

14

VALVES & ACTUATORS

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2 Piece Brass Ball Valve BSP Parallel F/F Ends

Features

- Full bore
- 40 Bar rated (1/4"-2")
- 25 Bar rated (2 1/2"-4")
- -20°C to +130°C
- WRAS & EN331 Gas approved

ART 40 Series

Valve Rp	Colour	Part No.
1/4"	Yellow	BIVF040P025LFY
3/8"	Yellow	BIVF040P038LFY
1/2"	Blue	BIVF040P050BLF
1/2"	Red	BIVF040P050LFR
1/2"	Yellow	BIVF040P050LFY
3/4"	Blue	BIVF040P075BLF
3/4"	Red	BIVF040P075LFR
3/4"	Yellow	BIVF040P075LFY
1"	Blue	BIVF040P100BLF
1"	Red	BIVF040P100LFR
1"	Yellow	BIVF040P100LFY
1 1/4"	Blue	BIVF040P125BLF
1 1/4"	Red	BIVF040P125LFR
1 1/4"	Yellow	BIVF040P125LFY
1 1/2"	Blue	BIVF040P150BLF
1 1/2"	Red	BIVF040P150LFR
1 1/2"	Yellow	BIVF040P150LFY
2"	Blue	BIVF040P200BLF
2"	Red	BIVF040P200LFR
2"	Yellow	BIVF040P200LFY
2 1/2"	Yellow	BIVF040P250LFY
3"	Yellow	BIVF040P300LFY
4"	Yellow	BIVF040P400LFY

Brass Ball Valve Compression Ends

Features

- Full bore
- 25 Bar rated (2 1/2"-4")
- -20°C to +130°C
- WRAS & EN331 Gas approved

ART 89 Series

Valve Rp	Colour	Part No.
15mm	Blue	BIVL89X15LFB
15mm	Red	BIVL89X15LFR
15mm	Yellow	BIVL89X15LFY
22mm	Blue	BIVL89X22LFB
22mm	Red	BIVL89X22LFR
22mm	Yellow	BIVL89X22LFY
28mm	Blue	BIVL89X28LFB
28mm	Red	BIVL89X28LFR
28mm	Yellow	BIVL89X28LFY
35mm	Blue	BIVL89X35LFB
35mm	Red	BIVL89X35LFR
35mm	Yellow	BIVL89X35LFY
42mm	Blue	BIVL89X42LFB
42mm	Red	BIVL89X42LFR
42mm	Yellow	BIVL89X42LFY
54mm	Blue	BIVL89X54LFB
54mm	Red	BIVL89X54LFR
54mm	Yellow	BIVL89X54LFY

Brass Ball Valve BSP Parallel F/F Ends

Features

- Full bore
- 40 Bar rated (1/4"-1")
- 32 Bar rated (1 1/4")
- 30 Bar rated (1 1/2"-2 1/2")
- 25 Bar rated (3")
- -20°C to +130°C
- ISO Direct mount

ART 160 Series

Valve Rp	Part No.
1/4"	ADMB160025
3/8"	ADMB160038
1/2"	ADMB160050
3/4"	ADMB160075
1"	ADMB160100
1 1/4"	ADMB160125
1 1/2"	ADMB160150
2"	ADMB160200
2 1/2"	ADMB160250
3"	ADMB160300

Brass Gate Valve BSP Taper F/F Ends

Features

- Conforms to BS 5154
- 25 Bar rated
- -10°C to +186°C
- Kite Marked KM 553179

ART 175 Series

Valve Rp	Part No.
1/2"	AGVA175050
3/4"	AGVA175075
1"	AGVA175100
1 1/4"	AGVA175125
1 1/2"	AGVA175150
2"	AGVA175200





Cast Iron PN16 Flanged Ball Valve

Features

- Full bore
- 16 Bar rated
- -10°C to +150°C
- ISO Direct mount
- Stainless steel ball

ART 78 Series

Valve Rp	Part No.
¾"	AIVL78SS075LB
1"	AIVL78SS100LB
1¼"	AIVL78SS125LB
1½"	AIVL78SS150LB
2"	AIVL78SS200LB
2½"	AIVL78SS250LB
3"	AIVL78SS300LB
4"	AIVL78SS400LB
5"	AIVL78SS500LB
6"	AIVL78SS600LB

Cast Iron PN16 Flanged Swing Check Valve

Features

- 16 Bar rated
- -10°C to +230°C
- Bronze trim
- Conforms to EN12334 (BS5153)

ART 170 Series

Valve Rp	Part No.
2"	ACST170200CV
2½"	ACST170250CV
3"	ACST170300CV
4"	ACST170400CV
5"	ACST170500CV
6"	ACST170600CV
8"	ACST170800CV
10"	ACST1701000CV
12"	ACST1701200CV

Cast Iron Dual Plate Wafer Check Valve

Features

- 16 Bar Rated
- -10°C to +110°C
- Stainless Steel Disc
- EPDM Seat

ART 121 Series

Valve Rp	Part No.
2"	ACSC121200
2½"	ACSC121250
3"	ACSC121300
4"	ACSC121400
5"	ACSC121500
6"	ACSC121600
8"	ACSC121800
10"	ACSC1211000
12"	ACSC1211200

Ductile Iron Wafer Butterfly Valve

Features

- 16 Bar rated
- -10°C to +110°C
- DI Zinc plated disc
- EPDM liner
- ISO Top

ART 110 Series

Valve Rp	Part No.
2"	ABUT110200
2½"	ABUT110250
3"	ABUT110300
4"	ABUT110400
5"	ABUT110500
6"	ABUT110600
8"	ABUT110800
10"	ABUT1101000
12"	ABUT1101200

Ductile Iron Wafer Butterfly Valve

Features

- 16 Bar rated
- -10°C to +110°C
- Stainless steel disc
- EPDM liner
- ISO Top
- WRAS Approved

ART 115 Series

Valve Rp	Part No.
2"	ABUT115200
2½"	ABUT115250
3"	ABUT115300
4"	ABUT115400
5"	ABUT115500
6"	ABUT115600
8"	ABUT115800
10"	ABUT1151000
12"	ABUT1151200



DZR Brass Fixed Orifice Commissioning Valve BSP Parallel Ends

Features

- 25 Bar rated
- -10°C to +120°C
- EPDM seat
- 5 Year guarantee

ART 25 Series

Description	Part No.
½" Art 25 DZR	Brass D reg valve fixed orifice BSPP ADRE25050
¾" Art 25 DZR	Brass D reg valve fixed orifice BSPP ADRE25075
1" Art 25 DZR	Brass D reg valve fixed orifice BSPP ADRE25100
1¼" Art 25 DZR	Brass D reg valve fixed orifice BSPP ADRE25125
1½" Art 25 DZR	Brass D reg valve fixed orifice BSPP ADRE25150
2" Art 25 DZR	Brass D reg valve fixed orifice BSPP ADRE25200

DZR Brass Double Regulating Valve BSP Parallel Ends

Features

- 25 Bar rated
- -10°C to +120°C
- EPDM seat
- 5 Year guarantee

ART 26 Series

Description	Part No.
½" Art 26 DZR	Brass double reg valve BSPP ADRF26050
¾" Art 26 DZR	Brass double reg valve BSPP ADRF26075
1" Art 26 DZR	Brass double reg valve BSPP ADRF26100
1¼" Art 26 DZR	Brass double reg valve BSPP ADRF26125
1½" Art 26 DZR	Brass double reg valve BSPP ADRF26150
2" Art 26 DZR	Brass double reg valve BSPP ADRF26200
½" Art 26 "Low flow" DZR	Brass double reg valve BSPP ADRF26LOW050

DZR Brass Metering Station BSP Parallel M/F Ends

Features

- 20 Bar rated
- -10°C to +120°C
- 5 Year guarantee

ART 27 Series

Description	Part No.
½" Art 27 standard flow DZR	Brass metering station BSPP ADRF27050
¾" Art 27 DZR	Brass metering station BSPP ADRF27075
1" Art 27 DZR	Brass metering station BSPP ADRF27100
1¼" Art 27 DZR	Brass metering station BSPP ADRF27125
1½" Art 27 DZR	Brass metering station BSPP ADRF27150
2" Art 27 DZR	Brass metering station BSPP ADRF27200
½" Art 27 "Low flow" DZR	Brass metering station BSPP ADRF27LOW050
½" Art 27 "Med flow" DZR	Brass metering station BSPP ADRF27MED050
½" Art 27 "Ultra low flow"	DZR brass metering station BSPP ADRF27ULOW050
½" Art 27 "Ultra low flow"	DZR brass metering station BSPP ADRF27UULOW050

Ductile Iron Double Regulating Valve Flanged PN16

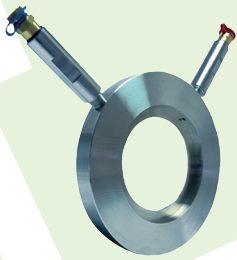
Features

- 16 Bar rated
- -10°C to +120°C
- c/w ext & test points

ART 250 Series

Description	Part No.
10" Art 250 PN16 D/I	Flgd D Reg Val Var orifice c/w test points & exts ADRD2501000
12" Art 250 PN16 D/I	Flgd D Reg Val Var orifice c/w test points & exts ADRD2501200
2" Art 250 PN16 D/I	Flgd D Reg Val Var orifice c/w test points & exts ADRD250200
2½" Art 250 PN16 D/I	Flgd D Reg Val Var orifice c/w test points & exts ADRD250250
3" Art 250 PN16 D/I	Flgd D Reg Val Var orifice c/w test points & exts ADRD250300
4" Art 250 PN16 D/I	Flgd D Reg Val Var orifice c/w test points & exts ADRD250400
5" Art 250 PN16 D/I	Flgd D Reg Val Var orifice c/w test points & exts ADRD250500
6" Art 250 PN16 D/I	Flgd D Reg Val Var orifice c/w test points & exts ADRD250600
8" Art 250 PN16 D/I	Flgd D Reg Val Var orifice c/w test points & exts ADRD250800





Stainless Steel Metering Station Wafer Pattern

Features

- 16 Bar rated
- -10°C to +120°C
- C/W Ext & test points

ART 270 Series

Description		Part No.
2" Art 270 PN16 304SS	Wafer orifice plate c/w test points & exts	ADRC270200
2½" Art 270 PN16 304SS	Wafer orifice plate c/w test points & exts	ADRC270250
3" Art 270 PN16 304SS	Wafer orifice plate c/w test points & exts	ADRC270300
4" Art 270 PN16 304SS	Wafer orifice plate c/w test points & exts	ADRC270400
5" Art 270 PN16 304SS	Wafer orifice plate c/w test points & exts	ADRC270500
6" Art 270 PN16 304SS	Wafer orifice plate c/w test points & exts	ADRC270600
8" Art 270 PN16 304SS	Wafer orifice plate c/w test points & exts	ADRC270800
10" Art 270 PN16 304SS	Wafer orifice plate c/w test points & exts	ADRC2701000
12" Art 270 PN16 304SS	Wafer orifice plate c/w test points & exts	ADRC2701200

Cast Iron PN16 Flanged Differential Pressure Control Valve (DPCV)

Features

- 16 Bar rated
- -10°C to +120°C

ART 241HP Series

Description		Part No.
2½" Art 241HP PN16	Flanged cast iron DPCV DP range 80-160kPa	ADPC241HP250
3" Art 241HP PN16	Flanged cast iron DPCV DP range 80-160kPa	ADPC241HP300
4" Art 241HP PN16	Flanged cast iron DPCV DP range 80-160kPa	ADPC241HP400

ART 241LP Series

Description		Part No.
2½" Art 241LP PN16	Flanged cast iron DPCV DP range 20-80kPa	ADPC241LP250
3" Art 241LP PN16	Flanged cast iron DPCV DP range 20-80kPa	ADPC241LP300
4" Art 241LP PN16	Flanged cast iron DPCV DP range 20-80kPa	ADPC241LP400
5" Art 241LP PN16	Flanged cast iron DPCV DP range 20-80kPa	ADPC241LP500
6" Art 241LP PN16	Flanged cast iron DPCV DP range 20-80kPa	ADPC241LP600

DZR Differential Pressure Control Partner Balancing Valve (VODRV)

Features

- 25 Bar rated
- -10°C to +120°C
- C/W Imp Tube connection & test points
- 5 Year guarantee

ART 28DP Series

Description		Part No.
½" Art 28DP BSPP	DZR brass DPCV partner valve	ADPC28DP050
¾" Art 28DP BSPP	DZR brass DPCV partner valve	ADPC28DP075
1" Art 28DP BSPP	DZR brass DPCV partner valve	ADPC28DP100
1¼" Art 28DP BSPP	DZR brass DPCV partner valve	ADPC28DP125
1½" Art 28DP BSPP	DZR brass DPCV partner valve	ADPC28DP150
2" Art 28DP BSPP	DZR brass DPCV partner valve	ADPC28DP200

DZR Differential Pressure Control Valve (DPCV) BSP Parallel Ends

Features

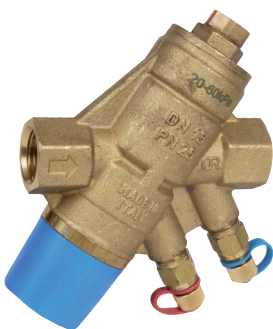
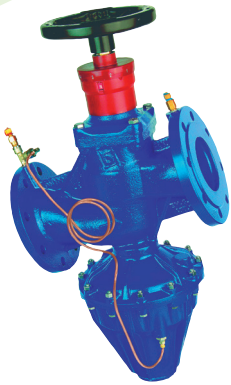
- 16 Bar rated
- -10°C to +120°C
- 5 Year guarantee

ART 24HP Series

Description		Part No.
½" Art 24HP BSPP	DZR brass DPCV DP range 20-60kPa	ADPC24H050
¾" Art 24HP BSPP	DZR brass DPCV DP range 20-60kPa	ADPC24H075
1" Art 24HP BSPP	DZR brass DPCV DP range 20-60kPa	ADPC24H100
1¼" Art 24HP BSPP	DZR brass DPCV DP range 20-80kPa	ADPC24H125
1½" Art 24HP BSPP	DZR brass DPCV DP range 20-80kPa	ADPC24H150
2" Art 24HP BSPP	DZR brass DPCV DP range 20-80kPa	ADPC24H200

ART 24LP Series

Description		Part No.
½" Art 24LP BSPP	DZR brass DPCV DP range 5-30kPa	ADPC24L050
¾" Art 24LP BSPP	DZR brass DPCV DP range 5-30kPa	ADPC24L075
1" Art 24LP BSPP	DZR brass DPCV DP range 5-30kPa	ADPC24L100
1¼" Art 24LP BSPP	DZR brass DPCV DP range 5-30kPa	ADPC24L125
1½" Art 24LP BSPP	DZR brass DPCV DP range 5-30kPa	ADPC24L150
2" Art 24LP BSPP	DZR brass DPCV DP range 5-30kPa	ADPC24L200



Brass Solenoid Valve Pilot Operated 2/2 Way Normally Closed

Features

- Brass body
- 0°C to +120°C
- EPDM diaphragm
- Voltage 24V AC/DC, 110V AC, 230V AC, 12V DC

ART 642 Series

Description	Part No.
3/8" SLP10EE1-13L WRAS NC Brass solenoid valve EPDM 110V AC 13mm orifice	ASLGSLPNCW038E110VAC
3/8" SLP10EE2-13L WRAS NC Brass solenoid valve EPDM 230V AC 13mm orifice	ASLGSLPNCW038E230VAC
3/8" SLP10EE7-13L WRAS NC Brass solenoid valve EPDM 24V AC 13mm orifice	ASLGSLPNCW038E24VAC
3/8" SLP10EE4-13L WRAS NC Brass solenoid valve EPDM 24V DC 13mm orifice	ASLGSLPNCW038E24VDC
1/2" SLP15EE1-13L WRAS NC Brass solenoid valve EPDM 110V AC 13mm orifice	ASLGSLPNCW050E110VAC
1/2" SLP15EE2-13L WRAS NC Brass solenoid valve EPDM 230V AC 13mm orifice	ASLGSLPNCW050E230VAC
1/2" SLP15EE7-13L WRAS NC Brass solenoid valve EPDM 24V AC 13mm orifice	ASLGSLPNCW050E24VAC
1/2" SLP15EE4-13L WRAS NC Brass solenoid valve EPDM 24V DC 13mm orifice	ASLGSLPNCW050E24VDC
3/4" SLP20EE1 WRAS NC Brass solenoid valve EPDM 110V AC 20mm orifice	ASLGSLPNCW075E110VAC
3/4" SLP20EE2 WRAS NC Brass solenoid valve EPDM 230V AC 20mm orifice	ASLGSLPNCW075E230VAC
3/4" SLP20EE7 WRAS NC Brass solenoid valve EPDM 24V AC 20mm orifice	ASLGSLPNCW075E24VAC
3/4" SLP20EE4 WRAS NC Brass solenoid valve EPDM 24V DC 20mm orifice	ASLGSLPNCW075E24VDC
1" SLP25EE1 WRAS NC Brass solenoid valve EPDM 110V AC 25mm orifice	ASLGSLPNCW100E110VAC
1" SLP25EE2 WRAS NC Brass solenoid valve EPDM 230V AC 25mm orifice	ASLGSLPNCW100E230VAC
1" SLP25EE7 WRAS NC Brass solenoid valve EPDM 24V AC 25mm orifice	ASLGSLPNCW100E24VAC
1" SLP25EE4 WRAS NC Brass solenoid valve EPDM 24V DC 25mm orifice	ASLGSLPNCW100E24VDC
1 1/4" SLP35EE1 WRAS NC Brass solenoid valve EPDM 110V AC 35mm orifice	ASLGSLPNCW125E110VAC
1 1/4" SLP35EE2 WRAS NC Brass solenoid valve EPDM 230V AC 35mm orifice	ASLGSLPNCW125E230VAC
1 1/4" SLP35EE7 WRAS NC Brass solenoid valve EPDM 24V AC 35mm orifice	ASLGSLPNCW125E24VAC
1 1/4" SLP35EE4 WRAS NC Brass solenoid valve EPDM 24V DC 35mm orifice	ASLGSLPNCW125E24VDC
1 1/2" SLP40EE1 WRAS NC Brass solenoid valve EPDM 110V AC 40mm orifice	ASLGSLPNCW150E110VAC
1 1/2" SLP40EE2 WRAS NC Brass solenoid valve EPDM 230V AC 40mm orifice	ASLGSLPNCW150E230VAC
1 1/2" SLP40EE7 WRAS NC Brass solenoid valve EPDM 24V AC 40mm orifice	ASLGSLPNCW150E24VAC
1 1/2" SLP40EE4 WRAS NC Brass solenoid valve EPDM 24V DC 40mm orifice	ASLGSLPNCW150E24VDC
2" SLP50EE1 WRAS NC Brass solenoid valve EPDM 110V AC 50mm orifice	ASLGSLPNCW200E110VAC
2" SLP50EE2 WRAS NC Brass solenoid valve EPDM 230V AC 50mm orifice	ASLGSLPNCW200E230VAC
2" SLP50EE7 WRAS NC Brass solenoid valve EPDM 24V AC 50mm orifice	ASLGSLPNCW200E24VAC
2" SLP50EE4 WRAS NC Brass solenoid valve EPDM 24V DC 50mm orifice	ASLGSLPNCW200E24VDC



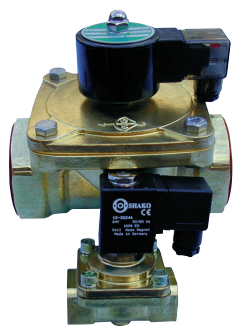


Seals	Type	Application
	EPDM -	Some chemicals Drinking water High temp. water
	FKM -	Oils High temp. water
	NBR -	Water



Part No. Completion
When ordering complete the Part No. by adding the following:-

PU225		PU220 & AD	
Voltage		Voltage	
AC	DC	AC	DC
24V	12V	24V	12V
48V	24V	48V	24V
110V	48V	110V	48V
220V		220V	110V
240V		240V	
380V		380V	



Normally Closed & Opened 2 Way Servo Assisted Solenoid Valves

Media: Water, air & light oil -10°C to +160°C max.
Opening/closing time: 50mSec max.

Mounting: Coil upright
Brass body, Stainless steel tube & internal parts

PU225 Series

Size	Ø Orifice (mm)	Pressure Rating (bar)			Seals	Max Media Temp. °C	Part No.	Insert
		Min	Max	Max Working				
3/8"	13	0.5	10	15	NBR	80	PU22503	<input type="checkbox"/>
					FKM	130	PU22503V	<input type="checkbox"/>
					EPDM	160	PU22503E	<input type="checkbox"/>
1/2"	13	0.5	10	15	NBR	80	PU22504A	<input type="checkbox"/>
					FKM	130	PU22504AV	<input type="checkbox"/>
					EPDM	160	PU22504AE	<input type="checkbox"/>
3/4"	25	0.5	10	15	NBR	80	PU22506A	<input type="checkbox"/>
					FKM	130	PU22506AV	<input type="checkbox"/>
					EPDM	160	PU22506AE	<input type="checkbox"/>
1"	25	0.5	10	15	NBR	60	PU22508A	<input type="checkbox"/>
					FKM	120	PU22508AV	<input type="checkbox"/>
					EPDM	120	PU22508AE	<input type="checkbox"/>

Normally closed 2 way assisted lift Solenoid Valves

Media: Water, air & light oil 155°C max.
Opening/closing time: 50mSec max.

Mounting: Coil upright
Brass body, Stainless steel tube & internal parts

PU220 & AD Series

Size	Ø Orifice (mm)	Pressure Rating (bar)			Seals	Max Media Temp. °C	Part No.	Insert	
		Min	Max (DC)	Max (AC)					Max Working
3/8"	13	0	5	0.5	10	NBR	80	PU22003	<input type="checkbox"/>
						FKM	120	PU22003V	<input type="checkbox"/>
						EPDM	155	PU22003E	<input type="checkbox"/>
1/2"	13	0	5	8.5	10	NBR	80	PU22004A	<input type="checkbox"/>
						FKM	120	PU22004AV	<input type="checkbox"/>
						EPDM	155	PU22004AE	<input type="checkbox"/>
3/4"	20	0	5	8.5	10	NBR	80	PU22006A	<input type="checkbox"/>
						FKM	120	PU22006AV	<input type="checkbox"/>
						EPDM	155	PU22006AE	<input type="checkbox"/>
1"	25	0	5	7	10	NBR	80	PU22008A	<input type="checkbox"/>
						FKM	120	PU22008AV	<input type="checkbox"/>
						EPDM	155	PU22008AE	<input type="checkbox"/>
1 1/4"	35	0	7	10	10	NBR	90	AD35N	<input type="checkbox"/>
						FKM	120	AD35V	<input type="checkbox"/>
						EPDM	120	AD35E	<input type="checkbox"/>
1 1/2"	35	0	7	10	10	SILICONE	130	AD35S	<input type="checkbox"/>
						NBR	90	AD40N	<input type="checkbox"/>
						FKM	120	AD40V	<input type="checkbox"/>
2"	51	0	7	7	10	EPDM	120	AD40E	<input type="checkbox"/>
						SILICONE	130	AD40S	<input type="checkbox"/>
						NBR	90	AD50N	<input type="checkbox"/>
						FKM	120	AD50V	<input type="checkbox"/>
						EPDM	120	AD50E	<input type="checkbox"/>
						SILICONE	130	AD50S	<input type="checkbox"/>

Protective Cover for Control Valves & Damper Actuators

If you have difficult operating conditions then it is the ideal solution for protecting your control valves in harsh environments. The BLUE BAG Series cover offers an innovative & effective weather protection solution for control valves & actuators. Made of heavy duty fabric, it gives significant protection against severe weather such as rain, sleet or snow. The "Ice Blue" colour minimizes solar glare which keeps the protected equipment cooler than other forms of protection. It can be installed and removed in seconds & it is available in two sizes to fit various control valve assemblies.

Features

- Easiest of Installations
- Long lasting nylon rope included
- Ice Blue colour to minimise solar glare
- Water repellent fabric
- Keeps equipment cooler in hot conditions
- Keeps equipment clean & protected
- UV Protective coating.

The Blue Bag Series

Description	Part No.
Small weatherproof bag	EE-VMC SMALL
Large weatherproof bag	EE-VMC LARGE



Damper Actuators

Rotary actuators with connecting cable for 2 to 40Nm standard with IP54 protection. IP66/67 Robusline versions also available or actuator protection weatherguards. Various speed options and communication versions MODBUS RTU, KNX, MP-Bus are available.

CM... Series 2Nm with Connecting Cable

Control Type	Rating	Type	Part No.
Open/close 3-point	24V AC/DC	Lefthand rotation (CCW)	CM24-L
		Righthand rotation (CCW)	CM24-R
Modulating	230V AC	Lefthand rotation (CCW)	CM230-L
		Righthand rotation (CCW)	CM230-R
		Lefthand rotation (CCW)	CM24-SR-L
		Righthand rotation (CCW)	CM24-SR-R

For dampers with up to 0.4m². Universal clamp reversible 6...12.7mm

LM... Series 5Nm with Connecting Cable

Open/close 3-point	24V AC/DC	1x Integral auxiliary switch	LM24A
			LM24A-S
	230V AC	1x Integral auxiliary switch	LM230A
			LM230A-S
Modulating	24V AC	Parameterisable	LM24A-SR
			LM24A-MP
	230V AC		LM230ASR

For dampers with up to 1m². Universal clamp reversible 6...20mm

NM... Series 10Nm with Connecting Cable

Open/close 3-point	24V AC/DC	1x Integral auxiliary switch	NM24A
			NM24A-S
		1x Integral auxiliary switch	NM230A
			NM230A-S
Modulating	24V AC/DC	Parameterisable	NM24A-SR
			NM24A-MP
	230V AC		NM230ASR

For dampers with up to 2m². Universal clamp reversible 8...26.7mm

SM... Series 20Nm with Connecting Cable

Open/close 3-point	24V AC/DC	1x Integral auxiliary switch	SM24A
			SM24A-S
		1x Integral auxiliary switch	SM230A
			SM230A-S
Modulating	24V AC/DC	Parameterisable	SM24A-SR
			SM24A-MP
	230V AC		SM230ASR

For dampers with up to 4m². Universal clamp reversible 10...20mm

GM... Series 40Nm with Connecting Cable

Open/close 3-point	24V AC/DC		GM24A
	230V AC/DC		GM230A
Modulating	24V AC/DC	Parameterisable	GM24A-SR
			GM24A-MP

For dampers with up to 8m². Universal clamp reversible 12...26.7mm

BELIMO®





Rotary Actuators with Mechanical Emergency Control Function

TF Series 2.5Nm with Connecting Cable (IP42)

Control Type	Rating	Type	Part No.
Open/close	24V AC/DC	1x Integral auxiliary switch	TF24
	230V AC/DC		TF24-S
	230V AC	1x Integral auxiliary switch	TF230
Modulating	24V AC/DC	Parameterisable	TF24-SR
	230V AC		TF24-MFT
			TF230-SR

For dampers with up to 0.5m². Universal clamp reversable 6...12mm

LF Series 4Nm with Connecting Cable

Control Type	Rating	Type	Part No.
Open/close	24V AC/DC	Integral auxiliary switch	LF24
	230V AC/DC		LF24-S
	230V AC	Integral auxiliary switch	LF230
Modulating	24V AC/DC	Parameterisable	LF24-SR
			LF24-MFT2

For dampers with up to 0.8m². Universal clamp reversable 8...16mm

NF Series 10Nm with Connecting Cable

Control Type	Rating	Type	Part No.
Open/close	AC 24...240V / DC 24...125V	2x Integral aux switch	NFA
	24V AC/DC	2x Integral aux switch	NFA-S2
			NF24A
Modulating	24V AC/DC	2x Integral aux switch	NF24A-S2
			NF24-SR
		2x Integral aux switch Parameterisable	NF24A-SR-S2 NF24A-MP

For dampers with up to 2m². Universal clamp reversable 10...25.4mm

SF Series 20Nm with Connecting Cable

Control Type	Rating	Type	Part No.
Open/close	24...240V AC 24...125V DC	2x Integral aux switch	SFA
	24V AC/DC	2x Integral aux switch	SFA-S2
			SF24A
Modulating	24V AC/DC	2x Integral aux switch	SF24A-S2
			SF24A-SR
		2x Integral aux switch Parameterisable	SF24A-SR-S2 SF24A-MP

For dampers with up to 4m². Universal clamp reversable 10...25.4mm

EF Series 30Nm with Connecting Cable

Control Type	Rating	Type	Part No.
Open/close	24V AC/DC	2x Integral aux switch	EF24A
	230V AC/DC		EF24A-S2
		2x Integral aux switch	EF230A
Modulating	24V AC/DC	2x Integral aux switch	EF230A-S2
			EF24A-SR
		2x Integral aux switch Parameterisable	EF24A-SR-S2 EF24A-MP

For dampers with up to 6m². Universal clamp reversable 12...26.7mm

Rotary Actuators with Electrical Emergency Control Function (SuperCap)

GK Series 40Nm with Connecting Cable

Control Type	Rating	Type	Part No.
Open/close			GK24A-1
Modulating	24V AC/DC		GK24A-SR
		Parameterisable	GK24A-MP
For dampers with up to 8m ² . Universal clamp reversible 12...26.7mm			

Accessories

Description	Type	Part No.	
Extension for base plate converts footprint of NM...A to NM... galvanised steel	NM...A	ZNMA	
Extension for base plate converts footprint of SM...A to SM / AM galvanised steel	SM...A	Z-SMA	
Extension for base plate converts footprint of GM...A to GM... galvanised steel	GM...A	Z-GMA	
Ball Joint with M8 for crank arms KH8 round steel rod ø8mm	NM...A, SM...A, TF, LF, AF	KG8	
Ball Joint with M10 for crank arms KH8 round steel rod ø10 mm	NM...A, SM...A, GM...A, TF, LF, AF	KG10A	
Mounting Kit for Damper Linkage for flat and side mounting	NM...A	ZG-NMA	
	SM...A	ZG-SMA	
Auxiliary Switch add-on	1 x SPDT	TM...A, LM...A, NM...A, SM...A, GM...A	S1A
	2 x SPDT	TM...A, LM...A, NM...A, SM...A, GM...A	S2A
Positioner for wall mounting	TM...A, LM...A, NM...A, SM...A, GM...A, TF, LF, AF	SGA24	
Positioner for front-panel mounting	TM...A, LM...A, NM...A, SM...A, GM...A, TF, LF, AF	SGF24	

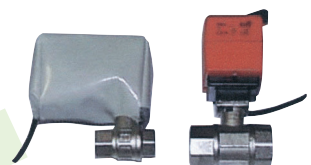
Actuator Protection

Temperature range: -25°C to +70°C
Weight: 550g/m²

Weatherguards

For Actuator	Resistance	Part No.
LR...A	Water, oils, alkalis & dilute acids	ZWGA-01
NR...		ZWG-02
NV... & AV... (Post 2004)		ZWG-03
SR...A		ZWGA-04
NM...A & LM...A		ZWGA-05
SM...A/NM24ALON & MF		ZWGA-06
GM...A & GR...A		ZWGA-07

BELIMO





Robustline Damper Actuators IP66 / IP67

For extreme conditions, without emergency function.

NM Series 10Nm with Connecting Cable

Control Type	Rating	Type	Part No.
Open/close	24V AC/DC	1x Integral aux switch	NM24P
	230V AC/DC		NM24P-S
	230V AC	1x Integral aux switch	NM230P
Modulating	24V AC/DC	Parameterisable	NM24P-SR
	230V AC		NM24P-MP
			NM230PSR

For dampers with up to 2m². Universal clamp 10...20mm

SM Series 20Nm with Connecting Cable

Control Type	Rating	Type	Part No.
Open/close	24V AC/DC	1x Integral aux switch	SM24P
	230V AC/DC		SM24P-S
	230V AC	1x Integral aux switch	SM230P
Modulating	24V AC/DC	Parameterisable	SM24P-SR
	230V AC		SM24P-MP
			SM230PSR

For dampers with up to 4m². Universal clamp 14...20mm

Robustline Damper Actuators IP66 / IP67

For extreme conditions, with electrical emergency function (SuperCap).

NKQ Series 6Nm with Connecting Cable

Control Type	Rating	Type	Part No.
Open/close	24V AC/DC	Parameterisable	NKQ24P-1
Modulating			NKQ24P-SR
			NKQ24P-MF

For dampers with up to 1.2m². Universal clamp 10...20mm

Robustline Damper Actuators IP66

For outdoor conditions, with mechanical emergency function.

NFG Series 10Nm with Connecting Cable

Control Type	Rating	Type	Part No.
Open/close	AC 24...240V / DC 24...125V	Parameterisable	NFG-L
			NFG-S2-L
Modulating	24V AC/DC	Parameterisable	NF24G-SR-L
			NF24G-SR-S2-L

For dampers with up to 2m². Universal clamp 12...26.7mm

SFG Series 10Nm with Connecting Cable

Control Type	Rating	Type	Part No.
Open/close	AC 24...240V / DC 24...125V	Parameterisable	SFG-L
			SFG-S2-L
Modulating	24V AC/DC	Parameterisable	SF24G-SR-L
			SF24G-SR-S2-L

For dampers with up to 4m². Universal clamp 12...26.7mm

Robustline Damper Actuators IP66

For outdoor conditions, with electrical emergency function (SuperCap).

GK Series 40Nm with Connecting Cable

Control Type	Rating	Type	Part No.
Open/close	24V AC/DC	Parameterisable	GK24G-1
Modulating			GK24G-SR
			GK24G-MP

For dampers with up to 8m². Universal clamp 14...26.7mm

Actuators for Third-Party Mixing Valves

Retrofit actuators for easy motorising of mixing valves. The actuators can be mounted on the most common mixing valves of different manufacturers using the correct spondind mounting kit.

Actuator features

- Order valve and Form Fit adaptor
- Other manufacturers Retrofits available

Modulating actuator specification

- *****-SR versions: (0)2-10V DC control signal with 2...10V DC position feedback signal

Open/close & 3 point actuator specification

- 2 wire & 3 wire control no feedback if required then order S1A / S2A for SM actuators

Valves		Compatible Actuators											
Valve Manufacturer	DN (mm)	Valve series	Form Fit Adaptor	HT24-3-T	HT24-3-S	HT24-SR-T	HT230-3-T	HT230-3-S	HTL24-3-T	HTL230-3-T	SM24A	SM230A	SM24A-SR
ESBE		All series (except VRG, VRB)	MS-NRE	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
		3MG, F120 - F165, 4HG	MS-NRE1	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
		G119 - G151	MS-NRE2	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
		4MG, F432 - F465	MS-NRE3	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
		G419 - G151	MS-NRE4	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
		15 - 50 65 - 150	VRG, VRB	MS-NRE6 Z-MKESA	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes		Yes	Yes
Landis & Staefa		Series 2, VCI 31	MS-NRL	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
		20 - 40 40 - 50	VBG31 VBF21	MS-NRL	Yes	Yes	Yes	Yes	Yes	Yes			
		20 - 40	Series 1, B3F, B3G	MS-NRL1	Yes	Yes	Yes	Yes	Yes	Yes			
Oventrop		3W, 4W, H	MS-NRO1	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
Satchwell		15 - 50	MB	MS-NRS	Yes	Yes	Yes	Yes	Yes	Yes			
		65 - 100	MB, MBF	MS-NRSF Z-MBFA	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes	Yes	Yes

Actuators						
For Valve	IP Rating	Voltage	Torque Nm	Running Time	Aux Switch	Part No.
3-Point	40	24V AC	10	140sec	No	HT24-3-T
	40	24V AC	10	140sec	Yes	HT24-3-S
	40	24V AC	10	140sec	No	HT230-3-T
	40	230V AC	10	140sec	Yes	HT230-3-S
	40	24V AC	10	280sec	No	HTL24-3-T
	40	230V AC	10	280sec	No	HTL230-3-T
	54	24V AC/DC	20	150sec	No	SM24A
	54	230V AC/DC	20	150sec	No	SM230A
Modulating	40	24V AC	10	140sec	No	HT24-SR-T
	54	24V AC/DC	20	150sec	No	SM24A-SR

Actuators for Third-Party Short Stroke Globe Valves

Retrofit actuators for easy motorising of mixing valves. The actuators can be mounted on the most common mixing valves of different manufacturers using the correct spondind mounting kit.

Actuator features

- 5.5mm stroke
- Other manufacturers retrofits available

Modulating actuator specification

- *****-SR versions: (0)2-10V DC control signal with 2...10V DC position feedback signal

Open/close & 3 point actuator specification

- 2 wire & 3 wire control with no feedback if feedback is required then order S1A / S2A for SM actuators

Valves		Compatible Actuators						
Valve Manufacturer	DN (mm)	Valve series	NRDVX24-3-T-CA	NRDVX230-3-T-CA	NRDVX24-SR-T-CA	NRDVX24-3-T-SI	NRDVX230-3-T-SI	NRDVX24-SR-T-SI
Cazzaniga	15 - 40	V02BM..LN	Yes	Yes	Yes			
		V03BM..LN	Yes	Yes	Yes			
Siemens	15 - 40	VVG44, VVI52				Yes	Yes	Yes
		VXG44, VVP45				Yes	Yes	Yes
		VXP45, VMP45				Yes	Yes	Yes

Actuators						
For Valve	IP Rating	Voltage	Torque Nm	Running Time	Aux Switch	Part No.
Open/close & 3-point	40	24V AC	500	140sec	No	NRDVX24-3-T-CA
	40	230V AC	500	140sec	No	NRDVX230-3-T-CA
	40	24V AC	500	140sec	No	NRDVX24-3-T-SI
	40	230V AC	500	140sec	No	NRDVX230-3-T-SI
Modulating	40	24V AC/DC	500	140sec	No	NRDVX24-SR-T-CA
	40	24V AC/DC	500	140sec	No	NRDVX24-SR-T-SI



VALVES & ACTUATORS

RETROFITTING OF LINEAR VALVE



Actuators for Third-Party Globe Valves

Retrofit actuators for easy motorising of globe valves. This clever, unique and universal retrofit concept, mounting Belimo globe valve actuators on numerous series from various valve manufacturers is extremely simple. You will find the right globe valve actuator in a few steps even without knowing the manufacturer.

Actuator features

- Order valve and Form Fit adaptor
- Other manufacturers Retrofits available

Modulating actuator specification

- *****-MP-RE versions: Parameterisable 0.5-10V DC or 2-10V DC control signal with (0)2...10VDC position feedback signal
- Actuator speed can also be adjusted

Open/close & 3 point actuator specification

- *****-RE 2 wire & 3 wire control with no feedback
- if feedback is required then order S2A-H

Valves

	Acting force N	Stroke Length	Torque Nm	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100	DN125	DN150
NV... / NVK...	1000	20mm	500	Yes	Yes	Yes								
SV...	1500	20mm	500				Yes	Yes	Yes					
SVL...	1500	50mm	500						Yes	Yes	Yes			
AVK...	2000	32mm	500							Yes	Yes	Yes		
EV...	2500	50mm	500								Yes	Yes	Yes	
RV...	4500	50mm	500								Yes	Yes	Yes	Yes

Note: Attachments, spacer rings or disks maybe required for Sauter, Siebe, Johnson Control & LDM valves



Valves

Valve Manufacturer	DN (mm)	Valve series	Adaptor (Spacer ring, disk or attachment) if required	Compatible Actuators																							
				NV24A-RE	NV230A-RE	NV24A-MP-RE	NVK24A-3-RE	NVK230A-3-RE	NVK24A-MP-RE	NVC24A-MP-RE	NVC24A-MP-RE	SV24A-RE	SV230A-RE	SV24A-MP-RE	SV24A-MP-RE	SVL230A-RE	SVL24A-MP-RE	AVK24A-3-RE	AVK230A-3-RE	AVK24A-MP-RE	EV24A-RE	EV230A-RE	EV24A-MP-RE	EVC24A-MF-RE	RV24A-MF-RE		
Cazzaniga	15 - 50	V2BM, V3BM						Yes	Yes	Yes	Yes	Yes															
Controlli	15 - 50	VMB, VMB..F, VSB, VSB..F						Yes	Yes	Yes	Yes	Yes															
		(H) VFS2, VL2, VL3, VRB2						Yes	Yes	Yes	Yes	Yes															
Danfoss	15 - 50	(H) VRB3, VRG2, VRG3						Yes	Yes	Yes	Yes	Yes															
		(H) VF2, VF3						Yes	Yes	Yes	Yes	Yes															
	25 - 50	(H) VE2						Yes	Yes	Yes	Yes	Yes															
	65 - 100	(H) VL2, VL3												Yes	Yes	Yes	Yes										
Elesta	100 - 150	(H) VF2, VF3																									
	15 - 50	BKF..., BKG...						Yes	Yes	Yes	Yes	Yes															
	15 - 50	V5011R, V5013R						Yes	Yes	Yes	Yes	Yes															
	15 - 65	V5049A, V5050A						Yes	Yes	Yes	Yes	Yes															
		V5025A, V5328A,						Yes	Yes	Yes	Yes	Yes															
Hora	15 - 50	V5329A, V5329C						Yes	Yes	Yes	Yes	Yes															
		V5095A						Yes	Yes	Yes	Yes	Yes															
	20 - 80	V5015						Yes	Yes	Yes	Yes	Yes															
	80 - 150	V5049A, V5050A												Yes	Yes	Yes	Yes										
Johnson	100 - 150	V5015A												Yes	Yes	Yes	Yes										
	15 - 25	BR225RG						Yes	Yes	Yes	Yes	Yes															
		BR206GF, BR206GG, BR216GF						Yes	Yes	Yes	Yes	Yes															
	15 - 50	BR216GG, BR216RA, BR216RA-TW						Yes	Yes	Yes	Yes	Yes															
		BR306GF, BR306GG, BR316GF						Yes	Yes	Yes	Yes	Yes															
Kieback & Peter	15 - 50	BR316GG, BR316RA, BR316RA-TW						Yes	Yes	Yes	Yes	Yes															
		BR216RGA, BR316RGA						Yes	Yes	Yes	Yes	Yes															
LDM	15 - 50	BR316RGA MS						Yes	Yes	Yes	Yes	Yes															
		RB, RB..-BK,																									
MUT	15 - 50	VBD-4xx4, VBD-4xx8, VG82, VG84, VG88, VG89						Yes	Yes	Yes	Yes	Yes															
		BM-2xx2, BM-2xx8, VB7216, VB7816, VBF-0xx4, VBF-0xx8						Yes	Yes	Yes	Yes	Yes															
Osby	25 - 40	VBF-2xx4, VBF-2xx8, VG7201						Yes	Yes	Yes	Yes	Yes															
		VG7203, VG7401, VG7403, VG7802, VG7804						Yes	Yes	Yes	Yes	Yes															
Satchwell / Schneider Electric	32 - 150	VBD-4xx4, VBD-4xx8, VG82, VG84, VG88, VG89												Yes	Yes	Yes	Yes										
		VBF-0xx4, VBF-0xx8						Yes	Yes	Yes	Yes	Yes															
Sauter	15 - 50	VBF-2xx4, VBF-2xx8												Yes	Yes	Yes	Yes										
		VG2231..., VG2431..., VG2831..													Yes	Yes	Yes	Yes									
Sieve	15 - 50	ZRV-303												Yes	Yes	Yes	Yes										
		RB, RB..-BK,																									
Sieve	15 - 50	RB..S017, RB..S017-BK						Yes	Yes	Yes	Yes	Yes															
		RF, RF..-BF						Yes	Yes	Yes	Yes	Yes															
Sieve	15 - 50	RK..-BF						Yes	Yes	Yes	Yes	Yes															
		RV 102 E, RV 203 E						Yes	Yes	Yes	Yes	Yes															
Sieve	15 - 50	ZNV-203						Yes	Yes	Yes	Yes	Yes															
		MK						Yes	Yes	Yes	Yes	Yes															
Sieve	15 - 50	MTR, MTV						Yes	Yes	Yes	Yes	Yes															
		BTV, GTV, RTV						Yes	Yes	Yes	Yes	Yes															
Sieve	15 - 50	RGV315/4						Yes	Yes	Yes	Yes	Yes															
		V2001						Yes	Yes	Yes	Yes	Yes															
Sieve	15 - 50	MJF, VSF, MZ, VZ						Yes	Yes	Yes	Yes	Yes															
		MJF, MZF, VZF													Yes	Yes	Yes	Yes									

Actuators for Third-Party Globe Valves

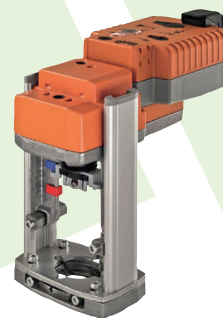
Retrofit actuators for easy motorising of globe valves. This clever, unique and universal retrofit concept, mounting Belimo globe valve actuators on numerous series from various valve manufacturers is extremely simple. You will find the right globe valve actuator in a few steps even without knowing the manufacturer.

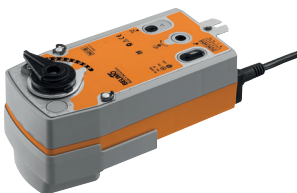
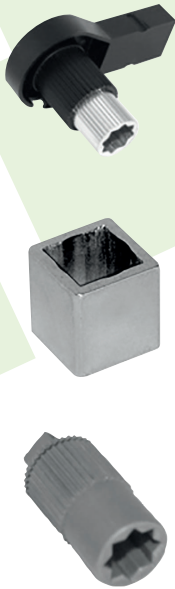


Valves			Compatible Actuators																						
Valve Manufacturer	DN (mm)	Valve series	Adaptor (Spacer ring, disk or attachment) if required	NV24A-RE	NV230A-RE	NV24A-MP-RE	NVK24A-3-RE	NVK230A-3-RE	NVK24A-MP-RE	NVKC24A-MP-RE	SV24A-RE	SV230A-RE	SV24A-MP-RE	SVC24A-MP-RE	SVL230A-RE	SVL24A-MP-RE	AVK24A-3-RE	AVK230A-3-RE	AVK24A-MP-RE	EV24A-RE	EV230A-RE	EV24A-MP-RE	EVC24A-MF-RE	RV24A-MF-RE	
Sauter	15	V1T		Yes	Yes	Yes	Yes	Yes	Yes	Yes															
	15 - 32	V4F..		Yes	Yes	Yes	Yes	Yes	Yes	Yes															
	15 - 40	BT43B		Yes	Yes	Yes	Yes	Yes	Yes	Yes															
	15 - 50	B6F..F, B6G..F, B6R..F, B6S..F		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes														
		BUG.., BUN.., BXD..F, BXE..F		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes														
		BXN.., V6F..F, V6G..F, V6R..F		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes														
		V6S..F, VUG, VUN, VXD..F		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes														
		VXE..F, VXN.., BUE, VUE		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes														
		ZRV-301														Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	20 - 32	B4F..F		Yes	Yes	Yes	Yes	Yes	Yes	Yes															
	40 - 100	B4F..F	ZRV-301												Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	65 - 80	BXD..F, VXD..F	ZRV-301												Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
65 - 100	BXE..F, VXE..F	ZRV-301												Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
65 - 150	BUG.., VUG..	ZRV-304												Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
	B6F..F, B6S..F, V6F..F, V6S..F	ZRV-301												Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Siebe / Schneider Electric	65 - 150	BUE.., VUE..	ZRV-304											Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
		VB8.., VB9..													Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Siemens	65 - 150	VB8223, VB9223	ZRV-302												Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
		15 - 25	VXF61, VWF61		Yes	Yes	Yes	Yes	Yes	Yes	Yes														
		15 - 40	VPF52E, VPF52F, VWF52, VXF41		Yes	Yes	Yes	Yes	Yes	Yes	Yes														
		15 - 50	VVG41, VVG41		Yes	Yes	Yes	Yes	Yes	Yes	Yes														
		15 - 80	VVF40, VXF40		Yes	Yes	Yes	Yes	Yes	Yes	Yes														
		25 - 80	WF21, VWF31, VXF21, VXF31		Yes	Yes	Yes	Yes	Yes	Yes	Yes														
		32 - 150	VXF61													Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		40 - 150	VWF61													Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		50 - 150	VXF41													Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
		50 - 150	VWF41, VWF45													Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
100	WF21, VXF21													Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
100 - 150	WF31, VVF40, VXF31, VXF40													Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
SpiraxSarco	15 - 50	B & K series, KE43, KE71, KE73 LE31, LE33		Yes	Yes	Yes	Yes	Yes	Yes	Yes															
TAC / Schneider Electric	15 - 32	VB8.., VB9..		Yes	Yes	Yes	Yes	Yes	Yes	Yes															
	15 - 50			Yes	Yes	Yes	Yes	Yes	Yes	Yes															
	40 - 65														Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
40 - 100														Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
	65 - 150													Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
TREND	15 - 50	GIB F/21, F/31, T/21, T/31		Yes	Yes	Yes	Yes	Yes	Yes	Yes															
Wittier	15 - 50	V206H, V216H, V216R, V306H, V316H, V316R		Yes	Yes	Yes	Yes	Yes	Yes	Yes															
				Yes	Yes	Yes	Yes	Yes	Yes	Yes															

Actuators

For Valve	IP Rating	Voltage	Stroke mm	Torque Nm	Running Time	Emergency Function	Part No.
3-point	54	24V AC/DC	20	1000	150sec	No	NV24A-RE
	54	230V AC	20	1000	150sec	No	NV230A-RE
	54	24V AC	20	1000	150sec / 35sec	Yes	NVK24A-3-RE
	54	230V AC	20	1000	150sec / 35sec	Yes	NVK230A-3-RE
	54	24V AC/DC	20	1500	150sec	No	SV24A-RE
	54	230V AC	20	1500	150sec	No	SV230A-RE
	54	230V AC	50	1500	150sec	No	SVL230A-RE
	54	24V AC	32	2000	150sec / 35sec	Yes	AVK24A-3-RE
	54	230V AC	32	2000	150sec / 35sec	Yes	AVK230A-3-RE
	54	24V AC/DC	50	2500	188sec	No	EV24A-RE
	54	230V AC	50	2500	188sec	No	EV230A-RE
	54	24V AC/DC	20	1000	150sec	No	NV24A-MP-RE
Modulating	54	24V AC/DC	20	1000	150sec / 35sec	Yes	NVK24A-MP-RE
	54	24V AC/DC	20	1000	35sec	No	NVC24A-MP-RE
	54	24V AC/DC	20	1000	35sec / 35sec	Yes	NVKC24A-MP-RE
	54	24V AC/DC	20	1500	150sec	No	SV24A-MP-RE
	54	24V AC/DC	20	1500	35sec / 35sec	Yes	SVC24A-MP-RE
	54	24V AC/DC	50	1500	150sec	No	SVL24A-MP-RE
	54	24V AC/DC	32	1000	35sec / 35sec	Yes	AVK24A-MP-RE
	54	24V AC/DC	50	2500	188sec	No	EV24A-MP-RE
	54	24V AC/DC	50	2500	44sec	No	EVC24A-MF-RE
	54	24V AC/DC	50	4500	150sec	No	RV24A-MF-RE





Actuators for Third-Party Rotary Valves & Butterfly Valves without/with Emergency Function

Universal actuators for the motorising of existing installations. With the help of simple adaptors, these actuators can be mounted on installed rotary & butterfly valves from various manufacturers.

Modulating actuator specification

- ****-MP-R versions: Parameterisable 0.5-10V DC or 2-10V DC control signal with (0)2...10V DC position feedback signal
- Actuator speed can also be adjusted

Open/close actuator specification

- no feedback on SR, DR or GR actuators if required then order S1A or S2A
- **F*-R versions: Open/close control signal with mechanical emergency control function

Valves

Valve Manufacturer	DN (mm)	Valve series	Form fit adaptor, reducer required	Compatible Actuators																								
				SR24A-R	SR230A-R	SR24A-MP-R	SR24P-R	SR230P-R	SR24P-MP-R	SRFA-R	SRFA-S2-R	GR24A-R	GR230A-R	GR24A-MP-R	DR24A-R	DR230A-R	PRCA-S2-T	PRCA-BAC-S2-T	PRKCA-BAC-S2-T	SY4-24-3-T	SY4-230-3-T	SY4-24-SR-T	SY4-230-SR-T	SY4-24-MP-T	SY4-230-MP-T			
Albion	50	ART 115 & 135	ZSV-011	Yes																								
			ZPV-11		Yes																							
			ZSFV-11			Yes																						
			ZGV-16 & ZGI-004				Yes																					
			ZPR01 & UTRS17 x 11																									
Ari	25 - 100	Zesa/Gesa/Ziva	ZSF11		Yes																							
			ZPF-11			Yes																						
			ZSFF-11				Yes																					
			ZPR05																									
			ZSV-11-4K			Yes																						
Danfoss	125 - 150	Sylax	ZPV-11			Yes																						
			ZSFV-11				Yes																					
			ZGV-14					Yes																				
			ZPR06						Yes																			
			ZSV-009			Yes																						
Leengate / Brandoni	65	LV9911 & LV9912 / J9.128 & L9.128	ZPV-09				Yes																					
			ZSFV-09					Yes																				
			ZGV-14 & UTRS14 x 9						Yes																			
			ZPR03 & UTRS14 x 9							Yes																		
			ZGV-14 & UTRS14 x 11								Yes																	
Sauter	80 - 100	DEF	ZPR03 & UTRS14 x 11																									
			ZPR03 & UTRS14 x 11																									
			ZPR03 & UTRS14 x 11																									
			ZPR01 & UTRS17 x 14																									
			ZGV-14																									
Siemens	40 - 65	VKF46	ZPR05																									
			ZSV-11				Yes																					
			ZPV-11					Yes																				
			ZSFV-11						Yes																			
			ZGV-14								Yes																	
Tour & Anderson / Xurox	65 - 80	Xurox - Wafer	ZSFV-14																									
			ZPR10																									
			ZPR05																									
			ZSV-011																									
			ZGV-16 & ZGI-002																									

Actuators

For Valve	IP Rating	Voltage	Torque Nm	Running Time	Emergency Function	Part No.
Open/close	54	24V AC/DC	20	90sec	No	SR24A-R
	54	230V AC	20	90sec	No	SR230A-R
	66/67	24V AC/DC	20	90sec	No	SR24P-R
	66/67	230V AC	20	90sec	No	SR230P-R
	54	24...240V AC/24...125V DC	20	75sec / 20sec	Yes (Mechanical Spring)	SRFA-R
	54	24...240V AC/24...125V DC	20	75sec / 20sec	Yes (Mechanical Spring) / 2 Aux Switches	SRFA-S2-R
	54	24V AC/DC	40	150sec	No	GR24A-R
	54	230V AC	40	150sec	No	GR230A-R
	54	24V AC/DC	<90	150sec	No	DR24A-R
	54	230V AC	<90	150sec	No	DR230A-R
	66/67	24...240V AC/24...125V DC	160	35sec adjustable	No / 2 Aux Switches	PRCA-S2-T
	67	24V AC/DC	400	16sec	No / 2 Aux Switches	SY4-24-3-T
Modulating	67	230V AC	400	18sec	No / 2 Aux Switches	SY4-230-3-T
	54	24V AC/DC	20	90sec	No	SR24A-MP-R
	66/67	24V AC/DC	20	90sec	No	SR24P-MP-R
	54	24V AC/DC	40	90sec	No	GR24A-MP-R
	67	24V AC/DC	400	150sec	No / 2 Aux Switches	SY4-24-MP-T
	67	24V AC/DC	400	150sec	No / 2 Aux Switches	SY4-230-MP-T
Open/Close, 3-point, Modulating, BACnet	66/67	24...240V AC/24...125V DC	160	35sec adjustable / 35sec	Yes (SuperCap) / 2 Aux Switches	PRKCA-BAC-S2-T

Accessories

Adaptors

Description	Part No.
	MS-NRE
	MS-NRE1
	MS-NRE2
	MS-NRE3
	MS-NRE4
	MS-NRE6
	Z-MKESA
Adaptor / Linkage for Landis & Staefa mixing valve	MS-NRL
	MS-NRL1
Adaptor / Linkage for Oventrop mixing valve	MS-NR01
	MS-NRS
Adaptor / Linkage for Satchwell mixing valve	MS-NRSF
	Z-MBFA
Sauter adaptor for globe valve	ZRV-301
Siede distance ring	ZRV-302
Johnson Control distance ring	ZRV-303
Sauter disk	ZRV-304
LDM distance ring	ZNV-203
SY4 actuators Mounting / adaptor kit	ZSY-011
	ZPRO5
	ZPRO6
	ZPRO8
	ZPRO9
	ZPR10
	ZPR11
	ZPR12
PR / PRK actuator mounting / adaptor kit	Square SW17, Flat head SW17
	Square SW14
	Square SW17
	Flat head SW14
	Square SW14
	Square SW18
	Square SW16

Aux Switch

Add-on auxiliary switch - 2 Aux switches for AVK..A., EV..A., NV..A., RV..A., SV..A., SVL..A.	S2A-H
Add-on auxiliary switch - 1 Aux switch for SM....	S1A
Add-on auxiliary switch - 2 Aux switches for SM....	S2A

Linkages

For PR actuators	Position indicator and tappet shaft for PR actuators with F05, square 14x14mm	ZRP03
	Position indicator and tappet shaft for PR actuators with F07, square 17x17mm	ZRP01
	Tappet shaft only for PR actuators with F07, square 17x17mm	ZPR02
		ZSV-08
		ZSV-09
		ZSV-10
	Form Fit adaptor, square 8mm, 9mm, 10mm, 11mm, 12mm, 14mm	ZSV-11
		ZSV-12
		ZSV-14
For SR... actuators		ZSF-08
		ZSF-09
	Form Fit adaptor, two flats 8mm, 9mm, 10mm, 11mm, 14mm	ZSF-10
		ZSF-11
		ZSF-14
		ZPV-08
		ZPV-09
	Form Fit adaptor, square 8mm, 9mm, 10mm, 11mm, 12mm, 14mm	ZPV-10
		ZPV-11
		ZPV-12
For SR..P. actuators		ZPV-14
		ZPF-08
		ZPF-09
	Form Fit adaptor, two flats 8mm, 9mm, 10mm, 11mm, 14mm	ZPF-10
		ZPF-11
		ZPF-14
		ZSFV-08
		ZSFV-09
		ZSFV-10
	Form Fit adaptor, square 8mm, 9mm, 10mm, 11mm, 12mm, 14mm	ZSFV-11
		ZSFV-11-4K
		ZSFV-12
For SRF... actuators		ZSFV-14
		ZSFF-08
		ZSFF-09
	Form Fit adaptor, two flats 8mm, 9mm, 10mm, 11mm, 14mm	ZSFF-10
		ZSFF-11
		ZSFF-14
		ZGV-14
	Form Fit adaptor, square 14mm, 16mm, 17mm, 19mm	ZGV-16
		ZGV-17
		ZGV-19
For GR... actuators		ZGF-14
	Form Fit adaptor, two flats 14mm, 17mm	ZGF-17

Reducers

For DR...actuators	Form Fit adaptor, 13xØ19x33 mm (LxWxH)	ZDV-01
	Form Fit adaptor, 17x17x19 mm (LxWxH)	ZDV-02
For ZGV-16 adaptor	Reducer for Form Fit adaptor, 14x14x20 mm (LxWxH)	ZGI-001
For ZGV-16 adaptor	Reducer for Form Fit adaptor, 11x11x20 mm (LxWxH)	ZGI-002
For ZGV-19 adaptor	Reducer for Form Fit adaptor, 14x14x35 mm (LxWxH)	ZGI-003
For ZGV-16 adaptor	Reducer for Form Fit adaptor, 11x11x35 mm (LxWxH)	ZGI-004
For ZGV-19 adaptor	Reducer for Form Fit adaptor, 11x17x15 mm (LxWxH)	ZGI-009
For ZGV-19 adaptor	Reducer for Form Fit adaptor, 12x12x35 mm (LxWxH)	ZGI-012
For ZGV-16 adaptor	Reducer for Form Fit adaptor, 10x10x15 mm (LxWxH)	ZGI-013
For ZGV-19 adaptor	Reducer for Form Fit adaptor, 8x17x15 mm (LxWxH)	ZGI-014

Straight Square Reducers

Sqaure 11 x 9	Reducer outer square dimensions 11mm x inner square dimension 9mm	UTRS11 x 9
Sqaure 14 x 9	Reducer outer square dimensions 14mm x inner square dimension 9mm	UTRS14 x 9
Sqaure 14 x 10	Reducer outer square dimensions 14mm x inner square dimension 10mm	UTRS14 x 10
Sqaure 14 x 11	Reducer outer square dimensions 14mm x inner square dimension 11mm	UTRS14 x 11
Sqaure 17 x 11	Reducer outer square dimensions 17mm x inner square dimension 11mm	UTRS17 x 11
Sqaure 17 x 12	Reducer outer square dimensions 17mm x inner square dimension 12mm	UTRS17 x 12
Sqaure 17 x 14	Reducer outer square dimensions 17mm x inner square dimension 14mm	UTRS17 x 14
Sqaure 22 x 16	Reducer outer square dimensions 22mm x inner square dimension 16mm	UTRS22 x 16
Sqaure 22 x 17	Reducer outer square dimensions 22mm x inner square dimension 17mm	UTRS22 x 17






Characterised Control Valves Internal Thread DN15-50

Motorised valves for control of cold and hot water circuits in HVAC systems.

Actuator features

- Valve medium temperature -10...120°C
- Valve leakage rate A, Leak-proof (EN 12266-1)

Modulating actuator specification

- ****-SR versions: (0)2-10V DC control signal with 2...10V DC position feedback signal
- **F*-SR versions: (0)2-10V DC control signal with mechanical emergency control function

Open/close & 3-point actuator specification

- 2 wire & 3 wire control no feedback if required then order S1A / S2A

Valves		Compatible Actuators											2 - Way Valve	3 - Way Valve			
DN (mm)	Rp	Kvs (m³/h)	LR24A	LR230A	LR24A-SR	LR24A-SR	NR24A	NR230A	NR24A-SR	NR24A-SR	SR24A	SR230A	SR24A-SR	SR24A-SR	Part No.	Part No.	
15	½"	0.25	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2015-P25-S1	R3015-P25-S1	
		0.4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2015-P4-S1	R3015-P4-S1
		0.63	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2015-P63-S1	R3015-P63-S1
		1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2015-1-S1	R3015-1-S1
		1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2015-1P6-S1	R3015-1P6-S1
		2.5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2015-2P5-S1	R3015-2P5-S1
20	¾"	4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2015-4-S1	R3015-4-S1	
		6.3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2015-6P3-S1	R3015-6P3-S1	
		8.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2020-4-S2	R3020-4-S2	
		6.3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2020-6P3-S2	R3020-6P3-S2	
25	1"	8.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2020-8P6-S2	R3020-8P6-S2	
		6.3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2025-6P3-S2	R3025-6P3-S2	
		10	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2025-10-S2	R3025-10-S2	
32	1¼"	16	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2025-16-S2	R3025-16-S2	
		16					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2032-16-S3	R3032-16-S3	
40	1½"	16					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2040-16-S3	R3040-16-S3	
		25								Yes	Yes	Yes	Yes		R3040-25-S4		
		25									Yes	Yes	Yes	Yes	R2050-25-S4	R3050-25-S4	
50	2"	40									Yes	Yes	Yes	Yes	R2050-40-S4	R3050-40-S4	
		58									Yes	Yes	Yes	Yes		R3050-58-S4	

Ball Valves Internal Thread DN15-50

Motorised valves for control of cold and hot water circuits in HVAC systems.

Actuator features

- Valve medium temperature -10...120°C
- Valve leakage rate A, Leak-proof (EN 12266-1)

Open/Close & 3-point actuator specification

- 2 wire & 3 wire control
- No feedback if required then order S1A / S2A
- **F* versions: with mechanical emergency control function

Valves		Compatible Actuators											2 - Way Valve	3 - Way Valve	3 - Way L-Bore Valve	
DN (mm)	Rp	Kvs (m³/h)	LR24A	LR230A	LR24A	LR24A	NR24A	NR230A	NR24A-SR	NR24A-SR	SR24A	SR230A	SR24A-SR	Part No.	Part No.	Part No.
15	½"	15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2015-S1	R3015-S1	
		5.5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			R3015-BL1
20	¾"	32	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2020-S2	R3020-S2	
		11	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			R3020-BL2
25	1"	26	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2025-S2	R3025-S2	
		10	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			R3025-BL2
32	1¼"	32					Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2032-S3	R3032-S3	
		9					Yes	Yes	Yes	Yes	Yes	Yes			R3032-BL2	
		15					Yes	Yes	Yes	Yes	Yes	Yes			R3032-BL3	
40	1½"	31					Yes	Yes	Yes	Yes	Yes	Yes	Yes	R2040-S3	R3040-S3	
		14					Yes	Yes	Yes	Yes	Yes	Yes			R3040-BL3	
		47									Yes	Yes	Yes			R3040-BL4
50	2"	49								Yes	Yes	Yes	Yes	R2050-S4	R3050-S4	
		24					Yes	Yes	Yes	Yes	Yes	Yes			R3050-BL3	
		75									Yes	Yes	Yes			R3050-BL4

Potable Water Valves Internal Thread DN15-50

Motorised valves for potable water circuits in HVAC systems.

Actuator features

- Valve medium temperature -5...65°C
- Valve leakage rate A, Leak-proof (EN 12266-1)
- WRAS approval: 1609315

Open/close & 3-point actuator specification

- 2 wire & 3 wire control - NO / NC versions available
- **F* versions: with mechanical emergency control function
- **K* versions: with electrical emergency control function
- No feedback if required then order S1A / S2A

Valves		Compatible Actuators											2 - Way Valve	
DN (mm)	Rp	Kvs (m³/h)	NR24A	NR230A	NRFA	NRFA-S2	SR24A	SR230A	SRFA	SRFA-S2	GR24A-5	GR230A-5	GRK24A-5	Part No.
15	½"	28	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	EXT-R215-B3-PW
20	¾"	42	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	EXT-R220-B3-PW
25	1"	70	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	EXT-R225-B3-PW
32	1¼"	80					Yes	Yes	Yes	Yes	Yes	Yes	Yes	EXT-R232-B4-PW
40	1½"	125					Yes	Yes	Yes	Yes	Yes	Yes	Yes	EXT-R240-B4-PW
50	2"	179								Yes	Yes	Yes	Yes	EXT-R250-B5-PW

Actuators					
For Valve	Voltage	Torque Nm	Running Time	Emergency Function	Part No.
Open/close & 3-point	24V AC/DC	5	90sec	No	LR24A
	230V AC/DC	5	90sec	No	LR230A
	24V AC/DC	10	90sec	No	NR24A
	230V AC/DC	10	90sec	No	NR230A
	24V AC/DC	20	90sec	No	SR24A
	230V AC/DC	20	90sec	No	SR230A
	24V AC/DC	40	90sec	No	GR24A-5
	230V AC/DC	40	90sec	No	GR230A-5
Modulating	24V AC/DC	5	90sec	No	LR24A-SR
	24V AC/DC	10	90sec	No	NR24A-SR
	24V AC/DC	20	90sec	No	SR24A-SR
Open/close & 3-point	24V AC	4	75sec / 20sec	Yes (Mechanical)	LRF24
	24V AC	4	75sec / 20sec	Yes (Mechanical)	LRF24-SR
Modulating	24V AC	10	75sec / 20sec	Yes (Mechanical)	NRF24A
	24...240V AC/125...125V DC	10	75sec / 20sec	Yes (Mechanical)	NRFA
Open/close	24...240V AC/125...125V DC	10	75sec / 20sec	Yes (Mechanical) & 2 Aux Switch	NRFA-S2
	24V AC	10	90sec / 20sec	Yes (Mechanical)	NRF24A-SR
Modulating	24V AC	20	75sec / 20sec	Yes (Mechanical)	SRF24A
	24...240V AC/125...125V DC	20	75sec / 20sec	Yes (Mechanical)	SRFA
Open/close	24...240V AC/125...125V DC	20	75sec / 20sec	Yes (Mechanical) & 2 Aux Switch	SRFA-S2
	24 VAC	20	90sec / 20sec	Yes (Mechanical)	SRF24A-SR
Open/close	24V AC	40	150sec / 35sec	Yes (SuperCap)	GRK24A-5

Zone Valves Internal Thread

Motorised valves for control of cold and hot water circuits in HVAC systems.

Actuator features

- Valve medium temperature 2...90°C
- Valve leakage rate A, Leak-proof (EN 12266-1)
- PN25

Modulating actuators specification:

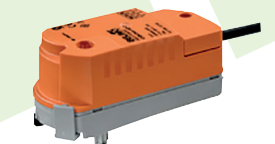
- ****-SR versions: 2-10V DC control signal
- ****-SZ versions: 0.5-10V DC control signal

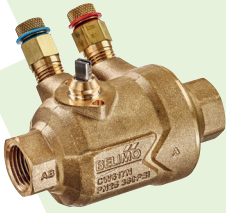
Open/Close & 3-point actuator specification

- **K* versions: with electrical emergency control function
- With NO / NC versions available
- **C* & **D* versions as Fast runners

Valves		Compatible Actuators										2 - Way Valve		3 - Way L-Bore Valve	
DN (mm)	Rp	Kvs (m³/h)	CQ24A	CQ24A-SR	CQ24A-SZ	CQ230A	CQK24A	CQK24A-SR	CQK230A	CQC230A	CQD230A	Part No.	Part No.		
15	½"	0.1 - 1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	C215Q-F			
		0.4 - 4.8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	C215Q-J			
		2.5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		C315Q-H		
20	¾"	0.5 - 8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	C220Q-K			
		4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		C220Q-J		

Actuators					
For Valve	Voltage	Torque Nm	Running Time	Emergency Function	Part No.
Open/close & 3-point	24V AC/DC	1	75sec	No	CQ24A
	230V AC/DC	1	75sec	No	CQ230A
Modulating	24V AC/DC	1	75sec	No	CQ24A-SR
	24V AC/DC	1	75sec	No	CQ24A-SZ
Open/close & 3-point	24V AC/DC	1	75sec	Yes (SuperCap)	CQK24A
	230V AC	1	75sec	Yes (SuperCap)	CQK230A
Modulating	24V AC/DC	1	75sec	Yes (SuperCap)	CQK24A-SR
Open/close	230V AC	1	35sec	No	CQC230A
	230V AC	1	15sec	No	CQD230A





Pressure Independent Characterised Control Valves Internal Threaded

Motorised Mechanical Pressure Independent Control Valves for control of cold and hot water circuits in HVAC systems.

Actuator features

- Valve medium temperature 2...90°C
- Valve Leakage rate A, Leak-proof (EN 12266-1)
- Pressure test point versions available (PT)

Modulating actuators specification:

- ****-SR versions: 2-10V DC control signal
- ****-SZ versions: 0.5-10V DC control signal

Open/close & 3-point actuator specification

- **K* versions: with electrical emergency control function
- With NO / NC versions available
- **C* & **D* versions as Fast runners

Valves

DN (mm)	Rp	Vnom (l/s)	Compatible Actuators						Valve without PT	Valve with PT	
			CQ24A	CQ24A-SR	CQ24A-SZ	CQ230A	CQK24A	CQK24A-SR	Part No.	Part No.	
15	½"	0.006 - 0.058 0.014 - 0.117	Yes	Yes	Yes	Yes	Yes	Yes	Yes	C215QP-B	C215QPT-B
			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	C215QP-D
20	¾"	0.025 - 0.272	Yes	Yes	Yes	Yes	Yes	Yes	Yes	C220QP-F	C220QPT-F
25	1"	0.072 - 0.583	Yes	Yes	Yes	Yes	Yes	Yes	Yes	C225QP-G	C225QPT-G

Actuators

For Valve	Voltage	Torque Nm	Running Time	Emergency Function	Part No.
Open/close & 3-point	24V AC/DC	1	75sec	No	CQ24A
	230V AC/DC	1	75sec	No	CQ230A
Modulating	24V AC/DC	1	75sec	No	CQ24A-SR
	24V AC/DC	1	75sec	No	CQ24A-SZ
Open/close & 3-point	24V AC/DC	1	75sec	Yes (SuperCap)	CQK24A
	230V AC	1	75sec	Yes (SuperCap)	CQK230A
Modulating	24V AC/DC	1	75sec	Yes (SuperCap)	CQK24A-SR
Open/close	230V AC	1	35sec	No	CQC230A
	230V AC	1	15sec	No	CQD230A

Pressure Independent Characterised Control Valves

Motorised Electronic Pressure Independent Control Valves for control of cold and hot water circuits in HVAC systems.

Actuator features

- Valve medium temperature -10...120°C
- Valve leakage rate A, Leak-proof (EN 12266-1)
- Cold & Hot Water inc Glycol up to 50% vol.
- Real Time flow information via feedback output 0-10V DC or via communications MP Bus / MODBUS RTU

Actuators specification: Included as part of the valve assembly

- ****-MP versions: Also Parameterisable TO 0.5-10V DC or 2-10V DC control signal
- ****-KMP versions: same as MP version with electrical emergency function
- ****-MOD version: MODBUS RTU version
- Utilise a ZTH-EU for all settings and flow rate monitoring

Valves - DN 15 - 50 Internal Threaded & 65 - 150 Flanged PN16

DN (mm)	Rp	"Vnom (l/s) Adjustable Min - Max"	MP version	KMP version	MOD Version
			Part No.	Part No.	Part No.
15	½"	0.105 - 0.350	EP015R+MP	EP015R+KMP	EP015R+MOD
20	¾"	0.195 - 0.650	EP020R+MP	EP020R+KMP	EP020R+MOD
25	1"	0.345 - 1.150	EP025R+MP	EP025R+KMP	EP025R+MOD
32	1¼"	0.540 - 1.800	EP032R+MP	EP032R+KMP	EP032R+MOD
40	1½"	0.750 - 2.500	EP040R+MP	EP040R+KMP	EP040R+MOD
50	2"	1.440 - 4.800	EP050R+MP	EP050R+KMP	EP050R+MOD
65	2½"	3.60 - 8.00	P6065W800E-MP	P6065W800E-KMP	P6065W800E-MOD
80	3"	4.95 - 11.00	P6080W1100E-MP	P6080W1100E-KMP	P6080W1100E-MOD
100	4"	9.00 - 20.00	P6100W2000E-MP	P6100W2000E-KMP	P6100W2000E-MOD
125	5"	13.95 - 31.00	P6125W3100E-MP	P6125W3100E-KMP	P6125W3100E-MOD
150	6"	20.25 - 45.00	P6150W4500E-MP	P6150W4500E-KMP	P6150W4500E-MOD



Energy Valve

Motorised Electronic Pressure Independent Control Valves with integrated Web Server, Delta-T manager for optimum differential temperature

Actuator features

- Valve medium temperature -10...120°C
- Valve Leakage rate A, Leak-proof (EN 12266-1)
- Cold & Hot Water inc Glycol up to 50% vol.
- Real Time flow information, power control and intergrated Web Server via communications BANnet IP or MS/TP

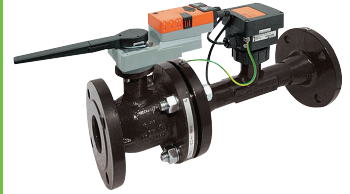
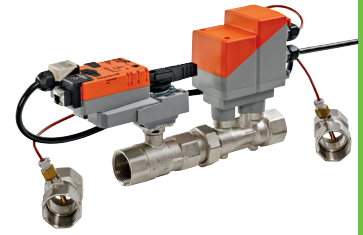
Actuators specification: Included as part of the valve assembly

- ****-BAC versions: Also Parameterisable TO 0.5-10V DC or 2-10V DC control signal or BACnet IP or MS/TP communications
- ****-KBAC versions: same as BAC version with electrical emergency function

DN 15 - 50 Internal Threaded & 65 - 150 Flanged PN16

DN (mm)	Rp	"Vnom (l/s) Adjustable Min - Max"	BAC version	KBAC version
			Part No.	Part No.
15	½"	0.105 - 0.350	EV015R+BAC	EV015R+KBAC
20	¾"	0.195 - 0.650	EV020R+BAC	EV020R+KBAC
25	1"	0.345 - 1.150	EV025R+BAC	EV025R+KBAC
32	1¼"	0.540 - 1.800	EV032R+BAC	EV032R+KBAC
40	1½"	0.750 - 2.500	EV040R+BAC	EV040R+KBAC
50	2"	1.440 - 4.800	EV050R+BAC	EV050R+KBAC
65	2½"	3.60 - 8.00	P6065W800EV-BAC	P6065W800EV-KBAC
80	3"	4.95 - 11.00	P6080W1100EV-BAC	P6080W1100EV-KBAC
100	4"	9.00 - 20.00	P6100W2000EV-BAC	P6100W2000EV-KBAC
125	5"	13.95 - 31.00	P6125W3100EV-BAC	P6125W3100EV-KBAC
150	6"	20.25 - 45.00	P6150W4500EV-BAC	P6150W4500EV-KBAC

BELIMO®





Butterfly Valves

Features

- Valve medium temperature 5...120°C (-10...5°C with spindle heater)
- PN6, 10, 16 for DN25...300
- DN 350...700 also available
- Check differential pressure for correct actuator for all sizes 25...80mm

Modulating actuators specification:

- ****-SR versions: (0)2-10V DC control with 2...10V DC position feedback signal
- **K*-SR-** versions: (0)2-10V DC control signal with electrical emergency control function

Open/close actuator specification:

- no feedback on SR, DR or GR actuators if required then order S1A or S2A
- **K* versions: Open/close control signal with electrical emergency control function
- **F* versions: Open/close control signal with mechanical emergency control function

Wafer Valves

DN (mm)	Kvs (m³/h)	Compatible Actuators											Part No.																												
		SR24A-5	SR230A-5	SRFA-5	SRFA-S2-5	SR24A-SR-5	SR230A-SR-5	SRF24A-SR-5	GR24A-5	GRC24G-5	GR230A-5	GRC24A-5		GRK24A-5	GR24A-SR-5	GRK24A-SR-5	DR24A-5	DRC24G-5	DR230A-5	DRC24A-5	DRK24A-5	DR24A-SR-5	DRK24A-SR-5	DR24A-7	DRC24G-7	DR230A-7	DRC24A-7	DRK24A-7	DR24A-SR-7	DRK24A-SR-7	PRCA-S2-T	PRCA-BAC-S2-T	PRKCA-BAC-S2-T	ZPR01 Linkage	ZPR02 Tappet Shaft only	ZPR03 Linkage					
25	45	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	D625N			
32	55	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	D632N			
40	70	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	D640N			
50	90	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	D650N			
65	180	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	D665N			
80	300					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	D680N			
100	580															Yes	Yes																			Yes	Yes	D6100N			
125	820																						Yes	Yes													Yes	Yes	D6125N		
150	1600																																					Yes	Yes	D6150N	
200	2900																																						Yes	Yes	D6200W
250	4400																																						Yes	Yes	D6250W
300	7300																																						Yes	Yes	D6300W

Lugged Valves

DN (mm)	Kvs (m³/h)	Compatible Actuators											Part No.																														
		SR24A-5	SR230A-5	SRFA-5	SRFA-S2-5	SR24A-SR-5	SR230A-SR-5	SRF24A-SR-5	GR24A-5	GRC24G-5	GR230A-5	GRC24A-5		GRK24A-5	GR24A-SR-5	GRK24A-SR-5	DR24A-5	DRC24G-5	DR230A-5	DRC24A-5	DRK24A-5	DR24A-SR-5	DRK24A-SR-5	DR24A-7	DRC24G-7	DR230A-7	DRC24A-7	DRK24A-7	DR24A-SR-7	DRK24A-SR-7	PRCA-S2-T	PRCA-BAC-S2-T	PRKCA-BAC-S2-T	ZPR01 Linkage	ZPR02 Tappet Shaft only	ZPR03 Linkage							
25	45	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	D625NL				
32	55	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	D632NL			
40	70	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	D640NL			
50	90	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	D650NL			
65	180	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	D665NL		
80	300					Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	D680NL		
100	580																																						Yes	Yes	D6100NL		
125	820																						Yes	Yes															Yes	Yes	D6125NL		
150	1600																																							Yes	Yes	D6150NL	
200	2900																																								Yes	Yes	D6200WL
250	4400																																								Yes	Yes	D6250WL
300	7300																																								Yes	Yes	D6300WL

Butterfly Valves

3-way valves for open-close, change-over, and control applications (as mixing and diverting valves) using conventional controls open / close, 2-10V, 0.5-10V, 4-20mA or 3 point control. This flexibility is guaranteed by the energy-efficient and multifunctional PR actuators. Two passive sensors can be connected for each PR actuator when using BACnet MS/TP, Modbus RTU or MP-Bus comms. The valves have a virtually equal-percentage characteristic curve for opening angles between 0% and 60%. Depending on the desired Kv value, the opening angle can be set via Near Field Communication (NFC) with the Belimo Assistant App on a SmartPhone. Which means that Belimo butterfly valves are ideally suited for use as a control device and an alternative to large 3 way globe valves. Either use your own pipework assembly and just utilise the D7***NL/BAC or utilise a made up 3 way assembly the ZD7*** pipework assembly and fittings.

3 Way Butterfly Valves

For DN (mm)	Description	Part No.
150	150mm 3 Way Butterfly Valve for mixing, diverting changeover or control applications (2x D6150NL, 2x ZPR01 & 2x PRCA-BAC-S2-T)	D7150NL/BAC
200	200mm 3 Way Butterfly Valve for mixing, diverting changeover or control applications (2x D6200WL, 2x ZPR01 & 2x PRCA-BAC-S2-T)	D7200WL/BAC
250	250mm 3 Way Butterfly Valve for mixing, diverting changeover or control applications (2x D6250WL, 2x ZPR01 & 2x PRCA-BAC-S2-T)	D7250WL/BAC
300	300mm 3 Way Butterfly Valve for mixing, diverting changeover or control applications (2x D6300WL, 2x ZPR01 & 2x PRCA-BAC-S2-T)	D7300WL/BAC

T-Piece 3 Way Butterfly Valves

150	150mm T-piece 3 Way Butterfly Valve flange pipework (includes mounting screws, washers and nuts)	ZD7150
200	200mm T-piece 3 Way Butterfly Valve flange pipework (includes mounting screws, washers and nuts)	ZD7200
250	250mm T-piece 3 Way Butterfly Valve flange pipework (includes mounting screws, washers and nuts)	ZD7250
300	300mm T-piece 3 Way Butterfly Valve flange pipework (includes mounting screws, washers and nuts)	ZD7300

Actuators

For Valve	IP Rating	Voltage	Torque Nm	Running Time	Emergency Function	Part No.
Open/close	54	24V AC/DC	20	90sec	No	SR24A-5
	54	230V AC/DC	20	90sec	No	SR230A-5
	54	24V AC/DC	40	150sec	No	GR24A-5
	54	230V AC/DC	40	150sec	No	GR230A-5
	54	24V AC/DC	40	35sec	No	GRC24A-5
	66	24V AC/DC	40	35sec	No	GRC24G-5
	54	24V AC/DC	<90	150sec	No	DR24A-5
	54	230V AC/DC	<90	150sec	No	DR230A-5
	54	24V AC/DC	<90	35sec	No	DRC24A-5
	66	24V AC/DC	<90	35sec	No	DRC24G-5
	54	24V AC/DC	<90	150sec	No	DR24A-7
	54	230V AC/DC	<90	150sec	No	DR230A-7
	54	24V AC/DC	<90	35sec	No	DRC24A-7
	66	24V AC/DC	<90	35sec	No	DRC24G-7
Modulating	66/67	24...240V AC/24...125V DC	160	35sec	No	PRCA-S2-T
	54	24V AC/DC	20	90sec	No	SR24A-SR-5
	54	230V AC	20	90sec	No	SR230A-SR-5
	54	24V AC/DC	40	150sec	No	GR24A-SR-5
Open/close	54	24V AC/DC	<90	150sec	No	DR24A-SR-5
	54	24V AC/DC	<90	150sec	No	DR24A-SR-7
	54	24...240V AC/24...125V DC	20	75sec / 20 sec	Yes (Mechanical spring)	SRFA-5
	54	24...240V AC/24...125V DC	20	75sec / 20 sec	Yes (Mechanical spring) & 2 Aux switches	SRFA-S2-5
	54	24V AC/DC	40	150sec / 35sec	Yes (SuperCap)	GRK24A-5
	54	24V AC/DC	<90	150sec / 35sec	Yes (SuperCap)	DRK24A-5
	54	24V AC/DC	<90	150sec / 35sec	Yes (SuperCap)	DRK24A-7
	54	24V AC/DC	20	90sec / 20sec	Yes (Mechanical spring)	SRF24A-SR-5
	54	24V AC/DC	40	150sec / 35sec	Yes (SuperCap)	GRK24A-SR-5
	54	24V AC/DC	40	150sec / 35sec	Yes (SuperCap)	DRK24A-SR-5
Open/close, modulating, BACnet	54	24V AC/DC	160	35sec	Yes (SuperCap)	DRK24A-SR-7
	66/67	24...240V AC/24...125V DC	160	35sec	Yes (SuperCap)	PRKCA-BAC-S2-T

Accessories

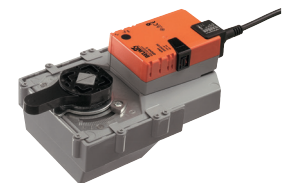
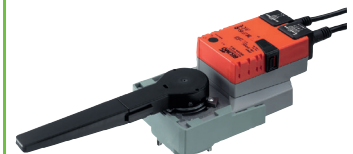
Linkages

For DN (mm)	Description	Part No.
100	Position indicator and tappet shaft for PR actuators with F05, square 14x14mm	ZRP03
125...300	Position indicator and tappet shaft for PR actuators with F07, square 17x17mm	ZRP01
125...300	Tappet shaft only for PR actuators with F07, square 17x17mm	ZPR02

Linkages

25...100	Flange ISO 5211, F05 24V AC/DC, 30W	ZR24-F05
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BELIMO





Screwed Valves

Features

- Valve medium temperature 5...120°C (-10...5°C with spinde heater)
- PN16 external thread

Modulating actuators specification:

- ****-SR versions: (0)2-10V DC control with 2...10V DC position feedback signal
- **K* versions: (0)2-10V DC control signal with electrical emergency control function

Open/close & 3-point actuator specification:

- 2 wire & 3 wire control no feedback if required then order S2A-H

Valves		Compatible Actuators													2 - Way Valve	3 - Way Valve	
DN (mm)	Rp	Kvs (m³/h)	LV24A-TPC	LV230A-TPC	LV24A-SR-TPC	NV24A-TPC	NV230A-TPC	NV24A-SR-TPC	NVK24A-3-TPC	NVK24A-SR-TPC	SV24A-TPC	SV230A-TPC	SV24A-SR-TPC	AVK24A-3-TPC	AVK24A-SR-TPC	Part No.	Part No.
15	1 1/8"	0.63	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	H411B	H511B
		1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	H412B	H512B
		1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	H413B	H513B
		2.5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	H414B	H514B
		4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	H415B	H515B
20	1 1/4"	6.3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	H420B	H520B	
25	1 1/2"	10	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	H425B	H525B	
32	2"	16				Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	H432B	H532B	
40	2 1/4"	25			Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	H440B	H540B	
50	2 3/4"	40								Yes	Yes	Yes	Yes	Yes	H450B	H550B	

Accessories

For DN (mm)	Part No.
15	ZH4515
20	ZH4520
25	ZH4525
32	ZH4532
40	ZH4540
50	ZH4550
Linear actuator aux switch	S2A-H

Pipe connectors sold individually so order quantity as per valve (DN) type e.g. for a 3 way valve, you need to order 3 of relevant connector

Flanged Valves PN6 with Linear Actuator

Features

- Valve medium temperature 5...120°C (-10...5°C with spinde heater)
- PN6 Flanged

Modulating actuators specification:

- ****-SR versions: (0)2-10V DC control with 2...10V DC position feedback signal
- **K* versions: (0)2-10V DC control signal with electrical emergency control function

Open/close & 3-point actuator specification:

- 2 wire & 3 wire control no feedback if required then order S2A-H

Valves		Compatible Actuators													2 - Way Valve	3 - Way Valve			
DN (mm)	Rp	Kvs (m³/h)	LV24A-TPC	LV230A-TPC	LV230A-SR-TPC	NV24A-TPC	NV230A-TPC	NV24A-SR-TPC	SV24A-TPC	SV230A-TPC	SV24A-SR-TPC	RV24A-SR	NVK24A-3-TPC	NVK24A-SR-TPC	AVK24A-3-TPC	AVK24A-SR-TPC	Part No.	Part No.	
15	1/2"	0.63	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	H611R	H711R	
		1	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	H612R	H712R
		1.6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	H613R	H713R
		2.5	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	H614R	H714R
		4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	H615R	H715R
20	3/4"	6.3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	H620R	H720R		
25	1"	10	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	H625R	H725R		
32	1 1/4"	16				Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	H632R	H732R		
40	1 1/2"	25				Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	H640R	H740R		
50	2"	40				Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	H650R	H750R		
65	2 1/2"	58				Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	H664R	H764R		
80	3"	90				Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	H679R	H779R		
100	4"	145							Yes	Yes	Yes			Yes	Yes	H6100R	H7100R		

Flanged Valves PN16 with Linear Actuator

Features

- Valve medium temperature 5...120°C (-10...5°C with spinde heater)
- PN6 Flanged

Modulating actuators specification:

- ****-SR versions: (0)2-10V DC control with 2...10V DC position feedback signal
- **K* versions: (0)2-10V DC control signal with electrical emergency control function

Open/close & 3-point Actuator specification:

- 2 wire & 3 wire control no feedback if required then order S2A-H
- * Check differential pressure for correct actuator

Valves			Compatible Actuators											2 - Way Valve	3 - Way Valve		
DN (mm)	Rp	Kvs (m³/h)	LV24A-TPC LV230A-TPC	LV230A-SR-TPC	NV24A-TPC NV230A-TPC	NV24A-SR-TPC	SV24A-TPC SV230A-TPC	SV24A-SR-TPC	EV24A-TPC EV230A-TPC	EV24A-SR-TPC	RV24A-SR	NVK24A-3-TPC	NVK24A-SR-TPC	AVK24A-3-TPC	AVK24A-SR-TPC	Part No.	Part No.
15	½"	0.63	Yes	Yes	Yes	Yes	Yes	Yes				Yes	Yes	Yes	Yes	H611N	H711N
		1	Yes	Yes	Yes	Yes	Yes	Yes				Yes	Yes	Yes	Yes	H612N	H712N
		1.6	Yes	Yes	Yes	Yes	Yes	Yes				Yes	Yes	Yes	Yes	H613N	H713N
		2.5	Yes	Yes	Yes	Yes	Yes	Yes				Yes	Yes	Yes	Yes	H614N	H714N
20	¾"	4	Yes	Yes	Yes	Yes	Yes	Yes				Yes	Yes	Yes	Yes	H615N	H715N
		6.3	Yes	Yes	Yes	Yes	Yes	Yes				Yes	Yes	Yes	Yes	H620N	H720N
25	1	10	Yes	Yes	Yes	Yes	Yes	Yes				Yes	Yes	Yes	Yes	H625N	H725N
32	1¼"	16			Yes	Yes	Yes	Yes				Yes	Yes	Yes	Yes	H632N	H732N
40	1½"	25			Yes	Yes	Yes	Yes				Yes	Yes	Yes	Yes	H640N	H740N
50	2"	40			Yes	Yes	Yes	Yes				Yes	Yes	Yes	Yes	H650N	H750N
65	2½"	58					Yes	Yes				Yes	Yes			H664N	H764N
		63						Yes	Yes				Yes	Yes		H665N	H765N
80	3"	90			Yes	Yes					Yes	Yes			H679N	H779N	
		100						Yes	Yes				Yes	Yes		H680N	H780N
100	4"	145						Yes	*Yes	*Yes			Yes	*Yes	*	H6100N	H7100N

Actuators

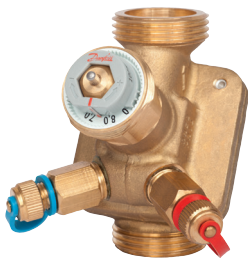
For Valve	Voltage	Torque Nm	Running Time	Emergency Function	Part No.
Open/close & 3-point	24V AC/DC	500	150sec	No	LV24A-TPC
	230V AC/DC	500	150sec	No	LV230A-TPC
	24V AC/DC	1000	150sec	No	NV24A-TPC
	230V AC/DC	1000	150sec	No	NV230A-TPC
	24V AC/DC	1500	150sec	No	SV24A-TPC
	230V AC/DC	1500	150sec	No	SV230A-TPC
	24V AC/DC	2500	150sec	No	EV24A-TPC
	230V AC/DC	2500	150sec	No	EV230A-TPC
Modulating	24V AC/DC	500	150sec	No	LV24A-SR-TPC
		1000	150sec	No	NV24A-SR-TPC
		1500	150sec	No	SV24A-SR-TPC
		2500	150sec	No	EV24A-SR-TPC
		4500	120sec	No	RV24A-SR
Open/close & 3-point	24V AC	1000	150sec / 35sec	Yes (SuperCap)	NVK24A-3-TPC
Modulating	24V AC	1000	150sec / 35sec	Yes (SuperCap)	NVK24A-SR-TPC
Open/close & 3-point	24V AC	2000	150sec / 35sec	Yes (SuperCap)	AVK24A-3-TPC
Modulating	24V AC	2000	150sec / 35sec	Yes (SuperCap)	AVK24A-SR-TPC

Service Tools

Tools

Description	Part No.
Service tool for parameterisable and communicative actuators	ZTH EU
Belimo PC-Tool software - Free download for Belimo Website	
Belimo Assistant - NFC interface on actuators - Google play	MFT-P





Pressure Independent Control Valves

Reduce costs and balance your business – your clients are your business, so everybody wins if you can reduce yours and their costs.

The Danfoss ABQM is a money saving device:

- Fewer products, so less installation to do
- Easy sizing, so fewer calculations
- Set and forget, no commissioning
- Better comfort, so fewer complaints and less service required
- Always the right flow, so no energy wasted

AB-QM Valves without Measuring Points

Description	DN	Qmax	Ex thread	Part No.
AB-QM DN10 LF	10LF	150	G ½"	003Z125100
AB-QM DN10	10	275	G ½"	003Z120100
AB-QM DN15 LF	15LF	275	G ¾"	003Z125200
AB-QM DN15	15	450	G ¾"	003Z120200
AB-QM DN15 HF	15HF	1135	G ¾"	003Z1222
AB-QM DN20	20	900	G1"	003Z120300
AB-QM DN20 HF	20HF	1700	G1"	003Z1223
AB-QM DN25	25	1700	G1¼"	003Z120400
AB-QM DN25 HF	25HF	2700	G1¼"	003Z1224
AB-QM DN32	32	3200	G1½"	003Z120500
AB-QM DN32 HF	32HF	4000	G1½"	003Z1225

AB-QM Valves with Test Points

Description	DN	Qmax	Ex thread	Part No.
AB-QM DN10 LF	10LF	150	G ½"	003Z126100
AB-QM DN10	10	275	G ½"	003Z121100
AB-QM DN15 LF	15LF	275	G ¾"	003Z126200
AB-QM DN15	15	450	G ¾"	003Z121200
AB-QM DN20	20	900	G1"	003Z121300
AB-QM DN25	25	1700	G1¼"	003Z121400
AB-QM DN32	32	3200	G1½"	003Z121500
AB-QM DN40	40	7500	G2"	003Z077000
AB-QM DN50	50	12500	G2½"	003Z077100
AB-QM DN50	50	12500	Flanged PN16	003Z077200
AB-QM DN65	65	20000	Flanged PN16	003Z077300
AB-QM DN65 HF	65HF	25000	Flanged PN16	003Z0793
AB-QM DN80	80	28000	Flanged PN16	003Z077400
AB-QM DN80 HF	80HF	40000	Flanged PN16	003Z0794
AB-QM DN100	100	38000	Flanged PN16	003Z077500
AB-QM DN100 HF	100HF	59000	Flanged PN16	003Z0795
AB-QM DN125	125	90000	Flanged PN16	003Z070500
AB-QM DN125 HF	125HF	110000	Flanged PN16	003Z071500
AB-QM DN150	150	145000	Flanged PN16	003Z070600
AB-QM DN150 HF	150HF	190000	Flanged PN16	003Z071600
AB-QM DN200	200	190000	Flanged PN16	003Z070700
AB-QM DN200 HF	200HF	250000	Flanged PN16	003Z071700
AB-QM DN250	250	280000	Flanged PN16	003Z070800
AB-QM DN250 HF	250HF	370000	Flanged PN16	003Z071800

AB-QM Valve Accessories & Spare Parts

Description	Part No.
Union connection To pipe : R¾". For valve size DN10. (One pcs.)	003Z023100
Union connection To pipe : R½". For valve size DN15 (One pcs.)	003Z023200
Union connection To pipe : R¾". For valve size DN20 (One pcs.)	003Z023300
Union connection To pipe : R1". For valve size DN25 (One pcs.)	003Z023400
Union connection To pipe : R1¼". For valve size DN32 (One pcs.)	003Z023500
Union connection To pipe : R1½". For valve size DN40 (One pcs.)	003Z027900
Union connection To pipe : R2". For valve size DN50 (One pcs.)	003Z027800
Union Connection Internal threaded to pipe : ¾". For valve size DN10. (One pcs.)	003Z395400
Union Connection Internal threaded to pipe : ½". For valve size DN15 (One pcs.)	003Z395500
Union Connection Internal threaded to pipe : ¾". For valve size DN20 (One pcs.)	003Z395600
Union Connection Internal threaded to pipe : 1". For valve size DN25 (One pcs.)	003Z395700
Shut-off cap Max 16bar. For valve size DN10 to DN32	003Z123000
Shut-off cap Max 1bar. For valve size DN10 to DN32	003Z024000
Hand wheel For valve size DN40 to DN100	003Z069500
Hand wheel For valve size DN125 to DN250	003Z069600
Adapter Adapter to enable New Actuator types to fit on old style valves	065Z031300
Adapter To enable Old Actuator types to fit 2nd generation of ABQM DN40-100	003Z069400
Adapter Adapter 0.5mm ABQM	003Z024600
Insulation for DN10 Heating insulation cap for DN10 AB-QM valves	003Z473000
Insulation for DN15 Heating insulation cap for DN15 AB-QM valves	003Z473100
Insulation for DN20 Heating insulation cap for DN20 AB-QM valves	003Z473200
Insulation for DN25 Heating insulation cap for DN25 AB-QM valves	003Z473300
Insulation for DN32 Heating insulation cap for DN32 AB-QM valves	003Z473400
Insulation for DN40 Heating insulation cap for DN40 AB-QM valves	003Z473500
Insulation for DN50 Heating insulation cap for DN50 AB-QM valves	003Z473600

Gear Motors for AB-QM

Description	Part No.
AMV110 NL 24V, 24 s/mm, 3-point. For valve size DN10 to DN32	082H805600
AMV120NL 24V, 12 s/mm, 3-point. For valve size DN10 to DN32	082H805800
AME110 NL 24V, 24 s/mm, 0-10V. For valve size DN10 to DN32	082H805700
AME110 NLX 24V, 24 s/mm, 0-10V. With position feedback signal. For valve size DN10 to DN32	082H806000
AME435QM 24V, 11 s/mm, 0-10V. For valve size DN40 to DN100	082H017100
AME55QM 24V, 8 s/mm, 0-10V. For valve size DN125 to DN150	082H307800
AME85QM 24V, 8 s/mm, 0-10V. For valve size DN200 to DN250	082G145300

NovoCon® S

NovoCon® S Digital/Hybrid is a high accuracy multi-function actuator, specifically designed for use in combination with Pressure Independent Balancing Control Valve type AB-QM in sizes from DN 10-32.

NovoCon® S - High Accuracy Actuator for AB-QM

Description	Part No.
NovoCon® remote i/o NovoCon® remote i/o - High accuracy multi-function actuator	003Z850300

NovoCon® S - Accessories

Description	Part No.
Cable - digital 1.5m cable for NovoCon® S Digital actuators - Connections: Bus/Power	003Z860000
Cable - digital 5m cable for NovoCon® S Digital actuators - Connections: Bus/Power	003Z860100
Cable - digital 10m cable for NovoCon® S Digital actuators - Connections: Bus/Power	003Z860200
Daisychain cable - digital 1.5m cable for NovoCon® S Digital actuators - Connections: Actuator/Actuator	003Z860300
Daisychain cable - digital 5m cable for NovoCon® S Digital actuators - Connections: Actuator/Actuator	003Z860400
Daisychain cable - digital 10m cable for NovoCon® S Digital actuators - Connections: Actuator/Actuator	003Z860500
Cable - analog 1.5m cable for NovoCon® S Hybrid - Connections: 0-10V/Power/Voltage booster	003Z860600
Cable - analog 5m cable for NovoCon® S Hybrid - Connections: 0-10V/Power/Voltage booster	003Z860700
Cable - analog 10m cable for NovoCon® S Hybrid - Connections: 0-10V/Power/Voltage booster	003Z860800
Cable - remote i/o 1.5m cable for NovoCon® remote i/o - remote i/o capability	003Z861200
Cable - temp sensor 1.5m surface sensor cable for energy	003Z861000

Thermal Actuators for AB-QM

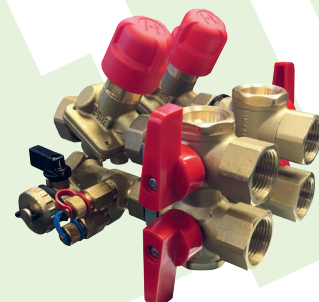
Description	Part No.
TWA-Z 24V 24V, on/off, NC. For valve size DN10 to DN20. Restrictions apply for DN25 & DN32	082F138000
TWA-Z 230V 230V, on/off, NC. For valve size DN10 to DN20. Restrictions apply for DN25 & DN32	082F138200
ABNM 24V, 0-10V. For valve size DN10 to DN32 only. 1 metre cable	082F116000
ABNM 24V, 0-10V. (LIN) For valve size DN10 to DN32 only. 1 metre cable	082F116100

Spring Return Actuator Options for AB-QM

Description	Part No.
AME13 SD 24V (0-10V) S/R Closed actuator for valve sizes DN10-DN32 (use with 003Z025700 adaptor)	082G300600
AME13 SU 24V (0-10V) S/R Open actuator for valve sizes DN10-DN32 (use with 003Z395900 & 003Z025700 adaptors)	082H304300
AME 25 SD 24V (0-10V) Spring Return actuator for valve sizes DN40-DN100 (use with 003Z069400 adaptor)	082H303800
AME 658 SD 24V (0-10V) Spring Return actuator for valve sizes DN125-DN150	082G344800
AME85QM 24V, 8 s/mm, 0-10V. For valve size DN200 to DN250 (Use with AM-PBU power back-up unit)	082G145300
AM-PBU Electronic power backup unit	082H709000
Stem Adaptor DN10-32 Stem adaptor for ABQM DN10-32 to AMV/E 13SD only	003Z025700
Adaptor DN10-32 Adaptor for ABQM DN10-32 to AMV/E 13SU only (use with 003Z025700 for SU applications)	003Z395900
Adaptor DN40-100 Adaptor for ABQM DN40-100 to AMV/E 25SU or SD	003Z069400

H-Module for Air Handling Units (made to order)

Description	Part No.
Hero Plant DN15 DN15 plant flushing bypass with drain, strain, measuring & test points. 90-450/h	146B5928
Hero Plant DN20 DN20 plant flushing bypass with drain, strain, measuring & test points. 180-900/h	146B5929
Hero Plant DN25 DN25 plant flushing bypass with drain, strain, measuring & test points. 340-1700/h	146B5930
Hero Plant DN32 DN32 plant flushing bypass with drain, strain, measuring & test points. 640-3200/h	146B2683
Hero Plant DN40 DN40 plant flushing bypass with drain, strain, measuring & test points. 3000-7500/h	146B2684
Hero Plant DN50 DN50 plant flushing bypass with drain, strain, measuring & test points. 5000-12500/h	146B2685
Hero Plant DN65 DN65 plant flushing bypass with drain, strain, measuring & test points. 8000-20,000/h	146B2686
Hero Plant DN80 DN80 plant flushing bypass with drain, strain, measuring & test points. 11,200-28,000/h	146B5931
Hero Plant DN100 DN100 plant flushing bypass with drain, strain, measuring & test points. 15,200-38,000/h	146B5932
Hero Plant DN125 DN125 plant flushing bypass with drain, strain, measuring & test points. 36,000-90,000/h	146B5933
Hero Plant DN150 DN150 plant flushing bypass with drain, strain, measuring & test points. 44,000-110,000/h	146B5934





VZL 2 & 4 Way Short Stroke 2.8mm (supplied without fittings)

- Reduced cost valves for control of fan coil systems along with thermic, 3-point control or modulating actuators
- 15mm and 20mm compression ends for direct connection to copper pipework using a nut and olive (not supplied)
- 2 and 4, port versions available
- 3mm stroke to enable use with TWA-Z thermic actuator

Valve		2 - Way	4 - Way
DN (mm)	Kvs (m³/h)	Part No.	Part No.
15	0.25	065Z204000	065Z206000
15	0.40	065Z204100	065Z206100
15	0.63	065Z204200	065Z206200
15	1.0	065Z204300	065Z206300
15	1.6	065Z204400	065Z206400
20	2.5	065Z204500	065Z206500
20	3.5	065Z204600	065Z206600

Thermal Actuators for Terminal Control Valves - VZ & VZL				
Type	Action	Voltage	Torque Nm	Part No.
TWA-ZL 24V NC	Normally closed	24V	90N	082H310000
TWA-ZL 24V NO	Normally open			082H310100
TWA-ZL 230V NC	Normally closed	230V		082H310200
TWA-ZL 230V NO	Normally open		082H310300	

Gear Actuators for Terminal Control Valves - VZ & VZL						
Type	Control Type	Voltage	Torque Nm	Stroke (mm)	Running Time	Part No.
AMV 130	3-Point	24V	200N	5.5	24s/mm	082H803600
AMV 130		230V				082H803700
AME 130	Modulating	24V				082H804400

VRB DN15-50 2 & 3 Way Valves

Use with AMV/E 435 and 438SU actuators

- Plant valves in 15-50mm for use with 3-point, modulating and spring return plant actuators
- External version comes with couplings for BSP connection
- Easy connection and removal of valve through coupling system
- Made of RG5 to eliminate erosion
- Stuffing box available for future maintenance

VRB2 & VRB3 Series Internal Thread PN16			
Valve		2 - Way	3 - Way
DN (mm)	Kvs (m³/h)	Part No.	Part No.
15	0.63	065Z023100	065Z021100
15	1.0	065Z023200	065Z021200
15	1.6	065Z023300	065Z021300
15	2.5	065Z023400	065Z021400
15	4.0	065Z023500	065Z021500
20	6.3	065Z023600	065Z021600
25	10.0	065Z023700	065Z021700
32	16.0	065Z023800	065Z021800
40	25.0	065Z023900	065Z021900
50	40.0	065Z024000	065Z022000

VRB2 & VRB3 Series External Thread (Tail Pieces Included) PN16			
Valve		2 - Way	3 - Way
DN (mm)	Kvs (m³/h)	Part No.	Part No.
15	0.63	065Z017101	065Z015101
15	1.0	065Z017201	065Z015201
15	1.6	065Z017301	065Z015301
15	2.5	065Z017401	065Z015401
15	4.0	065Z017501	065Z015501
20	6.3	065Z017601	065Z015601
25	10.0	065Z017701	065Z015701
32	16.0	065Z017801	065Z015801
40	25.0	065Z017901	065Z015901
50	40.0	065Z018001	065Z016001

VRB Accessories		
Description		Part No.
Stem heater	Stem heater for AMV/E 438 SU,15,16, 25, 35 (at temperature from 0° till -10°C)	065B217100
Stem heater	Stem heater for AMV/E 435 (at temperature from 0° till -10°C)	065Z031500
Adapter	Adapter to enable old actuator types to fit on new style valves DN15-50	065Z031100
Adapter	Adapter to enable new actuator types to fit on old style valves	065Z031300

VF DN15-150 2 & 3 Way Flanged Valves

Use with AMV/E 435 & 438SU actuators (DN15-80), AMV/E 55 (DN100), AMV/E 85 (DN125-250), AMV/E 855 (DN200-300)

- PN16 flanged valves in 15mm-150mm for use with 3-point, modulating and spring return actuators
- Made with a cast iron body, stainless steel spindle and brass plug
- Can be used with glycol concentrations of up to 50%
- Stem heaters available for installation with temperatures down to -10°C
- Stuffing box available for future maintenance

VF2 & VF3 - Flanged

Valve		2 - Way	3 - Way
DN (mm)	Kvs (m³/h)	Part No.	Part No.
15	0.63	065Z027100	065Z025100
15	1.0	065Z027200	065Z025200
15	1.6	065Z027300	065Z025300
15	2.5	065Z027400	065Z025400
15	4.0	065Z027500	065Z025500
20	6.3	065Z027600	065Z025600
25	10.0	065Z027700	065Z025700
32	16.0	065Z027800	065Z025800
40	25.0	065Z027900	065Z025900
50	40.0	065Z028000	065Z026000
65	63.0	065Z028100	065Z026100
80	100.0	065Z028200	065Z026200
100	145.0	065B320500	065B168500
125	220.0	065B323000	065B312500
150	320.0	065B325500	065B315000
200	630.0		065B420000
250	1000.0		065B425000
300	1500.0		065B430000

VFM2 2-way - Flanged

Use with AMV/E 655 or 658 SD/SU actuators (DN65-250)

VFM2 2-way - Flanged

DN (mm)	Kvs (m³/h)	Part No.
65	63.0	065B350000
80	100.0	065B350100
100	160.0	065B350200
125	250.0	065B350300
150	400.0	065B350400
200	630.0	065B350500
250	900.0	065B350600

Gear Actuators for Plant Control Valves - VRB/VF/VFM

AMV & AME 435 - for DN80 Valves

Type	Control Type	Voltage	Torque Nm	Stroke (mm)	Running Time	Part No.
AMV 435		24V				082H016200
AMV 435	3-point	230V	400N	15	15s/mm	082H016300
AME 435	Modulating	24V				082H016100

AMV & AME 438 SU Spring Up Actuator - for DN15-50 Valves

Type	Control Type	Voltage	Torque Nm	Stroke (mm)	Running Time	Part No.
AMV 438		24V				082H012200
AMV 438	3-point	230V	400N	15	15s/mm	082H012300
AME 438	Modulating/3-point	24V				082H012100

AMV & AME 438 SU Accessories

Description	Part No.	
Switch	Additional switch (2x)	082H701500
Switch	Additional switch (2x) and potentiometer (10kOhm)	082H701600
Switch	Additional switch (2x) and potentiometer (1kOhm)	082H701700

AMV & AME 55/56 - for DN100 Valves

Type	Control Type	Voltage	Torque Nm	Stroke (mm)	Running Time	Part No.
AMV 55		24V				082H302000
AMV 55	3-point	230V	2000N	40	8s/mm	082H302100
AME 55	Modulating/3-point	24V				082H302200
AMV 56		24V				082H302300
AMV 56	3-point	230V	1500N	40	4s/mm	082H302400
AME 56	Modulating/3-point	24V				082H302500

AMV & AME 55/56 Accessories

Description	Part No.	
Switch	2 x additional switch	082H703700
Potentiometer	Potentiometer (10 kOhm/30mm)	082H703500
Potentiometer	Potentiometer (10 kOhm/40mm)	082H703600
Potentiometer	Potentiometer (1 kOhm/30mm)	082H703800
Potentiometer	Potentiometer (1 kOhm/40mm)	082H703900





Gear Actuators for Plant Control Valves - VRB/VF/VFM

AMV & AME 85/86 - for DN125 & DN150 Valves

Type	Control Type	Voltage	Torque Nm	Stroke (mm)	Running Time	Part No.
AMV 85	3-point	24V	5000N	40	8s/mm	082G145000
AMV 85		230V				082G145100
AME 85	Modulating/ 3-point	24V	5000N	40	3s/mm	082G145200
AMV 86		24V				082G146000
AMV 86	3-Point	24V	5000N	40	3s/mm	082G146100
AME 86		230V				082G146200

AMV & AME 85/86 Accessories

Description	Part No.
Switch Additional switch (2x) - AMV 86/3/24	082H705000
Switch Additional switch (2x) - AMV 86/3/230	082H705100
Switch Additional switch (2x) - AMV 85/8/24	082H707200
Switch Additional switch (2x) - AMV 85/8/230	082H707100
Switch & pot.-meter Additional switch (2x) & Potentiometer (10 kOhm) - AMV 86/3/24	082H708100
Switch & pot.-meter Additional switch (2x) & Potentiometer (10 kOhm) - AMV 86/3/230	082H708000
Switch & pot.-meter Additional switch (2x) & Potentiometer (10 kOhm) - AMV 85/8/24	082H708300
Switch & pot.-meter Additional switch (2x) & Potentiometer (10 kOhm) - AMV 85/8/230	082H708200

AME 685 & 855 - for VF3 DN200-300 Valves

Type	Control Type	Voltage	Torque Nm	Stroke (mm)	Running Time	Part No.
AME 685	Modulating/	24V	5000N	35	2.7s/mm	082G350000
AME 685		230V		50		082G350100
AME 855	3-point	24V	15000N	50	2s/mm	082G351000
AME 855		230V		63		082G351100

AMV & AME 655 - for VFM2 DN65-250 Valves

Type	Control Type	Voltage	Torque Nm	Stroke (mm)	Running Time	Part No.
AMV 655	3-point	24V	2000N	50	3s/mm	082G344000
AMV 655		230V				082G344100
AME 655	Modulating/	24V	2000N	50	2s/mm	082G344200
AME 655		230V				082G344300

AMV & AME 658 SD Spring Down Actuator - for VFM2 DN65-250 Valves

Type	Control Type	Voltage	Torque Nm	Stroke (mm)	Running Time	Part No.
AMV 658 SD	3-point	24V	2000N	50	4s/mm	082G344400
AMV 658 SD		230V				082G344500
AME 658 SD	Modulating/	24V	2000N	50	4s/mm	082G344800
AME 658 SD		230V				082G344900

AMV & AME 658 SU Spring Up Actuator - for VFM2 DN65-250 Valves

Type	Control Type	Voltage	Torque Nm	Stroke (mm)	Running Time	Part No.
AMV 658 SU	3-point	24V	2000N	50	4s/mm	082G344600
AMV 658 SU		230V				082G344700
AME 658 SU	Modulating/	24V	2000N	50	4s/mm	082G345000
AME 658 SU		230V				082G345100

AMV & AME 655/658 Accessories

Description	Part No.
Adapter Adapter to enable actuator AMV/E 655/658 to fit VFG DN15-65 valves	065B352500
Adapter Adapter to enable actuator AMV/E 655/658 to fit VFG DN80-125 valves	065B352600
Adapter Adapter to enable actuator AMV/E 655/658 to fit VFG DN150-250 valves	065B352700

VFS Steam Control Valves - for Temperatures up to 150°C as standard and up to 200°C with High Temperature Adapter

- PN25 flanged valves in 15mm-100mm for use with 3-point, modulating and spring return actuators
- Made with a cast iron body with stainless steel spindle and plug
- Can be used with glycol concentrations of up to 50%
- Stem heaters available for installation with temperatures to -10°C
- Adapter available for temperatures over 150°C

VFS2 2-way - Flanged

DN (mm)	Kvs (m³/h)	Part No.
15	0.40	065B151000
15	0.63	065B151100
15	1.0	065B151200
15	1.6	065B151300
15	2.5	065B151400
15	4.0	065B151500
20	6.3	065B152000
25	10.0	065B152500
32	16.0	065B153200
40	25.0	065B154000
50	40.0	065B155000
65	63.0	065B336500
80	100.0	065B338000
100	145.0	065B340000

VFS Accessories

Description	Part No.
Stem heater for AMV/E 438 SU, 15, 16, 25, 35 (at temperature from 0° till -10°C)	065B217100
Stem heater for AMV/E 55, 56 (at temperature from 0°C till -10°C)	065Z702000
Stem heater for AMV/E 85, 86 (at temperature from 0°C till -10°C)	065Z702100

Gear Actuators for Steam Control Valves - VFS

AMV & AME 25 SU/SD (with safety function)

Type	Control Type	Voltage	Torque Nm	Stroke (mm)	Running Time	Part No.
AMV 25 SD	3-Point	24V	450N	15	11s/mm	082H303600
AMV 25 SD		230V				082H303700
AME 25 SD	Modulating/3-point	24V				082H303800
AMV 25 SU	3-point	24V				082H303900
AMV 25 SU		230V				082H304000
AME 25 SU	Modulating/3-point	24V				082H304100

AMV 25 SU/SD Accessories

Description	Part No.
Adaptor High temperature adaptor for VFS 2 valves (>150°C)	065Z754800
Adaptor High temperature adaptor for VEFS 2 valves (>150°C)	065Z754900
Switch Additional switch (2x)	082H701500
Switch Additional switch (2x) and potentiometer (10kOhm)	082H701600
Switch Additional switch (2x) and potentiometer (1kOhm)	082H701700





Rotary Valves & Actuators

- Rotary valves in sizes 20mm-150mm for use with AMB actuators
- Body GG20 cast iron with a stainless steel spindle & brass shoe
- Direct connection to pipework via BSP or flanged connection
- For use with 3-point control or modulating control signals
- Direct connection to the valve with no linkages
- Can be used for direct replacement of ESBE 3G and 3F range valves

HRE 3 Cast Iron Three-Port Control Valves, Internally Threaded, PN6

DN (mm)	Kvs (m³/h)	Part No.
20	6.3	065Z041800
25	10.0	065Z041900
32	16.0	065Z042000
40	25.0	065Z042100
50	40.0	065Z042200

HRE 3 DZR Three-Port Control Valves, Internally Threaded, PN10

DN (mm)	Kvs (m³/h)	Part No.
15	0.4	065Z039900
15	0.63	065Z040000
15	1.0	065Z040100
15	1.6	065Z040200
15	2.5	065Z040300
15	4.0	065Z039800
20	2.5	065Z039700
20	4.0	065Z040400
20	6.3	065Z040500
25	6.3	065Z040600
25	10.0	065Z040700
32	16.0	065Z040800
40	25.0	065Z040900
50	40.0	065Z041000

AMB 162/182 Rotary Actuators

(incl. adapter kits for HRB & HFE valves and will fit previous HRB & HRE valve range)

AMB 162 Rotary Actuators - for DN15-DN50 Valves

Type	Control Type	Voltage	Torque Nm	Turn Time	Part No.
AMB 162		24V		120s	082H021300
AMB 162					082H021800
AMB 162	3-point	230V	5N	60s	082H022200
AMB 162				120s	082H022300
AMB 162				480s	082H022800
AMB 162					082H022400
AMB 162	Modulating	24V		60s	082H023000

AMB 182 Rotary Actuators - for DN65-DN150 Valves

Type	Control Type	Voltage	Torque Nm	Turn Time	Part No.
AMB 182	Modulating	24V	15N		082H024100
AMB 182	3-point	230V	10N	60s	082H023100
AMB 182					082H023200

AMB 182 Rotary Actuators - for DN125-DN150 Valves

Type	Control Type	Voltage	Torque Nm	Turn Time	Part No.
AMB 182		24V			082H023400
AMB 182	3-point	230V	15N	240s	082H023800
AMB 182					082H024000

AMB 162/182 Accessories

Description	Part No.
Linkage kit For ESBE (old type), Seltron, Somatherm, Hora, WIP, PAW, Acaso, BRV, IMIT, IMP, IVAR	082H025000
Linkage kit For Centra - Type DR/ZR	082H025100
Linkage kit For Meibes, Wita	082H025200
Linkage kit For Honeywell - Type V5442..., Type V5433..	082H025300
Linkage kit For ESBE VRG 131 (2009)	082H025400
Linkage kit For Danfoss RVA, HRB, HRE, HFE (2012), ESBE 3F & 3G types. Incl. w. new actuator	082H025500

Flowcon Green

Fixed female-by-end threaded. Pressure/temperature plugs (standard).
Incl. FN0.2./FH electrical modulating actuator with feedback signal, 24V.

Pressure Independent Control Valves DN15-40				
Flow Max l/s	PICV Size	PICV Connection	Modulating Actuator	Part No.
0.16	1/2"	Threaded	FN.0.2	Green.0
0.31	3/4"			Green.1
0.16	1"			Green.2
1.29	1 1/4"			

Pressure Independent Control Valves DN40-50				
Flow Max l/s	PICV Size	PICV Connection	Modulating Actuator	Part No.
3.79	1 1/2"	Threaded	FH	Green.3
	2"			

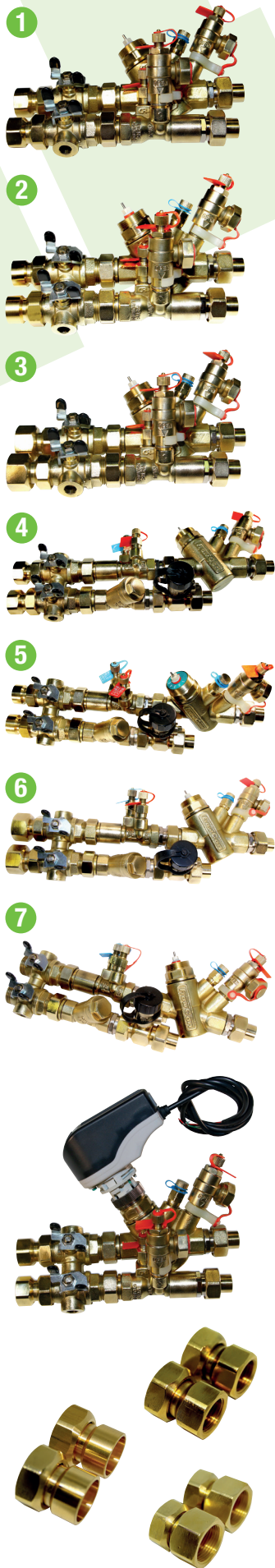
Actuator Options		
Product Code Ref.	Description	Part No.
FN.0.4	Actuator: FlowCon FN.0.4 electric 24V 3-point floating	FN.0.4
FN.0.3	Actuator: FlowCon FN.0.3 electric 230 3-point floating	FN.0.3
FN.0.2	Actuator: FlowCon FN.0.2 electric 24V 0-10V modulating	FN.0.2

FlowCon SM

Pressure independent control and dynamic balancing valve. Double flange connection. Pressure/temperature plugs (standard),
incl. actuator with selectable control signal.

Pressure Independent Control & Dynamic Balancing Valves				
Flow Max l/s	PICV Size	PICV Connection	Modulating Actuator	Part No.
9.89	50, 65 & 80mm	Flanged	SM.0.0.0.3	SM.3
20.2	80 & 100mm			SM.4
29.5	125 & 150mm			SM.5
76.8	200 & 250mm			SM.6





FlowControl Valve Sets

Assembled with FlowCon PICV's and other components from world class valve manufacturers.

Valve Set Options

Product Code Ref.	Description	Part No.
(1) 15mm & 22mm valve sets fitted with 15A system connections.	Compact FCU valve set. Flushing By-Pass. Metering Station & Hose Union Drain Valve to the Flow Branch. PICV with PT plugs, Hose Union Drain Valve. Fitted with 15mm Union Solder FCU Connections and 15mm Union Female Threaded System Connections.	PR.0.4.15.S.0 & 15A
(1) 15mm & 22mm valve sets fitted with 15D system connections.	Compact FCU valve set. Flushing By-Pass. Metering Station & Hose Union Drain Valve to the Flow Branch. PICV with PT plugs, Hose Union Drain Valve. Fitted with 15mm Union Solder FCU Connections and 15mm Union Solder System Connections.	PR.0.4.15.S.0 & 15D
(2) 15mm & 22mm valve sets fitted with 20A system connections.	Compact FCU valve set. Flushing By-Pass. Metering Station & Hose Union Drain Valve to the Flow Branch. PICV with PT plugs, Hose Union Drain Valve. Fitted with 15mm Union Solder FCU Connections and 22mm Union Female Threaded System Connections.	PR.0.4.15.S.0 & 20A
(3) 15mm & 22mm valve sets fitted with 15A system connections.	Compact FCU valve set. Flushing By-Pass. Metering Station & Hose Union Drain Valve to the Flow Branch. PICV with PT plugs, Hose Union Drain Valve. Fitted with 15mm Union Solder FCU Connections and 15mm Union Female Threaded System Connections.	PR.0.4.15.S.0, 15A & FN.0.2
(4) 15mm & 22mm valve sets fitted with 15A system connections.	Compact FCU Valve Set. Flushing By-Pass. Strainer. Metering Station & Hose Union Drain Valve to the Flow Branch. PICV with PT plugs, Hose Union Drain Valve. Fitted with 15mm Union Solder FCU Connections and 15mm Union Female Threaded System Connections.	PR.1.1.15.S.0 & 15A PR.1.2.15.S.0 & 15A PR.1.3.15.S.0 & 15A PR.1.4.15.S.0 & 15A
(5) 15mm & 22mm valve sets fitted with 15D system connections.	Compact FCU Valve Set. Flushing By-Pass. Strainer. Metering Station & Hose Union Drain Valve to the Flow Branch. PICV with PT plugs, Hose Union Drain Valve. Fitted with 15mm Union Solder FCU Connections and 15mm Union Solder System Connections.	PR.1.1.15.S.0 & 15D PR.1.2.15.S.0 & 15D PR.1.3.15.S.0 & 15D PR.1.4.15.S.0 & 15D
(6) 15mm & 22mm valve sets fitted with 20A system connections.	Compact FCU Valve Set. Flushing By-Pass. Strainer. Metering Station & Hose Union Drain Valve to the Flow Branch. PICV with PT plugs, Hose Union Drain Valve. Fitted with 15mm Union Solder FCU Connections and 22mm Union Female Threaded System Connections.	PR.1.1.15.S.0 & 20A PR.1.2.15.S.0 & 20A PR.1.3.15.S.0 & 20A PR.1.4.15.S.0 & 20A
(7) 15mm & 22mm valve sets without system connections.	Compact FCU Valve Set. Flushing By-Pass. Strainer. Metering Station & Hose Union Drain Valve to the Flow Branch. PICV with PT plugs, Hose Union Drain Valve. Fitted with 15mm Union Solder FCU Connections.	PR.1.1.15.S.0 PR.1.2.15.S.0 PR.1.3.15.S.0 PR.1.4.15.S.0

The Valve Set is available right and left handed. The image shows the right handed version. The Valve Set can be fitted with 15ml meterings stations with XLF, ULF and LF orifice plates (the images show the standard flow option) or with 20ml metering station.

System Connection Options

Size	Description	Part No.
20mm	System Connections: Euroconus Insert with flat EPDM face	20J
15mm	System Connections: 15mm Union Solder	15D
22mm	System Connections: 22mm Union Solder	22D
½"	System Connections: 15mm Union Female Threaded	15A
¾"	System Connections: 22mm Union Female Threaded	20A
15mm	System Connections: 15mm Union Press Fitting	15E
22mm	System Connections: 22mm Union Press Fitting	22E

Two-Way Control Valve PN16, Flat Sealing DN15/20, V5832A

For individual room control, fan coil units and small re-heaters/re-coolers; hot water or cold water (max. 50% glycol), water quality VDI2035.

6.5mm Stroke Valves						
DN (mm)	Valve		Close Off Pressure with		Part No.	
	Rp	Kvs (m³/h)	90N motor kPa	180N motor kPa		
15	G½"	0.16	600	1600	V5832A1004	
15	G½"	0.25	600	1600	V5832A1012	
15	G½"	0.4	600	1600	V5832A1020	
15	G½"	0.63	600	1600	V5832A1038	
15	G½"	1	180	1200	V5832A1046	
15	G½"	1.6	180	1200	V5832A1053	
22	G¾"	2.5	50	400	V5832A1061	
22	G¾"	4	50	400	V5832A1079	

Honeywell



Three-Way Control Valve PN16, Conical Sealing DN15/20, V5823A

For individual room control, fan coil units and small re-heaters/re-coolers; hot water or cold water (max. 50% glycol), water quality VDI2035.

6.5mm Stroke Valves						
DN (mm)	Valve		Close Off Pressure with		Part No.	
	Rp	Kvs (m³/h)	90N motor kPa	180N motor kPa		
15	G½"	0.25	500	800	V5823A2003	
15	G½"	0.4	500	800	V5823A2011	
15	G½"	0.63	500	800	V5823A2029	
15	G½"	1	150	250	V5823A2037	
15	G½"	1.6	50	250	V5823A2045	
22	1½" x 14	2.5	-	240	V5823A2151	
22	1½" x 14	2.5	50	100	V5823A2052	
22	1½" x 14	4	-	240	V5823A2169	
22	1½" x 14	4	50	100	V5823A2060	



Three-Way/Bypass Control Valve PN16, Conical Sealing DN15/20

For individual room control, fan coil units and small re-heaters/re-coolers; hot water or cold water (max. 50% glycol), water quality VDI2035.

6.5mm Stroke Valves						
DN (mm)	Valve		Close Off Pressure with		Part No.	
	Rp	Kvs (m³/h)	90N motor kPa	180N motor kPa		
15	G½"	0.25	500	800	V5823C2009	
15	G½"	0.4	500	800	V5823C2017	
15	G½"	0.63	500	800	V5823C2025	
15	G½"	1	150	250	V5823C2033	
15	G½"	1.6	150	250	V5823C2041	
22	1½" x 14	2.5	-	240	V5823C2157	
22	1½" x 14	2.5	50	100	V5823C2058	
22	1½" x 14	4	-	240	V5823C2165	
22	1½" x 14	4	50	100	V5823C2066	



Actuators for 6.5mm Stroke Valves				
Control Type	Rating	Run Time Minutes	Part No.	
180N				
Open/Close 3-Point	24V AC	150s	M7410C1007	
Modulating	24V AC	150s	M7410C1002	

Flat Sealing 2, 3, & 4 Port Valves available Please contact your local sales office

Three-Way Control Valve PN16, Flanged Connections DN15-150

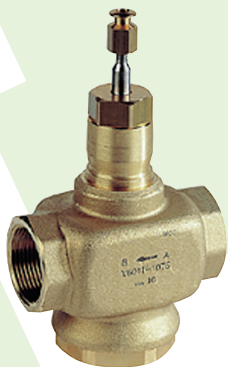
For heating and air conditioning; water quality VDI2035.

Specification
Media Temp. 2°C to 170°C

20/38mm Stroke Linear Valves						
DN (mm)	Valve		Close Off Pressure with		Stroke (mm)	Part No.
	Kvs (m³/h)		600N motor kPa	1800N motor kPa		
15	2.5		1000	-	20	V5329A1004
15	4		1000	-	20	V5329A1012
20	6.3		1000	-	20	V5329A1020
25	10		1000	-	20	V5329A1038
32	16		790	1000	20	V5329A1046
40	25		480	1000	20	V5329A1053
50	40		260	1000	20	V5329A1061
65	63		160	650	20	V5329A1079
80	100		100	400	20	V5329A1087
100	160		-	230	38	V5050A1090
125	250		-	90	38	V5050A1108
150	360		-	90	38	V5050A1116



Honeywell



Two-Way Control Valves PN16, Threaded Connections DN15-50

For heating, ventilating and air conditioning; hot/cold water quality VDI2035.

20mm Stroke Valves

DN (mm)	Valve		Close Off Pressure with		Medium Type	Part No.
	Rp	Kvs (m³/h)	900N motor kPa	1800N motor kPa		
Brass						
15		0.63	1600	-	water	V5011R1000
15		1	1600	-	water	V5011R1018
15		1.6	1600	-	water	V5011R1026
15		2.5	1600	-	water	V5011R1034
15		4	1600	-	water	V5011R1042
20		6.3	1600	-	water	V5011R1059
25		10	1000	1600	water	V5011R1067
32		16	700	1600	water	V5011R1075
40		25	460	1500	water	V5011R1083
50		40	260	850	water	V5011R1091
Stainless Steel Plug						
15		0.63	1600	-	water / steam	V5011S1005
15		1	1600	-	water / steam	V5011S1013
15		1.6	1600	-	water / steam	V5011S1021
15		2.5	1600	-	water / steam	V5011S1039
15		4	1600	-	water / steam	V5011S1047
20		6.3	1600	-	water / steam	V5011S1054
25		10	1000	1600	water / steam	V5011S1062
32		16	700	1600	water / steam	V5011S1070
40		25	460	1500	water / steam	V5011S1088
50		40	260	850	water / steam	V5011S1096

Actuators for 20mm Stroke Valves

Electrical actuator floating control.



Actuators for 20mm Stroke Valves

Run Time Min	Power Supply		Control Signal	Manual Operation	Spring Return	Part No.
	VAC	VA				
1.0	24	4	3pt	-	-	ML6420A3072
1.8	230	12	3pt	-	Stem retracts	ML6425B3021
1.0	24	5	0/2-10V	Yes	-	ML7420A6009
1.8	24	12	0/2-10V	-	Stem retracts	ML7425A6008
1.8	24	12	0/2-10V	-	Stem retracts	ML7425B6007

Three-Way Control Valve PN16, Flat Sealing DN15-50

For heating, ventilating and air conditioning, open circuits; hot/cold water quality VDI2035.



20mm Stroke Linear Valves

DN (mm)	Valve		Close Off Pressure with		Part No.
	Rp	Kvs (m³/h)	900N motor kPa	1800N motor kPa	
Brass					
15	G1 1/8"	2.5	1600	-	V5013R1032
		4	1600	-	V5013R1040
20	G1 1/4"	6.3	1600	-	V5013R1057
25	G1 1/2"	10	1000	1600	V5013R1065
32	G2"	16	700	1600	V5013R1073
40	G2 1/4"	25	460	1500	V5013R1081
50	G2 3/4"	40	260	850	V5013R1099

Small Linear Actuators 6.5mm Stroke

Electrical actuator floating control, for valve series: V5822, V5823, V5832, V5833. And also for V5078B valve series (with adaptor).

3-Point Actuator					
Stem Force N	Power Supply		Manual Operation	End Switches	Part No.
	VAC	VA			
6,5 mm; 180 N					
180	24	0.7	-	-	M7410C1007
	24	0.7	•	-	M6410C2023
	24	0.7	•	2	M6410C4029
	230	7	•	-	M6410L2023
	230	7	•	2	M6410L4029
6,5 mm; 280 N					
300	24	0.7	-	-	M7410C1015
	24	0.7	•	-	M6410C2031
	24	0.7	•	2	M6410C4037
	230	7	-	-	M6410L2031
	230	7	•	2	M6410L4037

Actuator 3-Point, 20/38mm

Electrical actuator floating control, for valve series: V5011, V5013, V5015, V5016, V5025, V5049, V5050, V5328, V5329

3-Point Actuator				
Run Time Min	Power Supply		Stroke (mm)	Part No.
	VAC	VA		
20mm; 600 N				
1.9	24	13	20	ML6421A3005
	230	11	20	ML6421A3013
38mm; 1800 N				
3.5	24	13	38	ML6421B3004
	230	11	38	ML6421B3012
Accessories				
Dual end switches SPDT, adjustable (250V~10A)				43191680-002
Single feedback potentiometer		220/135 ohm operating range, for 20mm models		43191679-001
		220/135 ohm operating range, for 38mm models		43191679-002

Actuator 0/2..10V, 20/38mm 1800 N, ML7421

Electrical actuator modulating control, for valve series: V5011, V5013, V5015, V5016, V5025, V5049, V5050, V5328, V5329.

Specification

Control input signal: 0/2...10V=; 0/4...20mA

Modulating Spring Return Actuators				
Run Time Min	Power Supply		Stroke (mm)	Part No.
	VAC	VA		
20mm; 1800 N				
1.9	24	12	20	ML7421A3004
38mm; 1800 N				
3.5	24	12	38	ML7421B3003
Accessories				
Dual end switches SPDT, adjustable (250V~, 10A)				43191680-002
High temperature kits for V5011R/S, V5013R/E; V5328A/V5329A DN15..32				43196000-001

Actuator 0/2..10V, 20mm 600 N, ML7420/ML7425

Electrical actuator modulating control, for valve series: V5011, V5013, V5016A, V5025, V5049, V5050, V5328, V5329.

Specification

Position feedback: 0/2...10V=; 0/4...20mA

Modulating Actuators						
Run Time Min	Power Supply		Power Loss Action	Manual Operation	Spring Return	Part No.
	VAC	VA				
20mm; 600 N						
1.0	24	5	-	Yes	-	ML7420A6009
1.0	24	5	-	-	-	ML7420A6025
0.5	24	7	-	Yes	-	ML7420A6017
1.8	24	12	Stem Extends	Yes	Yes	ML7425A6008
1.8	24	12	Stem Retracts	Yes	Yes	ML7425B6007
Accessories						
Dual end switches SPDT, adjustable (250V~, 10A)				43191680-205		

Compact Line Rotary Valve Actuator

Electrical actuator for valve series V5433A/G, V5442A/G.

Modulating Actuators						
Run Time Sec	Power Supply		Control Signal	Manual Operation	End Switches	Part No.
	VAC	VA				
100	24	3	3pt	Yes	-	ML6063A1003
100	24	3	3pt	Yes	2	ML6063A4007
100	230	3	3pt	Yes	-	ML6063L1009
100	230	3	3pt	Yes	2	ML6063L4003





Damper Actuators

M9000 Series

Control Type	Torque Nm	Rating	Type	Part No.
Open/close floating control	4	24V AC/DC	Integral auxiliary switch	M9304 AGA 1N
		230V AC	Integral auxiliary switch	M9304 AGC 1N
Modulating	4	24V AC/DC	Integral auxiliary switch	M9304 ADA 1N
		230V AC	Integral auxiliary switch	M9304 ADC 1N
Open/close floating control	8	24V AC/DC	Integral auxiliary switch	M9108 AGA 1N
		230V AC	Integral auxiliary switch	M9108 AGC 1N
Modulating	8	24V AC/DC	Integral auxiliary switch	M9108 ADA 1N
		230V AC	Integral auxiliary switch	M9108 ADC 1N
Open/close floating control	16	24V AC/DC	Integral auxiliary switch	M9108 GGA 1N
		230V AC	Integral auxiliary switch	M9108 GGC 1N
Modulating	16	24V AC/DC	Integral auxiliary switch	M9108 GDA 1N
		230V AC	Integral auxiliary switch	M9108 GDC 1N
Open/close floating control	24	24V AC/DC	Integral auxiliary switch	M9116 AGA 1N
		230V AC	Integral auxiliary switch	M9116 AGC 1N
Modulating	24	24V AC/DC	Integral auxiliary switch	M9116 ADA 1N
		230V AC	Integral auxiliary switch	M9116 ADC 1N
Open/close floating control	24	24V AC/DC	Integral auxiliary switch	M9116 GGA 1N
		230V AC	Integral auxiliary switch	M9116 GGC 1N
Modulating	24	24V AC/DC	Integral auxiliary switch	M9116 GDA 1N
		230V AC	Integral auxiliary switch	M9116 GDC 1N
Open/close floating control	32	24V AC/DC	Integral auxiliary switch	M9124 AGA 1N
		230V AC	Integral auxiliary switch	M9124 AGC 1N
Modulating	32	24V AC/DC	Integral auxiliary switch	M9124 ADA 1N
		230V AC	Integral auxiliary switch	M9124 ADC 1N
Open/close 2-point spring return	8	24V AC/DC	Integral auxiliary switch	M9124 GGA 1N
		230V AC	Integral auxiliary switch	M9124 GGC 1N
Open/close 3-point spring return	20	24V AC/DC	Integral auxiliary switch	M9124 GDA 1N
		230V AC	Integral auxiliary switch	M9124 GDC 1N
Modulating spring return	20	24V AC/DC	Integral auxiliary switch	M9132 AGA 1N
		230V AC	Integral auxiliary switch	M9132 AGC 1N
Open/close floating control	32	24V AC/DC	Integral auxiliary switch	M9132 ADA 1N
		230V AC	Integral auxiliary switch	M9132 ADC 1N
Modulating	32	24V AC/DC	Integral auxiliary switch	M9132 GGA 1N
		230V AC	Integral auxiliary switch	M9132 GGC 1N
Open/close 2-point spring return	8	24V AC/DC	Integral auxiliary switch	M9132 GDA 1N
		230V AC	Integral auxiliary switch	M9132 GDC 1N
Open/close 3-point spring return	20	24V AC/DC	Integral auxiliary switch	M9208 BGA 1S
		230V AC	Integral auxiliary switch	M9208 BGB 1S
Modulating spring return	20	24V AC/DC	Integral auxiliary switch	M9208 BDA 1S
		230V AC	Integral auxiliary switch	M9208 BDB 1S
Open/close 3-point spring return	20	24V AC/DC	On/off	M9220 BGA 1
		230V AC	On/off integral auxiliary switch	M9220 BGC 1
Modulating spring return	20	24V AC/DC	Integral auxiliary switch	M9220 BDA 1
		230V AC	Integral auxiliary switch	M9220 BDC 1
Open/close 3-point spring return	20	24V AC/DC	Integral auxiliary switch	M9220 HGA 1
		230V AC	Integral auxiliary switch	M9220 HGC 1

Three-Way Mixing Valve

VG7000 Series

DN (mm)	Valves		2 - Way Valve	3 - Way Valve
	Rp	Kvs (m³/h)	Part No.	Part No.
15	½"	1.6	VG7201ET	VG7802ET
	½"	2.5	VG7201FT	VG7802FT
	½"	4.0	VG7201GT	VG7802GT
20	¾"	6.3	VG7201LT	VG7802LT
25	1"	10	VG7201NT	VG7802NT
32	1¼"	16	VG7201PT	VG7802PT
40	1½"	25	VG7201RT	VG7802RT
50	2"	40	VG7201ST	VG7802ST

Actuators for VG7000 Valves

Control Type	Rating	Part No.
500N		
Open/close 3-point	24V AC	VA7150-1001
	230V AC	VA7150-1003
Modulating	24V AC	VA7152-1001

Terminal Unit Valves

The VG3000 brass valve series is primarily designed to regulate the flow of water in response to the demand of a controller in zone and terminal unit applications.

VG3000 Series (Threaded Male Connection*)				
Body Type	Valve		2-Port	4-Port
	DN (mm)	Kvs (m³/h)	Part No.	Part No.
2-Port/4-Port	10	0.4	VG3210BS	VG3410BS
	10	0.63	VG3210CS	VG3410CS
	10	1.0	VG3210DS	VG3410DS
	10	1.6	VG3210ES	VG3410ES
	10	2.5	VG3210FS	VG3410FS
	15	2.5	VG3210JS	VG3410JS
	15	4.0	VG3210KS	VG3410KS
	20	6.3	VG3210LS	VG3410LS

* Female connection also available

VG3000 Series (Compression Connection)				
Body Type	DN (mm)	Kvs (m³/h)	2-Port	4-Port
			Part No.	Part No.
2-Port/4-Port	10	0.4	VG3290BS	VG3490BS
	10	0.63	VG3290CS	VG3490CS
	10	1.0	VG3290DS	VG3490DS
	10	1.6	VG3290ES	VG3490ES
	10	2.5	VG3290FS	VG3490FS

Thermic Actuators for VG3000 Valves				
Action	Rating	Mounting Thread	Part No.	
Direct	230V AC	M30	VA-7087-23	
Direct	24V AC		VA-7087-21	
Normally open	230V AC		VA-7097-21	

N/C and reverse action also available

Pressure Independent Control Valves

A PICV replaces a traditional control valve and water pressure balancing set.

It automatically limits the water flow rate, irrespective of pressure and allows the flow to be modulated to match the load. Once the maximum flow setting is pre-set using the graduated scale, the flow will be modulated by means of the control valve and actuator - independent of the system pressure. This results in stable flow and energy efficiency, regardless of what is happening elsewhere in the system. PIC Valves are particularly well suited to use with inverter driven pumps and variable load circuits.

VP1000 Valves - Axial Model				
DN (mm)	Connection Size	Maximum flow (l/h)	Part No.	
15	Rc ½" Female	150	VP100AAA	
		600	VP100AAE	
		780	VP100AAG	
20	Rc ¾" Female	1000	VP100BAJ	
		1500	VP101BAN	
		2200	VP100CAU	
25	1" Union Female	2700	VP100CAW	
		2700	VP100DAW	
		3000	VP100DAY	

VP1000 Valves - Ball Model				
DN (mm)	Connection Size	Maximum flow (l/h)	Part No.	
			40	1½" Union Female
40	1½" Union Female	6000	VP101EBB	
		9000	VP101EBC	
		11000	VP101EBD	
		12000	VP101FBD	
50	2" Union Female	18000	VP101FBF	
		18000	VP101GBF	

VPA Valves				
DN (mm)	Connection Size	Maximum flow (l/h)	Part No.	
50	Flange ISO 7005-2	13104	VPA050-C	
65		20880	VPA065-C	
80		28080	VPA080-C	
100		50040	VPA100-C	
125		90000	VPA125-C	
150		145080	VPA150-C	

Electric Actuators				
Control Type	Voltage	Running Time	Mounting Thread	Part No.
Floating	24V AC	13s/mm	M30	VA-7480-0001
		8s/mm		VA-7481-0001
	230V AC	13s/mm		VA-7480-0003
		8s/mm		VA-7481-0003
Proportional	24V AC	Self Calibrating	VA-7482-8201	
	24V AC/DC	3.2mm Electrical Stroke	VA-7482-1001	
		6mm Electrical Stroke	VA-7482-3001	





VUL/BUL Unit Valves in Cast Brass, PN16

With AXT, AXS, AXM thermal or motorised actuators

Features

- 16 Bar rated
- 2°C to 120°C
- Valve body made of nickel-plated cast brass for DN 10 and gun metal for DN 15 and DN 20

2-Port (Screwed*)

Body Type	Valve			Part No.
	DN (mm)	Kvs (m ³ /h)	Stroke (mm)	
2-port	10	0.16	4	VUL010F340
	10	0.4	4	VUL010F330
	10	0.63	4	VUL010F320
	10	1	4	VUL010F300
	10	1.6	4	VUL010F310
	15	2.5	4	VUL015F310
	15	3.5	4	VUL015F300
	20	4.5	4	VUL020F300

*Screwed, compression and solder fittings available

2-Port (Compression*)

Body Type	Valve			Part No.
	DN (mm)	Kvs (m ³ /h)	Stroke (mm)	
2-port	10	0.4	4	VUL010F630
	10	0.63	4	VUL010F620
	10	1	4	VUL010F610
	10	1.6	4	VUL010F600

3-Port (Screwed*)

Body Type	Valve			Part No.
	DN (mm)	Kvs (m ³ /h)	Stroke (mm)	
3-port	10	0.4	3.7	BUL010F330
	10	0.63	3.7	BUL010F320
	10	1	3.7	BUL010F310
	10	1.6	3.7	BUL010F300
	15	2.5	3.7	BUL015F310
	15	4	3.7	BUL015F300
	20	5	3.7	BUL020F300

*Screwed, compression and solder fittings available

4-Port (Screwed*)

Body Type	Valve			Part No.
	DN (mm)	Kvs (m ³ /h)	Stroke (mm)	
4-port	10	0.4	3.7	BUL010F430
	10	0.63	3.7	BUL010F420
	10	1	3.7	BUL010F410
	10	1.6	3.7	BUL010F400
	15	2.5	3.7	BUL015F410
	15	4	3.7	BUL015F400
	20	5	3.7	BUL020F400

*Screwed, compression and solder fittings available

4-Port (Compression*)

Body Type	Valve			Part No.
	DN (mm)	Kvs (m ³ /h)	Stroke (mm)	
4-port	10	0.4	3.7	BUL010F630
	10	0.63	3.7	BUL010F620
	10	1	3.7	BUL010F610
	10	1.6	3.7	BUL010F600

Actuators

Thermal Actuators

Action	Rating	Control	Pushing Force (N)	Part No.
Normally closed	230V AC	2-point (NC)	115	AXT211F110
Normally open	230V AC	2-point (NO)	110	AXT211F210
Normally closed	24V AC/DC	2-point (NC)	115	AXT211F112
Normally open	24V AC/DC	2-point (NO)	110	AXT211F212

Motorised Actuators

Normally closed	24V AC	0...10V (NC)	115	AXS215SF122
Normally open	24V AC	0...10V (NO)	110	AXS215SF222
	230V AC	2/3-point	120	AXM217F200
	24V AC	2/3-point	120	AXM217F202
	24V DC	0...10V/4...20 mA	120	AXM217SF402

VUN/BUN Male Thread Valves in Cast Brass, PN16

with electric linear actuators.

Features

- 16 Bar rRated
- -15°C to 150°C
- Valve body & valve seat in dezincification-resistant (DZR) cast brass

2-Port Male Thread*				
Body Type	Valve			Part No.
	DN (mm)	Kvs (m³/h)	Stroke (mm)	
2-port	15	0.4	8	VUN015F350
	15	0.63	8	VUN015F340
	15	1	8	VUN015F330
	15	1.6	8	VUN015F320
	15	2.5	8	VUN015F310
	15	4	8	VUN015F300
	20	6.3	8	VUN020F300
	25	10	8	VUN025F300
	32	16	8	VUN032F300
	40	22	8	VUN040F300
	50	28	8	VUN050F300
	50	40	8	VUN050F200

*c/w screwed fittings

3-Port Male Thread*				
Body Type	Valve			Part No.
	DN (mm)	Kvs (m³/h)	Stroke (mm)	
3-port	15	1	8	BUN015F330
	15	1.6	8	BUN015F320
	15	2.5	8	BUN015F310
	15	4	8	BUN015F300
	20	6.3	8	BUN020F300
	25	10	8	BUN025F300
	32	16	8	BUN032F300
	40	22	8	BUN040F300
	50	28	8	BUN050F300
	50	40	8	BUN050F200

*c/w screwed fittings

Actuators

Electric Linear Actuators			
Rating	Control	Pushing Force (N)	Part No.
230V AC	2/3-point, running time: 30s	250	AVM105F100
230V AC	2/3-point, running time: 120s	250	AVM105F120
24V AC	2/3-point, running time: 120s	250	AVM105F122
24V AC/DC	2/3-point or 0...10V	250	AVM105SF132
230V AC	2/3-point, running time: 120s	500	AVM115F120
24V AC	2/3-point, running time: 120s	500	AVM115F122
24V AC/DC	2/3-point or 0...10V	500	AVM115SF132
230V AC	2/3-point	1000	AVM321F110
24V AC/DC	2/3-point	1000	AVM321F112
24V AC/DC	2/3-point or 0...10V	1000	AVM321SF132





Creating Sustainable Environments.



VQD/VQE/BQD/BQE Flanged Valves in Grey Cast Iron

With electric linear actuators.

Features

- 6 Bar rated
- -10°C to 150°C

- Valve body and seat made of grey cast iron

2-Port Flanged PN6

Body Type	Valve			Part No.
	DN (mm)	Kvs (m³/h)	Stroke (mm)	
2-port	65	63	20	VQD065F300
	80	100	20	VQD080F300
	100	160	40	VQD100F300

3-Port Flanged PN6

Body Type	Valve			Part No.
	DN (mm)	Kvs (m³/h)	Stroke (mm)	
2-port	65	63	20	BQD065F300
	80	100	20	BQD080F300
	100	160	40	BQD100F300

2-Port Flanged PN16 / PN10

Body Type	Valve			Part No.
	DN (mm)	Kvs (m³/h)	Stroke (mm)	
2-port	65	63	20	VQE065F300
	80	100	20	VQE080F300
	100	160	40	VQE100F300
	125	220	40	VQE125F300
	150	320	40	VQE150F300

3-Port Flanged PN16 / PN10

Body Type	Valve			Part No.
	DN (mm)	Kvs (m³/h)	Stroke (mm)	
3-port	65	63	20	BQE065F300
	80	100	20	BQE080F300
	100	160	40	BQE100F300
	125	220	40	BQE125F300
	150	320	40	BQE150F300

Actuators

Electric Linear Actuators

Rating	Control	Pushing Force (N)	Part No.
230V AC	2/3-point	1000	AVM322F120
24V AC/DC	2/3-point	1000	AVM322F122
24V AC/DC	2/3-point, 0...10V or 4...20 mA	1000	AVM322SF132
24V AC	2/3-point, 0...10V or 4...20 mA	2500	AVM234SF132

Electric Linear Actuators with Spring Return

24V AC/DC	3-point, 0...10V or 4...20 mA	2000	AVF234SF132
24V AC/DC	3-point, 0...10V or 4...20 mA	2000	AVF234SF232

Valves with 5.5mm Stroke, PN16

VVG/VXG44 Series

Valves			Actuator		2 - Way Valve		3 - Way Valve	
DN (mm)	Kvs (m³/h)	Voltage	Torque NM	Running Time	Part No.	Part No.	Part No.	Part No.
15	0.25	24V AC	-	-	VVG44.15-0.25/C	VXG44.15-0.25/C	VXG44.15-0.4/C	VXG44.15-0.4/C
	0.4	24V AC	-	-	VVG44.15-0.4/C	VXG44.15-0.4/C	VXG44.15-0.63/C	VXG44.15-0.63/C
	0.63	24V AC	-	-	VVG44.15-0.63/C	VXG44.15-0.63/C	VXG44.15-1/C	VXG44.15-1/C
	1	24V AC	-	-	VVG44.15-1/C	VXG44.15-1/C	VXG44.15-1.6/C	VXG44.15-1.6/C
	1.6	24V AC	-	-	VVG44.15-1.6/C	VXG44.15-1.6/C	VXG44.15-2.5/C	VXG44.15-2.5/C
	2.5	24V AC	-	-	VVG44.15-2.5/C	VXG44.15-2.5/C	VXG44.15-4/C	VXG44.15-4/C
	4	24V AC	-	-	VVG44.15-4/C	VXG44.15-4/C	VXG44.20-6.3/C	VXG44.20-6.3/C
20	6.3	24V AC	-	-	VVG44.20-6.3/C	VXG44.20-6.3/C	VXG44.25-10/C	VXG44.25-10/C
25	10	24V AC	-	-	VVG44.25-10/C	VXG44.25-10/C	VXG44.32-16/C	VXG44.32-16/C
32	16	24V AC	-	-	VVG44.32-16/C	VXG44.32-16/C	VXG44.40-25/C	VXG44.40-25/C
40	25	24V AC	-	-	VVG44.40-25/C	VXG44.40-25/C		

Electric Actuators 400 N - for Valves with 5.5mm Stroke

Type	Actuator			Spring Valve	Part No.
	Voltage	Torque NM	Running Time		
3-point	24V AC	2	120s	No	SAS81.00
	230V AC	2.5	120s	No	SAS31.00
	230V AC	5	120s	Yes	SAS31.50
Modulating	24V AC	4.5	30s	No	SAS61.03
	24V AC	7	30s	Yes	SAS61.53

Actuators with spring return function have a position indication in place of manual control lever

Accessories

Description	Part No.
Auxiliary switch	ASC10.6

Valves V.P45 with 5.5mm Stroke

For chilled water and low pressure hot water in closed circuits with threaded connections to ISO 228/1.

Valves

Valves		2 - Way Valve		3 - Way Valve	
DN (mm)	Kvs (m³/h)	Part No.	Part No.	Part No.	Part No.
10	0.25	VVP45.10-0.25/C	VXP45.10-0.25/C	VXP45.10-0.4/C	VXP45.10-0.4/C
	0.4	VVP45.10-0.4/C	VXP45.10-0.4/C	VXP45.10-0.63/C	VXP45.10-0.63/C
	0.63	VVP45.10-0.63/C	VXP45.10-0.63/C	VXP45.10-1/C	VXP45.10-1/C
	1	VVP45.10-1/C	VXP45.10-1/C	VXP45.10-1.6/C	VXP45.10-1.6/C
	1.6	VVP45.10-1.6/C	VXP45.10-1.6/C	VXP45.15-2.5/C	VXP45.15-2.5/C
15	2.5	VVP45.15-2.5/C	VXP45.15-2.5/C	VXP45.20-4/C	VXP45.20-4/C
20	4	VVP45.20-4/C	VXP45.20-4/C	VXP45.25-6.3/C	VXP45.25-6.3/C
25	6.3	VVP45.25-6.3/C	VXP45.25-6.3/C	VXP45.25-10/C	VXP45.25-10/C
	10	VVP45.25-10/C	VXP45.25-10/C	VXP45.32-16/C	VXP45.32-16/C
32	16	VVP45.32-16/C	VXP45.32-16/C	VXP45.40-25/C	VXP45.40-25/C
40	25	VVP45.40-25/C	VXP45.40-25/C		

Modulating actuator features

- Manual override

Modulating actuator specification

Control DC 0...10V

Electric Actuators

Type	Actuator			Spring Valve	Part No.
	Voltage	PN VA	Running Time		
3-point	24V AC	0.8	150s		SSC81
	230V AC	6	150s		SSC31
Modulating	24V AC	2	35s		SSC61
		2...3	35s		SSC61.5

Flanged Butterfly Valves PN6/10/16

Features

- For mounting between counter flanges PN6, PN10 or PN16 to ISO 7005
- For chilled or hot water in closed circuits

Valves

Valves		Part No.
DN (mm)	Kvs (m³/h)	
40	50	VKF41.40
50	80	VKF41.50
65	200	VKF41.65
80	400	VKF41.80
100	760	VKF41.100
125	1000	VKF41.125
150	2100	VKF41.150
200	4000	VKF41.200

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3- Port Valves with Flanged Connections, PN10

Features

- For chilled, low and high temperature water & brine in closed circuits
- With flanged connections to ISO 7005

Valves with 20mm Stroke

Valves		Part No.
DN (mm)	Kvs (m³/h)	
15	1.6	VXF32.15.1.6
15	2.5	VXF32.15.2.5
15	4	VXF32.15.4
25	6.3	VXF32.25.6.3
25	10	VXF32.25.10
40	16	VXF32.40.16
40	25	VXF32.40.25
50	40	VXF32.50.40
65	63	VXF32.65.63
80	100	VXF32.80.100

Valves with 40mm Stroke

125	250	VXF32.125.250
150	400	VXF32.150.400

Flanged Valves with 20mm Stroke PN25

Features

- For chilled water, low pressure hot water, domestic hot water, high pressure hot water, brine, thermo-oil, saturated steam and super heated steam in open or closed circuits
- With flanged connections to ISO 7005

Valves

Valves		Part No.
DN (mm)	Kvs (m³/h)	
15	0.25	VVF53.15-0.2
15	0.4	VVF53.15-0.4
15	1.6	VVF53.15-1.6
15	2.5	VVF53.15-2.5
15	4	VVF53.15-4
25	10	VVF53.25-10



Actuators

Modulating actuator features

- Manual override

Modulating actuator specification

Control: DC 0...10V
Operating range/ position feedback: DC 4...20V



Electrohydraulic Actuators - for Valves with 20mm Stroke

Type	Force	Actuator			Part No.	
		Voltage	Torque NM	Running Time		
3-point	1000 N	230V AC	16	120s	8s	SKD32.50
			21	120s	-	SKD32.51
		24V AC	13	120s	8s	SKD82.50
			18	120s	-	SKD82.51
Modulating	1000 N	24V AC	17	30s	8s	SKD62
		24V AC	18	120s open 5s close	8s	SKB62

Accessories

Description	Part No.
Auxiliary switch for SK*6* actuators	ASC1.6

Flanged Three Port Slipper Valves PN6

Features

- With flanged connections to ISO 7005
- For chilled water and low pressure hot water in closed circuits

Valves

Valves		Part No.
DN (mm)	Kvs (m³/h)	
40	25	VBF21.40
50	40	VBF21.50
63	63	VBF21.65
80	100	VBF21.80
100	160	VBF21.100
125	550	VBF21.125
150	820	VBF21.150



Actuators

Electric Actuators - 5...20 Nm

Type	Actuator				Part No.
	Voltage	PN VA	Running Time	Torque Nm	
3-point	230V AC	3	125s	5	SQK33.00
	230V AC	4	125s	10	SAL31.00T10
	24V AC	4	125s	10	SAL61.00T10
	24V AC	4	125s	10	SAL81.00T10*
	230V AC	6.5	125s	40	SAL31.00T40
	24V AC	6.5	125s	40	SAL61.00T40
	24V AC	6.5	125s	40	SAL81.00T40

*Linkage required

All actuators have two in built limit switches and space for one ancillary unit (auxiliary switch or potentiometer).

Linkages

Accessories

Description	Part No.
Linkage for SAL... and VBF21 slipper valves	ASK31N
Linkage for SQK33/SQL33/83 and slipper valves VBF21/VBG31/VBI31 up to DN65 consisting of bracket with captive screw.	ASK32
Linkage for SAL... and VKF41 butterfly valves	ASK33N

Pressure Independent Control Valves PN25

Internally Threaded

DN (mm)	Minimum flow (l/h)	Maximum flow (l/h)	Part No.
15	30	200	VPI46.15L0.2
	100	575	VPI46.15L0.6
20	200	1190	VPI46.20F1.4
	220	1330	
25	238	1530	VPI46.25F1.8
	280	1800	
32	468	3400	VPI46.32F4
	550	4001	

Internally Threaded with Test Points

15	30	200	VPI46.15L0.2Q
	100	575	VPI46.15L0.6Q
20	200	1190	VPI46.20F1.4Q
	220	1330	
25	238	1530	VPI46.25F1.8Q
	280	1800	
32	468	3400	VPI46.32F4Q
	550	4001	
40	1370	9500	VPI46.40F9.5Q
	1400	11500	

Externally Threaded

10	30	200	VPP46.10L0.2
15	30	200	VPP46.15L0.2
	100	575	VPP46.15L0.6
20	200	1190	VPP46.20F1.4
	220	1330	
25	238	1530	VPP46.25F1.8
	280	1800	
32	468	3400	VPP46.32F4
	550	4001	

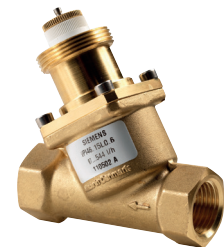
Externally Threaded with Test Points

10	30	200	VPP46.10L0.2Q
15	30	200	VPP46.15L0.2Q
	100	575	VPP46.15L0.6Q
20	200	1190	VPP46.20F1.4Q
	220	1330	
25	238	1530	VPP46.25F1.8Q
	280	1800	
32	468	3400	VPP46.32F4Q
	550	4001	

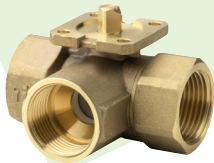
Electric Actuators for Pressure Independent Control Valves

Type	Voltage	Running Time	Part No.	
			15 to 32mm PICV	40 to 50mm PICV
3-point	24V AC/DC	150s	SSA81	SAY81P03
	230V AC	150s	SSA31	SAY31P03
DC 0-10V	24V AC/DC	34/70s	SSA61	SAY61P03

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Internally Threaded Control Ball Valves PN40

2/3-Port Valves

DN (mm)	Kvs (m³/h)	2-Port		3-Port	
		Part No.		Part No.	
15	1.6	VAI61.15-1.6		VBI61.15-1.6	
	2.5	VAI61.15-2.5		VBI61.15-2.5	
	4	VAI61.15-4		VBI61.15-4	
25	6.3	VAI61.15-6.3		VBI61.15-6.3	
	10	VAI61.25-10		VBI61.25-10	
32	16	VAI61.32-16		VBI61.32-16	
	25	VAI61.40-25		VBI61.40-25	
50	40	VAI61.50-40		VBI61.50-40	
	63	VAI61.50-63		VBI61.50-63	

Electric Actuators 5 Nm Torque Ball Valves

Type	Voltage	Running Time	15 to 25mm Ball Valves		15 to 50mm Ball Valves	
			Part No.		Part No.	
3-point	24V AC/DC	150s	GDB141.9E		GLB141.9E	
	230V AC	150s	GDB341.9E		GLB341.9E	
DC 0-10V	24V AC/DC	150s	GDB161.9E		GLB161.9E	

Straight Mini Combi Valve (MCV), PN10, 1...90°C

VPD1... Valves

DN (mm)	Connection	V _{min} (l/h)	V ₁₀₀ (l/h)	Part No.
10	Rp3/8"	25	104	VPD110A-45
10	Rp3/8"	57	185	VPD110A-90
10	Rp3/8"	86	318	VPD110A-145
10	Rp3/8"	95	483	VPD110B-200
15	Rp1/2"	25	104	VPD115A-45
15	Rp1/2"	57	185	VPD115A-90
15	Rp1/2"	86	318	VPD115A-145
15	Rp1/2"	95	483	VPD115B-200

Angled Mini Combi Valve (MCV), PN10, 1...90°C

VPE1... Valves

DN (mm)	Connection	V _{min} (l/h)	V ₁₀₀ (l/h)	Part No.
10	Rp3/8"	25	104	VPE110A-45
10	Rp3/8"	57	185	VPE110A-90
10	Rp3/8"	86	318	VPE110A-145
10	Rp3/8"	95	483	VPE110B-200
15	Rp1/2"	25	104	VPE115A-45
15	Rp1/2"	57	185	VPE115A-90
15	Rp1/2"	86	318	VPE115A-145
15	Rp1/2"	95	483	VPE115B-200

Actuators for Mini Combi Valves (MCV) & small valves

Type	Voltage	Actuator		Part No.
		Control Signal	Run Time at 50Hz	
Thermic	230V AC	3-Position	150s	SSA21
			210s	STA23 ⁽¹⁾
			150s	SSA81
Motoric	24V AC	0...10V DC	270s	STA73 ⁽¹⁾
			34s	SSA61 ⁽²⁾
			270s	STA63 ⁽¹⁾
Thermic		Modulating		

⁽¹⁾ Recommended flow from 77 to 483 l/h

⁽²⁾ When using the VPD... Valves with SSA61... actuators, the flow rate pre-adjustment must be set to minimum 1.5 mm valve stroke

Flanged Combi Valve with pressure test points, PN16, 1...120°C

VPF43... Valves

DN (mm)	V _{min} (l/h)	V ₁₀₀ (l/h)	Part No.
50	2.3	15	VPF43.50F16
50	4.3	25	VPF43.50F25
65	4.4	25	VPF43.65F24
65	6	35	VPF43.65F35
80	5.3	34	VPF43.80F35
80	7	43	VPF43.80F45
100	12.1	68	VPF43.100F70
100	14.8	90	VPF43.100F90
125	18.5	110	VPF43.125F110
125	23	135	VPF43.125F135
150	25.6	148	VPF43.150F160
150	32	195	VPF43.150F200

Flanged Combi Valve with pressure test points, PN25, 1...120°C

VPF53... Valves			
DN (mm)	V _{min} (l/h)	V ₁₀₀ (l/h)	Part No.
50	2.3	15	VPF53.50F16
50	4.3	25	VPF53.50F25
65	4.4	25	VPF53.65F24
65	6	35	VPF53.65F35
80	5.3	34	VPF53.80F35
80	7	43	VPF53.80F45
100	12.1	68	VPF53.100F70
100	14.8	90	VPF53.100F90
125	18.5	110	VPF53.125F110
125	23	135	VPF53.125F135
150	25.6	148	VPF53.150F160
150	32	195	VPF53.150F200

Actuators for Combi Valves VPF43.. & VPF53.. with 20mm stroke

Spring Return	Actuator		Run Time at 50Hz	Part No.
	Voltage	Control Signal		
No	230V AC	3-Position	30s	SAX31P03
No			120s	SAV31P00
Yes			120s	SQV91P.. + ASP1.1 ⁽⁹⁾
No			30s	SAX81P03
No	24V AC	0...10V DC	120s	SAV81P00
Yes			120s	SQV91P.. ⁽⁹⁾
No			30s	SAX61P03
No			120s	SAV61P00
Yes	Modulating	120s	120s	SQV91P.. ⁽⁹⁾

⁽⁹⁾ SQV91P.. Could be SQV91P30 (spring return open) or SQV91P40 (spring return closed)

Valves V...P47...S with 2.5mm Stroke PN16

Valves with Compression Fittings

Valves		2 - Way	3 - Way T Bypass
DN (mm)	Kvs (m ³ /h)	Part No.	Part No.
10	0.25	VVP47.10-0-2	VMP47.10-0-2
	1	VVP47.10-0-1	VMP47.10-0-1
	0.4	VVP47.10-0.4	VMP47.10-0.4
	0.6	VVP47.10-0.6	VMP47.10-0.6
	1.6	VVP47.10-1.6	VMP47.10-1.6
15	2.5	VVP47.15-2.5	VMP47.15-2.5

Thermic Actuators 100N for Small Rooms

Type	Voltage	Actuator	Positioning Time	Part No.
2-point	230V AC		3 min	STP23

Electro Motoric Actuators 100N

Type	Actuator			Part No.
	Voltage	PN VA	Running Time	
3-point	230V AC	3	150s	SSP31
	24V AC	6.5	150s	SSP81
Modulating	24V AC	2	34s	SSP61

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VALVES & ACTUATORS

VALVES & ACTUATORS

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Damper Actuators without Spring Return

Modulating actuator features

- Manual override

Modulating actuator specification

- Control DC 0...10V

Rotary Air Damper Actuators 10 Nm

Type	Voltage	Actuator		Part No.
		PN VA	2 Aux. Switches	
3-point	230V AC	2	Yes	GLB336.1E
Modulating	24V AC	3	-	GLB161.1E

Rotary Air Damper Actuators 15 Nm

Type	Voltage	Actuator		Part No.
		PN VA		
3-point	24V AC	3		GEB131.1E
	230V AC			GEB331.1E
Modulating	24V AC	4		GEB161.1E

Rotary Air Damper Actuators 25 Nm

Type	Voltage	Actuator		Part No.
		PN VA		
3-point	24V AC	7		GBB131.1E
	230V AC	5		GBB331.1E
Modulating	24V AC	6		GBB161.1E

Damper Actuators Spring Return

Rotary Air Damper Actuators 16 Nm

Type	Voltage	Actuator		Part No.
		PN VA		
2-point	24V AC	9		GCA121.1E
	230V AC	9		GCA321.1E
Modulating	24V AC	9		GCA321.1E

Accessories

Description		Part No.
External auxiliary switches for use with rotary air damper actuators	Single switched unit	ASC77.1
GBB..., GCA..., GEB..., GIB...	Double switched unit	ASC77.2E

Modulating Control Valves with Magnetic Actuator, PN16

Features

- Mixing and 2-port valves PN16 with magnetic actuator for modulating control of chilled or low-temperature hot water systems in closed circuits. With positioning control, position feedback signal, spring return function and manual control.
- When used as a 2-port valve, port B must be closed off with the accessories (nut, cover, gasket) provided with the valve.

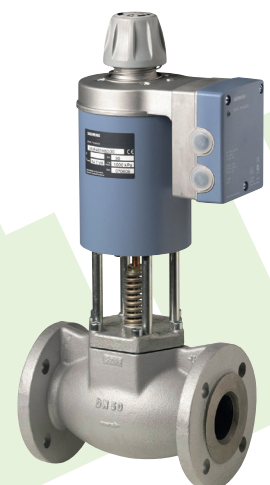
3-Port LTHW/CHW Flanged Valves			
DN (mm)	Kvs (m ³ /h)	Temperature	Part No.
15	0.6	1-130°C	MXF461.15-0.6
	1.5		MXF461.15-1.5
	3.0		MXF461.15-3.0
20	5.0		MXF461.20-5.0
	8.0		MXF461.25-8.0
	12.0		MXF461.32-12
40	20.0		MXF461.40-20
50	30.0		MXF461.50-30
65	50.0		MXF461.65-50
80	80.0	1-120°C	M3P80FY
100	130.0	M3P100FY	

3-Port LTHW/CHW Screwed Valves				
DN (mm)	Kvs (m ³ /h)	Additional	Temperature	Part No.
15	0.6	c/w couplings	1-130°C	MXG461.15-0.6
	1.5	c/w couplings		MXG461.15-0.6/C
	3.0	c/w couplings		MXG461.15-1.5
20	5.0	c/w couplings		MXG461.15-1.5/C
	8.0	c/w couplings		MXG461.15-3.0
	12.0	c/w couplings		MXG461.15-3.0/C
40	20.0	c/w couplings		MXG461.20-5.0
50	30.0	c/w couplings		MXG461.20-5.0/C
25	8.0	c/w couplings		MXG461.25-8.0
32	12.0	c/w couplings	MXG461.25-8.0/C	
40	20.0	c/w couplings	MXG461.32-12	
50	30.0	c/w couplings	MXG461.32-12/C	
			MXG461.40-20	
			MXG461.40-20/C	
			MXG461.50-30	
			MXG461.50-30/C	

3-Port LTHW Valves - Control Signal Suitable for Open Systems				
DN (mm)	Kvs (m ³ /h)	Additional	Temperature	Part No.
15	0.6	w/o couplings	-20-130°C	MXG461B15-0.6
	1.5			MXG461B15-1.5
	3.0			MXG461B15-3
20	5.0			MXG461B20-5
25	8.0			MXG461B25-8
32	12.0			MXG461B32-12
40	20.0			MXG461B40-20
50	30.0			MXG461B50-30

3-Port LTHW Valves - Stainless Steel Body				
DN (mm)	Kvs (m ³ /h)	Additional	Temperature	Part No.
15	1.5	w/o couplings	1-130°C	MXG461S15-1.5
20	5.0			MXG461S20-5.0
25	8.0			MXG461S25-8.0
32	12.0			MXG461S32-12
50	30.0			-20-130°C

SIEMENS



Modulating Control Valves with Magnetic Actuator, PN16

Modulating control of high-temperature hot water or steam. With positioning control, position feedback signal, spring return function and manual.

2 Port HTHW Flanged Valves			
DN (mm)	Kvs (m ³ /h)	Temperature	Part No.
15	0.6	1-180°C	MVF461H15-0.6
	1.5		MVF461H15-1.5
	3.0		MVF461H15-3
20	5.0		MVF461H20-5
25	8.0		MVF461H25-8
32	12.0		MVF461H32-12
40	20.0		MVF461H40-20
50	30.0		MVF461H50-30



VZ*19* Long Stroke (5.5mm) Zone Valves

These long stroke (5.5mm) small linear zone valves are designed for the regulation in flow of hot and chilled water in fan coils or other terminal unit applications.

2-Way Valves

DN (mm)	Kvs (m³/h)	Flat Face External Thread		Compression End Connection	
		Part No.	Connection	Part No.	Connection
15	0.25	VZ219E-15BP01	G1/2A	VZ219C-15BP01	15mm
15	0.4	VZ219E-15BP02	G1/2A	VZ219C-15BP02	15mm
15	0.6	VZ219E-15BP03	G1/2A	VZ219C-15BP03	15mm
15	1	VZ219E-15BP04	G1/2A	VZ219C-15BP04	15mm
15	1.6	VZ219E-15BP05	G1/2A	VZ219C-15BP05	15mm
20	2.5	VZ219E-20BP07	G3/4A	VZ219C-20BP07	22mm
20	4	VZ219E-20BP08	G3/4A		
20	6	VZ219E-20BP09	G3/4A		

3-Way Valves

DN (mm)	Kvs (m³/h)	Flat Face External Thread		Compression End Connection	
		Part No.	Connection	Part No.	Connection
15	0.25	VZ319E-15BP01	G1/2A	VZ319C-15BP01	15mm
15	0.4	VZ319E-15BP02	G1/2A	VZ319C-15BP02	15mm
15	0.6	VZ319E-15BP03	G1/2A	VZ319C-15BP03	15mm
15	1	VZ319E-15BP04	G1/2A	VZ319C-15BP04	15mm
15	1.6	VZ319E-15BP05	G1/2A	VZ319C-15BP05	15mm
20	2.5	VZ319E-20BP07	G3/4A	VZ319C-20BP07	22mm
20	4	VZ319E-20BP08	G3/4A		
20	6	VZ319E-20BP09	G3/4A		

3-Way Valves with Integral By-Pass (4 ports)

DN (mm)	Kvs (m³/h)	Flat Face External Thread		Compression End Connection	
		Part No.	Connection	Part No.	Connection
15	0.25	VZ419E-15BP01	G1/2A	VZ419C-15BP01	15mm
15	0.4	VZ419E-15BP02	G1/2A	VZ419C-15BP02	15mm
15	0.6	VZ419E-15BP03	G1/2A	VZ419C-15BP03	15mm
15	1	VZ419E-15BP04	G1/2A	VZ419C-15BP04	15mm
15	1.6	VZ419E-15BP05	G1/2A	VZ419C-15BP05	15mm
20	2.5	VZ419E-20BP07	G3/4A	VZ419C-20BP07	22mm
20	4	VZ419E-20BP08	G3/4A		
20	6	VZ419E-20BP09	G3/4A		



MZ20A, MZ20B Actuators

The long stroke MZ20 is an electro-mechanical zone valve actuator designed for use with the VZ*19* valves.

Actuators

Description	Control signal	Part No.
MZ20A	24V AC	845-5051-000
MZ20A-R	24V AC	845-5052-000
MZ20B-24	24V AC	845-5001-000
MZ20B-230	230V AC	845-5003-000

* 0...10 V, 6-9V, 1-5V, 2...10 V, 4...7 V, 6...10 V, 8...11 V

Erie AG/AH Zone Actuators

The AG (General Close Off) and AH (High Close Off) actuators are spring return, two position actuators for coupling to the VT series valves. The Pop-top connection allows for quick and simple assembly, all Normally Closed actuators feature a manual override lever.

General Close-Off Actuators

Spring Return Valve Function	Control signal	Part No.
Normally closed	24V AC	AG13A230
		AG13A23A
	230V AC	AG13U230
		AG13U23A
Normally open	24V AC	AG23A230
	230V AC	AG23A23A
		AG23U230

High Close-Off Actuators

Spring Return Valve Function	Control signal	Part No.
Normally closed	24V AC	AH13A230
	230V AC	AH13U230
		AH13U23A



V211T Globe Valves

The V211T is an internally threaded valve with a soft seat for tight shut off. Suitable for a wide range of applications such as heating, cooling and air handling systems with hot or chilled water.

2-Way Plug Valve				
DN (mm)	Kvs (m ³ /h)	Connection	Rangeability	Part No.
15	1.6	Rp 1/2	>50	721 1716 000
15	2.5	Rp 1/2	>50	721 1720 000
15	4.0	Rp 1/2	>50	721 1724 000
20	6.3	Rp 3/4	>50	721 1728 000
25	10	Rp 1	>50	721 1732 000
32	16	Rp 1 1/4	>50	721 1736 000
40	25	Rp 1 1/2	>50	721 1740 000
50	38	Rp 2	>50	721 1744 000

V311T Globe Valves

The V311T is an internally threaded valve with a soft seat for tight shut off. If the valve is used for media at temperatures below 0°C, it should be equipped with a heater to prevent ice formation on the valve stem.

2-Way Plug Valve				
DN (mm)	Kvs (m ³ /h)	Connection	Rangeability	Part No.
15	1.6	Rp 1/2	>50	731 1717 000
15	2.5	Rp 1/2	>50	731 1721 000
15	4.0	Rp 1/2	>50	731 1725 000
20	6.3	Rp 3/4	>50	731 1729 000
25	10	Rp 1	>50	731 1733 000
32	16	Rp 1 1/4	>50	731 1737 000
40	25	Rp 1 1/2	>50	731 1741 000
50	38	Rp 2	>50	731 1745 000

MG350 Actuators

The MG350 is a compact electro-mechanical actuator for controlling two-way and three-way Venta globe valves V211, V211T, V311 and V311T.

The MG350 actuators are primarily designed for applications where the demands on speed and thrust are relatively small.

Actuators			
Description		Control signal	Part No.
Modulating	24V AC/DC	0...10V DC, 2...10V DC	MG350-24M
Modulating with feedback and alarms	24V AC/DC	0...10V DC, 2...10V DC, 4...20mA	MG350-24MP
Floating	24V AC/DC	Three-Wire	MG350-24F
Floating with feedback and alarms	24V AC/DC	Three-Wire	MG350-24FP

MZX Globe Valves

The MZX is a 3 way valve utilising a compact actuator for installations with limited space. The valves are suitable for a wide range of mixing applications such as heating, cooling, air handling and domestic hot water systems.

2-Way Pressure Balanced Plug Valve, Stem Up Closed PN16				
DN (mm)	Kvs (m ³ /h)	Connection	Rangeability	Part No.
15	2.6	Rp 1/2	>50	MZX4402
20	4.2	Rp 3/4	>50	MZX4452
25	8.3	Rp 1	>50	MZX4501
32	12.5	Rp 1 1/4	>50	MZX4551
40	21	Rp 1 1/2	>50	MZX4601
50	33	Rp 2	>50	MZX4651

MG350S Actuators

The MG350S is a compact electro-mechanical actuator for controlling the VZX and MZX two-way and three-way linear globe valves.

The MG350S actuators are primarily designed for applications where the demands on speed and thrust are relatively small.

Actuators			
Description		Control signal	Part No.
Modulating	24V AC/DC	0...10V DC, 2...10V DC	MG350S-24M
Floating	24V AC/DC	Three-Wire	MG350S-24F





VGS211F 15-100CS Globe Valves

The VGS211F...CS is a flanged high temperature valve for media temperatures up to 200°C. Primarily designed for steam but also suitable for a wide range of applications such as heating, cooling and air handling systems with hot or chilled water and steam.

2-Way Plug Valve, Stem Up Open PN16

DN (mm)	Kvs (m³/h)	Stroke (mm)	Rangeability	Part No.
15	0.6	16.5	>50	VGS211F-15CS03
15	1.0		>50	VGS211F-15CS04
15	1.6		>50	VGS211F-15CS05
15	2.5		>50	VGS211F-15CS07
15	4.0		>50	VGS211F-15CS08
20	6.3	25	>50	VGS211F-20CS
25	10		>35	VGS211F-25CS
32	16		>35	VGS211F-32CS
40	25		>35	VGS211F-40CS
50	40		>35	VGS211F-50CS
65	63	45	>35	VGS211F-65CS
80	110		>35	VGS211F-80CS
100	140		>35	VGS211F-100CS

VG221F 65-150C Globe Valves

The VG221F...C is a large flanged balanced valve suitable for large hydronic flows in heating and air conditioning circuits. The balanced plug enables a low actuating force to control the valve. Suitable for a wide range of applications using hot water or deaerated cooling water.

2-Way Pressure Balanced Plug Valve, Stem Up Closed PN16

DN (mm)	Kvs (m³/h)	Stroke (mm)	Rangeability	Part No.
65	63	25	>50	VG221F-65C
80	100	45	>50	VG221F-80C
100	130		>50	VG221F-100C
125	200		>50	VG221F-125C
150	300		>50	VG221F-150C

VG311F 65-150C Globe Valves

The VG311F...C is a large flanged general purpose valve suitable for a wide range of mixing applications with hot or chilled water in heating cooling and air handling systems.

3-Way Plug Mixing Valve Stem Up Closed (A Port/B-AB open) PN16

DN (mm)	Kvs (m³/h)	Stroke	Rangeability	Part No.
65	63	25	>50	VG311F-65C
80	100	45	>50	VG311F-80C
100	130		>50	VG311F-100C
125	200		>50	VG311F-125C
150	300		>50	VG311F-150C

FORTA Actuators

The Forta is a family of actuators for the control of 2 way and 3 way globe valves. The Forta has a very fine resolution PCBA board which provides good rangeability of the valve. The Software in the actuator calibrates the running time and S2 switch points to the valve stroke limits. It may also be configured for different flow characteristics, inverse signal or sequence control.

MG900 SR - Spring Return Actuators

Description	Control signal	Part No.
Stem up	24V AC 0...10V / 2...10V / 0-5V / 5-10 / 2-6 / 6-10	MG900-SU
Stem down		MG900-SD

M800 - Spring Return Actuators

Description	Control signal	Part No.
M800	24V AC 0...10V / 2...10V / 0...5V / 5-10 / 2-6 / 6-10	880 0310 030
M800 S2		880 0311 030

M700 - Spring Return Actuators

Description	Control signal	Part No.
M700-SRSU	24V AC 0...10V / 2...10V / 0-5V / 5-10V / 2-6V / 6-10V	880 0430 000
M700-S2-SRSU		880 0431 000
M700-SRSD		880 0440 000
M700-S2-SRSD		880 0441 000

MD*A Range Actuators

The MD...A are 2...10V modulating damper actuators designed for operating air control dampers in ventilation and air conditioning systems for building services installations.

Actuators Non-Spring Return		
Description	Torque Nm	Part No.
MD5A-24	5	875 1009 000
MD10A-24	10	875 1019 000
MD20A-24	20	875 1029 000
MD40A-24	40	875 1039 000

MD*B Range Actuators

The MD...B are on/off damper actuators designed for operating air control dampers in ventilation and air conditioning systems for building services installations. The actuators are available in 24V AC/DC or 230V AC versions.

Actuators Non-Spring Return		
Description	Torque Nm	Part No.
MD5B-230	5	875 1001 000
MD5B-230-S	5	875 1003 000
MD5B-24	5	875 1005 000
MD5B-24-S	5	875 1007 000
MD10B-230	10	875 1011 000
MD10B-24	10	875 1015 000
MD20B-230	20	875 1021 000
MD20B-24	20	875 1025 000
MD40B-24	40	875 1035 000

MD10SR Range Actuators

The MD10 SR is a compact spring return damper actuator for the operation of ventilation dampers up to 2m² in building service installations.

Actuators Spring / SuperCap Return		
Description	Torque Nm	Part No.
On/Off	24...240V AC /	10
	24...125V DC	10
		10
		10
2...10V modulating	24V AC/DC	10
		10

MD20SR Range Actuators

The MD20 SR is a compact spring return damper actuator for the operation of ventilation dampers up to 4m² in building service installations.

Actuators Spring / SuperCap Return		
Description	Torque Nm	Part No.
On/Off	24...240V AC /	20
	24...125V DC	20
		20
		20
2...10V modulating	24V AC/DC	20
		20

Schneider
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