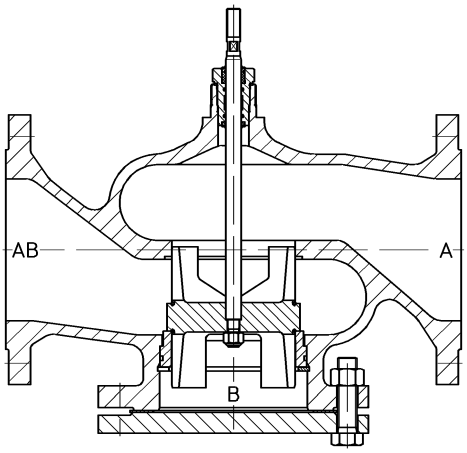
Flanged connection
PN 6 / PN 16
Cast iron



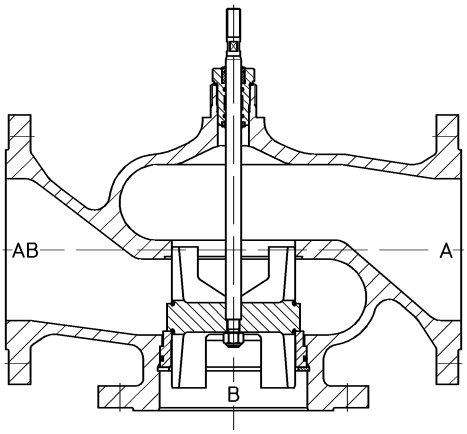
with electric actuators
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

DN 125 – DN 200



BR216GF



BR316GF

Technical data actuator MC55

Type		**MC55/24**		**MC55/230**		**MC55Y**	
Actuating time [1]	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 ±10%		24 ±10%	
Power supply [2]	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 [3]		3-point		3-point		0(2)...10 VDC 77 kOhm 0(4)...20 mA 0.51 kOhm	
Output signal [3]		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	
Hysterisis	V	0.3		0.3		0.3	

[1] Actuating time freely adjustable, presetting is marked with *
[2] only retified alternating voltage
[3] Invertible input and output signal

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Germany

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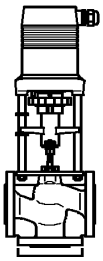
mail: fc@hora.de
www.hora.de

Flanged connection
PN 6 / PN 16
Cast iron



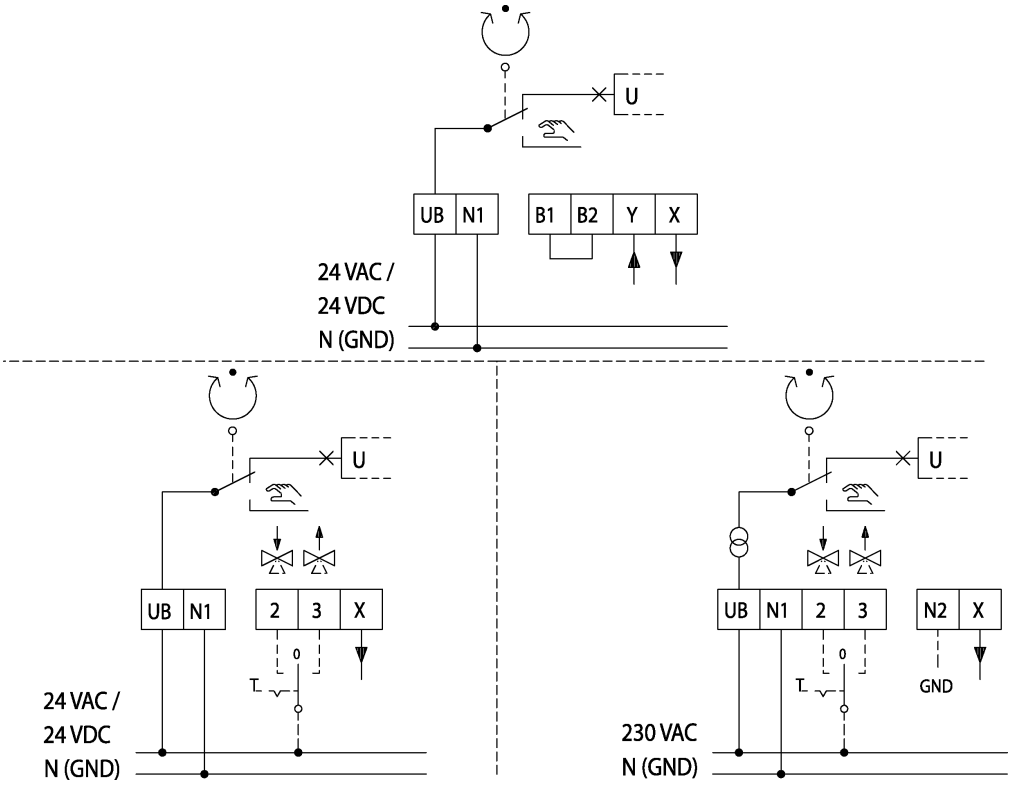
with electric actuators
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

	BR206GF **BR216GF**	**BR306GF** **BR316GF**
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



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

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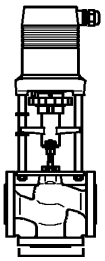
Flanged connection
PN 6 / PN 16
Cast iron



with electric actuators
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

Technical data actuator MC100 – MC1000

Type		**MC100/24**	**MC100/230**
Actuating time [1]	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 ±10%
Power supply [2]	VDC	24 ±10%	-
Frequency	Hz	50/60 ±5%	50/60 ±5%
Power consumption	VA	6	12
Input signal [3]		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 [3]		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysterisis [4]	V	0.15 · 0.5	0.15 · 0.5

Type		**MC160/24**	**MC160/24**	**MC160/230**	**MC160/230**
Actuating time [1]	s/mm	6 · 4*		6 · 4*	
Actuating thrust	kN	1.6		1.6	
Stroke	mm	max. 30	max. 14 / 20	max. 30	max. 14 / 20
Power supply	VAC	24 ±10%		230 ±10%	
Power supply [2]	VDC	24 ±10%		-	
Frequency	Hz	50/60 ±5%		50/60 ±5%	
Power consumption	VA	6		12	
Input signal [3]		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 [3]		0...10 VDC max. 8 mA min. 1200 Ohm		0...10 VDC max. 8 mA min. 1200 Ohm	
Hysterisis [4]	V	0.05 · 0.15 · 0.3 · 0.5		0.05 · 0.15 · 0.3 · 0.5	

[1] Actuating time freely adjustable, presetting is marked with *
[2] only retified alternating voltage
[3] Invertible input and output signal
[4] Freely adjustable

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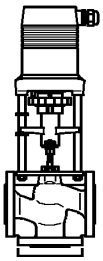
www.hora.de

Flanged connection
PN 6 / PN 16
Cast iron



with electric actuators
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

Type		**MC220/24**	**MC220/230**
Actuating time [1]	s/mm	3	3
Actuating thrust	kN	2,2	2,2
Stroke	mm	max. 30	max. 30
Power supply	VAC	24 ±10%	230 ±10%
Power supply [2]	VDC	24 ±10%	-
Frequency	Hz	50/60 ±5%	50/60 ±5%
Power consumption	VA	max. 18	max. 25
Input signal [3]		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 [3]		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysterisis [4]	V	0.05 · 0.15 · 0.3 · 0.5	0.05 · 0.15 · 0.3 · 0.5

Type		**MC400/24**	**MC400/230**
Actuating time [1]	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 ±10%
Power supply [2]	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 [3]		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Output signal [3]		0.05 · 0.15 · 0.3 · 0.5	0.05 · 0.15 · 0.3 · 0.5

[1] Actuating time freely adjustable, presetting is marked with *
[2] only retified alternating voltage
[3] Invertible input and output signal
[4] Freely adjustable

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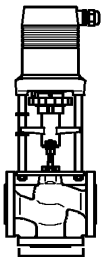
www.hora.de

Flanged connection
PN 6 / PN 16
Cast iron



with electric actuators
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

Type		**MC500/24**	**MC500/230**
Actuating time [1]	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 ±10%
Power supply [2]	VDC	24 ±10%	-
Frequency	Hz	50/60 ±5%	50/60 ±5%
Power consumption	VA	max. 18	max. 25
Input signal [3]		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 [3]		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysterisis [4]	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 ±10%
Frequency	Hz	50/60 ±5%	50/60 ±5%
Power consumption	VA	max. 50	max. 63
Input signal [1]		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 [1]		0...10 VDC max. 8 mA min. 1200 Ohm	0...10 VDC max. 8 mA min. 1200 Ohm
Hysterisis [2]	V	0.05 · 0.15 · 0.3 · 0.5	0.05 · 0.15 · 0.3 · 0.5

Enclosure protection: IP 54

Resolution:

MC55	electric	0.04 VDC
MC100	mechanical	0.095 mm
MC160 / MC220	mechanical	0.05 mm
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

[1] Stellzeit frei wählbar, Voreinstellung ist mit * gekennzeichnet, vor Ort einstellbar
[2] nur gleichgerichtete Wechselspannung
[3] stetige Signale invertierbar
[4] vor Ort einstellbar

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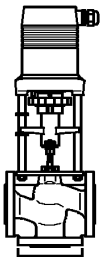
www.hora.de

Flanged connection
PN 6 / PN 16
Cast iron



with electric actuators
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

Ambient temperature:	MC55	0...+60°C
	MC100 / MC160 / MC220	0...+60°C
	MC400 / MC500 / MC1000	-10...+60°C
Weight:	MC55	1.5 kg
	MC100	2.5 kg
	MC160 and MC220	3.2 kg
	MC500/24	7.0 kg
	MC500/230	8.2 kg
	MC400	9.5 kg
	MC1000	11.0 kg

Actuator variant and accessories

- Voltage: 115 VAC
- Position switch unit [1]: 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 [1]
- Adapter with coupling for external products

[1] MC100/MC160/MC220: Position switch unit and output signal 0(4)...20 mA not in combination

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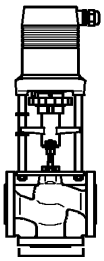
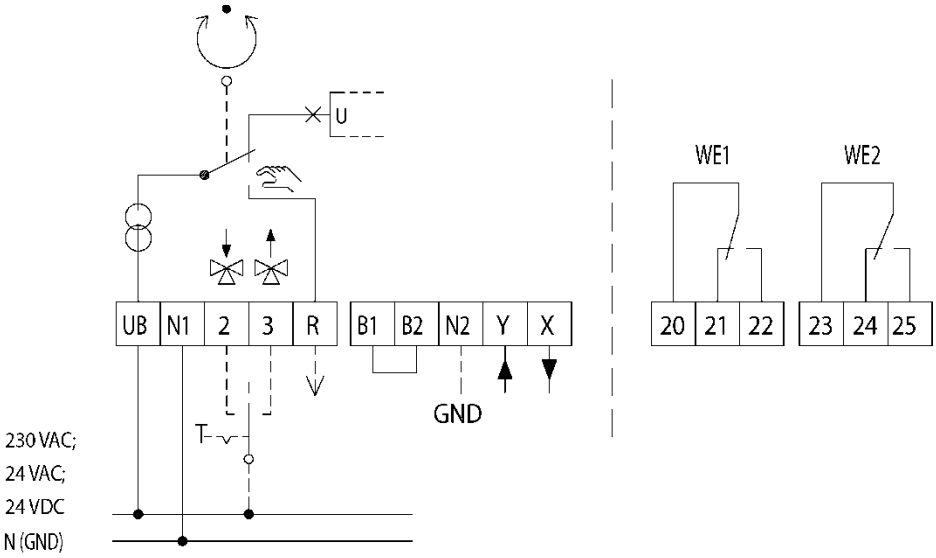
Flanged connection
PN 6 / PN 16
Cast iron



with electric actuators
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

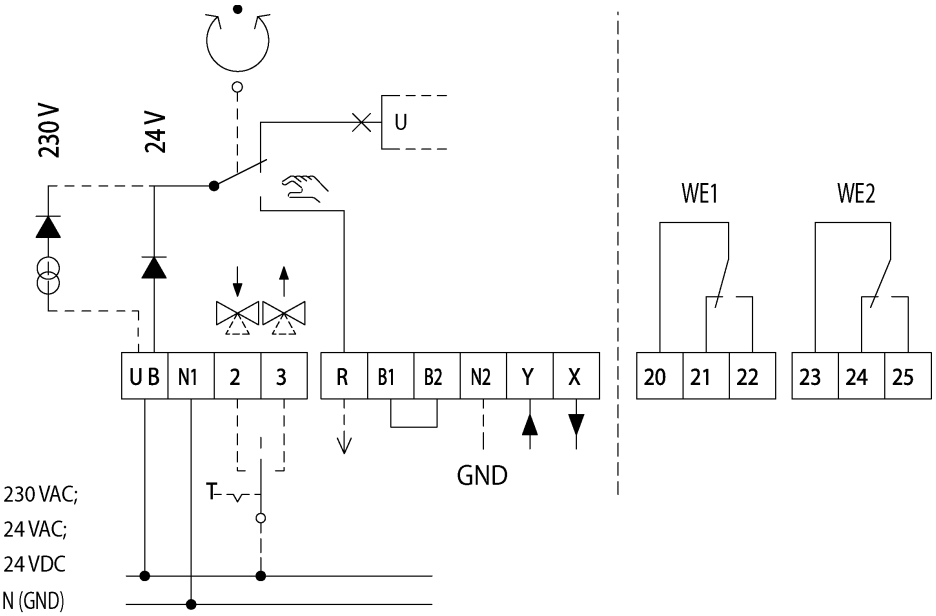
BR206GF BR306GF
BR216GF BR316GF

Circuit diagram MC100 / MC160 / MC220



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

Circuit diagram MC400 / MC500 / MC1000



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

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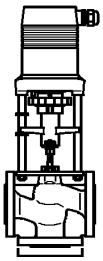
Flanged connection
PN 6 / PN 16
Cast iron



with electric actuators
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

Technical data valve with actuator

PN 6

DN			**15**	**20**	**25**	**32**	**40**	**50**	**65**	**65**	**80**	**100**
kvs-value		m³/h	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
Stroke		mm	14						20	30		
MC55/24 MC55/230 MC55Y	Actuating time [1]	s	125						180			
			70*						100*			
	Closing pressure	kPa	600	600	600	450	250	150	100			
MC100/24 MC100/230	Actuating time [1]	s	170						240			
			125*						180*			
			55						80			
			30						40			
	Closing pressure	kPa	600	600	600	600	550	350	150			
MC160/24 MC160/230	Actuating time [1]	s					95		120			
							55*		80*			
	Closing pressure	kPa					600	600	350			
MC160/24 MC160/230	Actuating time [1]	s								120	180	
										80*	120*	
	Closing pressure	kPa								350	230	140
MC220/24 MC220/230	Actuating time [1]	s								90		
	Closing pressure	kPa								500	300	500
MC400/24 MC400/230	Actuating time [1]	s								15	20	
										10*	15*	
	Closing pressure	kPa								600	600	400
MC500/24 MC500/230	Actuating time [1]	s								100	150	
										50*	75*	
	Closing pressure	kPa								600	600	500

100 kPa = 1 bar = 10 mWS

[1] Actuating time freely adjustable, presetting is marked with *

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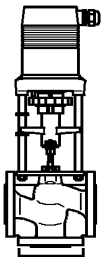
www.hora.de

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
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MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

PN 16

DN			**15**	**20**	**25**	**32**	**40**	**50**	**65**	**65**	**80**	**100**	**125**	**150**	**200** BR216 GF	**200** BR316GF
kvs-value		m³/h	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	500	
Stoke		mm	14						20	30			50		60	
MC55/24 MC55/230 MC55Y	Actuating time [1]	s	125						180							
			70*						100*							
	Closing pressure	kPa	1500	1250	750	450	250	150	100							
MC100/24 MC100/230	Actuating time [1]	s	170						240							
			125*						180*							
			55						80							
			30						40							
	Closing pressure	kPa	1600	1600	1500	900	550	350	150							
MC160/24 MC160/230	Actuating time [1]	s				95			120							
						55*			80*							
	Closing pressure	kPa				1500	950	600	350							
MC160/24 MC160/230	Actuating time [1]	s								120	180					
										80*	120*					
	Closing pressure	kPa								350	230	140				
MC220/24 MC220/230	Actuating time [1]	s								90						
	Closing pressure	kPa								500	300	200				
MC400/24 MC400/230	Actuating time [1]	s								15	20		30		40	
										10*	15*		20*		30*	
	Closing pressure	kPa								950	650	400	300	200	300	
MC500/24 MC500/230	Actuating time [1]	s								100	150		250		300	
										50*	75*		125*		150*	
	Closing pressure	kPa								1250	850	500	370	270	600	110
MC1000/24 MC1000/230	Actuating time [1]	s											50		60	
	Closing pressure	kPa											800	550	1200	240

100 kPa = 1 bar = 10 mWS

[1] Actuating time freely adjustable, presetting is marked with *

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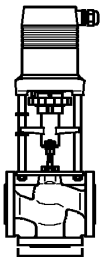
www.hora.de

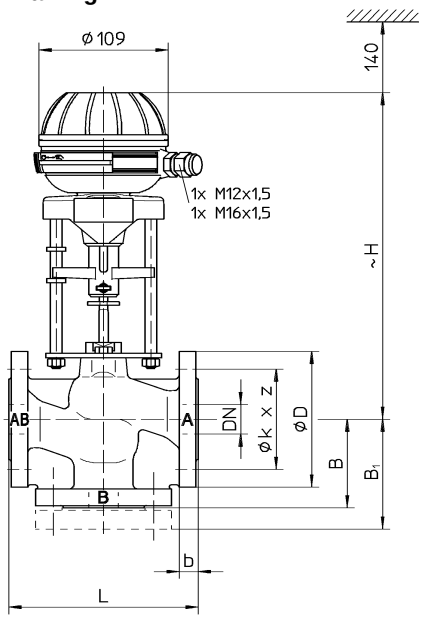
Flanged connection
PN 6 / PN 16
Cast iron



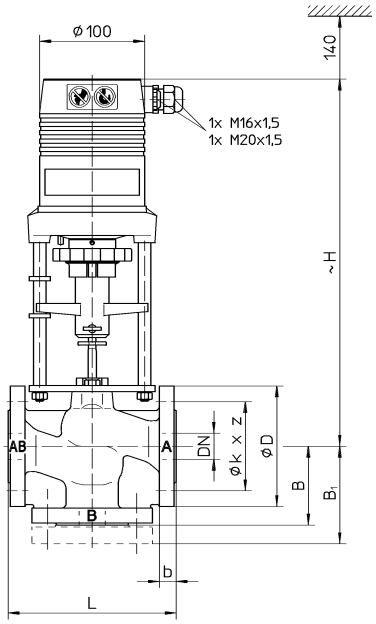
with electric actuators
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

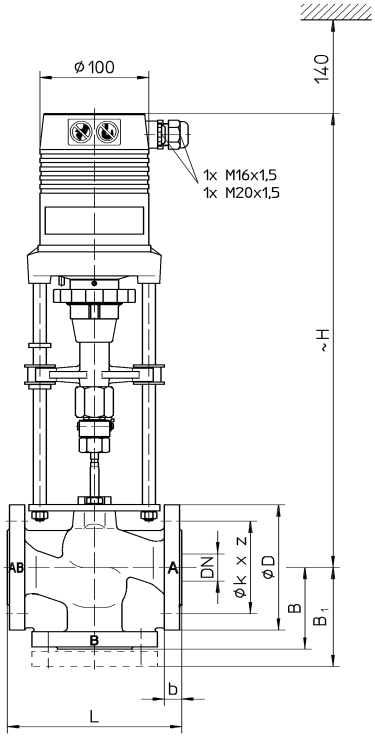
Drawing



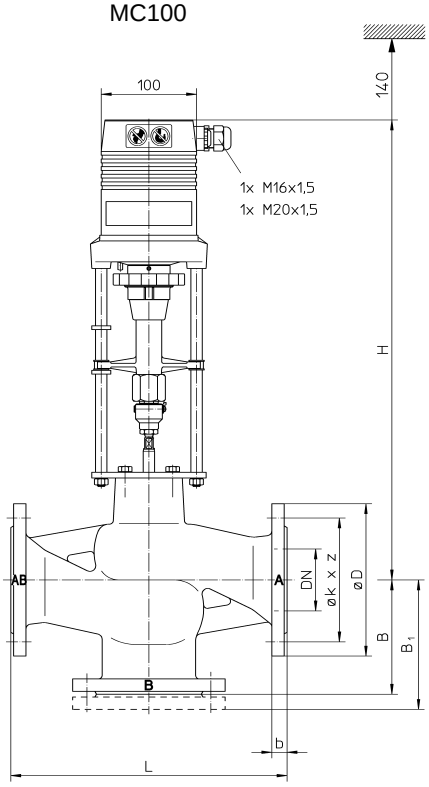
DN 15 – DN 50
MC55



DN 15 – DN 65 (stroke 20)
MC100



DN 32 – DN 65 (stroke 20)
MC160



DN 65 (stroke 30) – DN 100
MC160 / MC220

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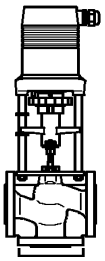

with electric actuators
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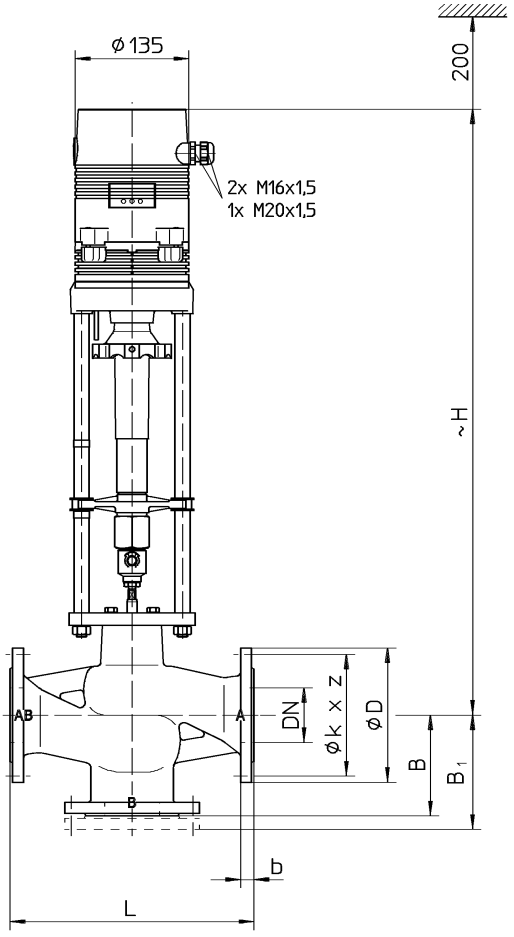
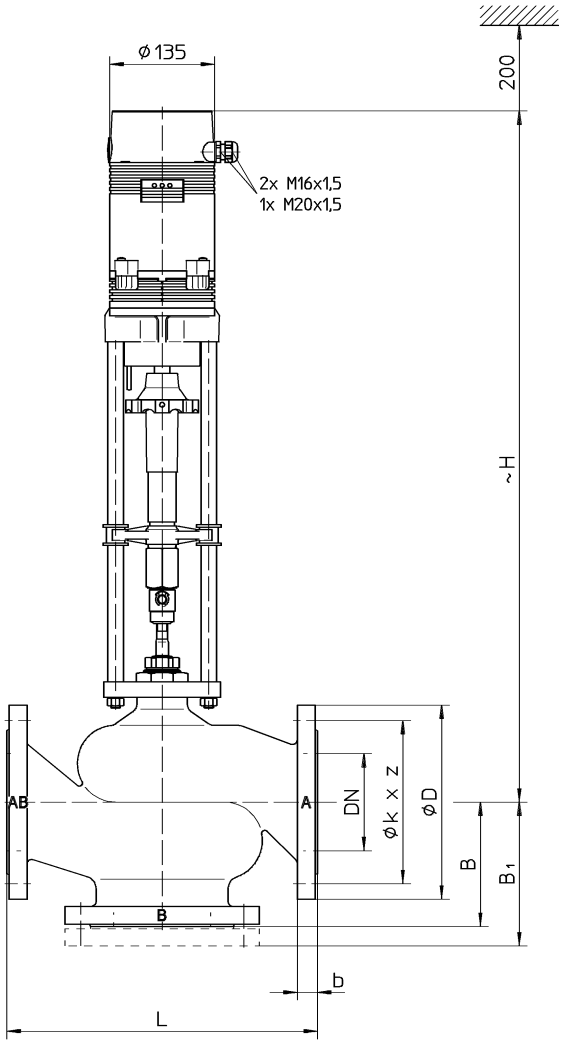
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF



DN 65 (stroke 30) – DN 100



DN 125 – DN 200

MC400 / MC500 / MC1000

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

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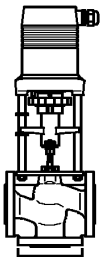

with electric actuators
MC55/24 • MC55/230 • MC55Y
MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

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_1			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			
	MC100	24 VAC	mm	343	348	353	353	358	358	408		
		230 VAC	mm	368	373	378	378	383	383	433		
	MC160	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
	MC220	24 VAC	mm							486	496	506
		230 VAC	mm							511	521	531
	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			
	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		
	MC160	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
	MC220	BR206GF	kg							21,1	29,5	40,3
		BR306GF	kg							17,9	25,2	34,2
	MC500 24 VAC	BR206GF	kg							24.9	33.3	44.1
		BR306GF	kg							21.7	29.0	38.0
	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

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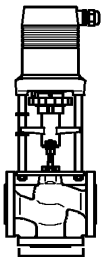

with electric actuators
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MC100/24 • MC100/230
MC160/24 • MC160/230
MC220/24 • MC220/230
MC400/24 • MC400/230
MC500/24 • MC500/230
MC1000/24 • MC1000/230

BR206GF BR306GF
BR216GF BR316GF

PN 16

DN					**15**	**20**	**25**	**32**	**40**	**50**	**65**	**80**	**100**	**125**	**150**	**200**
L				mm	130	150	160	180	200	230	290	310	350	400	480	600
B				mm	65	70	75	95	100	100	120	130	150	160	170	215
B_1				mm	89	96	101	123	128	130	150	162	182	194	207	254
∅ D				mm	95	105	115	140	150	165	185	200	220	250	285	340
∅ k				mm	65	75	85	100	110	125	145	160	180	210	240	295
z				mm	4x ∅14			4x ∅18				8x ∅18			8x ∅22	12x ∅22
b				mm	14	16	16	18	18	20	20	22	24	26	26	24
H	MC55	24 VAC/230 VAC		mm	267	272	277	277	282	282						
	MC100	24 VAC		mm	343	348	353	353	358	358	408					
		230 VAC		mm	368	373	378	378	383	383	433					
	MC160	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			
	MC220	24 VAC									486	496	506			
		230 VAC		mm							511	521	531			
	MC400	24 VAC/230 VAC		mm							695	705	715	855	855	875
	MC500	24 VAC/230 VAC		mm							645	655	665	805	805	825
	MC1000	24 VAC/230 VAC		mm										895	895	920
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						
	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					
	MC160		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			
	MC220		BR216GF	kg							28,0	33,0	46,1			
			BR316GF	kg							23,2	27,2	39,2			
	MC500 24 VAC		BR216GF	kg							31.8	36.8	49.9	69.0	97.0	163
			BR316GF	kg							27.0	31.0	43.0	59.0	84.0	143
	MC500 230 VAC		BR216GF	kg							33.0	38.0	51.1	70.2	98.2	164
			BR316GF	kg							28.2	32.2	44.2	60.2	85.2	144
	MC400		BR216GF	kg							34.3	39.3	52.4	71.5	99.5	183
			BR316GF	kg							29.5	33.5	45.5	61.5	86.5	
	MC1000		BR216GF	kg										73	101	184
			BR316GF	kg										63	88	165

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