The Drive & Control Company

Rexroth
Bosch Group

GoTo Europe
Focused Delivery Program

Product Overview Hydraulics

The products I need when I need them

In today's global competition every day counts. Fast response times have become an important success factor for machine manufacturers. Reliable, on time delivery of machine components plays a critical role in this regard – especially when talking about individual and custom machine builders. With Rexroth's GoTo Focused Delivery Program you benefit from easy ordering processes and on-time delivery of our high-demand products across our broad range of technologies.

You receive the most common Rexroth products from Hydraulics and Electric Control Technology, as well as Linear Motion and Assembly Technologies delivered reliably and on time. And that across Europe, taking into account productdependent maximum order quantities and with unrivaled simplicity. Construct your machines and systems quickly and efficiently – we support you during the process.

Your advantages

- Reduced inventories and capital commitment through short, reliable delivery times
- Flexible response to customer and market demands through high availability of many products
- Simple, fast ordering via e-mail, fax, mail or eCommerce at Bosch Rexroth or its sales partners

Your product in three steps

GoTo product overviews

- **Hydraulics**

- **Electric Control Technology**

- **Linear Motion Technology**

- **Assembly Technology**

The GoTo Focused Delivery Program offers a targeted selection of our high-demand products with preferred service: As a result, you receive your products quickly and reliably, allowing you to respond to your market and customer requirements at any time.

You benefit from simplified access to product information, preferred order processing and reduced delivery times. This allows you to complete your machine or system on schedule.

Our GoTo product overviews, whether in printed form or on the Internet, show you the complete portfolio. In addition, our webpages quickly provide you with additional information on the respective product, on the technical data as well as on ordering.

1. Select product

2. View product data

- Product-specific information
- Maximum order quantities
- Availability
- Delivery times
- Prices

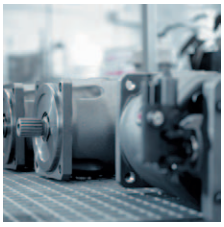
3. Order product

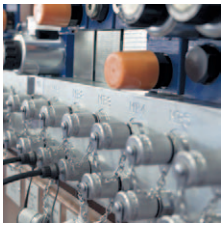
1. Select product
Use the GoTo product overviews to find the desired products.

2. View product data
Now visit the focused delivery program website – **www.boschrexroth.com/goto**. It offers simple access to additional product information, including data sheets, part numbers, specifications, downloads and more.

3. Order product
To order, contact Rexroth, your sales partner, or simply order online via our eShop: **www.boschrexroth.com/eshop**

Contents





Contents

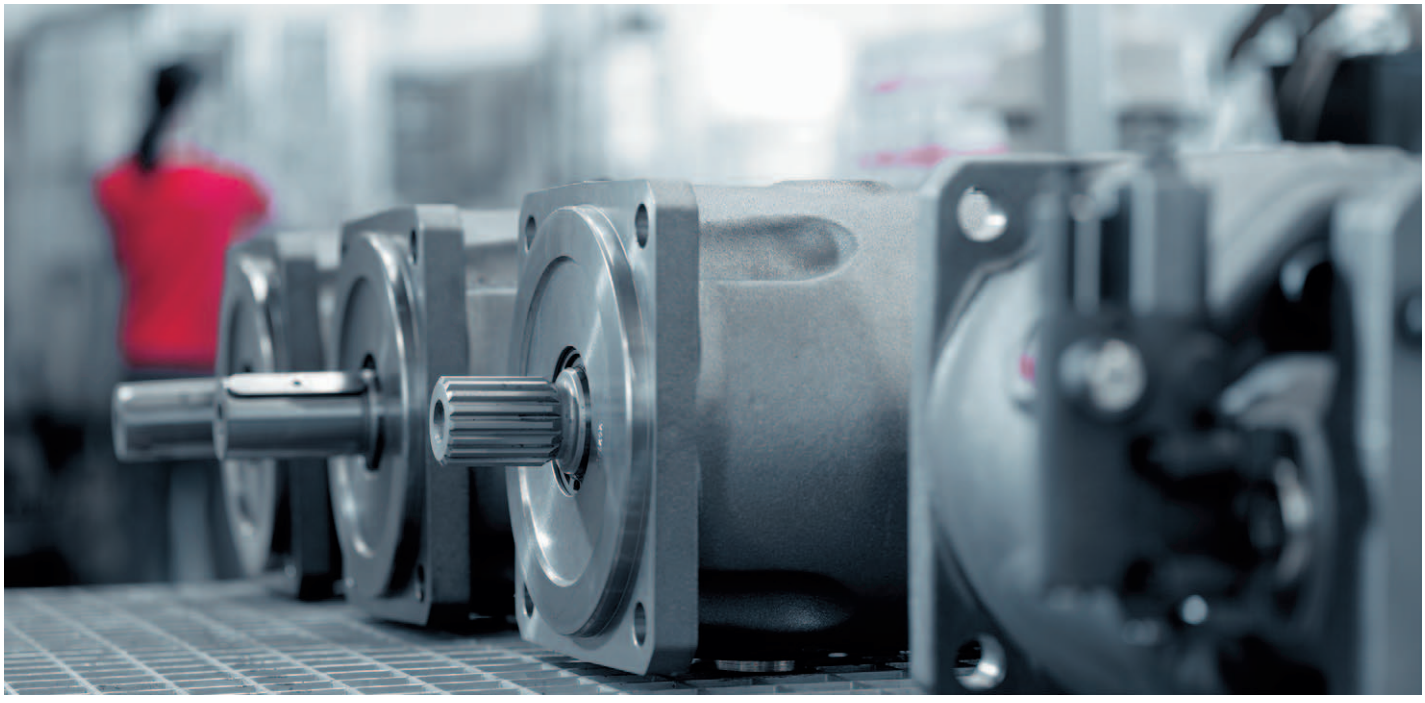
Pumps

Axial piston pumps
Axial piston pumps in swash plate and bent axis design are intended for the medium and high pressure range. Variations in the designs, in the performance ranges and in the adjustment options offer perfect solutions for mobile and stationary application ranges.

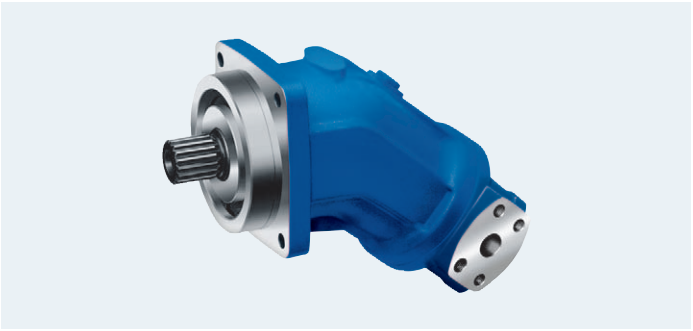
External gear pumps
External gear pumps are cost-effective displacement pumps. They are available in many different versions.
A selected range of single and multiple pumps is available within 10 working days.

Internal gear pumps
Internal gear pumps can be used up to a continuous pressure of 315 bar (depending on the frame size). This pump principle features a compact design with particularly high energy density.

Vane pumps
Vane pumps are available in a wider range of sizes. They are used in applications requiring medium operating pressures and low noise emissions.



Axial piston fixed displacement pump A2FO series 6



- Size 10 ... 200
- Nominal pressure 400 bar
- Peak pressure 450 bar
- Open circuit

Features

- Axial tapered piston bent axis design
- Working ports SAE flanges or threads
- High power density
- Small dimensions
- High overall efficiency
- Economic concept

Product description

A2FO is a fixed displacement pump with axial tapered piston transmission in bent axis design for hydrostatic drives in the open circuit. The flow is proportional to the drive speed and the displacement.

More detailed information:
Data sheet 91401

Technical data

Size		**Size**		**10**	**12**	**16**	**28**	**32**	**45**	**56**	**63**
Displacement		V_g	cm^3	10.3	12	16	28.1	32	45.6	56.1	63
Speed		n_{nom}	min^{-1}	3150	3150	3150	2500	2500	2240	2000	2000
Flow at n_{nom}		q_v	l/min	32	38	50	70	80	102	112	126
Torque	Δp = 400 bar	T	Nm	66	76	102	179	204	290	357	401

Size		**Size**		**80**	**90**	**107**	**125**	**160**	**180**	**200**	
Displacement		V_g	cm^3	80.4	90	106.7	125	160.4	180	200	
Speed		n_{nom}	min^{-1}	1800	1800	1600	1600	1450	1450	1550	
Flow at n_{nom}		q_v	l/min	145	162	171	200	233	261	310	
Torque	Δp = 400 bar	T	Nm	512	573	679	796	1021	1146	1273	

For order details regarding the GoTo products, see page 114.

Axial piston fixed displacement pump A17FO series 10

- Size 23 ... 107
- Nominal pressure 300 bar
- Peak pressure 350 bar
- Open circuit
- Application in commercial vehicles

Features

- Axial tapered piston bent axis design
- Flange and shaft for direct attachment at the ancillary output of commercial vehicles
- Easy adjustment to the direction of rotation of the drive
- High self-priming ability
- No leakage line required
- Noise-optimized

Product description

A17FO is a fixed displacement pump with axial tapered piston transmission in bent axis design for hydrostatic drives in the open circuit. The pump has been especially designed for use in commercial vehicles, e.g. street tippers, dump trucks, HGV loading cranes, tankers, municipal vehicles. The flow is proportional to the drive speed and the displacement.

More detailed information:
Data sheet 91520

Technical data

Size		Size		23	32	45	63	80	107
Displacement		V_g	cm^3	22.9	32	45.6	63	80.4	106.7
Speed		n_{nom}	min^{-1}	3050	2750	2650	2200	2150	2000
Flow at n_{nom}		q_v	l/min	70	88	121	139	173	213
Torque	Δp = 300 bar	T	Nm	109	153	218	301	384	509

Bestellinformationen zu den GoTo-Produkten siehe Seite 114.

Axial piston fixed displacement pump A17FNO series 10

- Size 125
- Nominal pressure 250 bar
- Peak pressure 300 bar
- Open circuit
- Application in commercial vehicles

Features

- Axial tapered piston bent axis design
- Flange and shaft for direct attachment at the ancillary output of commercial vehicles
- Easy adjustment to the direction of rotation of the drive
- High self-priming ability
- No leakage line required
- Noise-optimized

Product description

A17FNO is a fixed displacement pump with axial tapered piston transmission in bent axis design for hydrostatic drives in the open circuit. The pump has been especially designed for use in commercial vehicles, e.g. street tippers, dump trucks, HGV loading cranes, tankers, municipal vehicles. The flow is proportional to the drive speed and the displacement.

More detailed information:
Data sheet 91510

Technical data

Displacement		V_g	cm^3	125
Speed		n_{nom}	min^{-1}	1750
Flow at n_{nom}		q_v	l/min	219
Torque	Δp = 250 bar	T	Nm	497

For order details regarding the GoTo products, see page 114.

Axial piston variable displacement pump A15VSO series 10

- Size 175 ... 280
- Nominal pressure 350 bar
- Peak pressure 420 bar
- Open circuit

Features

- Axial piston swash plate design
- Controller-specifically, 100 % mooring function is possible (over center operation, motor operation)
- Compact design
- High efficiency
- High power density
- Low noise level

Product description

A15VSO is a variable displacement pump with axial piston transmission in swash plate design for hydrostatic drives in the open circuit. The flow is proportional to the drive speed and the displacement. By adjusting the swash plate, the flow can be steplessly changed.

More detailed information:
Data sheet 92800

Technical data

Size		Size		175	210	280
Displacement		$V_{g\,max}$	cm^3	175	210	280
Speed		n_{nom}	min^{-1}	2150	2100	1800
Flow at n_{nom}		q_v	l/min	376	441	504
Torque	Δp = 350 bar	T	Nm	975	1170	1560

For order details regarding the GoTo products, see page 114.

Axial piston variable displacement pump A10VSO series 31

- Size 18 ... 140
- Nominal pressure 280 bar
- Peak pressure 350 bar
- Open circuit

Features

- Axial piston swash plate design
- Good suction behavior
- Low noise level
- Long life cycle
- Versatile controller program
- Short control time

Product description

A10VSO is a variable displacement pump with axial piston transmission in swash plate design for hydrostatic drives in the open circuit. The flow is proportional to the drive speed and the displacement. By adjusting the swash plate, the flow can be steplessly changed.

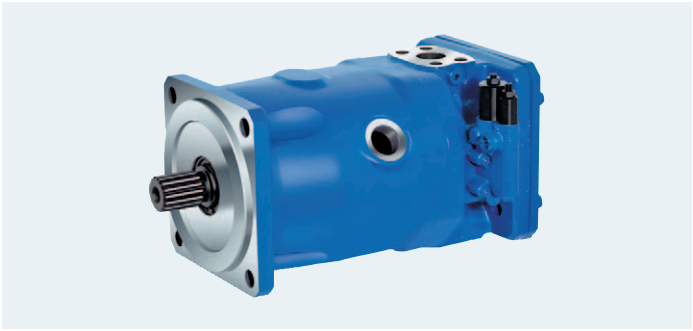
More detailed information:
Data sheet 92711

Technical data

Size		Size		18	28	45	71	100	140
Displacement		$V_{g\,max}$	cm^3	18	28	45	71	100	140
Speed		n_{nom}	min^{-1}	3300	3000	2600	2200	2000	1800
Flow at n_{nom}		q_v	l/min	59	84	117	156	200	252
Torque	Δp = 280 bar	T	Nm	80	125	200	316	445	623

For order details regarding the GoTo products, see page 115.

Axial piston variable displacement pump A10VSO series 32



- Size 45 ... 140
- Nominal pressure 280 bar
- Peak pressure 350 bar
- Open circuit

Features

- Axial piston swash plate design
- Hydrostatically unloaded cradle bearings
- Low noise level
- Low pressure pulsation
- High efficiency
- High resistance to cavitation, suction pressure drops and housing pressure peaks

Product description

A10VSO is a variable displacement pump with axial piston transmission in swash plate design for hydrostatic drives in the open circuit. The flow is proportional to the drive speed and the displacement. By adjusting the swash plate, the flow can be steplessly changed.

More detailed information:
Data sheet 92714

Technical data

Size	**Size**		**45**	**71**	**100**	**140**
Displacement	$V_{g\,max}$	cm^3	45	71	100	140
Speed	n_{nom}	min^{-1}	1800	1800	1800	1800
Flow at n_{nom}	q_v	l/min	81	128	180	252
Torque Δp = 280 bar	T	Nm	200	317	446	624

For order details regarding the GoTo products, see page 116.

Axial piston variable displacement pump A11VO series 1

- Size 40 ... 95
- Nominal pressure 350 bar
- Peak pressure 400 bar
- Open circuit

Features

- Predominantly designed for use in mobile applications.
- Axial piston swash plate design
- At the through-drive, more pumps up to the same size can be attached
- Numerous adjustments
- Option: With charging pump

Product description

A11VO is a variable displacement pump with axial piston transmission in swash plate design for hydrostatic drives in the open circuit. The flow is proportional to the drive speed and the displacement. By adjusting the swash plate, the flow can be steplessly changed.

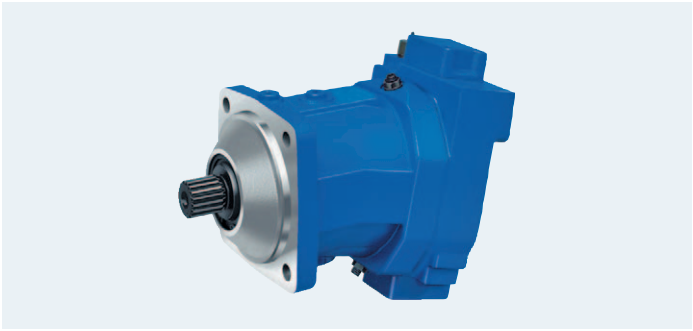
More detailed information:
Data sheet 92500

Technical data

Size	Size		40	60	75	95
Displacement	$V_{g\,max}$	cm^3	42	58.5	74	93.5
Speed	n_{nom}	min^{-1}	3000	2700	2550	2350
Flow at n_{nom}	q_V	l/min	126	158	189	220
Torque Δp = 350 bar	T	Nm	234	326	412	521

For order details regarding the GoTo products, see page 116.

Axial piston variable displacement pump A7VO series 63



- Size 28 ... 160
- Nominal pressure 350 bar
- Peak pressure 400 bar
- Open circuit

Features

- Axial tapered piston bent axis design
- Use in mobile and stationary application ranges
- Adjustment of the bent axis allows for stepless change in flow
- Wide range of control and adjustment devices
- Short, robust pump with long life cycle

Product description

A7VO is a variable displacement pump with axial tapered piston transmission in bent axis design for hydrostatic drives in the open circuit. The flow is proportional to the drive speed and the displacement. By adjusting the bent axis, the flow can be steplessly changed.

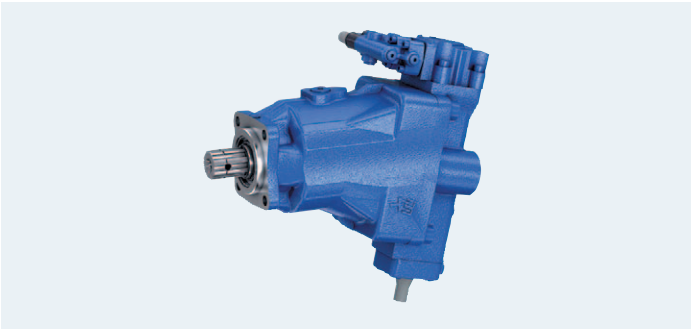
More detailed information:
Data sheet 92202

Technical data

Size	Size		28	55	80	107	160
Displacement	$V_{g\,max}$	cm^3	28.1	54.8	80	107	160
Speed	n_{nom}	min^{-1}	3150	2500	2240	2150	1900
Flow at n_{nom}	q_v	l/min	89	137	179	230	304
Torque Δp = 350 bar	T	Nm	156	305	446	596	891

For order details regarding the GoTo products, see page 117.

Axial piston variable displacement pump A17VO series 11



- Size 55 ... 107
- Nominal pressure 300 bar
- Peak pressure 350 bar
- Open circuit
- Application in commercial vehicles

Features

- Axial piston swash plate design
- Flange and shaft for direct attachment at the ancillary output of commercial vehicles
- High self-priming ability
- High efficiency
- Very good noise level
- Option: Speed sensor

Product description

A17VO is a variable displacement pump with axial tapered piston transmission in bent axis design for hydrostatic drives in the open circuit. The pump has been especially designed for demanding applications and comfortable controls in working equipment in commercial vehicles, e.g. HGV loading cranes, generator drives, compressor drives, drives for air conditioning units, fan drives. The flow is proportional to the drive speed and the displacement. By adjusting the bent axis, the flow can be steplessly changed.

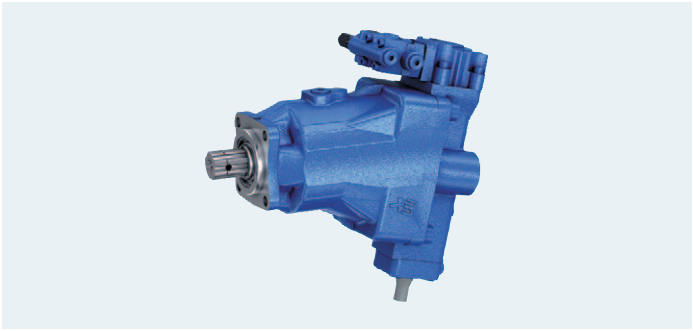
More detailed information:
Data sheet 92260

Technical data

Size	Size		55	80	107
Displacement	$V_{g\,max}$	cm^3	54.8	80	107
Speed	n_{nom}	min^{-1}	2500	2240	2150
Flow at n_{nom}	q_V	l/min	137	179	230
Torque Δp = 300 bar	T	Nm	262	382	511

For order details regarding the GoTo products, see page 117.

Axial piston variable displacement pump A18VO series 11



- Size 80 ... 107
- Nominal pressure 350 bar
- Peak pressure 400 bar
- Open circuit
- Application in commercial vehicles

Features

- Axial piston swash plate design
- Improved system efficiency due to higher pressure
- High power density due to high pressure level for high load-bearing capacity
- Flange and shaft for direct attachment at the ancillary output of commercial vehicles
- High self-priming ability
- Option: Longer life cycle due to the use of long-life bearings (A18VLO)

Product description

A18VO is a variable displacement pump with axial tapered piston transmission in bent axis design for hydrostatic drives in the open circuit. The pump has been especially designed for demanding applications and comfortable controls in working equipment in commercial vehicles, e.g. large HGV loading cranes and superstructures. The flow is proportional to the drive speed and the displacement. By adjusting the bent axis, the flow can be steplessly changed.

More detailed information:
Data sheet 92270

Technical data

Size	**Size**		**80**	**107**
Displacement	$V_{g\,max}$	cm^3	80	107
Speed	n_{nom}	min^{-1}	2240	2150
Flow at n_{nom}	q_v	l/min	179	230
Torque Δp = 350 bar	T	Nm	446	596

For order details regarding the GoTo products, see page 117.

External gear pump
AZPF

- Standard version
- Size 4 ... 28
- Series 1X and 2X
- Nominal pressure up to 280 bar
- Maximum displacement 28 cm³

Features

- Fixed displacement
- Plain bearings for high loads
- Drive shafts according to ISO or SAE
- Combinations of several pumps possible
- Line connections: Connection flanges or screw-in threads
- Numerous design variations available

Product description

External gear pumps basically consist of one gear wheel pair and the housing with one front and one rear cover. The drive shaft drives one of the two gear wheels which again drives the second gear wheel in the opposite direction. Due to the rotation, hydraulic fluid is entrapped in the gear chambers and delivered along the housing from the suction port to the pressure port. The flow per rotation roughly corresponds to the total of the gear chamber volumes of the two gears.

More detailed information:
Data sheet 10089

Technical data

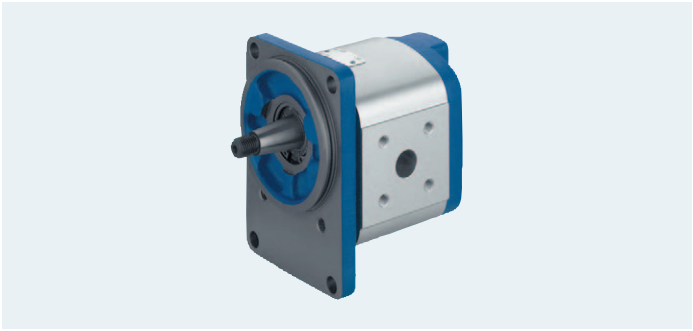
Size – series 1X	**Size**		**4**	**5**	**8**	**11**	**14**	**16**	**19**	**22**	**22**[1)]
Displacement	V_g	cm³	4	5.5	8	11	14	16	19	22.5	22.5
Maximum continuous pressure	p_1	bar	250	250	250	250	250	250	210	180	210
Intermittent pressure	p_2	bar	280	280	280	280	280	280	230	210	230
Speed at p_2	n_{min}	min⁻¹	700	700	700	600	500	500	500	500	500
	n_{max}	min⁻¹	4000	4000	4000	3500	3000	3000	3000	2500	3000

Size – series 2X	**Size**		**4**	**5**	**8**	**11**	**14**	**16**	**19**	**22**	**25**	**28**
Displacement	V_g	cm³	4	5.5	8	11	14	16	19	22.5	25	28
Maximum continuous pressure	p_1	bar	250	250	250	250	250	250	250	220	195	170
Intermittent pressure	p_2	bar	280	280	280	280	280	280	280	250	225	200
Speed at p_2	n_{min}	min⁻¹	700	700	700	600	500	500	500	500	500	500
	n_{max}	min⁻¹	4000	4000	4000	3500	3000	3000	3500	3500	3000	3000

[1)] Version with extended bearings

For order details regarding the GoTo products, see page 117.

External gear pump
AZPN



- Standard version
- Size 20 ... 36
- Series 1X and 2X
- Nominal pressure up to 280 bar
- Maximum displacement 36 cm³

Features

- Fixed displacement
- Plain bearings for high loads
- Drive shafts according to ISO or SAE
- Combinations of several pumps possible
- Line connections: Connection flanges or screw-in threads
- Numerous design variations available

Product description

External gear pumps basically consist of one gear wheel pair and the housing with one front and one rear cover. The drive shaft drives one of the two gear wheels which again drives the second gear wheel in the opposite direction. Due to the rotation, hydraulic fluid is entrapped in the gear chambers and delivered along the housing from the suction port to the pressure port. The flow per rotation roughly corresponds to the total of the gear chamber volumes of the two gears.

More detailed information:
Data sheet 10091

Technical data

Size – series 1X	**Size**		**20**	**22**	**25**	**28**	**32**	**36**
Displacement	V_g	cm³	20	22.5	25	28	32	36
Maximum continuous pressure	p_1	bar	230	230	230	210	180	160
Intermittent pressure	p_2	bar	250	250	250	230	200	180
Speed at p_2	n_{min}	min⁻¹	500	500	500	500	500	500
	n_{max}	min⁻¹	3000	3000	3000	2800	2800	2800

Size – series 2X	**Size**		**20**	**22**	**25**	**28**	**32**	**36**
Displacement	V_g	cm³	20	22.5	25	28	32	36
Maximum continuous pressure	p_1	bar	250	250	250	230	210	180
Intermittent pressure	p_2	bar	280	280	280	260	240	210
Speed at p_2	n_{min}	min⁻¹	500	500	500	500	500	500
	n_{max}	min⁻¹	3500	3500	3500	3500	3200	3000

For order details regarding the GoTo products, see page 118.

External gear pump
AZPG

- Standard version
- Size 22 ... 100
- Series 2X
- Nominal pressure up to 280 bar
- Maximum displacement 100 cm³

Features

- Fixed displacement
- Plain bearings for high loads
- Drive shafts according to ISO or SAE
- Combinations of several pumps possible
- Line connections: Connection flanges or screw-in threads
- Numerous design variations available

Product description

External gear pumps basically consist of one gear wheel pair and the housing with one front and one rear cover. The drive shaft drives one of the two gear wheels which again drives the second gear wheel in the opposite direction. Due to the rotation, hydraulic fluid is entrapped in the gear chambers and delivered along the housing from the suction port to the pressure port. The flow per rotation roughly corresponds to the total of the gear chamber volumes of the two gears.

More detailed information:
Data sheet 10093

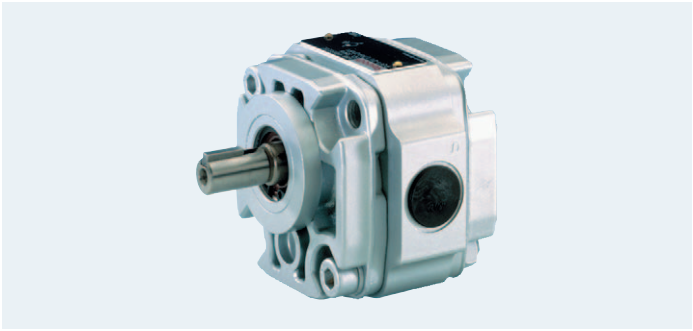
Technical data

Size	Size		22	25	28	32	36	40	45
Displacement	V_g	cm³	22.5	25	28	32	36	40	45
Maximum continuous pressure	p_1	bar	250	250	250	250	250	250	250
Intermittent pressure	p_2	bar	280	280	280	280	280	280	280
Speed at p_2	n_{min}	min⁻¹	600	600	500	500	500	500	500
	n_{max}	min⁻¹	3000	3000	3000	2800	2800	2800	2600

Size	Size		50	56	63	70	80	100	
Displacement	V_g	cm³	50	56	63	70	80	100	
Maximum continuous pressure	p_1	bar	220	195	170	120	90	70	
Intermittent pressure	p_2	bar	250	225	200	150	120	100	
Speed at p_2	n_{min}	min⁻¹	500	500	500	500	600	800	
	n_{max}	min⁻¹	2600	2300	2300	2200	2000	1700	

For order details regarding the GoTo products, see page 118.

Internal gear pump
PGF



- Frame size 1: Size 1.7 ... 5 (component series 2X)
- Frame size 2: Size 6.3 ... 22 (component series 2X)
- Frame size 3: Size 20 ... 40 (component series 3X)
- Peak pressure 250 bar
- Maximum displacement 40.5 cm^3

Features

- Fixed displacement
- Low operating noise
- Low flow pulsation
- Suitable for broad viscosity and speed ranges
- Very good suction characteristic
- Long life cycle due to plain bearings and sealing gap compensation

Product description

Hydraulic pumps of the PGF type are gap-compensated internal gear pumps with fixed displacement. The hydrodynamically mounted pinion shaft drives the toothed internal gear. The tooth clearances opening in the suction area suck in the hydraulic fluid and transport it away from the pinion shaft and internal gear. Suction and pressure area are separated by the radial compensation elements and the tooth engagement between internal gear and pinion shaft.

More detailed information:
Data sheet 10213

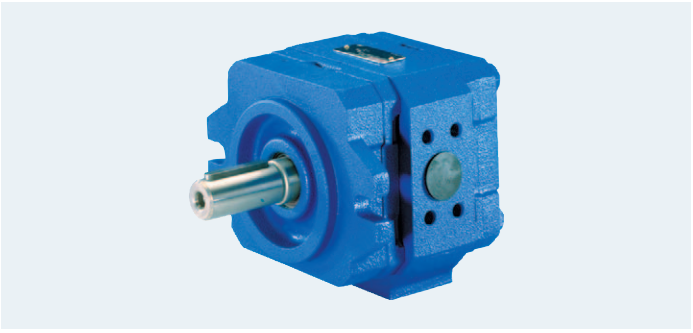
Technical data

Size	**Size**		**1.7**	**2.2**	**2.8**	**3.2**	**4.1**	**5.0**	**6.3**	**8**	**11**
Displacement	V_g	cm^3	1.7	2.2	2.8	3.2	4.1	5.0	6.5	8.2	11
Speed	n_{min}	min^{-1}	600	600	600	600	600	600	600	600	600
	n_{max}	min^{-1}	3600	3600	3600	3600	3600	3600	3600	3600	3600
Flow	q_V	l/min	2.4	3.2	4.1	4.6	6.0	7.2	9.4	11.9	16
Nominal pressure, permanent	p_N	bar	180	210	210	210	210	180	210	210	210

Size	**Size**		**13**	**16**	**19**	**22**	**20**	**25**	**32**	**40**	
Displacement	V_g	cm^3	13.3	16	18.9	22	20.6	25.4	32.5	40.5	
Speed	n_{min}	min^{-1}	600	600	600	600	500	500	500	500	
	n_{max}	min^{-1}	3600	3600	3600	3000	3600	3200	3000	2500	
Flow	q_V	l/min	19.3	23.3	27.4	31.9	29.9	36.8	47.1	58.7	
Nominal pressure, permanent	p_N	bar	210	210	210	180	210	210	210	180	

For order details regarding the GoTo products, see page 119.

Internal gear pump
PGH-2X



- Frame size 2: Size 5 ... 8
- Frame size 3: Size 11 ... 16
- Peak pressure 350 bar
- Maximum displacement 16 cm³
- Component series 2X

Features

- Fixed displacement
- Low operating noise
- Low flow pulsation
- High efficiency also at low speed and viscosity due to sealing gap compensation
- Suitable for broad viscosity and speed ranges

Product description

Hydraulic pumps of the PGH type are gap-compensated internal gear pumps with fixed displacement. The hydrodynamically mounted pinion shaft drives the toothed internal gear. The tooth clearances opening in the suction area suck in the hydraulic fluid and transport it away from the pinion shaft and internal gear. Suction and pressure area are separated by the radial compensation elements and the tooth engagement between internal gear and pinion shaft.

More detailed information:
Data sheet 10223

Technical data

Size	Size		5	6	8	11	13	16
Displacement	V_g	cm³	5.24	6.5	8.2	11.0	13.3	16.0
Speed	n_{min}	min⁻¹	600	600	600	600	600	600
	n_{max}	min⁻¹	3000	3000	3000	3000	3000	3000
Flow	q_V	l/min	7.5	9.3	11.8	15.8	19.1	23.0
Nominal pressure, permanent	p_N	bar	315	315	315	315	315	315

For order details regarding the GoTo products, see page 119.

Internal gear pump
PGH-3X

- Frame size 4: Sizes 20 ... 50
- Frame size 5: Sizes 63 ... 250
- Peak pressure 350 bar
- Maximum displacement volume 250 cm³
- Component series 3X

Features

- Fixed displacement
- Low operating noise
- Low flow pulsation
- High efficiency also at low speed and viscosity due to sealing gap compensation
- Suitable for broad viscosity and speed ranges

Product description

Hydraulic pumps of the PGH type are gap-compensated internal gear pumps with fixed displacement. The hydrodynamically mounted pinion shaft drives the toothed internal gear. The tooth clearances opening in the suction area suck in the hydraulic fluid and transport it away from the pinion shaft and internal gear. Suction and pressure area are separated by the radial compensation elements and the tooth engagement between internal gear and pinion shaft.

More detailed information:
Data sheet 10227

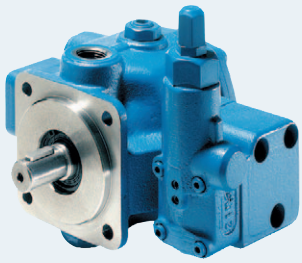
Technical data

Size	Size		20	25	32	40	50	63
Displacement	V_g	cm³	20.1	25.3	32.7	40.1	50.7	64.7
Speed	n_{min}	min⁻¹	200	200	200	200	200	200
	n_{max}	min⁻¹	3000	3000	3000	3000	3000	3000
Flow	q_v	l/min	28.9	36.3	46.9	57.6	72.8	92.8
Nominal pressure, permanent	p_N	bar	315	315	315	315	250	315

Size	Size		80	100	125	160	200	250
Displacement	V_g	cm³	81.4	100.2	125.3	162.8	200.4	250.5
Speed	n_{min}	min⁻¹	200	200	200	200	200	200
	n_{max}	min⁻¹	3000	3000	3000	3000	3000	3000
Flow	q_v	l/min	116.9	143.8	179.8	233.7	287.7	359.6
Nominal pressure, permanent	p_N	bar	315	315	315	210	170	135

For order details regarding the GoTo products, see page 119.

Adjustable vane pump, pilot operated
PV7



- Sizes 14 ... 150
- Frame sizes 10, 16, 25, 40, 63 and 100
- Nominal pressure up to 160 bar
- Maximum flow 270 l/min
- Component series 1X

Features

- Low operating noise
- Extended bearing life cycle thanks to hydrodynamically lubricated plain bearings
- Pressure and flow can be controlled
- Low hysteresis
- Very low control up times and down control times

Product description

Thanks to their specific design, vane pumps of the type PV7 with adjustable displacement boast a low flow pulsation and realize very high repetition accuracies with low pressure peaks during down control. The noise optimization achieved by adjusting the height adjustment screw provides for a low operating noise.
Hydrodynamically lubricated plain bearings ensure a long life cycle. The axial compensation of the displacer provides optimum volumetric efficiency.

More detailed information:
Data sheet 10515

Technical data

Frame size-size	Frame size-size		10-14	10-20	16-20	16-30	25-30	25-45
Displacement	V_g	cm^3	14	20	20	30	30	45
Speed	n_{min}	min^{-1}	900	900	900	900	900	900
	n_{max}	min^{-1}	1800	1800	1800	1800	1800	1800
Flow	q_v	l/min	21	29	29	43.5	43.5	66
Nominal pressure, permanent	p_N	bar	160	100	160	80	160	80

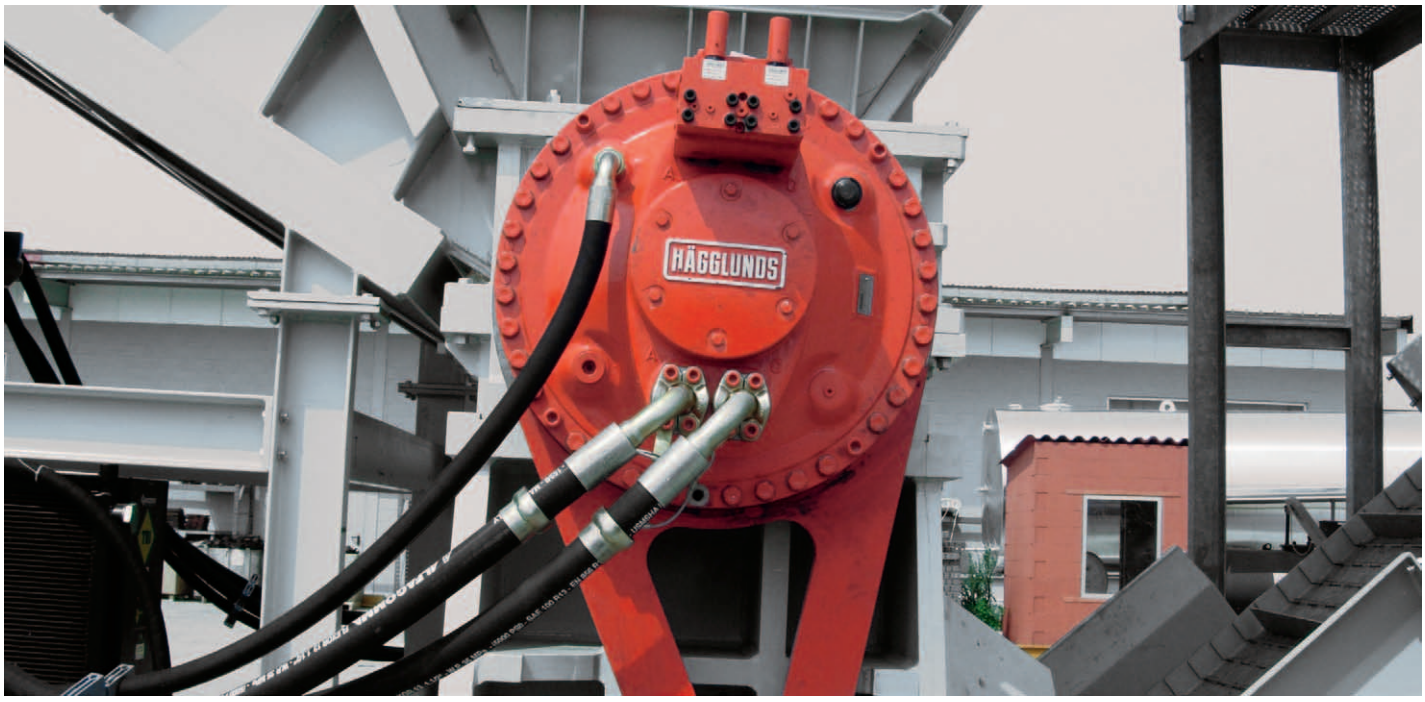
Frame size-size	Frame size-size							
Displacement	V_g	cm^3	45	71	71	94	118	150
Speed	n_{min}	min^{-1}	900	900	900	900	900	900
	n_{max}	min^{-1}	1800	1800	1800	1800	1800	1800
Flow	q_v	l/min	66	104	108	136	171	218
Nominal pressure, permanent	p_N	bar	160	80	160	80	160	80

For order details regarding the GoTo products, see page 120.

Motors

Axial piston motors
Axial piston motors are available in swash plate or bent axis design for medium and high pressure applications. Our hydrostatic drives for mobile and stationary application ranges stand out due to their robustness, reliability, long life cycles, low noise emissions and high efficiencies as well as high cost-effectiveness.

External gear motors
External gear motors are a cost-effective alternative for rotary drives up to approximately 50 kW. The motors are available for one direction of rotation or reversible, for 2- and 4-quadrant operation.



Axial piston fixed displacement motor A2FM series 6

- Size 5 ... 200
- Nominal pressure: 315 bar (size 5), 400 bar (size 10-200)
- Peak pressure: 350 bar (size 5), 450 bar (size 10-200)
- Open and closed circuit

Features

- Use in mobile and stationary application ranges
- Axial tapered piston bent axis design
- High power density
- Small dimensions
- High overall efficiency
- Good start-up efficiency

Product description

A2FM is a fixed displacement motor with axial tapered piston transmission in bent axis design for hydrostatic drives in the open and closed circuit. With axial piston units in bent axis design, the pistons are arranged diagonally to the drive shaft. The pistons are directly supported by the drive shaft and there create a pressure-dependent torque.

More detailed information:
Data sheet 91001

Technical data

Size	Size		5	10	12	16	23	28	32	45	56
Displacement	V_g	cm^3	4.93	10.3	12	16	22.9	28.1	32	45.6	56.1
Speed	n_{nom}	min^{-1}	10000	8000	8000	8000	6300	6300	6300	5600	5000
Displacement at n_{nom}	q_V	l/min	49	82	96	128	144	177	202	255	281
Torque Δp = 315 bar	T	Nm	24.7	–	–	–	–	–	–	–	–
Δp = 400 bar	T	Nm	–	66	76	102	146	179	204	290	357

Size	Size		63	80	90	107	125	160	180	200
Displacement	V_g	cm^3	63	80.4	90	106.7	125	160.4	180	200
Speed	n_{nom}	min^{-1}	5000	4500	4500	4000	4000	3600	3600	2750
Displacement at n_{nom}	q_V	l/min	315	362	405	427	500	577	648	550
Torque Δp = 400 bar	T	Nm	401	512	573	679	796	1021	1146	1273

For order details regarding the GoTo products, see page 120.

External gear motor
AZMF

- Size 8 ... 22
- Series 1X
- Nominal pressure up to 280 bar
- Maximum displacement 22.5 cm³

Features

- Constant displacement
- Motors for one direction of rotation
- Reversible motors for 2- and 4-quadrant operation
- Plain bearings for high loads
- Output shafts according to ISO or SAE
- Option: With integrated speed sensor

Product description

With external gear motors, you distinguish between motors for one direction of rotation and reversible motors. External gear motors for one direction of rotation are set up asymmetrically, i.e. high- and low-pressure side are fixed. The reversible motors are a particularity: Their high- and low-pressure chambers are separated from the bearing and shaft seal ring chamber. The leakage incurring here is discharged via a separate leakage connection.

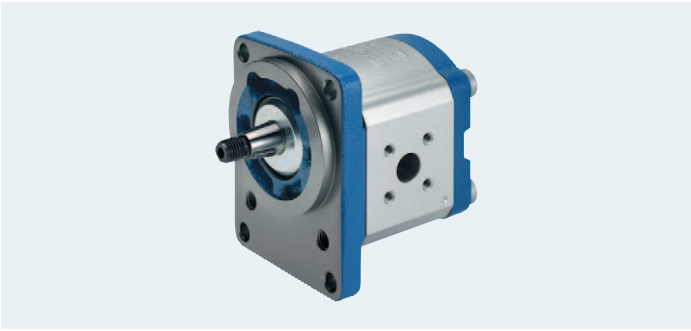
More detailed information:
Data sheet 14026

Technical data

Size	Size		8	11	14	16	19	22
Displacement	V_g	cm³	8	11	14	16	19	22.5
Maximum continuous pressure	p_1	bar	250	250	250	250	180	180
Maximum start-up pressure	p_2	bar	280	280	280	280	210	210
Speed at p_1	n_{min}	min⁻¹	700	600	500	500	500	500
	n_{max}	min⁻¹	4000	3500	3000	3000	3000	3000

For order details regarding the GoTo products, see page 121.

External gear motor
AZMN



- Size 20 ... 36
- Series 1X and 2X
- Nominal pressure up to 280 bar
- Maximum displacement 36 cm³

Features

- Constant displacement
- Motors for one direction of rotation
- Reversible motors for 2- and 4-quadrant operation
- Plain bearings for high loads
- Output shafts according to ISO or SAE
- Option: With integrated speed sensor

Product description

With external gear motors, you distinguish between motors for one direction of rotation and reversible motors. External gear motors for one direction of rotation are set up asymmetrically, i.e. high- and low-pressure side are fixed. The reversible motors are a particularity: Their high- and low-pressure chambers are separated from the bearing and shaft seal ring chamber. The leakage incurring here is discharged via a separate leakage connection.

More detailed information:
Data sheet 14026

Technical data

Size	Size		20	22	25	28	32	36
Displacement	V_g	cm³	20	22.5	25	28	32	36
Maximum continuous pressure	p_1	bar	250	210	210	210	180	160
Maximum start-up pressure	p_2	bar	280	240	240	240	210	190
Speed at p_1	n_{min}	min⁻¹	500	500	500	500	500	500
	n_{max}	min⁻¹	3000	3000	3000	3000	3000	3000

For order details regarding the GoTo products, see page 121.

On/off valves

Directional valves
Valves controlling the flow direction and thus the direction of movement or rotation of hydraulic actuators (directional seat valves or spool valves, direct operated or pilot operated).

Isolator valves
Valves that block the flow in one direction safely and leakage-free, thus allowing for free flow in the opposite direction (check valves and prefill valves).

Pressure valves
Valves having a pre-determined effect on the operating pressure in a system or a part of a system (pressure relief valves, pressure sequence valves, pressure cut-off valves and pressure reducing valves).

Flow control valves
Valves controlling the flow and thus the speed of hydraulic actuators (throttle valves and flow control valves).

Directional cartridge valves
2-way cartridge valves are elements that have been designed for a compact block design. The power part is installed in a receiving hole of the manifold according to ISO 7368 and closed with a control cover.

Check valves
Z1S

Features

- Sandwich plate valve
- Porting pattern according to ISO 4401
- One- and two-channel blocking function
- Perfect leak-tightness due to poppet made of high-performance plastic
- Corrosion-resistant surface on request

Product description

The valve type Z1S is a direct operated check valve in sandwich plate design. It is used for the leakage-free blocking in one direction and allows for free flow in the opposite direction. Its characteristic feature is the check valve installation set made of high-performance plastic. This ensures permanently high leak-tightness even at low operating pressures. In addition, the use of the valve with different hydraulic fluids is facilitated by the lack of internal seals.

More detailed information:
Data sheet 21534

Technical data

Operating pressure	p_{max}	bar	350
Cracking pressure		bar	0.5/1.5/3/5
Flow	$q_{V\,max}$	l/min	40

For ordering information for the GoTo products, see page 122.

Check valves
Z1S

- Size 10
- Component series 4X
- Maximum operating pressure 350 bar
- Maximum flow 100 l/min

Features

- Sandwich plate valve
- Porting pattern according to ISO 4401
- One- and two-channel blocking function
- Perfect leak-tightness due to poppet made of high-performance plastic
- Corrosion-resistant surface on request

Product description

The valve type Z1S is a direct operated check valve in sandwich plate design. It is used for the leakage-free blocking in one direction and allows for free flow in the opposite direction. Its characteristic feature is the check valve installation set made of high-performance plastic. This ensures permanently high leak-tightness even at low operating pressures. In addition, the use of the valve with different hydraulic fluids is facilitated by the lack of internal seals.

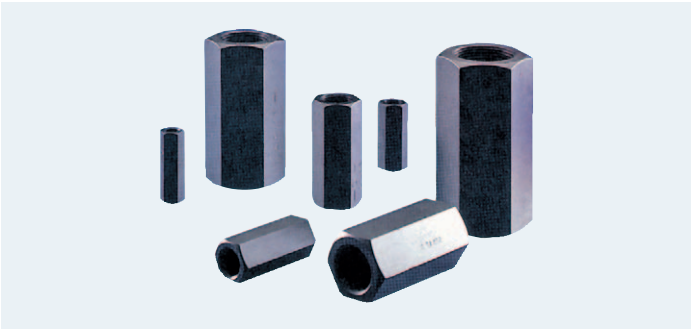
More detailed information:
Data sheet 21537

Technical data

Operating pressure	p_{max}	bar	350
Cracking pressure		bar	0.5/3/5
Flow	$q_{V\,max}$	l/min	100

For ordering information for the GoTo products, see page 122.

Check valves
S



- Sizes 6 ... 30
- Maximum operating pressure 315 bar
- Maximum flow 450 l/min

Features
- For threaded connection
- Leakage-free blocking in one direction
- Different cracking pressures
- Optional surface coating

Product description
The valve type S is a direct operated check valve in seat design. It is used for the leakage-free blocking in one direction and allows for free flow in the opposite direction.

More detailed information:
Data sheet 20375

Technical data

Size			6	8	10	15	20	25	30
Operating pressure	p_{max}	bar	315	315	315	315	315	315	315
Cracking pressure		bar	Without spring; 0.5/1.5/3/5						
Flow	$q_{V\,max}$	l/min	18	36	60	150	250	350	450

For order details regarding the GoTo products, see page 122.

Check valves, pilot operated Z2S

- Size 6
- Component series 6X
- Maximum operating pressure 315 bar
- Maximum flow 60 l/min

Features

- Sandwich plate valve
- Porting pattern according to ISO 4401
- For the leakage-free blocking of one or two actuator ports
- Different cracking pressures
- With pre-opening

Product description

The valve type Z2S is a pilot operated check valve in sandwich plate design. It is used for the leakage-free blocking of one or two actuator ports, even for long standstill times. The two-stage set-up with an increased control open ratio means even low pilot pressure can be released securely.

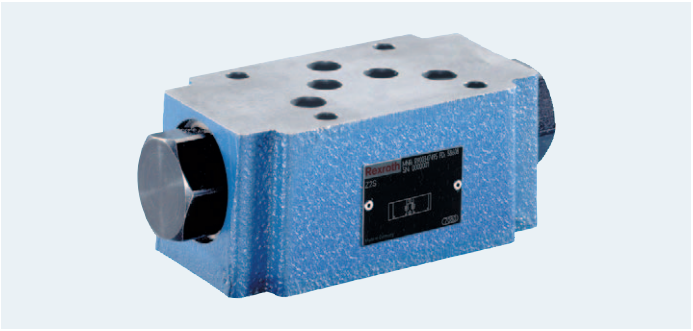
More detailed information:
Data sheet 21548

Technical data

Operating pressure	p_{max}	bar	315
Cracking pressure		bar	1.5/3/6
Flow	$q_{V\,max}$	l/min	60

For order details regarding the GoTo products, see page 122.

Check valves, pilot operated Z2S



- Size 10
- Component series 3X
- Maximum operating pressure 315 bar
- Maximum flow 120 l/min

Features

- Sandwich plate valve
- Porting pattern according to ISO 4401
- For the leakage-free blocking of one or two actuator ports
- Different cracking pressures
- With pre-opening

Product description

The valve type Z2S is a pilot operated check valve in sandwich plate design. It is used for the leakage-free blocking of one or two actuator ports, even for long standstill times. The two-stage set-up with an increased control open ratio means even low pilot pressure can be released securely.

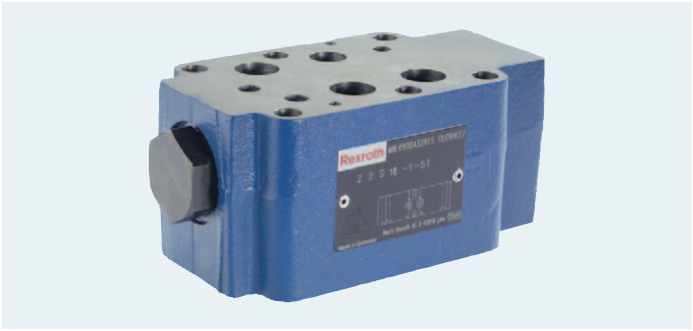
More detailed information:
Data sheet 21553

Technical data

Operating pressure	p_{max}	bar	315
Cracking pressure		bar	1.5/3/6/10
Flow	$q_{V\,max}$	l/min	120

For ordering information for the GoTo products, see page 122.

Check valves, pilot operated Z2S



- Size 16
- Component series 5X
- Maximum operating pressure 315 bar
- Maximum flow 300 l/min

Features

- Sandwich plate valve
- Porting pattern according to ISO 4401
- For the leakage-free blocking of one or two actuator ports
- Different cracking pressures
- With pre-opening

Product description

The valve type Z2S is a pilot operated check valve in sandwich plate design. It is used for the leakage-free blocking of one or two actuator ports, also in case of longer standstill times.

Due to the two-stage structure with increased control open ratio, safe unloading is also possible with lower pilot pressure.

More detailed information:
Data sheet 21558

Technical data

Operating pressure	p_{max}	bar	315
Cracking pressure		bar	3/5/7.5/10
Flow	$q_{V\,max}$	l/min	300

For ordering information for the GoTo products, see page 123.

Check valves, pilot operated Z2S

- Size 25
- Component series 5X
- Maximum operating pressure 315 bar
- Maximum flow 450 l/min

Features

- Sandwich plate valve
- Porting pattern according to ISO 4401
- For the leakage-free blocking of one or two actuator ports
- Different cracking pressures
- With pre-opening

Product description

The valve type Z2S is a pilot operated check valve in sandwich plate design. It is used for the leakage-free blocking of one or two actuator ports, also in case of longer standstill times.

Due to the two-stage structure with increased control open ratio, safe unloading is also possible with lower pilot pressure.

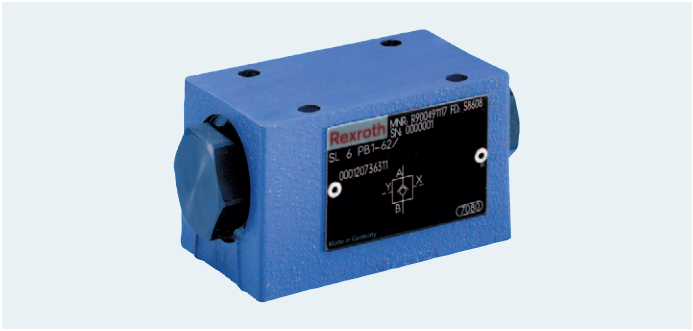
More detailed information:
Data sheet 21564

Technical data

Operating pressure	p_{max}	bar	315
Cracking pressure		bar	3/5/7.5/10
Flow	$q_{V\,max}$	l/min	450

For order details regarding the GoTo products, see page 123.

Check valves, pilot operated
SL



- Size 6
- Component series 6X
- Maximum operating pressure 315 bar
- Maximum flow 60 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 4401 and ISO 5781
- Pilot oil return external
- With or without pre-opening
- Different cracking pressures

Product description

The valve type SL is a pilot operated check valve in seat design. It is used for the leakage-free blocking of one actuator port.

Due to the pre-opening, there is a damped decompression of the pressurized liquid. Thus, possible switching shocks are avoided.

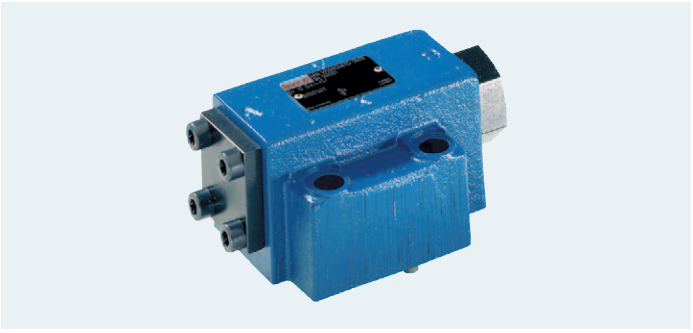
More detailed information:
Data sheet 21460

Technical data

Operating pressure	p_{max}	bar	315
Pilot pressure	p_{St}	bar	5 ... 315
Cracking pressure		bar	1.5/3/6/10
Flow	$q_{V\,max}$	l/min	60

For ordering information for the GoTo products, see page 123.

Check valves, pilot operated SV



- Size 10
- Component series 4X
- Maximum operating pressure 315 bar
- Maximum flow 150 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 5781
- For threaded connection
- With or without pre-opening
- Different cracking pressures

Product description

The valve type SV is a pilot operated check valve in seat design. It is used for the leakage-free blocking of one actuator port.

Due to the pre-opening, there is a damped decompression of the pressurized liquid. Thus, possible switching shocks are avoided.

More detailed information:
Data sheet 21468

Technical data

Operating pressure	p_{max}	bar	315
Pilot pressure	p_{St}	bar	5 ... 315
Cracking pressure		bar	1.5/3/6/10
Flow	$q_{V\,max}$	l/min	150

For ordering information for the GoTo products, see page 123.

Check valves, pilot operated
SV

- Size 32
- Component series 4X
- Maximum operating pressure 315 bar
- Maximum flow 550 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 5781
- For threaded connection
- With or without pre-opening
- Different cracking pressures

Product description

The valve type SV is a pilot operated check valve in seat design. It is used for the leakage-free blocking of one actuator port.

Due to the pre-opening, there is a damped decompression of the pressurized liquid. Thus, possible switching shocks are avoided.

More detailed information:
Data sheet 21468

Technical data

Operating pressure	p_{max}	bar	315
Pilot pressure	p_{St}	bar	5 ... 315
Cracking pressure		bar	2.5/5/8/10
Flow	$q_{V\,max}$	l/min	550

For ordering information for the GoTo products, see page 123.

Check valves, pilot operated SL

- Size 10
- Component series 4X
- Maximum operating pressure 315 bar
- Maximum flow 150 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 5781
- For threaded connection
- With or without pre-opening
- Different cracking pressures

Product description

The valve type SL is a pilot operated check valve in seat design. It is used for the leakage-free blocking of one actuator port.

Due to the pre-opening, there is a damped decompression of the pressurized liquid. Thus, possible switching shocks are avoided.

More detailed information:
Data sheet 21468

Technical data

Operating pressure	p_{max}	bar	315
Pilot pressure	p_{St}	bar	5 ... 315
Cracking pressure		bar	1.5/3/6/10
Flow	$q_{V\,max}$	l/min	150

For ordering information for the GoTo products, see page 123.

Check valves, pilot operated
SL

- Size 20
- Component series 4X
- Maximum operating pressure 315 bar
- Maximum flow 350 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 5781
- For threaded connection
- With or without pre-opening
- Different cracking pressures

Product description

The valve type SL is a pilot operated check valve in seat design. It is used for the leakage-free blocking of one actuator port.

Due to the pre-opening, there is a damped decompression of the pressurized liquid. Thus, possible switching shocks are avoided.

More detailed information:
Data sheet 21468

Technical data

Operating pressure	p_{max}	bar	315
Pilot pressure	p_{St}	bar	5 ... 315
Cracking pressure		bar	2.5/5/7.5/10
Flow	$q_{V\,max}$	l/min	350

For ordering information for the GoTo products, see page 123.

Check valves, pilot operated SL

- Size 32
- Component series 4X
- Maximum operating pressure 315 bar
- Maximum flow 550 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 5781
- For threaded connection
- With or without pre-opening
- Different cracking pressures

Product description

The valve type SL is a pilot operated check valve in seat design. It is used for the leakage-free blocking of one actuator port.

Due to the pre-opening, there is a damped decompression of the pressurized liquid. Thus, possible switching shocks are avoided.

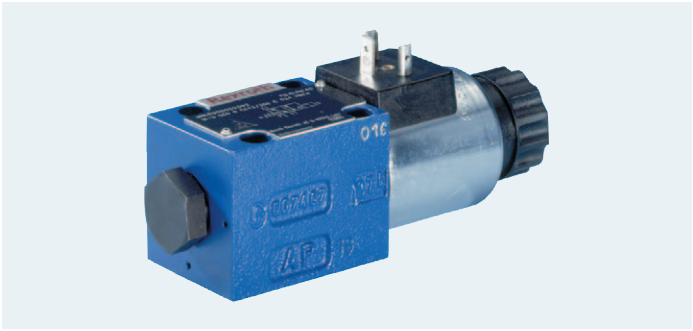
More detailed information:
Data sheet 21468

Technical data

Operating pressure	p_{max}	bar	315
Pilot pressure	p_{St}	bar	5 ... 315
Cracking pressure		bar	2.5/5/8/10
Flow	$q_{V\,max}$	l/min	550

For ordering information for the GoTo products, see page 123.

Directional seat valves, direct operated, with solenoid actuation SED



- Size 6
- Component series 1X
- Maximum operating pressure 350 bar
- Maximum flow 25 l/min

Features

- 2/2-, 3/2- or 4/2-way version
- Porting pattern according to ISO 4401
- Blocked connection is leak-tight
- Solenoids with detachable coil
- The coil can be changed without having to open the pressure-tight chamber
- Safe switching with longer standstill periods under pressure

Product description

The valve type SED is a direct operated directional seat valve with solenoid actuation. It controls start, stop and direction of flow.

Directional seat valves connect or isolate the connections by lowering or raising a sealing element (poppet, ball). Isolation is leakage-free.

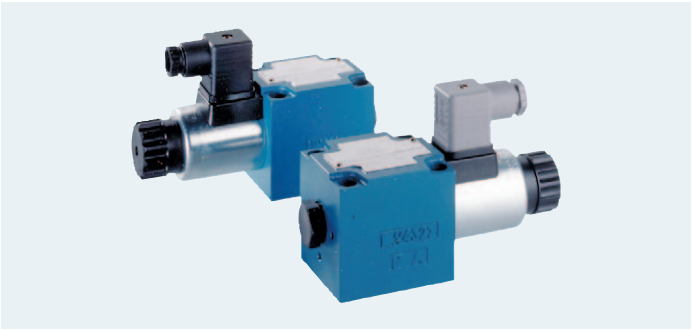
More detailed information:
Data sheet 22049

Technical data

Operating pressure	p_{max}	bar	350
Flow	$q_{V\,max}$	l/min	25

For ordering information for the GoTo products, see page 123.

Directional seat valves, direct operated, with solenoid actuation SED



- Size 10
- Component series 1X
- Maximum operating pressure 350 bar
- Maximum flow 40 l/min

Features

- 3/2- or 4/2-way version
- Porting pattern according to ISO 4401
- Blocked connection is leak-tight
- Solenoids with detachable coil
- The coil can be changed without having to open the pressure-tight chamber
- Safe switching with longer standstill periods under pressure

Product description

The valve type SED is a direct operated directional seat valve with solenoid actuation. It controls start, stop and direction of flow.
Directional seat valves connect or isolate the connections by lowering or raising a sealing element (poppet, ball). Isolation is leakage-free.

More detailed information:
Data sheet 22045

Technical data

Operating pressure	p_{max}	bar	350
Flow	$q_{V\,max}$	l/min	40

For ordering information for the GoTo products, see page 123.

Directional seat valves, direct operated, with solenoid actuation SEW

- Size 6
- Component series 3X
- Maximum operating pressure 420/630 bar
- Maximum flow 25 l/min

Features

- 2/2-, 3/2- or 4/2-way version
- Porting pattern according to ISO 4401
- Blocked connection is leak-tight
- Solenoids with detachable coil
- The coil can be changed without having to open the pressure-tight chamber
- Safe switching with longer standstill periods under pressure

Product description

The valve type SEW is a direct operated directional seat valve with solenoid actuation. It controls start, stop and direction of flow.

Directional seat valves connect or isolate the connections by lowering or raising a sealing element (poppet, ball). Isolation is leakage-free.

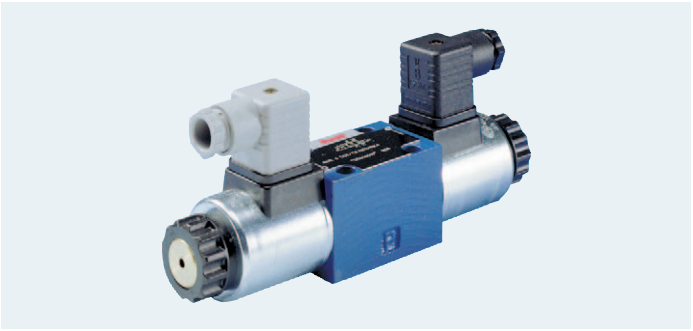
More detailed information:
Data sheet 22058

Technical data

Operating pressure	p_{max}	bar	420/630
Flow	$q_{V\,max}$	l/min	25

For ordering information for the GoTo products, see page 123.

Directional spool valves, direct operated, with solenoid actuation WE



- Size 6
- Component series 6X
- Maximum operating pressure 350 bar
- Maximum flow 80 l/min

Features

- 4/3-, 4/2- or 3/2-way version
- High-power solenoid
- Porting pattern according to ISO 4401
- Wet-pin DC or AC solenoids with detachable coil
- The coil can be changed without having to open the pressure-tight chamber
- Spool position monitoring

Product description

The valve type WE is a direct operated directional spool valve with solenoid actuation. It controls start, stop and direction of the flow.

Directional spool valves connect or isolate the connections by moving a control spool within a housing bore.

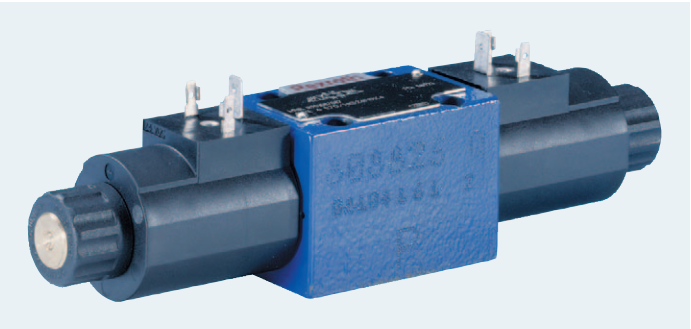
More detailed information:
Data sheet 23178

Technical data

Operating pressure	p_{max}	bar	350
DC flow	$q_{V\,max}$	l/min	80
AC flow	$q_{V\,max}$	l/min	60

For ordering information for the GoTo products, see page 123.

Directional spool valves, direct operated, with solenoid actuation WE



- Size 6
- Component series 7X
- Maximum operating pressure 315 bar
- Maximum flow 60 l/min

Features

- 4/3-, 4/2- or 3/2-way version
- Standard solenoid
- Porting pattern according to DIN 24340 form A
- Wet-pin DC solenoids
- The coil can be changed without having to open the pressure-tight chamber

Product description

The valve type WE is a direct operated directional spool valve with solenoid actuation. It controls start, stop and direction of the flow.

Directional spool valves connect or isolate the connections by moving a control spool within a housing bore.

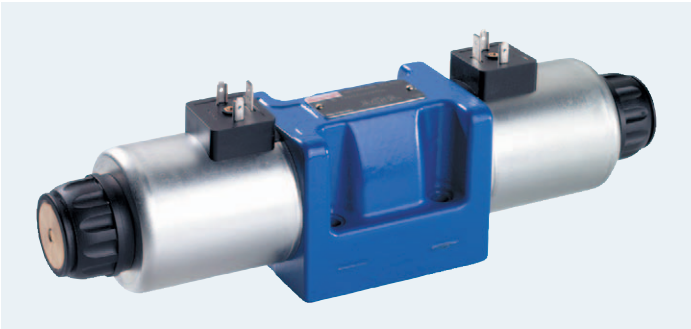
More detailed information:
Data sheet 23164

Technical data

Operating pressure	p_{max}	bar	315
Flow	$q_{V\,max}$	l/min	60

For ordering information for the GoTo products, see page 124.

Directional spool valves, direct operated, with solenoid actuation WE



- Size 10
- Component series 5X
- Maximum operating pressure 350 bar
- Maximum flow 150 l/min

Features

- 4/3-, 4/2- or 3/2-way version
- High-power solenoid
- Porting pattern according to ISO 4401
- Wet-pin DC solenoids with detachable coil
- The coil can be changed without having to open the pressure-tight chamber
- Central connection possible via double mating connector

Product description

The valve type WE is a direct operated directional spool valve with solenoid actuation. It controls start, stop and direction of the flow.

Directional spool valves connect or isolate the connections by moving a control spool within a housing bore.

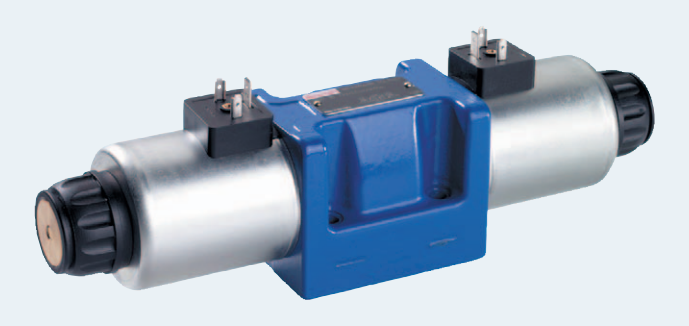
More detailed information:
Data sheet 23340

Technical data

Operating pressure	p_{max}	bar	350
Flow	$q_{V\,max}$	l/min	150

For ordering information for the GoTo products, see page 124.

Directional spool valves, direct operated, with solenoid actuation 5-.WE



- 5-chamber version
- Size 10
- Component series 5X
- Maximum operating pressure 420 bar
- Maximum flow 150 l/min

Features

- 4/3-, 4/2- or 3/2-way version
- High-power solenoid
- Porting pattern according to ISO 4401
- Wet-pin DC solenoids with detachable coil
- The coil can be changed without having to open the pressure-tight chamber
- Central connection possible via double mating connector
- Spool position monitoring

Product description

The valve type 5-.WE is a direct operated 5-chamber directional spool valve with solenoid actuation influencing the switching time. It controls start, stop and direction of the flow.

Directional spool valves connect or isolate the connections by moving a control spool within a housing bore.

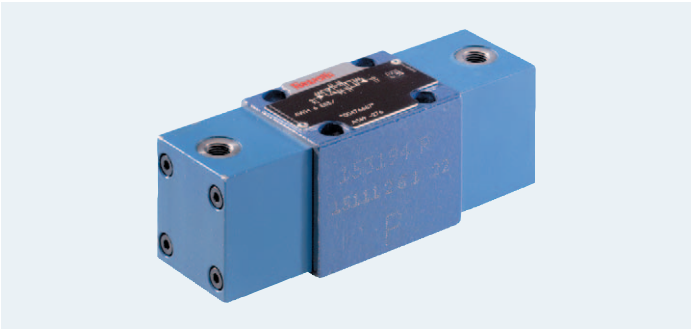
More detailed information:
Data sheet 23352

Technical data

Operating pressure	p_{max}	bar	420
Flow	$q_{V\,max}$	l/min	150

For ordering information for the GoTo products, see page 125.

Directional spool valves, direct operated, with hydraulic actuation
WH and WP



- Size 6
- Component series 5X
- Maximum operating pressure 315 bar
- Maximum flow 60 l/min

Features

- 4/3-, 4/2- or 3/2-way version
- Porting pattern according to ISO 4401
- Types of actuation:
  - Pneumatic
  - Hydraulic
- Spool position monitoring

Product description

The valve type WH is a direct operated directional spool valve with hydraulic actuation. It controls start, stop and direction of the flow.
Directional spool valves connect or isolate the connections by moving a control spool within a housing bore.

More detailed information:
Data sheet 22282

Technical data

Operating pressure	p_{max}	bar	315
Flow	$q_{V\,max}$	l/min	60

For ordering information for the GoTo products, see page 125.

Directional spool valves, direct operated, with mechanical operation or hydraulic actuation WMR, WMRZ, WMU, WMM, WMD and WMDA

- Size 6
- Component series 5X, 6X
- Maximum operating pressure 315 bar
- Maximum flow 60 l/min

Features

- 4/3-, 4/2- or 3/2-way version
- Porting pattern according to ISO 4401
- Types of actuation:
  - Roller plunger
  - Hand lever
  - Rotary knob
  - Lockable rotary knob
- Spool position monitoring

Product description

The valve type WM is a direct operated directional spool valve with mechanical or manual operation. It controls start, stop and direction of the flow.
Directional spool valves connect or isolate the connections by moving a control spool within a housing bore.

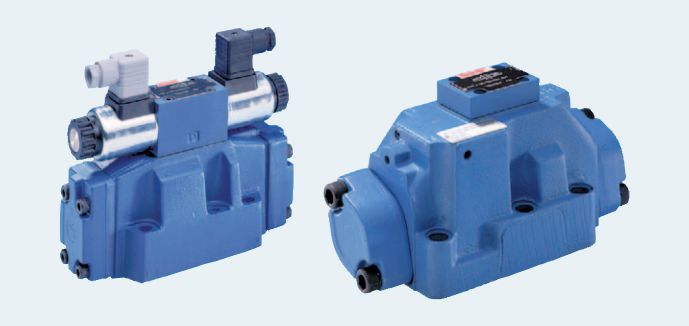
More detailed information:
Data sheet 22280

Technical data

Operating pressure	p_{max}	bar	315
Flow	$q_{V\,max}$	l/min	60

For order details regarding the GoTo products, see page 125.

Directional spool valves, pilot operated, with hydraulic or electro-hydraulic actuation WH and WEH



- Size 10 ... 32
- Component series 4X, 6X, 7X
- Maximum operating pressure 350 bar
- Maximum flow 1100 l/min

Features

- 4/3-, 4/2- or 3/2-way version
- Porting pattern according to ISO 4401
- Types of actuation:
  - Electro-hydraulic
  - Hydraulic
- Spring or pressure centering, spring end position or hydraulic end position
- Stroke setting at main valve
- Switching time adjustment and spool position monitoring

Product description

The valve of type WEH is a pilot operated directional spool valve with electro-hydraulic actuation, type WH with hydraulic actuation. It controls start, stop and direction of the flow.

Directional spool valves connect or isolate the connections by moving a control spool in a housing bore.

More detailed information:
Data sheet 24751

Technical data

Size			10	16	(22)	25	32
Operating pressure	p_{max}	bar	350/280	350/280	350/280	350	350/280
Flow	$q_{V\,max}$	l/min	160	300	450	650	1100

For order details regarding the GoTo products, see page 125.

Pressure relief valves, direct operated
DBD

- Size 6 ... 30
- Component series 1X
- Maximum operating pressure 630 bar
- Maximum flow 330 l/min

Features

- For subplate mounting
- For threaded connection
- As screw-in cartridge valve
- Adjustment types:
  - Bushing with hexagon and protective cap
  - Rotary knob / hand wheel
  - Lockable rotary knob
- Type-examination tested safety valves according to Pressure Equipment Directive 97/23/EC

Product description

The valve type DBD is a direct operated pressure relief valve in seat design. It is used to limit a system pressure (inlet pressure) to a specified maximum value. If this adjustable maximum value is reached, the pressure relief valve will return the excessive flow to the tank.

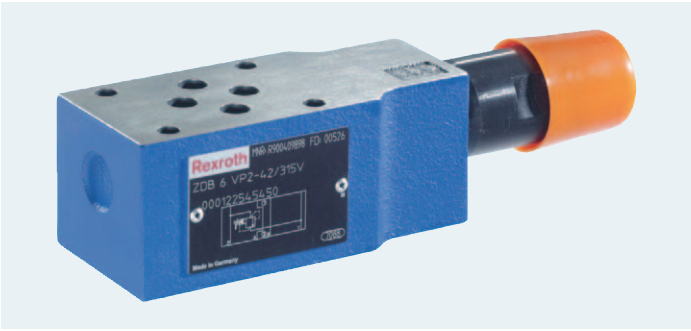
More detailed information:
Data sheet 25402

Technical data

Size			**6**	**8**	**10**	**15**	**20**	**25**	**30**
Operating pressure	p_{max}	bar	400	400	630	400	400	315	315
Flow	$q_{V\,max}$	l/min	50	120	120	250	250	330	330

For ordering information for the GoTo products, see page 125.

Pressure relief valves, pilot operated ZDB and Z2DB



- Size 6
- Component series 4X
- Maximum operating pressure 315 bar
- Maximum flow 60 l/min

Features

- Sandwich plate valve
- Porting pattern according to ISO 4401
- With 1 or 2 pressure valve cartridges
- 4 pressure ratings
- 5 circuit options
- Adjustment types:
  - Rotary knob
  - Bushing with hexagon and protective cap
  - Lockable rotary knob with scale
  - Rotary knob with scale

Product description

The valve type Z.DB is a pilot operated pressure relief valve in sandwich plate design. It is used to limit a system pressure (inlet pressure) to a specified maximum value. If this adjustable maximum value is reached, the pressure relief valve will return the excessive flow to the tank.

More detailed information:
Data sheet 25751

Technical data

Operating pressure	p_{max}	bar	315
Flow	$q_{V\,max}$	l/min	60

For order details regarding the GoTo products, see page 125.

Pressure reducing valves, direct operated
DR

- Size 6
- Component series 5X
- Maximum operating pressure 315 bar
- Maximum flow 60 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 4401
- 5 pressure ratings
- Adjustment types:
  - Rotary knob
  - Grub screw with hexagon and protective cap
  - Lockable rotary knob with scale
  - Rotary knob with scale
- Check valve, optional

Product description

The valve type DR is a direct operated pressure reducing valve in 3-way version. It is used to keep the output pressure (actuator pressure, secondary pressure) at a constant value that lies below the variable pressure in the main circuit (inlet pressure, primary pressure).

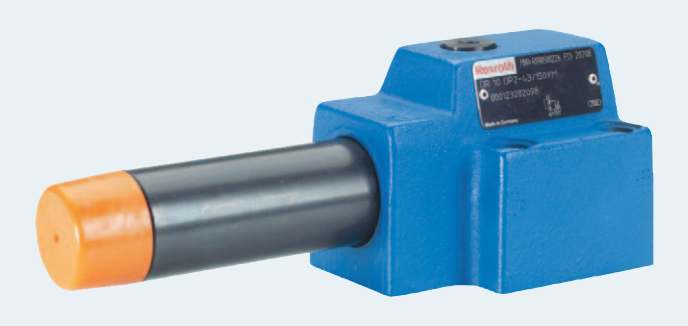
More detailed information:
Data sheet 26564

Technical data

Operating pressure	p_{max}	bar	315
Flow	$q_{V\,max}$	l/min	60

For order details regarding the GoTo products, see page 125.

Pressure reducing valves, direct operated
DR



- Size 10
- Component series 4X
- Maximum operating pressure 210 bar
- Maximum flow 80 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 5781
- 4 pressure ratings
- Adjustment types:
  - Rotary knob
  - Grub screw with hexagon and protective cap
  - Lockable rotary knob with scale
  - Rotary knob with scale
- Check valve, optional

Product description

The valve type DR is a direct operated pressure reducing valve in 3-way version. It is used to keep the output pressure (actuator pressure, secondary pressure) at a constant value that lies below the variable pressure in the main circuit (inlet pressure, primary pressure).

More detailed information:
Data sheet 26580

Technical data

Operating pressure	p_{max}	bar	210
Flow	$q_{V\,max}$	l/min	80

For order details regarding the GoTo products, see page 125.

Pressure reducing valves, direct operated
ZDR

- Size 6
- Component series 4X
- Maximum operating pressure 210 bar
- Maximum flow 50 l/min

Features

- Sandwich plate valve
- Porting pattern according to ISO 4401
- 4 pressure ratings
- Adjustment types:
  - Rotary knob
  - Bushing with hexagon and protective cap
  - Lockable rotary knob with scale
  - Rotary knob with scale
- Pressure reduction in channel A, B or P
- Check valve, optional

Product description

The valve type ZDR is a direct operated pressure reducing valve in sandwich plate design. It is used to keep the output pressure (actuator pressure, secondary pressure) at a constant value that lies below the variable pressure in the main circuit (inlet pressure, primary pressure).

More detailed information:
Data sheet 26570

Technical data

Operating pressure	p_{max}	bar	210
Flow	$q_{V\,max}$	l/min	50

For order details regarding the GoTo products, see page 126.

Pressure reducing valves, direct operated
ZDR

- Size 10
- Component series 5X
- Maximum operating pressure 210 bar
- Maximum flow 80 l/min

Features

- Sandwich plate valve
- Porting pattern according to ISO 4401
- 4 pressure ratings
- Adjustment types:
  - Rotary knob
  - Bushing with hexagon and protective cap
  - Lockable rotary knob with scale
  - Rotary knob with scale
- Pressure reduction in channel A, B or P
- Check valve, optional

Product description

The valve type ZDR is a direct operated pressure reducing valve in sandwich plate design. It is used to keep the output pressure (actuator pressure, secondary pressure) at a constant value that lies below the variable pressure in the main circuit (inlet pressure, primary pressure).

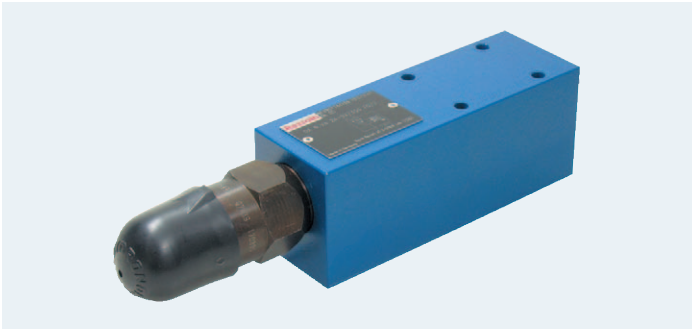
More detailed information:
Data sheet 26585

Technical data

Operating pressure	p_{max}	bar	210
Flow	$q_{V\,max}$	l/min	80

For order details regarding the GoTo products, see page 126.

Pressure cut-off valves, pilot operated
DA



- Size 6
- Component series 5X
- Maximum operating pressure 350 bar
- Maximum flow 40 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 4401
- 4 pressure ratings
- Adjustment type: Bushing with hexagon and protective cap
- Switching pressure differential adjustable (10 % ... 50 % of the nominal value)

Product description

The valve type DA is a pilot operated pressure cut-off valve with steplessly adjustable switching pressure differential. It is used to switch the pump flow to depressurized circulation as soon as the pressure accumulator has achieved its charging pressure.

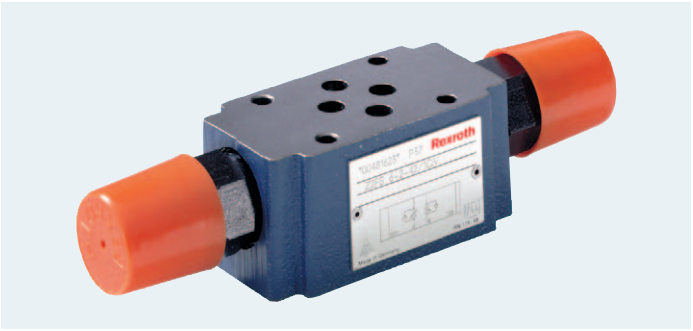
More detailed information:
Data sheet 26405

Technical data

Operating pressure	p_{max}	bar	210
Flow	$q_{V\,max}$	l/min	40

For order details regarding the GoTo products, see page 126.

Throttle check valves
Z2FS



- Size 6
- Component series 4X
- Maximum operating pressure 315 bar
- Maximum flow 80 l/min

Features

- Sandwich plate valve
- Porting pattern according to ISO 4401
- Adjustment types:
  - Setscrew with lock nut and protective cap
  - Lockable rotary knob with scale
  - Spindle with internal hexagon and scale
  - Rotary knob with scale
- For supply or discharge throttling

Product description

The valve type Z2FS is a throttle check valve in sandwich plate design. It is used for the main or pilot flow limitation of one or two actuator ports.
Two throttle check valves aligned symmetrically to each other limit flows in one direction and allow free return flow in the opposite direction.

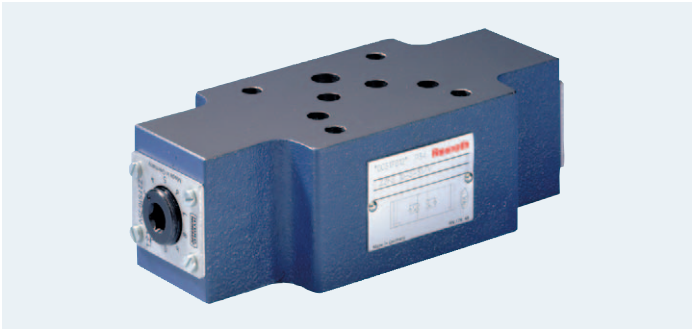
More detailed information:
Data sheet 27506

Technical data

Operating pressure	p_{max}	bar	315
Flow	$q_{V\,max}$	l/min	80

For ordering information for the GoTo products, see page 126.

Throttle check valves
Z2FS



- Size 10
- Component series 3X
- Maximum operating pressure 315 bar
- Maximum flow 160 l/min

Features

- Sandwich plate valve
- Porting pattern according to ISO 4401
- Adjustment types:
  - Lockable rotary knob with scale
  - Spindle with internal hexagon and scale
  - Rotary knob with scale
- For supply or discharge throttling

Product description

The valve type Z2FS is a throttle check valve in sandwich plate design. It is used for the main or pilot flow limitation of one or two actuator ports.

Two throttle check valves aligned symmetrically to each other limit flows in one direction and allow free return flow in the opposite direction.

More detailed information:
Data sheet 27518

Technical data

Operating pressure	p_{max}	bar	315
Flow	$q_{V\,max}$	l/min	160

For ordering information for the GoTo products, see page 126.

Throttle check valves
Z2FS

- Size 16
- Component series 3X
- Maximum operating pressure 350 bar
- Maximum flow 250 l/min

Features
- Sandwich plate valve
- Porting pattern according to ISO 4401
- Adjustment type: Spindle with internal hexagon
- For supply or discharge throttling

Product description
The valve type Z2FS is a throttle check valve in sandwich plate design. It is used for the main or pilot flow limitation of one or two actuator ports.
Two throttle check valves aligned symmetrically to each other limit flows in one direction and allow free return flow in the opposite direction.

More detailed information:
Data sheet 27526

Technical data

Operating pressure	p_{max}	bar	350
Flow	$q_{V\,max}$	l/min	250

For ordering information for the GoTo products, see page 126.

Throttle check valves
Z2FS

- Size 25
- Component series 3X
- Maximum operating pressure 350 bar
- Maximum flow 360 l/min

Features

- Sandwich plate valve
- Porting pattern according to ISO 4401
- Adjustment type: Spindle with internal hexagon
- For supply or discharge throttling

Product description

The valve type Z2FS is a throttle check valve in sandwich plate design. It is used for the main or pilot flow limitation of one or two actuator ports.

Two throttle check valves aligned symmetrically to each other limit flows in one direction and allow free return flow in the opposite direction.

More detailed information:
Data sheet 27536

Technical data

Operating pressure	p_{max}	bar	350
Flow	$q_{V\,max}$	l/min	360

For ordering information for the GoTo products, see page 126.

Throttle and throttle check valves MG and MK

- Sizes 6 ... 30
- Component series 1X
- Maximum operating pressure 315 bar
- Maximum flow 400 l/min

Features

- For pipeline installation
- Pressure- and viscosity-dependent
- Type MG: Throttling in both directions of flow
- Type MK: Throttling in one direction of flow, free flow in opposite direction

Product description

The valve types MG and MK are pressure- and viscosity-dependent throttle and throttle check valves.
In type MG valves, flow is throttled in both directions. By rotating the sleeve, the cross-section of the throttling point can be steplessly changed.
In type MK valves, the integrated check valve only throttles the flow in one direction.

More detailed information:
Data sheet 27219

Technical data

Size			6	8	10	15	20	25	30
Operating pressure	p_{max}	bar	315	315	315	315	315	315	315
Flow	$q_{V\,max}$	l/min	15	30	50	120	200	300	400

For ordering information for the GoTo products, see page 127.

2-way flow control valves
2FRM

- Size 6
- Component series 3X
- Maximum operating pressure 315 bar
- Maximum flow 32 l/min

Features

- For subplate mounting
- Porting pattern according to DIN 24340 form A
- External closing of the pressure compensator, optional
- As threaded connection for control panel installation
- Check valve, optional
- Adjustment types:
  - Rotary knob with scale
  - Lockable rotary knob with scale

Product description

The valve type 2FRM is a 2-way flow control valve with mechanical operation. It is used for maintaining a constant flow, independent of pressure and temperature.
In order to control a flow through the valve in both directions, a rectifier sandwich plate type Z4S may be fitted below the flow control valve.

More detailed information:
Data sheet 28163

Technical data

Operating pressure	p_{max}	bar	315
Flow	$q_{V\,max}$	l/min	32

For ordering information for the GoTo products, see page 127.

2-way flow control valves 2FRM, 2FRH and 2FRW

- Sizes 10 and 16
- Component series 3X
- Maximum operating pressure 315 bar
- Maximum flow 160 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 6263
- Types of actuation:
  - Mechanical
  - Hydraulic
  - Electro-hydraulic
- Pressure compensator stroke limitation for reducing the start-up jump, optional

Product description

The valve type 2FR is a 2-way flow control valve with mechanical, hydraulic or electro-hydraulic operation. It is used for maintaining a constant flow, independent of pressure and temperature.
In order to control a flow through the valve in both directions, a rectifier sandwich plate type Z4S may be fitted below the flow control valve.

More detailed information:
Data sheet 28389

Technical data

Size			10	16
Operating pressure	p_{max}	bar	315	315
Flow	$q_{V\,max}$	l/min	50	160

For order details regarding the GoTo products, see page 127.

2-way cartridge valves, directional function
LC (installation kit)

- Size 16 ... 160
- Component series 2X, 6X, 7X
- Maximum operating pressure 420 bar
- Maximum flow 25,000 l/min

Features

- Standard installation according to ISO 7368 (up to size 100)
- Standard area ratios 2:1 and 14.3:1
- "High flow" by default
- Valve poppet with and without damping nose

Product description

The 2-way cartridge valve basically consists of an installation kit (LC) and a control cover (LFA).
The installation kit with connections A and B is installed into the manifold in a receiving hole standardized according to ISO 7368 and closed with a control cover. In most cases, the control cover is simultaneously the connection from the control side of the installation kit to the pilot control valves.

More detailed information:
Data sheet 21010

Technical data

Size			16	25	32	40	50	63	80	100	125	160
Operating pressure	p_{max}	bar	420	420	420	420	420	420	420	420	420	420
Flow	$q_{V\,max}$	l/min	320	800	1300	2200	2900	4000	6200	10600	16000	25000

For order details regarding the GoTo products, see page 127.

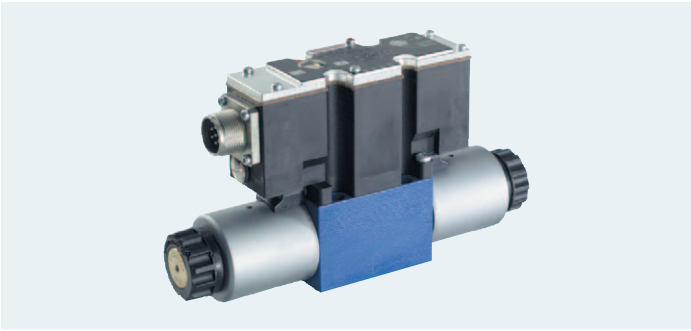
Proportional servo valves

Proportional valves
Proportional valves are used as directional valves, pressure valves and flow control valves. With their integrated electronics (OBE), they reduce the required wiring and simplify the handling while at the same time providing exact reproducibility and a low manufacturing tolerance.

High-response valves
High-response valves are compact and robust. They boast high dynamics and closed-loop accuracy in position, velocity, pressure and force control applications.

Servo valves
Servo valves are hydraulically pilot operated 2- or 3-step directional valves. Thanks to their high dynamics, they are mainly used to control position, force or pressure and velocity.

Proportional directional valves, direct operated, without electrical position feedback 4WRA and 4WRAE



- Sizes 6 ... 10
- Component series 2X
- Maximum operating pressure 315 bar
- Maximum flow 75 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 4401
- Control of flow direction and size
- With integrated electronics (OBE) (type 4WRAE)
- Spring-centered control spool

Product description

The valve type 4WRA(E) is a direct operated proportional directional valve for subplate mounting.
Operation is effected by means of proportional solenoids.
The solenoids are either controlled via external or via integrated electronics (OBE).

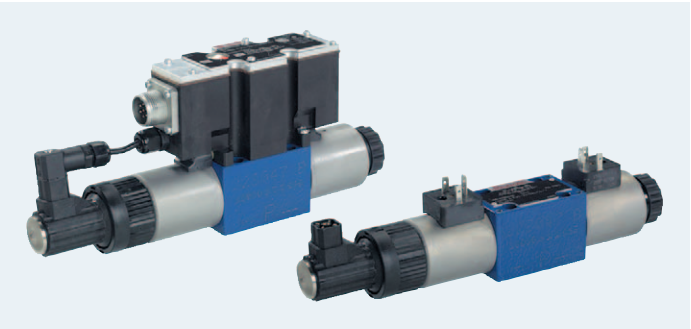
More detailed information:
Data sheet 29055

Technical data

Size			**6**	**10**
Operating pressure	p_{max}	bar	315	315
Rated flow	$q_{V\ nom}$	l/min	7/15/30	30/60
Maximum hysteresis		%	≤ 5	≤ 5
Range of inversion		%	≤ 1	≤ 1
Response sensitivity		%	≤ 0.5	≤ 0.5
OBE operating voltage	*U*	V	24	24
OBE command value signal	*U*	V	±10	±10
	I	mA	4 ... 20	4 ... 20
Control electronics (type WRA)		Card, analog	VT-VSPA2-1	VT-VSPA2-1
		Card, digital	VT-VSPD-1	VT-VSPD-1
		Module, analog	VT-MSPA2-1	VT-MSPA2-1

For order details regarding the GoTo products, see page 129.

Proportional directional valves, direct operated, with electrical position feedback 4WRE and 4WREE



- Sizes 6 ... 10
- Component series 2X
- Maximum operating pressure 315 bar
- Maximum flow 180 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 4401
- Control of flow direction and size
- With electrical position feedback
- With integrated electronics (OBE) (type 4WREE)
- Spring-centered control spool

Product description

The valve type 4WRE(E) is a direct operated proportional directional valve with electrical position feedback for subplate mounting.
Operation is effected by means of proportional solenoids. The solenoids are either controlled via external or via integrated electronics (OBE).

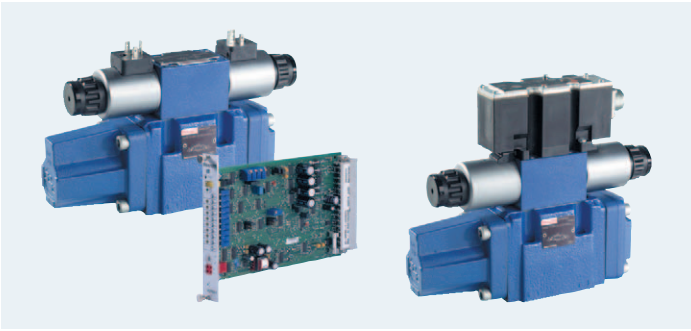
More detailed information:
Data sheet 29061

Technical data

Size			**6**	**10**
Operating pressure	p_{max}	bar	315	315
Rated flow	$q_{V\ nom}$	l/min	4/8/16/32	25/50/75
Maximum hysteresis		%	≤ 0.1	≤ 0.1
Range of inversion		%	≤ 0.05	≤ 0.05
Response sensitivity		%	≤ 0.05	≤ 0.05
OBE operating voltage	*U*	V	24	24
OBE command value signal	*U*	V	±10	±10
	I	mA	4 ... 20	4 ... 20
Control electronics (type WRE)	"4/3"	Card, analog	VT-VRPA2-1	VT-VRPA2-2
		Card, digital	VT-VRPD-2	VT-VRPD-2
		Module, analog	VT-MRPA2-1	VT-MRPA2-1
	"4/2"	Card, analog	VT-MRPA1-1	VT-MRPA1-1

For order details regarding the GoTo products, see page 129.

Proportional directional valves, pilot operated, without electrical position feedback 4WRZ(E)



- Size 10 ... 52
- Component series 7X
- Maximum operating pressure 350 bar
- Maximum flow 2800 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 4401
- With integrated electronics (OBE) with type 4WRZEM
- Pilot control by means of a 3-way pressure reducing valve
- Spring-centered main control spool with anti-rotation feature
- Different control spool overlaps possible

Product description

The valve type 4WRZ(E) is a pilot operated proportional directional valve for subplate mounting.
Operation is effected by means of proportional solenoids.
The solenoids are either controlled via external or via integrated electronics (OBE).

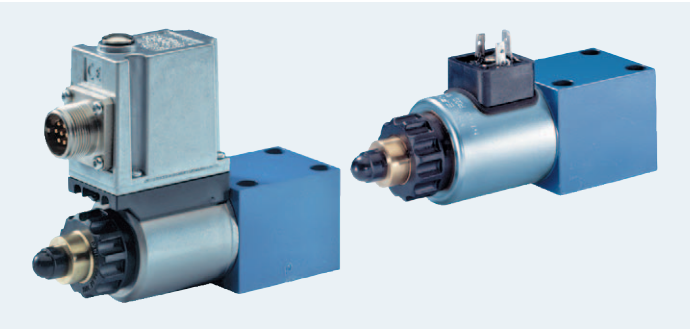
More detailed information:
Data sheet 29115

Technical data

Size			10	16	25	32	52
Operating pressure (port P)	p_{max}	bar	315	350	350	350	350
Rated flow	$q_{V\,nom}$	l/min	25, 50, 85	100, 125, 150, 180	220, 325	360, 520	1000
Maximum hysteresis		%	6	6	6	6	6
OBE operating voltage	U	V	24	24	24	24	24
OBE command value signal	U	V	±10	±10	±10	±10	±10
	I	mA	4 ... 20	4 ... 20	4 ... 20	4 ... 20	4 ... 20
Control electronics (type WRZ)		Card, analog	VT-VSPA2-1				
		Card, digital	VT-VSPD-1				
		Module, analog	VT 11118				

For order details regarding the GoTo products, see page 129.

Proportional pressure relief valve, direct operated, without/with integrated electronics (OBE) DBET(E)



- Size 6
- Component series 6X
- Maximum operating pressure 420 bar
- Maximum flow 2 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 4401
- Valve for limiting a system pressure
- With integrated electronics (OBE) with type DBETE
- Little manufacturing tolerance of the command value pressure characteristic curve

Product description

The valve type DBET(E) is a direct operated pressure relief valve in seat design.
Operation by means of a proportional solenoid with central thread and detachable coil. The solenoids are either controlled via external or via integrated electronics (OBE).
Dependent on the electric command value, the system pressure to be limited can be steplessly set.

More detailed information:
Data sheet 29162

Technical data

Operating pressure	p_{max}	bar	420
Flow	$q_{V\,max}$	l/min	2
Maximum hysteresis		%	< 4
Step response 0 ... 100 %	T_u+T_g	ms	80
Step response 100 ... 0 %	T_u+T_g	ms	80
OBE operating voltage	U	V	24
OBE command value signal	U	V	0 ... 10
	I	mA	4 ... 20
Control electronics (type DBET)		Card, analog	VT-VSPA1-2
		Card, digital	VT-VSPD-1
		Module, analog	VT-MSPA1-1
		Connector, analog	VT-SSPA1-1

For order details regarding the GoTo products, see page 129.

Proportional pressure relief valve, pilot operated DBEM(E)

- Size 10 ... 32
- Component series 7X
- Maximum operating pressure 350 bar
- Maximum flow 700 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 6264
- Valve for limiting a system pressure
- Integrated electronics (OBE) for type DBEME
- Little manufacturing tolerance of the command value pressure characteristic curve
- Valve and control electronics from a single source
- Maximum pressure limitation

Product description

The valve type DBEM(E) is a pilot operated pressure relief valve.

Operation by means of a proportional solenoid with central thread and detachable coil. The solenoid is either controlled via external or via integrated electronics (OBE).

Dependent on the electric command value, the system pressure to be limited can be steplessly set.

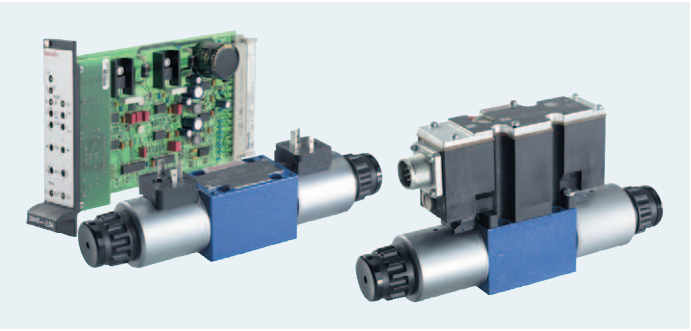
More detailed information:
Data sheet 29361

Technical data

Size			**10**	**25**	**32**
Operating pressure	p_{max}	bar	350	350	350
Flow	$q_{V\,max}$	l/min	275	550	700
Maximum hysteresis		%	≤ 5	≤ 5	≤ 5
Step response 10 to 90 %	T_u+T_g	ms	100	100	100
Step response 90 to 10 %	T_u+T_g	ms	100	100	100
OBE operating voltage	U	V	24	24	24
OBE command value signal	U	V	0 ... 10	0 ... 10	0 ... 10
	I	mA	4 ... 20	4 ... 20	4 ... 20
Control electronics (type DBEM)		Card, analog	VT-VSPA1-2	VT-VSPA1-2	VT-VSPA1-2
		Card, digital	VT-VSPD-1	VT-VSPD-1	VT-VSPD-1
		Module, analog	VT-MSPA1-1	VT-MSPA1-1	VT-MSPA1-1
		Connector, analog	VT-SSPA1-1	VT-SSPA1-1	VT-SSPA1-1

For order details regarding the GoTo products, see page 129.

Proportional pressure reducing valve, direct operated DREP(E)



- Size 6
- Component series 2X
- Maximum operating pressure 100 bar
- Maximum flow 15 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 4401
- Valve for controlling pressure and direction of a flow
- With integrated electronics (OBE) with type DREPE
- Spring-centered control spool
- Manual override, optional

Product description

The valve type DREP(E) is a direct operated pressure reducing valve.

Operation by means of a proportional solenoid with central thread and detachable coil. The solenoids are either controlled via external or via integrated electronics (OBE).

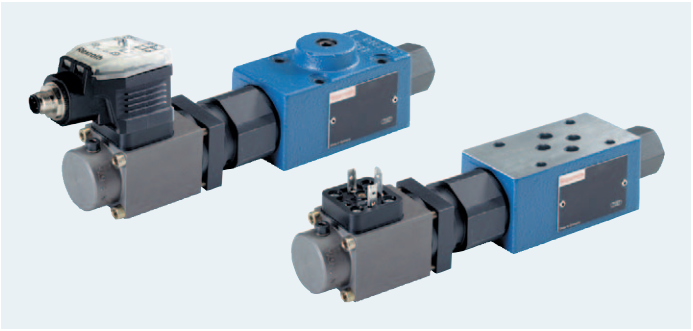
More detailed information:
Data sheet 29184

Technical data

Operating pressure	p_{max}	bar	100
Flow	$q_{V\,max}$	l/min	15
Maximum hysteresis		%	5
OBE operating voltage	U	V	24
OBE command value signal	U	V	±10
	I	mA	4 ... 20
Control electronics (type DREP)		Card, analog	VT-VSPD1
		Module, analog	VT 11118

For order details regarding the GoTo products, see page 130.

Proportional pressure reducing valve, pilot operated DRE(E) and ZDRE(E)



- Size 6
- Component series 1X
- Maximum operating pressure 210 bar (DRE); 315 bar (ZDRE)
- Maximum flow 30 l/min

Features

- For subplate mounting
- Sandwich plate valve
- Porting pattern according to ISO 4401
- Valve for pressure reduction in ports A and P1 with pressure limitation
- Integrated electronics (OBE) with type DREE and ZDREE
- Little manufacturing tolerance of the command value pressure characteristic curve

Product description

The valve types DRE(E) and ZDRE(E) are electrically pilot operated 3-way pressure reducing valves with pressure limitation of the actuator.
Operation is effected by means of a proportional solenoid. The solenoid is either controlled via external or via integrated electronics (OBE).

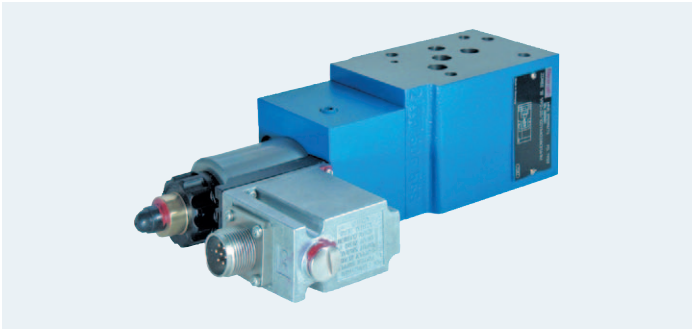
More detailed information:
Data sheet 29175

Technical data

Operating pressure	p_{max}	bar	210
Flow	$q_{V\,max}$	l/min	30
Maximum hysteresis		%	±2.5
OBE operating voltage	U	V	24
OBE command value signal	U	V	0 ... 10
	I	mA	4 ... 20
Control electronics (type DRE and ZDRE)		Card, analog	VT-VSPA1-10
		Card, digital	VT-VSPD-1
		Module, analog	VT-MSPA1-10

For order details regarding the GoTo products, see page 130.

Proportional pressure reducing valve, pilot operated ZDRE(E)



- Size 10
- Component series 2X
- Maximum operating pressure 315 bar
- Maximum flow 80 l/min

Features

- Sandwich plate valve
- Porting pattern according to ISO 4401
- Valve for reducing a system pressure
- With integrated electronics (OBE) with type ZDREE
- Linear pressure/command value characteristic curve

Product description

The valve type ZDRE(E) is an electrically pilot operated 3-way pressure reducing valve with pressure limitation of the actuator.
Operation is effected by means of a proportional solenoid. The solenoid is either controlled via external or via integrated electronics (OBE).

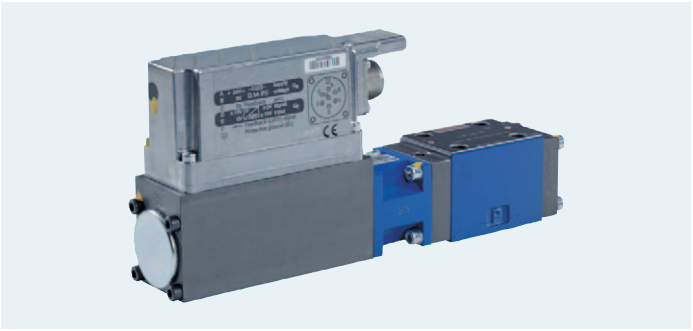
More detailed information:
Data sheet 29279

Technical data

Operating pressure	p_{max}	bar	315
Flow	$q_{V\,max}$	l/min	80
Maximum hysteresis		%	±3
OBE operating voltage	U	V	24
OBE command value signal	U	V	0 ... 10
	I	mA	4 ... 20
Control electronics (type ZDRE)		Card, analog	VT-VSPA1-11
		Card, digital	VT-VSPD-1
		Module, analog	VT-MSPA1-11

For order details regarding the GoTo products, see page 130.

Proportional pressure reducing valve, pilot operated, with integrated electronics (OBE) and position feedback DREBE



- Size 6
- Component series 1X
- Maximum operating pressure 315 bar
- Maximum flow 40 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 4401
- Valve for reducing a system pressure
- With integrated electronics (OBE)

Product description

The valve type DREBE is a pilot operated 3-way pressure reducing valve. It is actuated by a position-controlled proportional solenoid with integrated electronics (OBE). Depending on the command value, the pressure in A (actuator) can be steplessly set and reduced.

More detailed information:
Data sheet 29195

Technical data

Size			**6**
Operating pressure (P)	p_{max}	bar	315
Operating pressure (T)	p_{max}	bar	250
Flow	$q_{V\,max}$	l/min	40
Maximum hysteresis		%	≤ 1
OBE operating voltage	U	V	24
OBE command value signal	U	V	0 ... 10
	I	mA	4 ... 20

For order details regarding the GoTo products, see page 130.

Directional control valves, direct operated, with electrical position feedback 4WRPEH

- Size 6
- Component series 2X
- Maximum operating pressure 315 bar
- Maximum flow 40 l/min (Δp = 70 bar)

Features

- For subplate mounting
- Porting pattern according to ISO 4401
- Control of flow direction and size
- Electric position feedback and integrated electronics (OBE), calibrated in the factory
- Flow characteristics with linear or inflected characteristic curve
- Preferred position when switched off, optional

Product description

The valve type 4WRPEH is a single-side direct operated, 4/4 directional control valve with electrical position feedback and integrated electronics (OBE) in control spool and sleeve design. The directional control valve is used in force, position, velocity and pressure control applications.

More detailed information:
Data sheet 29035

Technical data

Operating pressure	p_{max}	bar	315
Rated flow	$q_{V\,nom}$	l/min	2/4/12/15/24/25/40
Maximum hysteresis		%	< 0.2
OBE operating voltage	U	V	24
OBE command value signal	U	V	±10
	I	mA	4 ... 20

For order details regarding the GoTo products, see page 130.

Directional control valves, direct operated with electric position feedback 4WRPEH

- Size 10
- Component series 2X
- Maximum operating pressure 315 bar
- Maximum flow 100 l/min (Δp = 70 bar)

Features

- For subplate mounting
- Porting pattern according to ISO 4401
- Control of flow direction and size
- Electric position feedback and integrated electronics (OBE), calibrated in the factory
- Flow characteristics with linear or inflected characteristic curve
- Preferred position when switched off, optional

Product description

The valve type 4WRPEH is a single-side direct operated, 4/4 directional control valve with electrical position feedback and integrated electronics (OBE) in control spool and sleeve design. The directional control valve is used in force, position, velocity and pressure control applications.

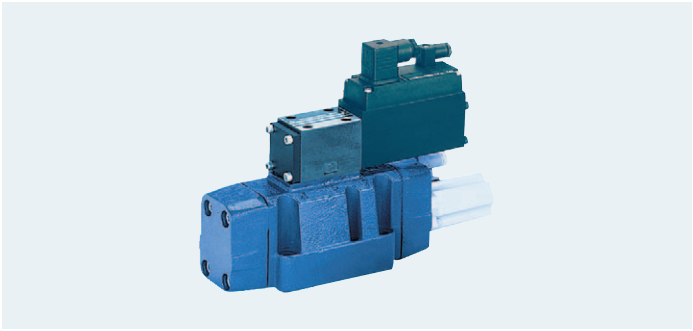
More detailed information:
Data sheet 29037

Technical data

Operating pressure	p_{max}	bar	315
Rated flow	$q_{V\,nom}$	l/min	50/100
Maximum hysteresis		%	< 0.2
OBE operating voltage	U	V	24
OBE command value signal	U	V	±10
	I	mA	4 ... 20

For order details regarding the GoTo products, see page 130.

Directional control valves, pilot operated, with electrical position feedback 4WRL. . E(W)



- Size 10 ... 35
- Component series 3X
- Maximum operating pressure 350 bar
- Maximum flow 3000 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 4401
- Control of flow direction and size
- Pilot control valve and main stage are position-controlled
- Flow characteristic, progressive

Product description

Valves of type 4WRL are unilaterally operated, pilot operated 4-directional valves.

Operation is effected by means of control solenoids. They are used in force, position, velocity and pressure control applications.

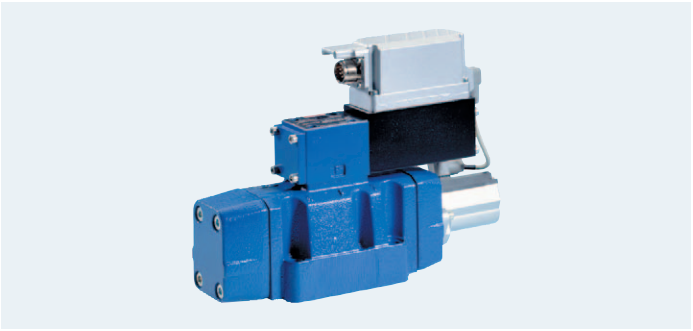
More detailed information:
Data sheet 29087

Technical data

Size			10	16	25	27	35
Operating pressure	p_{max}	bar	350	350	350	280	350
Rated flow	$q_{V\,nom}$	l/min	80	180	350	430	1100
Maximum hysteresis		%	0.1	0.1	0.1	0.1	0.1
OBE operating voltage	U	V	24	24	24	24	24

For order details regarding the GoTo products, see page 130.

Directional control valves, pilot operated, with integral electronics (OBE) and electrical position feedback
4WRLE



- Sizes 10 ... 35
- Component series 3X
- Maximum operating pressure 350 bar
- Maximum flow 3500 l/min

Features

- For subplate mounting
- Porting pattern according to ISO 4401
- Control of flow direction and size
- Pilot control valve and main stage are position-controlled
- Flow characteristics with linear or progressive characteristic curve
- Preferred position when switched off

Product description

The valve type 4WRLE is a pilot operated 4/3 directional control valve with electrical position feedback and integrated electronics (OBE). The pilot control valve is a position-controlled type 4WRPEH valve.

More detailed information:
Data sheet 29088, 29089

Technical data

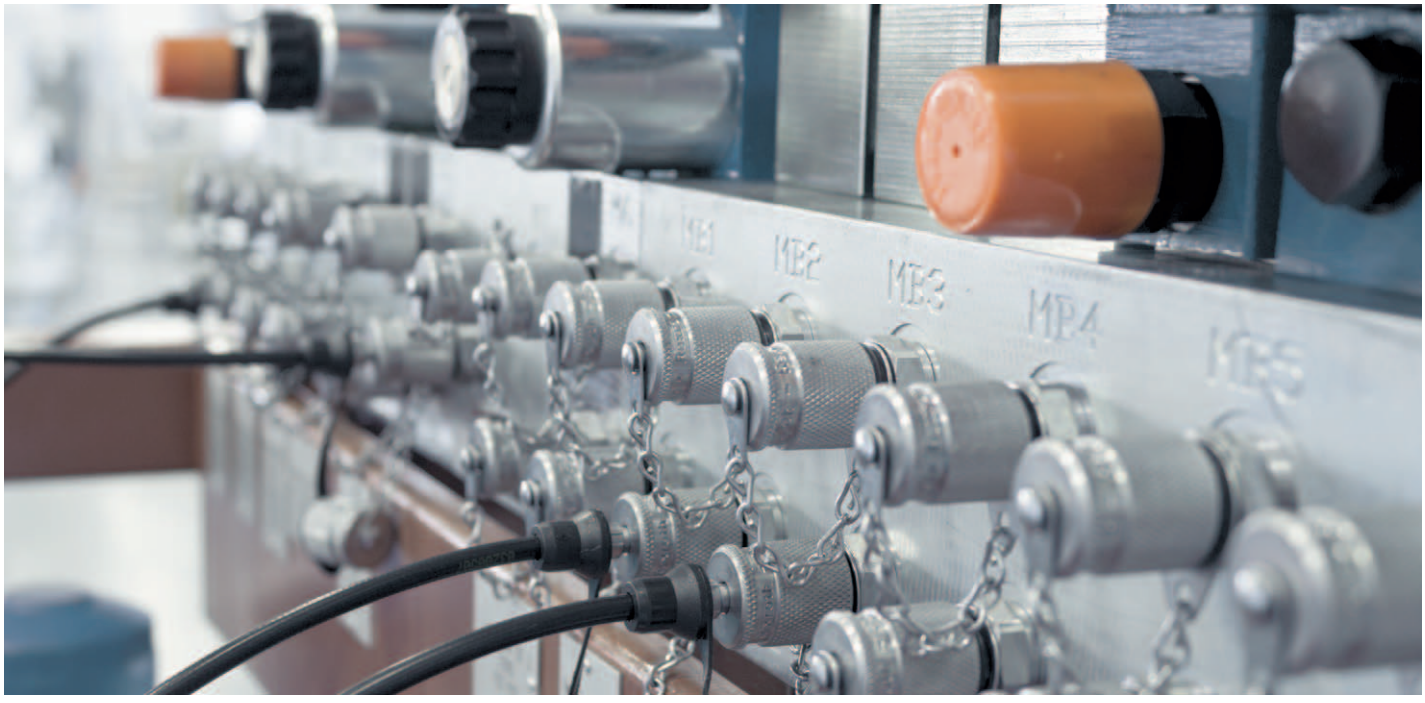
Size			10	16	25	35
Operating pressure	p_{max}	bar	350	350	350	350
Rated flow	$q_{V\,nom}$	l/min	40/50/55/70/80/85	90/120/150/180/200	300/350/370/430	1000/1100
Maximum hysteresis		%	0.1	0.1	0.1	0.1
Frequency (phase frequency characteristic –90°, signal Ue = ±5 %)	f	Hz	45	45	50	20
OBE operating voltage	U	V	24	24	24	24
OBE command value signal	U	V	±10	±10	±10	±10
	I	mA	4 ... 20	4 ... 20	4 ... 20	4 ... 20

For order details regarding the GoTo products, see page 130.

Manifolds and plates

Subplates
Subplates are used for the installation of subplate-mounted valves with a porting pattern according to DIN/ISO for front panel mounting.

Cover plates
Cover plates are used for diverting working channels, replacing subplate-mounted valves or for closing connections on manifolds.



Subplates
G 341/01, G 342/01, G 502/01

- Size 6
- Maximum operating pressure 350 bar

Features

- Porting pattern according to DIN 24340 form A (without locating hole), ordering code .../01
- Use with directional spool valves and directional seat valves, proportional directional valves, flow control valves, releasable check valves and pressure sequence valves, pressure cut-off valves and pressure relief valves.

Product description

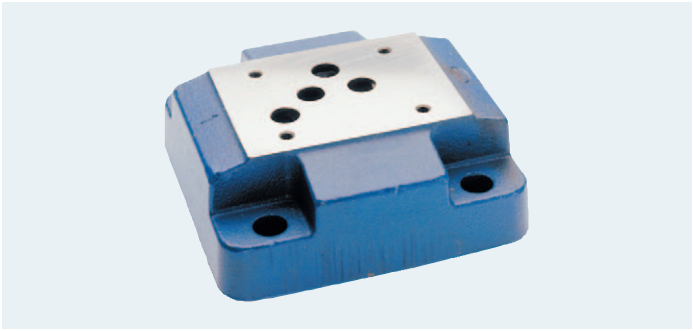
Subplates are used for mounting pressure valves, flow control valves and directional valves for subplate mounting. The back of the plate is equipped with internal threads for fittings of pipelines and hose lines.

More detailed information:
Data sheet 45052

Technical data

Operating pressure	p_{max}	bar	350

Subplates
G 534, G 535, G 536, G 66, G 67, G 292, G 308, G 377, G 378



- Size 10
- Maximum operating pressure 630 bar

Features
- Porting pattern according to ISO 4401
- Use with directional spool valves and directional seat valves and proportional directional valves.

Product description
Subplates are used for mounting pressure valves, flow control valves and directional valves for subplate mounting. The back of the plate is equipped with internal threads for fittings of pipelines and hose lines.

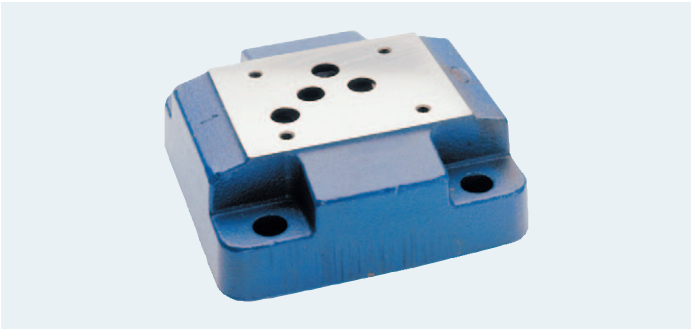
More detailed information:
Data sheet 45054

Technical data

Type			G 534, G 535, G 536	G 66, G 67	G 292, G 308, G 377, G 378
Operating pressure	p_{max}	bar	315	420	630

For order details regarding the GoTo products, see page 131.

Subplates
G 545, G 546, G 408, G 409, G 410, G 411, G 51, G 565



- Size 10
- Maximum operating pressure 350 bar

Features
- Porting pattern according to DIN 24340 form E and ISO 6264
- Use with mechanically adjustable pressure valves and proportional pressure relief valves.

Product description
Subplates are used for mounting pressure valves, flow control valves and directional valves for subplate mounting. The back of the plate is equipped with internal threads for fittings of pipelines and hose lines.

More detailed information:
Data sheet 45064

Technical data

Operating pressure	p_{max}	bar	350

For order details regarding the GoTo products, see page 131.

Cover plates
HSA 06

- Size 6
- Component series 3X
- Maximum operating pressure 315 bar

Features

- Porting pattern according to DIN 24340 form A and form J4
- Porting pattern according to ISO 4401

Product description

Cover plates are used to close a connection face. Different functions, such as reserve connection cover on manifolds, vario plates and control plates, diverting and flushing functions, supply and measuring functions or stop plates with valves, are available

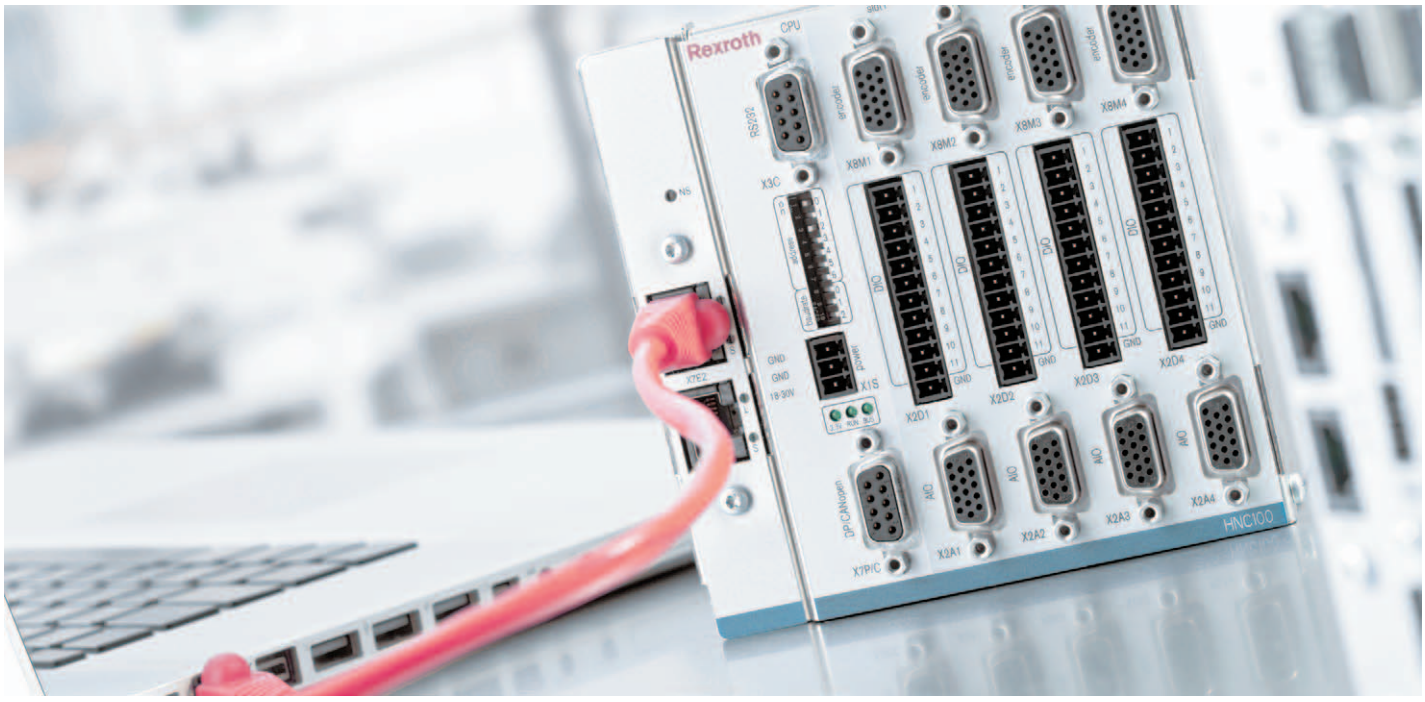
More detailed information:
Data sheet 48042

Technical data

Operating pressure	p_{max}	bar	315

Electronics

Suitable analog or digital amplifier cards in Euro-card format and analog amplifiers in modular design or connector design that have been adapted to the valve technology are available to realize controlled or regulated drives.
Rexroth provides a unique complete, scalable portfolio of digital control electronics and motion controllers – from 1-axis controllers to high-performance multi-axis control – which are able to connect almost any number of axes via cross communication.
Integrated software is adapted to the particularities of the hydraulics and enables commissioning, parameterization and diagnosis.



Valve amplifier for proportional pressure and proportional flow control valves
VT-SSPA1-5

- Component series 2X
- Analog, connector design
- For valves:
  DBETX-1X,
  DBE 6X-1X, DBE 10Z-1X
  DRE 6X-1X, DRE 10Z-1X,
  2FREX...-1X,
  3FREX...-1X

Features

- Compact design
- Differential input
- Adjustable ramp time, sensitivity, zero point and dither frequency
- LED display for supply voltage
- Valve-side plug-in connector according to EN 175301-803

Product description

The type VT-SSPA1-5...-2X amplifier is used to control proportional pressure and proportional flow control valves without electrical position feedback. It is connected directly with the solenoid plug of the valve. The amplifier output supplies a current-controlled signal.

More detailed information:
Data sheet 30264

Technical data

Supply voltage	U	VDC	24
Command value inputs	U	V	0 ... 10
	I	mA	4 ... 20
Output	I_{max}	A	0.8/2.5
Ramp time	t	s	0.06 ... 5
Ambient temperature range	ϑ	°C	–20 ... +70
Protection class			IP65
Electrical connection			Screw terminals

For order details regarding the GoTo products, see page 131.

Valve amplifier for proportional directional valves and proportional pressure valves
VT 11118

- Component series 1X
- Analog, modular design
- For valves:
  4WRA...-1X,
  .WRZ...-5X,
  3DREP6...-2X

Features

- Selector switch for valve type
- Differential input, two enable inputs
- Adjustable ramp time, step level and maximum solenoid current
- LED display for supply voltage and enable
- Top hat rail mounting

Product description

The type VT 11118-1X amplifier is used to control proportional directional valves and proportional pressure valves without electrical position feedback. The step function ensures fast passing of the overlap in directional valves. The two amplifier outputs supply current-controlled signals.

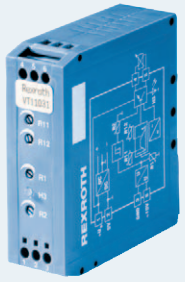
More detailed information:
Data sheet 30218

Technical data

Supply voltage	U	VDC	24
Command value input	U	V	±10
Digital inputs	U	V	24
Output (adjustable)	I_{max}	A	1.0/1.75
Ramp time	t	s	0.05 ... 5
Ambient temperature range	ϑ	°C	0 ... +50
Protection class			IP20
Electrical connection			Screw terminals

For order details regarding the GoTo products, see page 131.

Valve amplifiers for proportional pressure valves VT 11131 and VT 11132



- Component series 1X
- Analog, modular design
- VT 11131 for valves:
  (Z)DBE 6-1X, DBE(M) 10-3X, DBE(M) 10-5X,
  DBE(M) 20-3X, DBE(M) 20-5X
  and ZDRE 10-1X
- VT 11132 for valves:
  (Z)DRE 6-1X

Features

- Differential input
- Adjustable ramp times, step level and maximum solenoid current
- LED display for solenoid current
- Top hat rail mounting

Product description

The type VT 11131 and VT 11132 amplifiers are used to control proportional pressure valves without electrical position feedback. The ramp time can be set separately for upwards and downwards ramps. The amplifier output supplies a current-controlled signal.

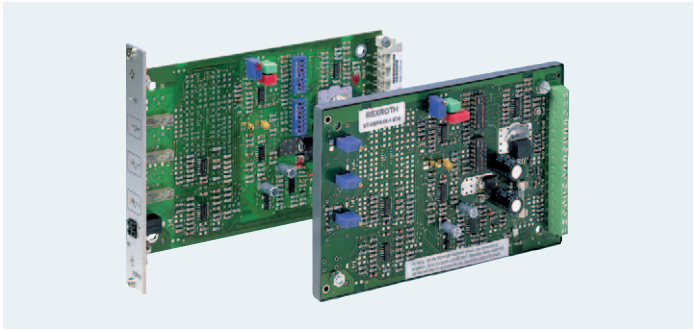
More detailed information:
Data sheet 29865

Technical data

Supply voltage	U	VDC	24
Command value input	U	V	0 ... 10
Output	I_{max}	A	1.6
Ramp time	t	s	0.05 ... 5
Ambient temperature range	ϑ	°C	0 ... +50
Protection class			IP20
Electrical connection			Screw terminals

For order details regarding the GoTo products, see page 131.

Valve amplifier for proportional pressure valves VT-VSPA1(K)-1



- Component series 1X
- Analog, Euro-card format
- For valves:
  DBEP 6(A/B)-1X, DBE(M) 10-3X, DBE(M) 20-3X, DBE(M) 10-5X, DBE(M) 20-5X, DBE(M) 30-3X, (Z)DBE 6...-1X

Features

- One differential input
- Model T5 with 5 ramps and quadrant recognition
- Adjustable ramp times, pilot current and maximum solenoid current
- LED display for "ready for operation"

Product description

The type VT-VSPA1(K)-1 amplifier is used to control proportional pressure valves without electrical position feedback. The command values are preset via a differential input or a non-isolated input. The ramp time can be set separately for upwards and downwards ramps. The amplifier output supplies a current-controlled signal.

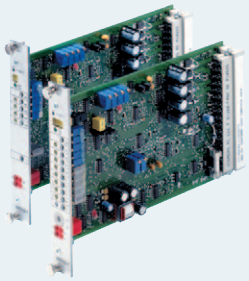
More detailed information:
Data sheet 30111

Technical data

Supply voltage	U	VDC	24
Command value inputs	U	V	±10
	I	mA	4 ... 20
Digital inputs	U	V	24
Output	I_{max}	A	2.5
Ramp time	t	s	0.02 ... 50
Ambient temperature range	ϑ	°C	0 ... +50
Protection class			IP20
Electrical connection			48-pole male multipoint connector, DIN 41612, design F

For order details regarding the GoTo products, see page 131.

Valve amplifier for proportional directional valves and proportional pressure valves VT-VSPA2-1-2X/V0/T...



- Component series 2X
- Analog, Euro-card format
- For valves:
  4WRA, component series 2X,
  4WRZ, component series 7X and later,
  3DREP6, component series 2X,

Features

- One differential input, four callable inputs, input for ramp time
- Digital inputs for enable, ramp, inverting and command value call-up
- Model T5 with 5 ramps and quadrant recognition
- Adjustable ramp times and sensitivity
- Clock frequency, step level and maximum current can be selected
- LED display for supply voltage, enable, inverting, ramp

Product description

The type VT-VSPA2-1-2X/V0/T... amplifier is used to control proportional directional valves and proportional pressure valves without electrical position feedback. The command values are preset via a differential input or four callable, adjustable inputs. The step function ensures fast passing of the overlap in directional valves. The two amplifier outputs supply current-controlled signals.

More detailed information:
Data sheet 30110

Technical data

Supply voltage	U	VDC	24
Command value inputs	U	V	±10
	I	mA	4 ... 20
Digital inputs	U	V	24
Output	I_{max}	A	2.5
Ramp time	t	s	0.02 ... 50
Ambient temperature range	ϑ	°C	0 ... +50
Protection class			IP20
Electrical connection			48-pole male multipoint connector, DIN 41612, design F

For order details regarding the GoTo products, see page 131.

Pressure transducers for hydraulic applications
HM20

- Component series 1X
- Maximum operating pressure 400 bar

Features

- Sensor with thick film measuring cell
- Components that are in contact with the media are made of stainless steel
- Operational safety due to high bursting pressure, reversed polarity, overvoltage and short-circuit protection
- Very good temperature behavior
- cULus-listed

Product description

Pressure transducers are used for monitoring and controlling hydraulic pressures. They transform the measured pressure into a normalized, linear, electrical output signal.

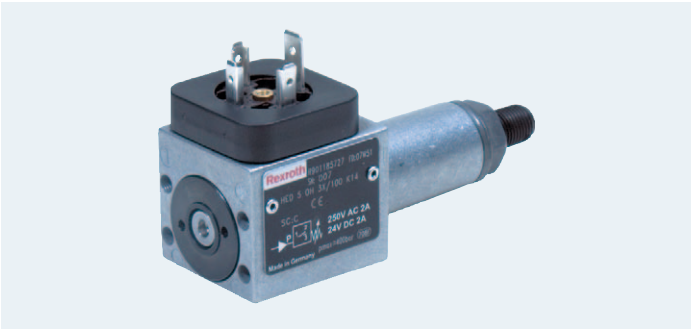
More detailed information:
Data sheet 30270

Technical data

Operating voltage	*U*	VDC	16 ... 36
Output signals	*U*	V	0.1 ... 10
	I	mA	4 ... 20
Pressure measuring range	*p*	bar	0 ... 100/250/400
Accuracy class			0.5
Setting time (10 ... 90 %)	*t*	ms	< 1
Temperature coefficient		%	< 0.1 / 10 K
Hydraulic fluid temperature range	ϑ	°C	–40 ... +90
Ambient temperature range	ϑ	°C	–40 ... +85
Protection class			IP65/IP67
Electrical connection			M12 connector, 4-pole
Pressure port			G1/4

For order details regarding the GoTo products, see page 131.

Hydro-electric piston type pressure switches HED 5



- Component series 3X
- Maximum operating pressure 400 bar

Features

- For flange connection
- 4 pressure ratings
- Micro switch with NC/NO contact function
- Switching of currents from 1 mA to 2 A
- UL recognized component, CCC-certified

Product description

Mechanical pressure switches are used to monitor hydraulic pressures. Type HED 5 is a piston type pressure switch which actuates a micro switch if the switching point is exceeded. This micro switch switches a connected voltage potential-free. The switching points are set via a spindle.

More detailed information:
Data sheet 50056

Technical data

Contact load, resistive	*U (I)*	VDC (A)	24 (2)
		VAC (A)	250 (2)
Pressure ratings	*p*	bar	50/100/200/350
Hydraulic fluid temperature ranges	ϑ	°C	–20/–30/–40 ... +80
Ambient temperature ranges	ϑ	°C	–20/–30/–40 ... +50
Switching frequency	*f*	1/h	4800
Electrical connection K14			EN 175301-803, large cubic connector
Electrical connection K35			M12 x 1, A coding, 4-pole

For order details regarding the GoTo products, see page 131.

Hydro-electric piston type pressure switches
HED 8

- Component series 2X
- Maximum operating pressure 630 bar

Features

- For subplate mounting/pipeline installation, flange connection or as vertical stacking element with sandwich plates
- 5 pressure ratings
- 4 adjustment types
- Micro switch with NC/NO contact function
- Switching of currents from 1 mA to 2 A
- UL recognized component, CCC-certified

Product description

Mechanical pressure switches are used to monitor hydraulic pressures. Type HED 8 is a piston type pressure switch which actuates a micro switch if the switching point is exceeded. This micro switch switches a connected voltage potential-free. The switching points can be set via a spindle or a rotary knob with/without scale.

More detailed information:
Data sheet 50061

Technical data

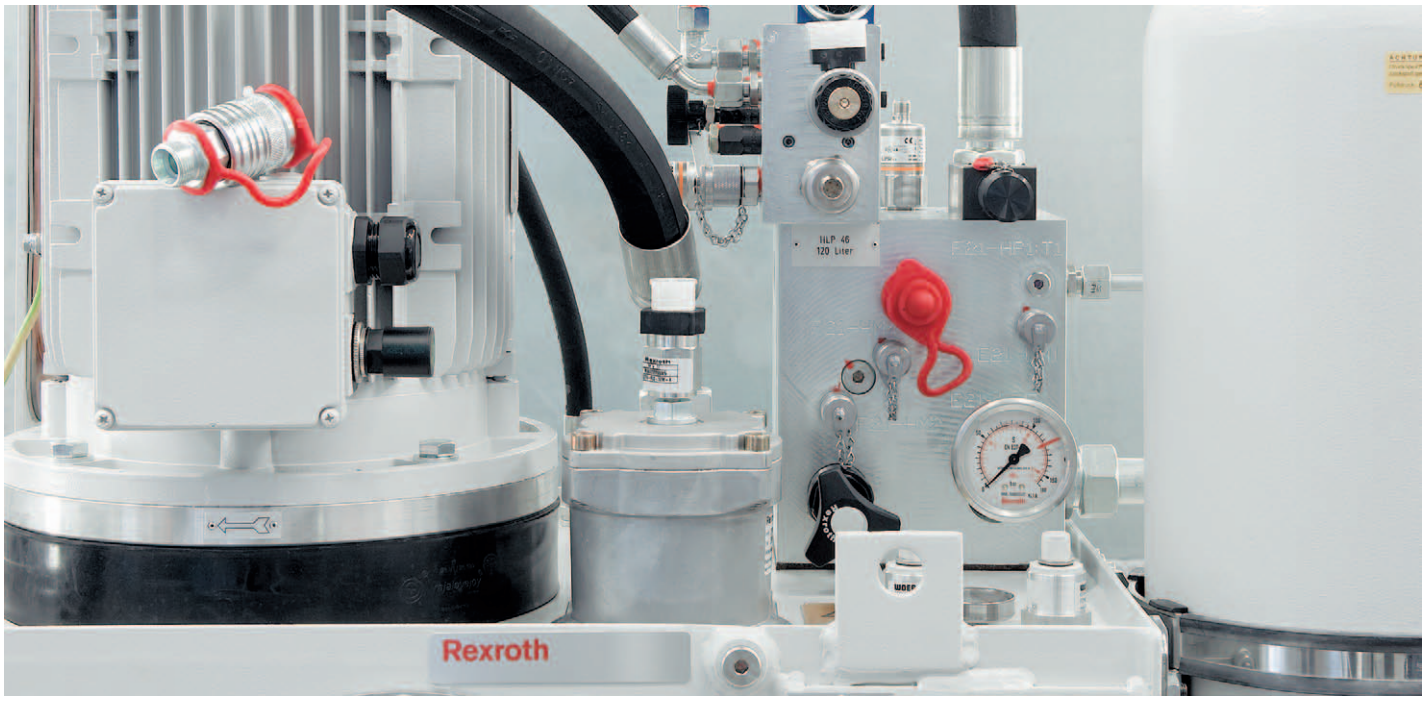
Contact load, resistive	*U (I)*	VDC (A)	24 (2)
		VAC (A)	250 (2)
Pressure ratings	*p*	bar	50/100/200/350/630
Hydraulic fluid temperature ranges	ϑ	°C	–20/–25/–40 ... +80
Ambient temperature ranges	ϑ	°C	–20/–25/–40 ... +50
Switching frequency	*f*	1/h	7200
Electrical connection K14			EN 175301-803, large cubic connector
Electrical connection K35			M12 x 1, A coding, 4-pole

For order details regarding the GoTo products, see page 131.

Power units

Power units are the heart of all hydraulic systems and have a major effect on their productivity and efficiency.
Our power units are used in space as well as in deep see applications. They supply injection molding machines and steel works with power and move the most famous stages in the world.
Thanks to their superior energy efficiency, Rexroth power units ensure low operating costs and a minimized CO2 footprint. At the same time, we systematically reduce the noise emissions and ensure that your system meets all safety standards. For this purpose, we take advantage of the largest modular hydraulics system worldwide by using mostly mass produced standard components.

From just-in-time delivery of series power units to the turnkey handling of project-specific systems: Rexroth is your system partner for complete hydraulic power units over their entire life cycle.



Motor-pump group ABAPG and ABHPG

- With variable axial piston pump, type A10VSO
  - Series 52: Size 10
  - Series 31: Sizes 18 ... 140
- Electric motor frame size 100L ... 315S

Features

- Electric motor design IM B5 or IM B3/B5
- Pump fastened at the electric motor with rigid pump carrier and coupling
- Versatile possible applications on tank, base frame or separate installation
- Maintenance-friendly set-up and low operating noise
- Adjustment DFR1 (pressure/flow controller) and DFLR (pressure/flow power controller)

Product description

Motor-pump groups turn electrical energy into hydraulic energy. They have been designed for hydrostatic drives in open circuits.

Type A10VSO axial piston pumps of the 31 and 52 series are suited for many applications within the pressure range of 50 to 315 bar.

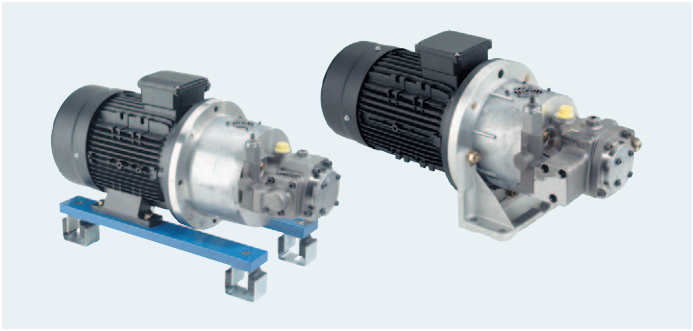
More detailed information:
Data sheet 51170

Technical data

Displacement	$V_{g\,max}$	cm^3	10 ... 140
Maximum operating pressure	p_{max}	bar	315
Electric motor power	P	kW	3 ... 110

For order details regarding the GoTo products, see page 132.

Motor-pump group ABAPG and ABHPG



- With adjustable type PV7 vane pump
- Electric motor frame size 90S ... 250M
- Maximum pressure 160 bar
- Maximum flow 162.5 l/min

Features

- Electric motor design IM B5 or IM B3/B5
- Pump fastened at the electric motor with rigid pump carrier and coupling
- Versatile possible applications on tank, base frame or separate installation
- Maintenance-friendly set-up and low operating noise

Product description

Motor-pump groups turn electrical energy into hydraulic energy. They have been designed for hydrostatic drives in open circuits.

The use of a type PV7 vane pump allows for versatile applications within a pressure range of 40 to 160 bar.

More detailed information:
Data sheet 51171

Technical data

Displacement	$V_{g\,max}$	cm^3	10 ... 118
Maximum operating pressure	p_{max}	bar	160
Electric motor power	P	kW	1.1 ... 55.0

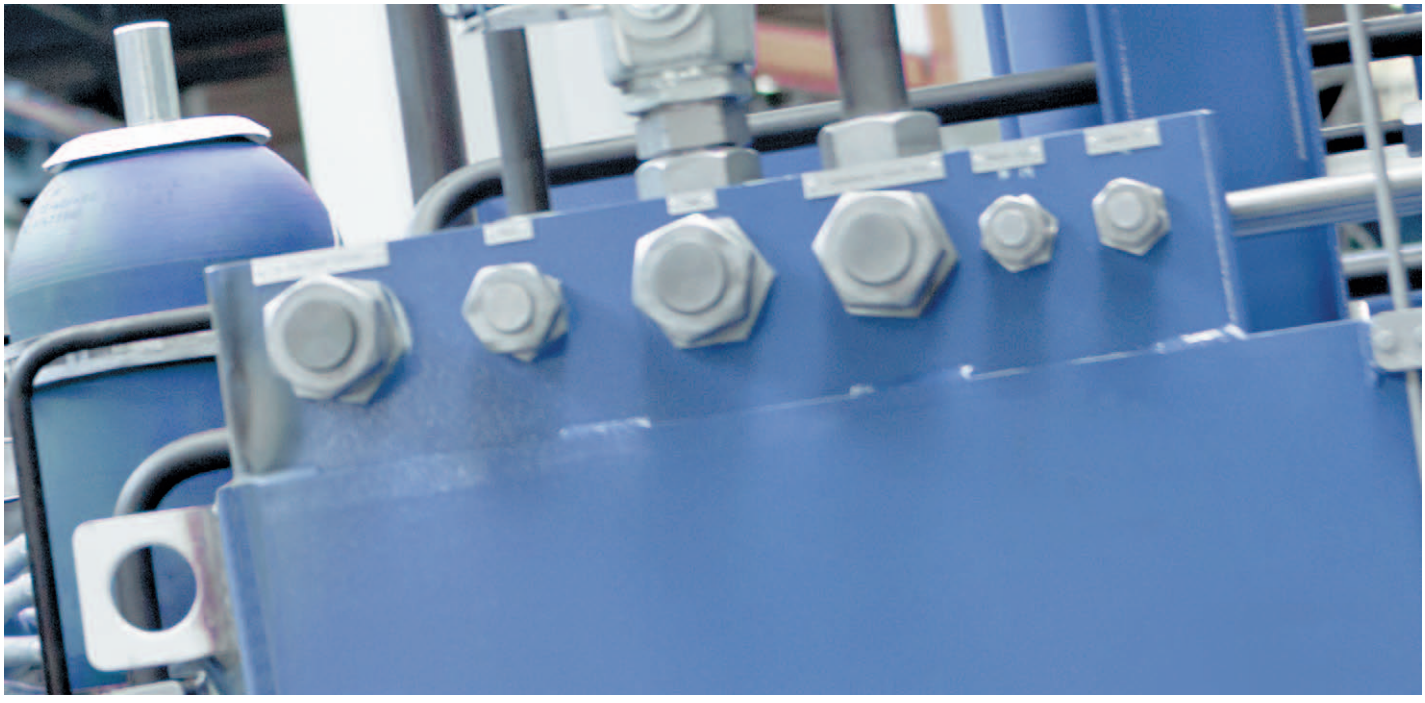
For order details regarding the GoTo products, see page 132.

Accumulators

Where cyclical motions take place, hydraulic accumulators are able to reduce the installed power and thus increase energy efficiency.
Our well-structured portfolio of bladder and diaphragm type accumulators meets the requirements of systems of all sizes and of all applications. They boast a high pressure fluctuation range and sophisticated details. The exchangeable gas valves in bladder-type accumulators, for example, increase their maintenance- and repair-friendliness. Thanks to the extreme resistance of the bladders in Rexroth accumulators, the exchange intervals can be extended as well.
Our hydraulic accumulators provide a crucial back-up for safe shut-downs in case of a power failure in plant construction and wind energy plant applications.

Accumulator shut-off modules: Ready-to-install function – a complete system ensures that your design complies with all standards

A hydraulic accumulator only meets all international regulations if it is used with an accumulator shut-off block. We offer you assemblies that have been constructed and optimized by leading hydraulics specialists allowing you to meet the Pressure Equipment Directive 97/23/EC.
We deliver our accumulator shut-off block with integrated isolator valve, pressure valve and drain valve, completely mounted on a console ready for immediate installation.
Our accumulator shut-off modules consist of tried and tested standard components: CE tested cartridge, shut-off cock and safety valve, measuring and accumulator ports.
On request, our service team will connect the module to your system in your facilities.



Diaphragm type accumulator
HAD

- Nominal volume 0.075 ... 3.5 liters
- Component series 1X, 2X
- Maximum operating pressure 350 bar

Features

- Hydraulic accumulator as per Pressure Equipment Directive 97/23/EC
- Diaphragm material for different applications
- Use e.g. as energy storage in intermittent operation systems, energy reserve for emergencies, compensation of leakage losses, shock and vibration absorption

Product description

Diaphragm type accumulators are used for energy storage, shock and vibration absorption, and leakage oil compensation or volume compensation in hydraulic systems. They consist of a pressure-resistant vessel (high-tensile steel) whose interior is split into a gas and a fluid side by an elastic diaphragm. When the operating pressure is increased, hydraulic fluid flows into the accumulator and compresses the gas until the gas pressure is identical to the fluid pressure. When the operating pressure is reduced, the gas expands again and feeds the hydraulic system with hydraulic fluid.

More detailed information:
Data sheet 50150

Technical data

Nominal volume		**l**	**0.075**	**0.16**	**0.35**	**0.5**	**0.7**	**1**
Effective gas volume		l	0.075	0.16	0.32	0.48	0.75	1
Flow	q_V	l/min	10	10	40	40	40	40
Operating pressure	p_{max}	bar	250	250	210	250	350	200

Nominal volume		**l**	**1.4**	**2**	**2.8**	**3.5**		
Effective gas volume		l	1.4	1.95	2.7	3.5		
Flow	q_V	l/min	40	60	60	60		
Operating pressure	p_{max}	bar	350	350	350	350		

For order details regarding the GoTo products, see page 132.

Bladder-type accumulator
HAB

- Nominal volume 1 ... 50 liters
- Component series 4X
- Maximum operating pressure 350 bar

Features

- Hydraulic accumulator as per Pressure Equipment Directive 97/23/EC
- Bladder material for different applications
- Use e.g. as energy storage in intermittent operation systems, energy reserve for emergencies, compensation of leakage losses, shock and vibration absorption

Product description

Bladder-type accumulators are used for energy storage, shock and vibration absorption, and leakage oil compensation or volume compensation in hydraulic systems. They consist of a seamless pressure vessel (high-tensile steel) whose interior is split into a gas and a fluid side by an elastic bladder. When the operating pressure is increased, hydraulic fluid flows into the accumulator and compresses the gas in the bladder until the gas pressure is identical to the fluid pressure. When the operating pressure is reduced, the gas expands again and feeds the hydraulic system with hydraulic fluid.

More detailed information:
Data sheet 50170

Technical data

Nominal volume		**l**	**1**	**2.5**	**4**	**6**	**10**	**20**
Effective gas volume		l	1	2.4	3.7	5.9	9.2	18.1
Flow	q_V	l/min	240	600	600	600	900	900
Operating pressure	p_{max}	bar	350	350	350	350	330	330

Nominal volume		**l**	**35**	**50**
Effective gas volume		l	33.4	48.7
Flow	q_V	l/min	900	900
Operating pressure	p_{max}	bar	330	330

For order details regarding the GoTo products, see page 132.

Accumulator stations
ABSBG

- Nominal volume 0.7 ... 50 liters
- Maximum operating pressure 330 bar

Features

- Accumulator station with bladder or diaphragm type accumulator
- Safety block with integrated shut-off valve, safety valve (type-examination tested) and drain valve
- Drain valve, optionally manually or electrically operated
- Glycerine-filled pressure gauge with relief pressure marked in red
- Console for weld or screw connection
- Assembly prepared for external equipotential bonding

Product description

Accumulator stations are intended for use in hydraulic systems and consist of a diaphragm or bladder-type accumulator with shut-off block on mounting elements.
These assemblies comply with the applicable national rules and regulations in Europe (Pressure Equipment Directive 97/23/EC), China (Selo) or Russia (Gost).

More detailed information:
Data sheet 50135

Technical data

Accumulator type			Bladder-type accumulator	Diaphragm type accumulators
Accumulator volume	DN	l	1 ... 50	0.7 ... 3.5
Response pressure of the safety valve	p_{max}	bar	100, 140, 210, 330	100, 140, 210, 330

For order details regarding the GoTo products, see page 133.

Filters

Oil is the central component of every hydraulic system. The most common causes for the failure of a system is oil contamination. Rexroth filter and cleaning systems for hydraulic oil and lubricating oil applications ensure ideal operating conditions throughout the entire life cycle.
With a broad range of completely new and revised filter systems, we have the right solution for all pressure ranges and applications for you. Our filter media reliably remove particles from all hydraulic fluids and thus protect your system against damage. In addition, our filters reliably remove free water from the medium and thus prevent corrosion. However, Rexroth offers more than just the standard: Specific process filters will meet the requirements of your individual applications as well.

We have prepared our modern filter systems for the current and future requirements of condition-dependent maintenance strategies. Sensors that have been integrated into our filter assemblies continuously measure contamination and indicate necessary filter changes well in advance (even applying several indication levels) – either visually at the filter or via a message on the operator's device of the control system. In this way you can reduce maintenance costs while at the same time ensuring optimum working conditions for your system.

Tank mounted return line filters, switchable with filter element according to DIN 24550
10TDN0040 ... 1000, 10TD2000 and 10TD2500

- Sizes according to DIN 24550: 0040 ... 1000, sizes according to Rexroth standard: 2000 and 2500
- Filters rating: 3 ... 100 µm
- Filters area: ... 4.8 m²
- Operating temperature: –10 °C ... 100 °C
- Line connection: ... SAE 3" - 3000 psi

Features

- Special highly efficient filter materials
- Filtration of very fine particles and high dirt holding capacity across a broad pressure differential range
- High collapse resistance of the filter elements
- By default equipped with mechanical optical maintenance indicator with memory function and a bypass valve integrated in the filter housing
- Available as an option with different electrical switching elements, modular design

Product description

The switchable tank mounted return line filters are designed for installation on fluid tanks of hydraulic or lubrication systems. Their function is to separate solid materials from fluids and they are also used as filling or bypass filter.

More detailed information:
Data sheet 51454

Technical data

Size				0040	0063	0100	0160	0250	0400	0630	1000
Maximum flow		$q_{V\,max}$	l/min	1680							
Filters rating	Nominal		µm	10 ... 100							
	Absolute		µm	3 ... 20							

For ordering information for the GoTo products, see page 133.

Filter cooler unit with inline filter according to DIN 24550 ABUKG

- Component series 4X
- With gerotor pump, external gear pump or screw spindle pump
- With electric motor frame sizes 90S ... 132S
- With low-pressure inline filter (filter rating 10 µm) according to DIN 24550
- With plate heat exchanger

Features

- Compact unit with pump, installed low-pressure inline filter and plate heat exchanger
- Modular design
- Set-up as required with console or on installation plate
- Low-noise version available (external gear pump or screw spindle pump)

Product description

Filter cooler units have been designed for filtering and cooling hydraulic fluids in the bypass circuit. This circuit has the advantage of flowing through the filter element with a permanently low-pulsation fluid flow independent of the system's working cycle. This slows down the process of aging and increases the life cycle of the hydraulic fluid. With the new ABUKG-4X series with external gear pump or screw spindle pump, the hydraulic fluid can be treated almost noiselessly.

More detailed information:
Data sheet 50125

Technical data

Thermal output to be dissipated	*P*	kW	4 ... 75
Displacement	*q*	l/min	17 ... 186

For ordering information for the GoTo products, see page 133.

Filter elements
1. and 2.

- Sizes 0040 ... 1000 (according to DIN 24550)
  Sizes 0003 ... 0270
- Maximum collapse pressure resistance 330 bar
- Filter rating 1 ... 1500 µm
- Maximum filter area 4.8 m²
- Maximum filtration quotient $\beta_{X(C)} \geq 1000$

Features

- Filter media for numerous application ranges made of micro glass, filter paper, wire mesh, fleece material and metal fiber fleece
- Attainable oil cleanliness up to ISO 12/8/3 (ISO 4406)
- High dirt holding capacity through multi-layer glass fiber technology
- Low initial pressure differential (ISO 3968)
- Product and user support by fluid and filter analysis (residue analysis)

Product description

The filter element is the central part of industrial filters. The actual filtration process takes part in the filter element. The main filter variables, such as retention capacity, dirt holding capacity and pressure loss are determined by the filter elements and the filter media used in them.
The use of zinc-free filter elements prevents early "element blocking", thus considerably increasing the life cycle of the elements.

More detailed information:
Data sheet 51420

Technical data

Size				0040	0063	0100	0160	0250	0400	0630	1000
Maximum pressure differential		Δp_{max}	bar	330	330	330	330	330	330	330	330
Maximum flow		$q_{V\,max}$	l/min	450	450	450	450	450	450	450	450
Filter rating	nominal		µm	10, 25, 40, 100 (stainless steel wire mesh, cleanable)							
	absolute		µm	H3XL, H6XL, H10XL, H20XL (micro glass, not cleanable)							

For ordering information for the GoTo products, see page 133.

Filter elements
9. and 10.

- Sizes 0030 ... 2600 (according to DIN 24550)
- Maximum collapse pressure resistance 210 bar
- Filter rating 3 ... 20 µm, glass fiber fleece
- Maximum filter area 3.35 m²
- Maximum filtration quotient $\beta_{X(C)} \geq 1000$

Features

- Filter media for numerous application ranges made of micro glass, filter paper, wire mesh and fleece material
- Attainable oil cleanliness up to ISO 12/8/3 (ISO 4406)
- High dirt holding capacity through multi-layer glass fiber technology
- Low initial pressure differential (ISO 3968)
- Product and user support by fluid and filter analysis (residue analysis)

Product description

The filter element is the central part of industrial filters. The actual filtration process takes part in the filter element. The main filter variables, such as retention capacity, dirt holding capacity and pressure loss are determined by the filter elements and the filter media used in them.
The use of zinc-free filter elements prevents early "element blocking", thus considerably increasing the life cycle of the elements.

More detailed information:
Data sheet 51457

Technical data

Size				**0030 ... 2600**
Maximum pressure differential		Δp_{max}	bar	210
Maximum flow		$q_{V\,max}$	l/min	2000
Filter rating	nominal		µm	10, 25, 40, 100 (stainless steel wire mesh, cleanable)
	absolute		µm	H3XL, H6XL, H10XL, H20XL (micro glass, not cleanable)

For ordering information for the GoTo products, see page 135.

Order details

The following pages list all available GoTo products with their description and material number. In addition, the table provides the maximum order quantity and the delivery time.

Page	Material number	Description	Maximum GoTo quantity (units)	Delivery time (working days) ex works	Data sheet
Pumps					
Axial piston pumps					
8	R902230046	A2FO10/61R-VAB06 – [1] RAL9005	1	10	91401
	R902230048	A2FO12/61R-VAB06 – [1] RAL9005	1	10	
	R902230050	A2FO16/61R-VAB06 – [1] RAL9005	1	10	
	R902230054	A2FO28/61R-PPB05 – [1] RAL9005	3	10	
	R902230055	A2FO28/61R-VAB05 – [1] RAL9005	1	10	
	R902230056	A2FO32/61R-VAB05 – [1] RAL9005	1	10	
	R902230057	A2FO32/61R-VBB05 – [1] RAL9005	3	10	
	R902230058	A2FO45/61R-VPB06 – [1] RAL9005	3	10	
	R902230059	A2FO56/61R-PPB05 – [1] RAL9005	3	10	
	R902230060	A2FO56/61R-VAB05 – [1] RAL9005	1	10	
	R902230061	A2FO63/61R-PBB05 – [1] RAL9005	3	10	
	R902230062	A2FO63/61R-VAB05 – [1] RAL9005	1	10	
	R902230063	A2FO80/61R-PPB05 – [1] RAL9005	3	10	
	R902230064	A2FO80/61R-VAB05 – [1] RAL9005	1	10	
	R902230065	A2FO90/61R-PBB05 – [1] RAL9005	3	10	
	R902230047	A2FO107/61R-PPB06 – [1] RAL9005	3	10	
	R902230049	A2FO125/61R-VBB05 – [1] RAL9005	3	10	
	R902230051	A2FO160/61R-PPB05 – [1] RAL9005	3	10	
	R902230052	A2FO180/61R-VBB05 – [1] RAL9005	3	10	
	R902230053	A2FO200/63R-VBB05 – [1] RAL9005	3	10	
9	R902230072	A17FO 23 – [1] none	3	10	91520
	R902230073	A17FO 32 – [1] none	3	10	
	R902230074	A17FO 45 – [1] none	3	10	
	R902230075	A17FO 63 – [1] none	3	10	
	R902230076	A17FO 80 – [1] none	3	10	
	R902230071	A17FO 107 – [1] none	3	10	
10	R902230070	A17FNO 125 – [1] none	3	10	91510
11	R902532547	A15VSO175LRDRE2AHV/10MRVE4A21EU0000-0 – [1] none – [2] DR=350bar, LR=45kW (1500 rpm)	1	10	92800
	R902532545	A15VSO210DRA0V/10MRVE4A2EU0000-0 – [1] none – [2] DR=350bar, LS=14bar	1	10	
	R902532546	A15VSO210LRDRE2AHV/10MRVE4A21EU0000-0 – [1] none – [2] DR=350bar, LR=45kW (1500 rpm)	1	10	
	R902532550	A15VSO280DRS0A0V/10MRVE4A41EU0000-0 – [1] none – [2] DR=350bar, LR=30kW (1500 rpm)	1	10	
	R902532548	A15VSO280LRDRA0V/10MRVE4A41EU0000-0 – [1] none – [2] DR=350bar, LS=14bar	1	10	
	R902532549	A15VSO280LRDRE2AHV/10MRVE4A41EU0000-0 – [1] none – [2] DR=350bar, LR=45kW (1500 rpm)	1	10	

[1] Painting – [2] Setting

Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	Data sheet
12	R902532451	A A10VSO 18 DR /31R-VPA12N00 – [1] none – [2] DR=280bar	3	10	92711
	R902532452	A A10VSO 18 DR /31R-VSA12N00 – [1] none – [2] DR=280bar	3	10	
	R902532453	A A10VSO 18 DFR1/31R-VPA12K01 – [1] none – [2] DR=280bar, LS=14bar	3	10	
	R902532454	A A10VSO 18 DFR1/31R-VSA12N00 – [1] none – [2] DR=280bar, LS=14bar	3	10	
	R902532456	A A10VSO 28 DR /31R-VPA12K01 – [1] none – [2] DR=280bar	3	10	
	R902532457	A A10VSO 28 DR /31R-VPA12K68 – [1] none – [2] DR=280bar	3	10	
	R902532455	A A10VSO 28 DR /31R-VPA12N00 – [1] none – [2] DR=280bar	3	10	
	R902532460	A A10VSO 28 DFLR/31R-VPA12N00 – [1] none – [2] DR=280bar, LS=14bar, LR=7.5kW (1450 rpm)	3	10	
	R902532458	A A10VSO 28 DFR1/31R-VPA12K01 – [1] none – [2] DR=280bar, LS=14bar	3	10	
	R902532459	A A10VSO 28 DFR1/31R-VSA12N00 – [1] none – [2] DR=280bar, LS=14bar	3	10	
	R902532462	A A10VSO 45 DR /31R-VPA12K01 – [1] none – [2] DR=280bar	3	10	
	R902532463	A A10VSO 45 DR /31R-VPA12K68 – [1] none – [2] DR=280bar	3	10	
	R902532461	A A10VSO 45 DR /31R-VPA12N00 – [1] none – [2] DR=280bar	3	10	
	R902532466	A A10VSO 45 DFLR/31R-VPA12N00 – [1] none – [2] DR=280bar, LS=14bar, LR=11kW (1450 rpm)	3	10	
	R902532464	A A10VSO 45 DFR1/31R-VPA12K01 – [1] none – [2] DR=280bar, LS=14bar	3	10	
	R902532465	A A10VSO 45 DFR1/31R-VPA12K68 – [1] none – [2] DR=280bar, LS=14bar	3	10	
	R902532472	A A10VSO 71 DR /31R-VPA42K01 – [1] none – [2] DR=280bar	3	10	
	R902532473	A A10VSO 71 DR /31R-VPA42K68 – [1] none – [2] DR=280bar	3	10	
	R902532471	A A10VSO 71 DR /31R-VPA42N00 – [1] none – [2] DR=280bar	3	10	
	R902532477	A A10VSO 71 DFLR/31R-VPA42N00 – [1] none – [2] DR=280bar, LS=14bar, LR=15kW (1450 rpm)	3	10	
	R902532475	A A10VSO 71 DFR1/31R-VPA42K01 – [1] none – [2] DR=280bar, LS=14bar	3	10	
	R902532476	A A10VSO 71 DFR1/31R-VPA42K68 – [1] none – [2] DR=280bar, LS=14bar	3	10	
	R902532661	A A10VSO100 DR /31R-VPA12K01 – [1] none – [2] DR=280bar	3	10	
	R902532662	A A10VSO100 DR /31R-VPA12K68 – [1] none – [2] DR=280bar	3	10	
	R902532660	A A10VSO100 DR /31R-VPA12N00 – [1] none – [2] DR=280bar	3	10	
	R902532665	A A10VSO100 DFLR/31R-VPA12N00 – [1] none – [2] DR=280bar, LS=14bar, LR=22kW (1450 rpm)	3	10	

[1] Painting – [2] Setting

Page	Material number	Description	Maximum GoTo quantity (units)	Delivery time (working days) ex works	Data sheet
12	R902532663	A A10VSO100 DFR1/31R-VPA12K01 – [1] none – [2] DR=280bar, LS=14bar	3	10	92711
	R902532664	A A10VSO100 DFR1/31R-VPA12K68 – [1] none – [2] DR=280bar, LS=14bar	3	10	
	R902532669	A A10VSO140 DR /31R-VPB12K01 – [1] none – [2] DR=280bar	3	10	
	R902532670	A A10VSO140 DR /31R-VPB12K68 – [1] none – [2] DR=280bar	3	10	
	R902532668	A A10VSO140 DR /31R-VPB12N00 – [1] none – [2] DR=280bar	3	10	
	R902532672	A A10VSO140 DFLR/31R-VPB12N00 – [1] none – [2] DR=280bar, LS=14bar, LR=30kW (1450 rpm)	3	10	
	R902532671	A A10VSO140 DFR1/31R-VPB12K68 – [1] none – [2] DR=280bar, LS=14bar	3	10	
13	R902532467	A A10VSO 45 DRS /32R-VSB32U00E – [1] none – [2] DR=280bar, LS=14bar	3	10	92714
	R902532468	A A10VSO 45 LA6DS/32R-VSB32U00E – [1] none – [2] DR=280bar, LS=14bar, LR=11kW (1500 rpm)	3	10	
	R902532469	A A10VSO 45 LA7DS/32R-VSB32U00E – [1] none – [2] DR=280bar, LS=14bar, LR=15kW (1500 rpm)	3	10	
	R902532470	A A10VSO 45 LA8DS/32R-VSB32U00E – [1] none – [2] DR=280bar, LS=14bar, LR=22kW (1500 rpm)	3	10	
	R902532478	A A10VSO 71 DRS /32R-VSB32U00E – [1] none – [2] DR=280bar, LS=14bar	3	10	
	R902532479	A A10VSO 71LA6DS/32R-VSB32U00E – [1] none – [2] DR=280bar, LS=14bar, LR=15kW (1500 rpm)	3	10	
	R902532666	A A10VSO100 DRS/32R-VSB32U00E – [1] none – [2] DR=280bar, LS=14bar	3	10	
	R902532667	A A10VSO100LA6DS/32R-VSB32U00E – [1] none – [2] DR=280bar, LS=14bar, LR=22kW (1500 rpm)	3	10	
	R902532673	A A10VSO140 DRS /32R-VSB32U00E – [1] none – [2] DR=280bar, LS=14bar	3	10	
	R902532674	A A10VSO140LA6DS/32R-VSB32U00E – [1] none – [2] DR=280bar, LS=14bar, LR=30kW (1500 rpm)	3	10	
	R902532675	A A10VSO140LA7DS/32R-VSB32U00E – [1] none – [2] DR=280bar, LS=14bar, LR=45kW (1500 rpm)	3	10	
14	R902228074	A11VO40DRS/10L-NSC12N00 – [1] RAL9005 – [2] DR=350bar, LS=18bar	3	10	92500
	R902228075	A11VO40DRS/10R-NSC12N00 – [1] RAL9005 – [2] DR=350bar, LS=18bar	3	10	
	R902228076	A11VO60DRS/10L-NSC12N00 – [1] RAL9005 – [2] DR=350bar, LS=18bar	3	10	
	R902228077	A11VO60DRS/10R-NSC12N00 – [1] RAL9005 – [2] DR=350bar, LS=18bar	3	10	
	R902228078	A11VO75DRS/10L-NSD12N00 – [1] RAL9005 – [2] DR=350bar, LS=18bar	3	10	
	R902228079	A11VO75DRS/10R-NSD12N00 – [1] RAL9005 – [2] DR=350bar, LS=18bar	3	10	
	R902228080	A11VO95DRS/10L-NSD12N00 – [1] RAL9005 – [2] DR=350bar, LS=18bar	3	10	
	R902228081	A11VO95DRS/10R-NSD12N00 – [1] RAL9005 – [2] DR=350bar, LS=18bar	3	10	

[1] Painting – [2] Setting

Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	**Data sheet**
15	R902230092	A7VO28DR/63R-NPB01 – [1] RAL9005 – [2] DR=350bar	3	10	92202
	R902230093	A7VO55DR/63R-NPB01 – [1] RAL9005 – [2] DR=350bar	3	10	
	R902230094	A7VO55DR/63R-NZB01 – [1] RAL9005 – [2] DR=350bar	3	10	
	R902230095	A7VO80DR/63R-NPB01 – [1] RAL9005 – [2] DR=350bar	3	10	
	R902230087	A7VO107DR/63R-NPB01 – [1] RAL9005 – [2] DR=350bar	3	10	
	R902230088	A7VO107DR/63R-NZB01 – [1] RAL9005 – [2] DR=350bar	3	10	
	R902230089	A7VO160DR/63R-NPB01 – [1] RAL9005 – [2] DR=350bar	3	10	
	R902230090	A7VO160DR/63R-NZB01 – [1] RAL9005 – [2] DR=350bar	3	10	
	R902230091	A7VO160EP2/63R-NPB01 – [1] RAL9005 – [2] DR=350bar	3	10	
16	R902230077	A17VO055DRS-L – [1] RAL9005 – [2] DR=300bar, LS=30bar	3	10	92260
	R902230078	A17VO055DRS-R – [1] RAL9005 – [2] DR=300bar, LS=30bar	3	10	
	R902230079	A17VO080DRS-L – [1] RAL9005 – [2] DR=300bar, LS=30bar	3	10	
	R902230080	A17VO080DRS-R – [1] RAL9005 – [2] DR=300bar, LS=30bar	3	10	
	R902230081	A17VO107DRS-L – [1] RAL9005 – [2] DR=300bar, LS=30bar	3	10	
	R902230082	A17VO107DRS-R – [1] RAL9005 – [2] DR=300bar, LS=30bar	3	10	
17	R902230085	A18VO 80 DRS-L - 0 – [1] RAL9005 – [2] DR=350bar, LS=30bar	3	10	92270
	R902230086	A18VO 80 DRS-R - 0 – [1] RAL9005 – [2] DR=350bar, LS=30bar	3	10	
	R902230083	A18VO 107 DRS-L - 0 – [1] RAL9005 – [2] DR=350bar, LS=30bar	3	10	
	R902230084	A18VO 107 DRS-R - 0 – [1] RAL9005 – [2] DR=350bar, LS=30bar	3	10	
External gear pumps					
18	0510215307	AZPF-12-004LNT20MB	5	10	10089
	0510225006	AZPF-12-004RCB20KB	5	10	
	0510225022	AZPF-12-004RHO30PB	5	10	
	0510225306	AZPF-10-004LCB20MB	5	10	
	0510315305	AZPF-12-005LNT20MB	5	10	
	0510315307	AZPF-10-005LCP20MB-S0007	5	10	
	0510325006	AZPF-10-005RCB20MB	5	10	
	0510325013	AZPF-11-005RRR20MB	5	10	
	0510325023	AZPF-11-005RRR20KB-S0023	5	10	
	0510325025	AZPF-12-005RHO30KB	5	10	
	0510325026	AZPF-11-005RAB1MB	5	10	
	0510325306	AZPF-10-005LCB20MB	5	10	
	0510415311	AZPF-10-008LCN20MB	5	10	

[1] Painting – [2] Setting

Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	**Data sheet**
18	0510415314	AZPF-12-008LNT20MB	5	10	10089
	0510415316	AZPF-11-008LCP20KB-S0007	5	10	
	0510425009	AZPF-10-008RCB20MB	5	10	
	0510425020	AZPF-10-008RRR20MB	5	10	
	0510425041	AZPF-11-008RRR20KB-S0023	5	10	
	0510425043	AZPF-12-008RHO30KB	5	10	
	0510425044	AZPF-11-008RAB1MB	5	10	
	0510425307	AZPF-10-008LCB20MB	5	10	
	0510425314	AZPF-12-008LRR20KB	5	10	
	0510515309	AZPF-12-011LCP20KB-S0007	5	10	
	0510515311	AZPF-12-011LNT20MB	5	10	
	0510515316	AZPF-11-014LCP20KB-S0007	5	10	
	0510515323	AZPF-11-011LCP20MB-S0007	5	10	
	0510525009	AZPF-10-011RCB20MB	5	10	
	0510525018	AZPF-10-014RCB20MB	5	10	
	0510525019	AZPF-12-011RRR20MB	5	10	
	0510525072	AZPF-11-011RRR20KB-S0023	5	10	
	0510525073	AZPF-11-014RRR20KB-S0023	5	10	
	0510525074	AZPF-12-011RHO30KB	5	10	
	0510525311	AZPF-10-011LCB20MB	5	10	
	0510525324	AZPF-11-011LRR20KB	5	10	
	0510615315	AZPF-12-016LNT20MB	5	10	
	0510615317	AZPF-11-016LCP20KB-S0007	5	10	
	0510615318	AZPF-10-019LCP20KB-S0007	5	10	
	0510615321	AZPF-12-019LNT20MB	5	10	
	0510625013	AZPF-10-019RCB20MB	5	10	
	0510625022	AZPF-10-016RCB20MB	5	10	
	0510625028	AZPF-12-016RRR20MB	5	10	
	0510625029	AZPF-12-019RRR20KB	5	10	
	0510625071	AZPF-11-016RRR20KB-S0023	5	10	
	0510625072	AZPF-11-019RRR20KB-S0023	5	10	
	0510625075	AZPF-12-016RHO30KB	5	10	
	0510625095	AZPF-11-016RRR20KB	5	10	
	0510625314	AZPF-10-019LCB20MB	5	10	
	0510625315	AZPF-10-016LCB20MB	5	10	
	0510715306	AZPF-12-022LCP20KB-S0007	5	10	
	0510725077	AZPF-12-022RRR20KB	5	10	
	0510725102	AZPF-11-022RRR20KB-S0023	5	10	
19	0510725058	AZPN-12-028RDC20KB	5	10	10091
	0510725094	AZPN-12-025RDC20KB	5	10	
20	0510725167	AZPG-22-032RCB20MB	5	10	10093
	0510725169	AZPG-22-040RCB20MB	5	10	
	0510725170	AZPG-22-045RCB20MB	5	10	
	0510725194	AZPG-22-040RDC20KB	5	10	

Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	**Data sheet**
Internal gear pumps					
21	R900932272	PGF2-2X/006RA01VP2	2	10	10213
	R900932265	PGF2-2X/006RE01VE4	2	10	
	R900564037	PGF2-2X/008RA01VP2	2	10	
	R900932266	PGF2-2X/008RE01VE4	2	10	
	R900932271	PGF2-2X/011RE01VE4	2	10	
	R900032712	PGF2-2X/013RA20VP2	2	10	
	R900943181	PGF2-2X/013RE20VE4	2	10	
	R900932275	PGF2-2X/016RA20VP2	2	10	
	R900932267	PGF2-2X/016RE01VE4	2	10	
	R900932193	PGF2-2X/016RE20VE4	2	10	
	R900571401	PGF2-2X/019RA20VP2	2	10	
	R900943182	PGF2-2X/019RE20VE4	2	10	
	R900932126	PGF2-2X/022RE20VE4	2	10	
	R900932088	PGF3-3X/025RE07VE4	2	10	
	R900932111	PGF3-3X/040RE07VE4	2	10	
22	R900968999	PGH2-2X/005RE07VU2	2	10	10223
	R900951301	PGH2-2X/006RE07VU2	2	10	
	R900951302	PGH2-2X/008RE07VU2	2	10	
	R900951303	PGH3-2X/011RE07VU2	2	10	
	R900951304	PGH3-2X/013RE07VU2	2	10	
	R900951305	PGH3-2X/016RE07VU2	2	10	
23	R901147100	PGH4-3X/020RE11VU2	2	10	10227
	R901147101	PGH4-3X/025RE11VU2	2	10	
	R901147107	PGH4-3X/032RE11VE4	2	10	
	R901147102	PGH4-3X/032RE11VU2	2	10	
	R901147103	PGH4-3X/040RE11VU2	2	10	
	R901147109	PGH4-3X/050RE11VE4	2	10	
	R901147104	PGH4-3X/050RE11VU2	2	10	
	R901147115	PGH5-3X/063RE11VU2	2	10	
	R901147123	PGH5-3X/080RE11VE4	2	10	
	R901147116	PGH5-3X/080RE11VU2	2	10	
	R901147117	PGH5-3X/100RE11VU2	2	10	
	R901147118	PGH5-3X/125RE11VU2	2	10	
	R901147119	PGH5-3X/160RE11VU2	2	10	
	R901147120	PGH5-3X/200RE07VU2	2	10	
	R901147121	PGH5-3X/250RE07VU2	2	10	

Page	Material number	Description	Maximum GoTo quantity (units)	Delivery time (working days) ex works	Data sheet
Vane pumps					
24	R900563233	PV7-1X/06-10RA01MA0-10	2	10	10515
	R900919237	PV7-1X/06-14RA01MA0-07	2	10	
	R900506809	PV7-1X/100-118RE07MC0-16	2	10	
	R900532770	PV7-1X/100-118RE07MD0-16	2	10	
	R900561846	PV7-1X/100-150RE07MC0-08	2	10	
	R900580381	PV7-1X/10-14RE01MC0-16	2	10	
	R900504653	PV7-1X/10-14RE01MD0-16	2	10	
	R900534143	PV7-1X/10-20RE01MC0-10	2	10	
	R900906584	PV7-1X/10-20RE01MD0-10	2	10	
	R900580382	PV7-1X/16-20RE01MC0-16	2	10	
	R900509274	PV7-1X/16-20RE01MD0-16	2	10	
	R900533582	PV7-1X/16-30RE01MC0-08	2	10	
	R900580383	PV7-1X/25-30RE01MC0-16	2	10	
	R900509506	PV7-1X/25-30RE01MD0-16	2	10	
	R900534508	PV7-1X/25-45RE01MC0-08	2	10	
	R900580384	PV7-1X/40-45RE37MC0-16	2	10	
	R900593330	PV7-1X/40-45RE37MD0-16	2	10	
	R900535588	PV7-1X/40-71RE37MC0-08	2	10	
	R900506808	PV7-1X/63-71RE07MC0-16	2	10	
	R900519094	PV7-1X/63-71RE07MD0-16	2	10	
	R900560659	PV7-1X/63-94RE07MC0-08	2	10	
	R900950953	PV7-2X/20-20RA01MA0-10	2	10	
	R900950955	PV7-2X/20-25RA01MA0-10	2	10	

Motors

Axial piston motors

26	R902230000	A2FM5/60W-VBB030 – [1] RAL9005	2	10	91001
	R902230001	A2FM10/61W-VAB030 – [1] RAL9005	2	10	
	R902230002	A2FM10/61W-VBB030 – [1] RAL9005	3	10	
	R902230006	A2FM12/61W-VAB030 – [1] RAL9005	2	10	
	R902230007	A2FM12/61W-VPB030 – [1] RAL9005	3	10	
	R902230008	A2FM12/61W-VPB040 – [1] RAL9005	3	10	
	R902230013	A2FM16/61W-VAB030 – [1] RAL9005	2	10	
	R902230014	A2FM16/61W-VBB030 – [1] RAL9005	3	10	
	R902230015	A2FM16/61W-VBB040 – [1] RAL9005	3	10	
	R902230021	A2FM23/61W-VAB020 – [1] RAL9005	2	10	
	R902230022	A2FM23/61W-VPB030 – [1] RAL9005	3	10	
	R902230023	A2FM23/61W-VPB040 – [1] RAL9005	3	10	
	R902230024	A2FM28/61W-VAB010 – [1] RAL9005	3	10	
	R902230025	A2FM28/61W-VAB020 – [1] RAL9005	2	10	
	R902230026	A2FM28/61W-VPB030 – [1] RAL9005	3	10	
	R902230027	A2FM32/61W-VAB010 – [1] RAL9005	3	10	
	R902230028	A2FM32/61W-VAB020 – [1] RAL9005	2	10	
	R902230029	A2FM32/61W-VBB030 – [1] RAL9005	3	10	
	R902230030	A2FM32/61W-VBB040 – [1] RAL9005	3	10	
	R902230031	A2FM45/61W-VPB010 – [1] RAL9005	3	10	
	R902230032	A2FM45/61W-VPB020 – [1] RAL9005	3	10	
	R902230033	A2FM45/61W-VPB040 – [1] RAL9005	3	10	

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Page	Material number	Description	Maximum GoTo quantity (units)	Delivery time (working days) ex works	Data sheet
26	R902230034	A2FM45/61W-VZB020 – [1] RAL9005	2	10	91001
	R902230035	A2FM56/61W-VAB020 – [1] RAL9005	2	10	
	R902230036	A2FM56/61W-VPB020 – [1] RAL9005	3	10	
	R902230037	A2FM63/61W-VAB010 – [1] RAL9005	3	10	
	R902230038	A2FM63/61W-VAB020 – [1] RAL9005	2	10	
	R902230039	A2FM63/61W-VBB040 – [1] RAL9005	3	10	
	R902230040	A2FM80/61W-VAB010 – [1] RAL9005	3	10	
	R902230041	A2FM80/61W-VAB020 – [1] RAL9005	2	10	
	R902230042	A2FM80/61W-VPB020 – [1] RAL9005	3	10	
	R902230043	A2FM90/61W-VAB010 – [1] RAL9005	3	10	
	R902230044	A2FM90/61W-VAB020 – [1] RAL9005	2	10	
	R902230045	A2FM90/61W-VBB020 – [1] RAL9005	1	10	
	R902230003	A2FM107/61W-VAB010 – [1] RAL9005	3	10	
	R902230004	A2FM107/61W-VAB020 – [1] RAL9005	3	10	
	R902230005	A2FM107/61W-VPB020 – [1] RAL9005	3	10	
	R902230009	A2FM125/61W-VAB010 – [1] RAL9005	3	10	
	R902230010	A2FM125/61W-VAB020 – [1] RAL9005	3	10	
	R902230011	A2FM125/61W-VBB010 – [1] RAL9005	3	10	
	R902230012	A2FM125/61W-VBB020 – [1] RAL9005	3	10	
	R902230016	A2FM160/61W-VAB010 – [1] RAL9005	3	10	
	R902230017	A2FM160/61W-VAB020 – [1] RAL9005	3	10	
	R902230018	A2FM180/61W-VAB010 – [1] RAL9005	3	10	
	R902230019	A2FM180/61W-VAB020 – [1] RAL9005	3	10	
	R902230020	A2FM200/63W-VAB010 – [1] RAL9005	3	10	
External gear motors					
27	0511545601	AZMF-10-011USA20ML	5	10	14026
	0511625611	AZMN-22-020-UCB20PX-S0077	5	10	
	0511645601	AZMF-10-016USA20ML	5	10	
	0511645603	AZMF-10-019USA20ML	5	10	

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Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	Data sheet
On/off valves					
Isolator valves					
30	R901086070	Z1S 6 A05-4X/V	5	5	21534
	R901086077	Z1S 6 B05-4X/V	5	5	
	R901086081	Z1S 6 C05-4X/V	5	5	
	R901086090	Z1S 6 D05-4X/V	10	5	
	R901085992	Z1S 6 E05-4X/V	5	5	
	R901086037	Z1S 6 F05-4X/V	5	5	
	R901086051	Z1S 6 P05-4X/V	10	5	
	R901086052	Z1S 6 P30-4X/V	5	5	
	R901086058	Z1S 6 T05-4X/V	10	5	
	R901086059	Z1S 6 T30-4X/V	5	5	
31	R901274759	Z1S 10P05-1-4X/F	5	5	21537
32	R900422881	S 6 A1.0/	5	5	20375
	R900375858	S 6 A5.0/	5	5	
	R900422886	S 8 A1.0/	5	5	
	R900358268	S 8 A5.0/	5	5	
	R900420531	S 10A1.0/	5	5	
	R900420532	S 10A2.0/	5	5	
	R900446476	S 10A5.0/	5	5	
	R900420537	S 15 A1.0/	5	5	
	R900420520	S 15 A2.0/	5	5	
	R900420521	S 15 A3.0/	5	5	
	R900446477	S 15 A5.0/	5	5	
	R900420525	S 20 A1.0/	5	5	
	R900420528	S 20 A2.0/	5	5	
	R900420529	S 20 A3.0/	5	5	
	R900446369	S 20 A5.0/	5	5	
	R900420511	S 25 A1.0/	5	5	
	R900451778	S 25 A5.0/	5	5	
	R900420519	S 30 A1.0/	5	5	
	R900420502	S 30 A2.0/	5	5	
	R900420504	S 30 A3.0/	5	5	
	R900446709	S 30 A5.0/	5	5	
33	R900347495	Z2S 6-1-6X/	10	5	21548
	R900347496	Z2S 6-2-6X/	5	5	
	R900347498	Z2S 6A1-6X/	5	5	
	R900347499	Z2S 6A2-6X/	5	5	
	R900347501	Z2S 6B1-6X/	5	5	
	R900347502	Z2S 6B2-6X/	5	5	
	R900347504	Z2S 6-1-6X/V	5	5	
	R900347505	Z2S 6-2-6X/V	5	5	
	R900347507	Z2S 6A1-6X/V	5	5	
34	R900407394	Z2S 10-1-3X/	10	5	21553
	R900407439	Z2S 10-1-3X/V	5	5	
	R900421985	Z2S 10-2-3X/	5	5	
	R900407424	Z2S 10A1-3X/	5	5	
	R900407434	Z2S 10B1-3X/	5	5	

Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	**Data sheet**
35	R900328797	Z2S 16-1-5X/	10	5	21558
	R900328798	Z2S 16A1-5X/	5	5	
36	R900432915	Z2S 22-1-5X/	5	5	21564
37	R900491117	SL 6 PB1-6X/	5	5	21460
38	R900483368	SV 10GA1-4X/	5	5	21468
	R900483369	SV 10PA1-4X/	5	5	
39	R900587558	SV 30 PA1-4X/	5	5	
40	R900483370	SL 10GA1-4X/	5	5	
	R900483371	SL 10PA1-4X/	5	5	
41	R900587554	SL 20 GA1-4X/	5	5	
	R900587559	SL 20 PA1-4X/	5	5	
42	R900587560	SL 30 PA1-4X/	5	5	
Directional valves					
43	R900052392	M-3SED 6 CK1X/350CG24N9K4	5	5	22049
	R900224526	M-3SED 6 CK1X/350CG24N9K4/V	5	5	
	R900223676	M-3SED 6 UK1X/350CG24K4	5	5	
	R900052621	M-3SED 6 UK1X/350CG24N9K4	5	5	
44	R900086685	M-3SED 10CK1X/350CG24N9K4	5	5	22045
	R900051053	M-3SED 10UK1X/350CG24N9K4	5	5	
45	R900566273	M-3SEW 6 C3X/420MG24N9K4	5	5	22058
	R900566279	M-3SEW 6 C3X/630MG24N9K4	5	5	
	R900566283	M-3SEW 6 U3X/420MG24N9K4	5	5	
	R900570174	M-3SEW 6 U3X/420MG24N9K4/V	5	5	
	R900566289	M-3SEW 6 U3X/630MG24N9K4	5	5	
46	R900561180	3WE 6 A6X/EG24N9K4	10	5	23178
	R900561270	3WE 6 B6X/EG24N9K4	10	5	
	R900561272	4WE 6 C6X/EG24N9K4	10	5	
	R900564107	4WE 6 C6X/OFEG24N9K4	10	5	
	R900554753	4WE 6 D6X/EG24K4	5	5	
	R900561274	4WE 6 D6X/EG24N9K4	10	5	
	R900564105	4WE 6 D6X/EG24N9K4/V	5	5	
	R900550062	4WE 6 D6X/EG24NK4	5	5	
	R900551704	4WE 6 D6X/EW110N9K4	5	5	
	R900909559	4WE 6 D6X/EW230N9K4	5	5	
	R900567512	4WE 6 D6X/OFEG24N9K4	10	5	
	R900903465	4WE 6 D6X/OFEG24N9K4/V	5	5	
	R900552321	4WE 6 D6X/OFEW110N9K4	5	5	
	R900561278	4WE 6 E6X/EG24N9K4	10	5	
	R900903464	4WE 6 E6X/EG24N9K4/V	5	5	
	R900558641	4WE 6 E6X/EW110N9K4	5	5	
	R900912492	4WE 6 E6X/EW230N9K4	5	5	
	R900561280	4WE 6 EA6X/EG24N9K4	10	5	
	R900561281	4WE 6 EB6X/EG24N9K4	10	5	
	R900561282	4WE 6 G6X/EG24N9K4	10	5	
	R900552009	4WE 6 G6X/EG24N9K4/V	5	5	
	R900912493	4WE 6 G6X/EW230N9K4	5	5	
	R900561284	4WE 6 GA6X/EG24N9K4	10	5	
	R900939610	4WE 6 GA6X/EG24N9K4/V	5	5	
	R900561286	4WE 6 H6X/EG24N9K4	10	5	

Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	**Data sheet**
46	R900906672	4WE 6 H6X/EW110N9K4	5	5	23178
	R900912494	4WE 6 H6X/EW230N9K4	5	5	
	R900549534	4WE 6 HA6X/EG24N9K4	10	5	
	R900553670	4WE 6 HB6X/EG24N9K4	10	5	
	R900561288	4WE 6 J6X/EG24N9K4	10	5	
	R900548772	4WE 6 J6X/EG24N9K4/V	5	5	
	R900550312	4WE 6 J6X/EG24NK4	5	5	
	R900551703	4WE 6 J6X/EW110N9K4	5	5	
	R900911762	4WE 6 J6X/EW230N9K4	5	5	
	R900561290	4WE 6 JA6X/EG24N9K4	10	5	
	R900561291	4WE 6 JB6X/EG24N9K4	10	5	
	R900577475	4WE 6 M6X/EG24N9K4	10	5	
	R900561292	4WE 6 Q6X/EG24N9K4	10	5	
	R900914070	4WE 6 Q6X/EG24N9K4/V	5	5	
	R900571012	4WE 6 R6X/EG24N9K4	10	5	
	R900572785	4WE 6 U6X/EG24N9K4	10	5	
	R900578186	4WE 6 UA6X/EG24N9K4	10	5	
	R900568233	4WE 6 W6X/EG24N9K4	10	5	
	R900561276	4WE 6 Y6X/EG24N9K4	10	5	
	R900909636	4WE 6 Y6X/EG24N9K4/V	5	5	
47	R901087087	4WE 6 E7X/HG24N9K4	10	5	23164
	R901087088	4WE 6 D7X/HG24N9K4	10	5	
	R901089241	4WE 6 J7X/HG24N9K4	10	5	
	R901089243	4WE 6 Y7X/HG24N9K4	10	5	
	R901089244	3WE 6 A7X/HG24N9K4	10	5	
	R901089245	4WE 6 C7X/HG24N9K4	10	5	
	R901130745	4WE 6 H7X/HG24N9K4	10	5	
	R901130746	4WE 6 D7X/OFHG24N9K4	10	5	
	R901130747	4WE 6 G7X/HG24N9K4	10	5	
	R901133322	4WE 6 HA7X/HG24N9K4	10	5	
48	R901278770	3WE 10A5X/EG24N9K4/M	10	5	23340
	R901278772	4WE 10C5X/EG24N9K4/M	10	5	
	R901278760	4WE 10D5X/EG24N9K4/M	10	5	
	R901278763	4WE 10D5X/OFEG24N9K4/M	10	5	
	R901278761	4WE 10E5X/EG24N9K4/M	10	5	
	R901278775	4WE 10EA5X/EG24N9K4/M	10	5	
	R901278780	4WE 10EB5X/EG24N9K4/M	10	5	
	R901278768	4WE 10G5X/EG24N9K4/M	10	5	
	R901278762	4WE 10H5X/EG24N9K4/M	10	5	
	R901278779	4WE 10HA5X/EG24N9K4/M	10	5	
	R901278744	4WE 10J5X/EG24N9K4/M	10	5	
	R901278782	4WE 10JA5X/EG24N9K4/M	10	5	
	R901278774	4WE 10Q5X/EG24N9K4/M	10	5	
	R901278784	4WE 10R5X/EG24N9K4/M	10	5	
	R901278778	4WE 10U5X/EG24N9K4/M	10	5	
	R901278773	4WE 10W5X/EG24N9K4/M	10	5	

Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	**Data sheet**
49	R901328472	5-4WE 10E5X/EG24N9K4/M	10	5	23352
	R901305959	5-4WE 10J5X/EG24N9K4/M	10	5	
	R901328454	5-4WE10C5X/EG24N9K4/M	10	5	
	R901328460	5-4WE10D5X/EG24N9K4/M	10	5	
50	R900470476	4WH 6 C5X/	5	5	22282
	R900449957	4WH 6 D5X/	5	5	
	R900755395	4WP 6 D6X/N	5	5	
51	R900469301	4WMM 6 D5X/F	5	5	22280
	R900467936	4WMM 6 E5X/	5	5	
	R900405611	4WMM 6 E5X/F	5	5	
	R900469302	4WMM 6 J5X/	5	5	
	R900466583	4WMM 6 J5X/F	5	5	
	R900465984	4WMR 6 D5X/	5	5	
52	R900926638	4WEH 16 J7X/6EG24N9ETK4/B10D3	3	5	24751
	R900930431	4WEH 16 J7X/6EG24N9ETK4/B10	3	5	
Pressure valves					
53	R900423717	DBDS 6 G1X/100	5	5	25402
	R900423719	DBDS 6 G1X/200	5	5	
	R900423720	DBDS 6 G1X/315	5	5	
	R900423721	DBDS 6 G1X/400	5	5	
	R900423722	DBDS 6 G1X/50	5	5	
	R900423729	DBDS 6 P1X/200	5	5	
	R900423730	DBDS 6 P1X/315	5	5	
54	R900409844	ZDB 6 VP2-4X/200V	5	5	25751
	R900409886	ZDB 6 VA2-4X/200V	5	5	
	R900409889	ZDB 6 VA2-4X/100V	5	5	
	R900409893	ZDB 6 VA2-4X/315V	5	5	
	R900409898	ZDB 6 VP2-4X/315V	5	5	
	R900409933	ZDB 6 VP2-4X/100V	5	5	
	R900411312	Z2DB 6 VC2-4X/200V	5	5	
	R900411314	Z2DB 6 VD2-4X/200V	5	5	
	R900411315	Z2DB 6 VC2-4X/100V	5	5	
	R900411318	Z2DB 6 VC2-4X/315V	5	5	
	R900411357	Z2DB 6 VD2-4X/315V	5	5	
	R900409958	ZDB 10VP2-4X/315V	5	5	
55	R900466591	DR 6 DP1-5X/75YM	5	5	26564
	R900481034	DR 6 DP1-5X/210Y	5	5	
	R900472470	DR 6 DP2-5X/25YM	5	5	
	R900413241	DR 6 DP2-5X/75Y	5	5	
	R900450964	DR 6 DP2-5X/75YM	5	5	
	R900413242	DR 6 DP2-5X/150Y	5	5	
	R900472020	DR 6 DP2-5X/150YM	5	5	
	R900455316	DR 6 DP2-5X/210YM	5	5	
56	R900500226	DR 10DP2-4X/150YM	5	5	26580

Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	**Data sheet**
57	R900409966	ZDR 6 DA1-4X/75Y	5	5	26570
	R900410849	ZDR 6 DA2-4X/150Y	10	5	
	R900410808	ZDR 6 DA2-4X/25Y	10	5	
	R900410813	ZDR 6 DA2-4X/75Y	10	5	
	R900445958	ZDR 6 DA2-4X/150YM	5	5	
	R900410855	ZDR 6 DA2-4X/210Y	10	5	
	R900410864	ZDR 6 DA3-4X/75Y	5	5	
	R900431771	ZDR 6 DB2-4X/75YM	10	5	
	R900431172	ZDR 6 DB2-4X/150YM	10	5	
	R900463269	ZDR 6 DB2-4X/210YM	10	5	
	R900409967	ZDR 6 DP1-4X/75YM	10	5	
	R900410806	ZDR 6 DP1-4X/150YM	10	5	
	R900476381	ZDR 6 DP1-4X/210YM	10	5	
	R900483785	ZDR 6 DP2-4X/25YM	10	5	
	R900483786	ZDR 6 DP2-4X/75YM	10	5	
	R900483787	ZDR 6 DP2-4X/150YM	10	5	
	R900483788	ZDR 6 DP2-4X/210YM	10	5	
	R900410865	ZDR 6 DP3-4X/75YM	5	5	
58	R900438008	ZDR 10DA2-5X/75Y	10	5	26585
	R900410884	ZDR 10DA2-5X/150Y	10	5	
	R900406651	ZDR 10DA2-5X/210Y	10	5	
	R900431509	ZDR 10DB2-5X/75YM	10	5	
	R900408340	ZDR 10DB2-5X/150YM	10	5	
	R900443484	ZDR 10DB2-5X/210YM	10	5	
	R900410875	ZDR 10DP2-5X/75YM	10	5	
	R900410880	ZDR 10DP2-5X/150YM	10	5	
	R900410876	ZDR 10DP2-5X/210YM	10	5	
59	R901224233	DA 6 VP2A5X/200FSM	5	5	26405
	R901224247	DA 6 VP2A5X/350FSM	5	5	
Flow control valves					
60	R900439389	Z2FS 6 A2-4X/2QV	5	5	27506
	R900440565	Z2FS 6 B2-4X/2QV	5	5	
	R900481621	Z2FS 6-2-4X/1Q	5	5	
	R900481623	Z2FS 6-2-4X/1QV	5	5	
	R900481622	Z2FS 6-2-4X/2Q	5	5	
	R900481624	Z2FS 6-2-4X/2QV	5	5	
	R900455714	Z2FS 6-3-4X/2QV	5	5	
	R900476838	Z2FS 6-5-4X/2QV	5	5	
61	R900517812	Z2FS 10-5-3X/V	5	5	27518
	R900523578	Z2FS 10A5-3X/S2V	5	5	
62	R900459203	Z2FS 16-8-3X/S	5	5	27526
	R900457256	Z2FS 16-8-3X/S2	5	5	
	R900473688	Z2FS 16-8-3X/S2V	5	5	
63	R900456783	Z2FS 22-8-3X/S	5	5	27536
	R900443176	Z2FS 22-8-3X/S2	5	5	

Page	Material number	Description	Maximum GoTo quantity (units)	Delivery time (working days) ex works	Data sheet
64	R900422145	MG 10G1X/V	5	5	27219
	R900437653	MG 15 G1X/V	5	5	
	R900422150	MG 20 G1X/V	5	5	
	R900437338	MG 6 G1X/V	5	5	
	R900438885	MG 8 G1X/V	5	5	
	R900424579	MK 10G1X/V	5	5	
	R900423326	MK 15 G1X/V	5	5	
	R900423328	MK 20 G1X/V	5	5	
	R900423340	MK 6 G1X/V	5	5	
	R900423343	MK 8 G1X/V	5	5	
65	R900205506	2FRM 6 B36-3X/1,5QMV	5	5	28163
	R900205507	2FRM 6 B36-3X/1,5QRV	5	5	
	R900205509	2FRM 6 B36-3X/10QRV	5	5	
	R900205510	2FRM 6 B36-3X/16QMV	5	5	
	R900205511	2FRM 6 B36-3X/16QRV	5	5	
	R900205513	2FRM 6 B36-3X/25QRV	5	5	
	R900205517	2FRM 6 B36-3X/3QRV	5	5	
	R900205519	2FRM 6 B36-3X/6QRV	5	5	
	R900205522	2FRM 6 B76-3X/16QRV	5	5	
	R900205526	2FRM 6 B76-3X/32QRV	5	5	
66	R900420286	2FRM 10-3X/50L	5	5	28389
	R900423261	2FRM 10-3X/50LB	5	5	
	R900424906	2FRM 16-3X/160L	5	5	
	R900424902	2FRM 16-3X/160LB	5	5	
2-way cartridge valves					
67	R900912570	LC 16 A00D7X/	5	5	21010
	R900912565	LC 16 A00E7X/	5	5	
	R900912566	LC 16 A05E7X/	5	5	
	R900912569	LC 16 A10D7X/	5	5	
	R900912567	LC 16 A10E7X/	5	5	
	R900912572	LC 16 A20D7X/	5	5	
	R900910269	LC 16 A20E7X/	5	5	
	R900912573	LC 16 A40D7X/	5	5	
	R900912568	LC 16 A40E7X/	5	5	
	R900912546	LC 16 DB20D7X/	5	5	
	R900912531	LC 16 DB20E7X/	5	5	
	R900912532	LC 16 DB40E7X/	5	5	
	R900912579	LC 25 A00D7X/	5	5	
	R900912575	LC 25 A00E7X/	5	5	
	R900909251	LC 25 A05D7X/	5	5	
	R900912576	LC 25 A05E7X/	5	5	
	R900912578	LC 25 A10D7X/	5	5	
	R900912577	LC 25 A10E7X/	5	5	
	R900912580	LC 25 A20D7X/	5	5	
	R900910270	LC 25 A20E7X/	5	5	
	R900912581	LC 25 A40D7X/	5	5	
	R900912574	LC 25 A40E7X/	5	5	
	R900912552	LC 25 DB20D7X/	5	5	
	R900912549	LC 25 DB20E7X/	5	5	

Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	Data sheet
67	R900912555	LC 25 DB40D7X/	5	5	21010
	R900912550	LC 25 DB40E7X/	5	5	
	R900912587	LC 32 A00D7X/	5	5	
	R900912586	LC 32 A00E7X/	5	5	
	R900909245	LC 32 A05D7X/	5	5	
	R900912585	LC 32 A05E7X/	5	5	
	R900912588	LC 32 A10D7X/	5	5	
	R900912583	LC 32 A10E7X/	5	5	
	R900912589	LC 32 A20D7X/	5	5	
	R900906337	LC 32 A20E7X/	5	5	
	R900909665	LC 32 A40D7X/	5	5	
	R900909662	LC 32 A40E7X/	5	5	
	R900909570	LC 32 B05E7X/	5	5	
	R900912613	LC 32 B20E7X/	5	5	
	R900912610	LC 32 B40E7X/	5	5	
	R900912556	LC 32 DB20D7X/	5	5	
	R900912543	LC 32 DB20E7X/	5	5	
	R900910773	LC 32 DB40E7X/	5	5	
	R900973493	LC 40 A00D7X/	5	5	
	R900937994	LC 40 A00E7X/	5	5	
	R900937996	LC 40 A05E7X/	5	5	
	R900937998	LC 40 A10E7X/	5	5	
	R900937999	LC 40 A20D7X/	5	5	
	R900938000	LC 40 A20E7X/	5	5	
	R900935732	LC 40 A40D7X/	5	5	
	R900927973	LC 40 A40E7X/	5	5	
	R900938007	LC 40 B20E7X/	5	5	
	R900938012	LC 40 DB20E7X/	5	5	
	R900927969	LC 40 DB40E7X/	5	5	
	R900967287	LC 50 A00D7X/	5	5	
	R900938020	LC 50 A00E7X/	5	5	
	R900912625	LFA 16 D-7X/F	10	5	
	R900912736	LFA 16 WEMA-7X/	5	5	
	R900905302	LFA 25 D-7X/F	10	5	
	R900912687	LFA 25 WEMA-7X/	5	5	
	R900905303	LFA 32 D-7X/F	10	5	
	R900912721	LFA 32 WEMA-7X/	5	5	
	R900938073	LFA 40 D-7X/F	10	5	
	R900938144	LFA 40 WEMA-7X/	5	5	
	R900938150	LFA 50 D-7X/F	10	5	

Page	Material number	Description	Maximum GoTo quantity (units)	Delivery time (working days) ex works	Data sheet
Proportional servo valves					
Proportional directional valves					
70	R900907650	4WRA 10W60-2X/G24N9K4/V	5	5	29055
	R900913443	4WRA 6 W15-2X/G24N9K4/V	5	5	
	R900902095	4WRA 6 W30-2X/G24N9K4/V	5	5	
	R900558356	4WRAE 10E60-2X/G24N9K31/A1V	5	5	
	R900900988	4WRAE 10W60-2X/G24N9K31/A1V	5	5	
	R900909389	4WRAE 6 E15-2X/G24N9K31/A1V	5	5	
	R900558355	4WRAE 6 E30-2X/G24N9K31/A1V	5	5	
	R900908938	4WRAE 6 W15-2X/G24N9K31/A1V	5	5	
	R900900987	4WRAE 6 W30-2X/G24N9K31/A1V	5	5	
71	R900954101	4WRE 10E50-2X/G24K4/V	5	5	29061
	R900954102	4WRE 10E75-2X/G24K4/V	5	5	
	R900954092	4WRE 6 E16-2X/G24K4/V	5	5	
	R900926366	4WRE 6 E32-2X/G24K4/V	5	5	
	R900933076	4WREE 10E1-50-2X/G24K31/A1V	5	5	
	R900927232	4WREE 10E1-75-2X/G24K31/A1V	5	5	
	R900927231	4WREE 10E50-2X/G24K31/A1V	5	5	
	R900927230	4WREE 10E75-2X/G24K31/A1V	5	5	
	R900927235	4WREE 10V50-2X/G24K31/A1V	5	5	
	R900924607	4WREE 10V75-2X/G24K31/A1V	5	5	
	R900933077	4WREE 10W1-50-2X/G24K31/A1V	5	5	
	R900927234	4WREE 10W1-75-2X/G24K31/A1V	5	5	
	R900931371	4WREE 10W50-2X/G24K31/A1V	5	5	
	R900927233	4WREE 10W75-2X/G24K31/A1V	5	5	
	R900912156	4WREE 6 E08-2X/G24K31/A1V	5	5	
	R900915686	4WREE 6 E1-16-2X/G24K31/A1V	5	5	
	R900928553	4WREE 6 E1-32-2X/G24K31/A1V	5	5	
	R900920567	4WREE 6 E16-2X/G24K31/A1V	5	5	
	R900907114	4WREE 6 E32-2X/G24K31/A1V	5	5	
	R900909367	4WREE 6 V08-2X/G24K31/A1V	5	5	
	R900907440	4WREE 6 V16-2X/G24K31/A1V	5	5	
	R900911681	4WREE 6 V32-2X/G24K31/A1V	5	5	
	R900939627	4WREE 6 W1-16-2X/G24K31/A1V	5	5	
	R900913359	4WREE 6 W1-32-2X/G24K31/A1V	5	5	
	R900925657	4WREE 6 W16-2X/G24K31/A1V	5	5	
	R900911004	4WREE 6 W32-2X/G24K31/A1V	5	5	
72	R900977490	4WRZE 16 W6-150-7X/6EG24N9ETK31/A1D3M	3	5	29115
	R900973361	4WRKE 16 W6-200L-3X/6EG24K31/A1D3M	3	5	
Proportional pressure valves					
73	R901029968	DBETE-6X/200G24K31A1V	5	5	29162
	R901064677	DBETE-6X/200YG24K31A1V	5	5	
	R901029969	DBETE-6X/315G24K31A1V	5	5	
	R901064278	DBETE-6X/315YG24K31A1V	5	5	
	R901029970	DBETE-6X/350G24K31A1V	5	5	
	R901064548	DBETE-6X/350YG24K31A1V	5	5	
74	R901335399	DBEM 10-7X/315YG24K4M	5	5	29361
	R901344448	DBEME 10-7X/315YG24K31A1M	5	5	
	R901353070	DBEME 20-7X/315YG24K31A1M	5	5	

Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	**Data sheet**
75	R900955887	3DREP 6 C-2X/25EG24N9K4/M	5	5	29184
	R900955784	3DREPE 6 C-2X/25EG24N9K31/A1M	5	5	
76	R900915963	ZDRE 6 VP2-1X/210MG24K4M	10	5	29175
77	R901198302	ZDREE 10VP2-2X/200XLMG24K31A1M	10	5	29279
78	0811402080	DREBE 6X-1X/175MG24K31A1M	5	5	29195
	0811402081	DREBE 6X-1X/310MG24K31A1M	5	5	
	0811402082	DREBE 6X-1X/75MG24K31A1M	5	5	
Directional control valves					
79	0811404639	4WRPEH 6 C B40L-2X/G24K0/A1M	2	5	29035
	0811404600	4WRPEH 6 C3 B04L-2X/G24K0/A1M	5	5	
	0811404601	4WRPEH 6 C3 B12L-2X/G24K0/A1M	5	5	
	0811404602	4WRPEH 6 C3 B24L-2X/G24K0/A1M	5	5	
	0811404603	4WRPEH 6 C3 B40L-2X/G24K0/A1M	5	5	
	0811404610	4WRPEH 6 C4 B04L-2X/G24K0/A1M	5	5	
	0811404611	4WRPEH 6 C4 B12L-2X/G24K0/A1M	5	5	
	0811404612	4WRPEH 6 C4 B24L-2X/G24K0/A1M	5	5	
	0811404613	4WRPEH 6 C4 B40L-2X/G24K0/A1M	5	5	
	0811404642	4WRPEH 6 C3 B15P-2X/G24K0/A1M	5	5	
	0811404644	4WRPEH 6 C3 B40P-2X/G24K0/A1M	5	5	
	0811404645	4WRPEH 6 C4 B15P-2X/G24K0/A1M	5	5	
	0811404646	4WRPEH 6 C4 B25P-2X/G24K0/A1M	5	5	
	0811404738	4WRPEH 6 C1 B40L-2X/G24K0/A1M	5	5	
	0811404744	4WRPEH 6 C3 B02L-2X/G24K0/A1M	5	5	
	0811404746	4WRPEH 6 C5 B40L-2X/G24K0/A1M	5	5	
80	0811404800	4WRPEH 10C3 B50L-2X/G24K0/A1M	5	5	29037
	0811404801	4WRPEH 10C3 B100L-2X/G24K0/A1M	5	5	
	0811404802	4WRPEH 10C4 B50L-2X/G24K0/A1M	5	5	
	0811404803	4WRPEH 10C4 B100L-2X/G24K0/A1M	5	5	
	0811404820	4WRPEH 10C1 B50L-2X/G24K0/A1M	5	5	
	0811404821	4WRPEH 10C1 B100L-2X/G24K0/A1M	5	5	
81	R901192039	4WRLE 16 E1-180SJ-3X/G24K0/A1M	1	5	29087
	R901140499	4WRLE 16 E180SJ-3X/G24K0/A1M	2	5	
	R901102544	4WRLE 16 W1-180SJ-3X/G24K0/A1M	2	5	
	R901298639	4WRLE 25 E350SJ-3X/G24K0/A1M	1	5	
82	0811404653	4WRLE 10V85M-3X/G24K0/A1M	3	5	29088
	0811404250	4WRLE 16 V120M-3X/G24K0/A1M	3	5	
	0811404251	4WRLE 16 V200M-3X/G24K0/A1M	3	5	
	0811404430	4WRLE 25 V370M-3X/G24K0/A1M	3	5	
	0811404579	4WRLE 35 V1000M-3X/G24K0/A1M	1	5	
82	0811404703	4WRLE 10W1-80SJ-3X/G24K0/A1M	3	5	29089

Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	Data sheet
Manifolds and plates					
Subplates					
84	R900424447	G 341/01	10	5	45052
	R900424448	G 342/01	10	5	
	R900455110	G 502/01	5	5	
85	R900424460	G 67/01	5	5	45054
	R900467259	G 534/01	5	5	
86	R900411117	G 546/01	5	5	45064
Cover plates					
87	R900316232	HSA 06 A001-3X/M00	10	5	48042
Electronics					
Valve amplifiers					
90	0811405143	VT-SSPA1-525-2X/V0/0	5	5	30264
	0811405144	VT-SSPA1-508-2X/V0/0	5	5	
91	R900211788	VT 11118-1X/	5	5	30218
92	R900030647	VT 11132-1X/	5	5	29865
93	R900033823	VT-VSPA1-1-1X/	5	5	30111
94	R901002095	VT-VSPA2-1-2X/V0/T5	5	5	30110
Sensor technology and signal transmitters					
95	R901295668	HM 20-1X/100-C-K35	10	5	30270
	R901296640	HM 20-1X/250-C-K35	10	5	
	R901295669	HM 20-1X/400-C-K35	10	5	
96	R901185727	HED 5 OH-3X/100K14	10	5	50056
	R901182344	HED 5 OH-3X/50K14	10	5	
97	R901102706	HED 8 OA-2X/100K14	5	5	50061
	R901106262	HED 8 OA-2X/100K14AS	5	5	
	R901094159	HED 8 OA-2X/100K14KW	5	5	
	R901102711	HED 8 OA-2X/100K14S	10	5	
	R901102708	HED 8 OA-2X/200K14	5	5	
	R901106452	HED 8 OA-2X/200K14AS	5	5	
	R901106448	HED 8 OA-2X/200K14KW	5	5	
	R901102727	HED 8 OA-2X/200K14S	10	5	
	R901102710	HED 8 OA-2X/350K14	5	5	
	R901102722	HED 8 OA-2X/350K14AS	5	5	
	R901102716	HED 8 OA-2X/350K14KW	5	5	
	R901102778	HED 8 OA-2X/350K14S	10	5	
	R901101698	HED 8 OA-2X/50K14	5	5	
	R901106499	HED 8 OA-2X/50K14AS	5	5	
	R901102754	HED 8 OA-2X/50K14KW	5	5	
	R901102704	HED 8 OA-2X/50K14S	10	5	
	R901102360	HED 8 OH-2X/100K14	5	5	
	R901095375	HED 8 OH-2X/100K14S	5	5	
	R901099808	HED 8 OH-2X/200K14	5	5	
	R901102362	HED 8 OH-2X/200K14S	5	5	
	R901101640	HED 8 OH-2X/350K14	5	5	
	R901102713	HED 8 OH-2X/350K14S	5	5	
	R901102349	HED 8 OH-2X/50K14	5	5	
	R901102712	HED 8 OH-2X/50K14S	5	5	

Page	Material number	Description	Maximum GoTo quantity (units)	Delivery time (working days) ex works	Data sheet
Power units					
Motor-pump groups					
100	R901305074	ABAPG-A10VSO 18DFR1VPA/ 7,5CB4523/SE HOY	3	10	51170
	R901305076	ABAPG-A10VSO 18DFR1VPA/15,0CB4523/SE HOY	3	10	
	R901305081	ABAPG-A10VSO 28DFR1VPA/15,0CB4523/SE HOY	3	10	
	R901305083	ABAPG-A10VSO 28DFR1VPA/22,0CB4523/SE HOY	3	10	
	R901305086	ABAPG-A10VSO 45DFR1VPA/15,0CB4523/SE HOY	3	10	
	R901305097	ABAPG-A10VSO 71DFR1VPA/45,0CB4523/SE HOY	3	10	
	R901305103	ABAPG-A10VSO100DFR1VPA/45,0CB4523/SE HOY	3	10	
101	R901305578	ABAPG-V7- 16- 20MC0-16/ 5,5CB4523/SE HOY	3	10	51171
	R901305580	ABAPG-V7- 25- 30MC0-16/ 5,5CB4523/SE HOY	3	10	
	R901305584	ABAPG-V7- 40- 45MC0-16/11,0CB4523/SE HOY	3	10	
	R901313095	ABHPG-V7- 10- 14MC0-16/ 3,0CA4523/S HOY	3	10	
Accumulators					
Hydro-pneumatic accumulators					
104	R901183242	HAD0,075-250-1X/2Z04F-1N111-BA	2	10	50150
	R901183248	HAD0,16-250-1X/0Z06F-1N111-BA	2	10	
	R901183250	HAD0,35-210-1X/0Z06C-1N111-BA	2	10	
	R901183251	HAD0,5-160-1X/2Z06C-1N111-BA	2	10	
	R901183253	HAD0,5-250-2X/2Z06C-1N111-BA	2	10	
	R901164364	HAD0,7-100-1X/2G04E-1N111-BA	2	10	
	R901164365	HAD0,7-210-1X/0G04E-1N111-BA	2	10	
	R901164366	HAD0,7-350-2X/2G04E-1N111-BA	2	10	
	R901164367	HAD1,0-200-1X/2G04E-1N111-BA	2	10	
	R901164368	HAD1,4-140-1X/2G04E-1N111-CE	2	10	
	R901164369	HAD1,4-250-1X/0G04E-1N111-CE	2	10	
	R901164370	HAD1,4-350-2X/2G04E-1N111-CE	2	10	
	R901164371	HAD2,0-100-1X/2G05E5-1N111-CE	2	10	
	R901164372	HAD2,0-250-1X/2G05E5-1N111-CE	2	10	
	R901164374	HAD2,8-250-1X/0G05E5-1N111-CE	2	10	
	R901164376	HAD3,5-250-1X/2G05E5-1N111-CE	2	10	
105	R901195131	HAB1-350-4X/2G05G-2N111-BA	2	10	50170
	R901195133	HAB2,5-350-4X/2G07G-2N111-CE	2	10	
	R901195135	HAB4-350-4X/2G07G-2N111-CE	2	10	
	R901195137	HAB6-350-4X/2G07G-2N111-CE	2	10	
	R901195139	HAB10-330-4X/2G09G-2N111-CE	2	10	
	R901195141	HAB20-330-4X/2G09G-2N111-CE	2	10	
	R901195143	HAB35-330-4X/2G09G-2N111-CE	2	10	
	R901195145	HAB50-330-4X/2G09G-2N111-CE	2	10	

Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	**Data sheet**
Accumulator stations					
106	R901246327	ABSBG-1X/B 1,0N-BA /10M330 V/B6M DC	5	10	50135
	R901246329	ABSBG-1X/B 4,0N-CE /10M330 V/A6M DC	5	10	
	R901246330	ABSBG-1X/B10,0N-CE /20M330 V/A6M DC	5	10	
	R901246331	ABSBG-1X/B20,0N-CE /20M330 V/A6M DC	5	10	
	R901246336	ABSBG-1X/B 2,5N-CE /10E330G 24V/B6M DC	5	10	
	R901246337	ABSBG-1X/B 4,0N-CE /10E330G 24V/A6M DC	5	10	
	R901246338	ABSBG-1X/B10,0N-CE /20E330G 24V/A6M DC	5	10	
	R901246339	ABSBG-1X/B20,0N-CE /20E330G 24V/A6M DC	5	10	
	R901246340	ABSBG-1X/B35,0N-CE /30E330G 24V/A6M DC	5	10	
	R901246341	ABSBG-1X/B50,0N-CE /30E330G 24V/A6M DC	5	10	
	R901280003	ABSBG-1X/M 1,4N-CE /10E140G 24V/K6M DC	5	10	
	R901280013	ABSBG-1X/M 1,4N-CE /10M140 V/K6M DC	5	10	
	R901290495	ABSBG-1X/B 2,5N-CE /10M100 V/B6M DC	5	10	
	R901299040	ABSBG-1X/B10,0N-88 /20E210G 24V/A6M OL	5	10	
Filters					
Tank mounted filters / return flow filters					
108	R928048600	10TDN0040-1X/H10XLA00-V2,2-M-R4	1	5	51454
	R928048602	10TDN0100-1X/H10XLA00-V2,2-M-R4	1	5	
	R928048606	10TDN0630-1X/H10XLA00-V2,2-M-S9	1	5	
	R928048992	10TDN1000-1X/H10XLA00-V2,2-M-S10	1	5	
Filter systems					
109	R901337655	ABUKG-15K-4X/0K30/ 46S/ 2,2CA45/ HOY	3	10	50125
	R901337656	ABUKG-22K-4X/0K26/ 71S/ 2,2CA45/ HOY	3	10	
	R901337662	ABUKG-04K-4X/0K06/ 17G/ 1,1CA45/ HOY	3	10	
	R901337663	ABUKG-07K-4X/0K10/ 23G/ 1,1CA45/ HOY	3	10	
Filter elements					
110	R928005477	1.0005 H10XL-A00-0-M	4	5	51420
	R928005495	1.0008 H10XL-A00-0-M	3	5	
	R928005547	1.0018 H3XL-A00-0-M	2	5	
	R928005549	1.0018 H10XL-A00-0-M	3	5	
	R928005567	1.0020 H10XL-A00-0-M	3	5	
	R928005601	1.0030 H3XL-A00-0-M	3	5	
	R928005604	1.0030 H20XL-A00-0-M	3	5	
	R928005637	1.0045 H3XL-A00-0-M	3	5	
	R928005835	1.0040 H3XL-A00-0-M	3	5	
	R928005836	1.0040 H6XL-A00-0-M	2	5	
	R928005853	1.0063 H3XL-A00-0-M	2	5	
	R928005854	1.0063 H6XL-A00-0-M	2	5	
	R928005871	1.0100 H3XL-A00-0-M	3	5	
	R928005872	1.0100 H6XL-A00-0-M	2	5	
	R928005889	1.0160 H3XL-A00-0-M	2	5	
	R928005890	1.0160 H6XL-A00-0-M	2	5	
	R928005925	1.0250 H3XL-A00-0-M	2	5	
	R928005926	1.0250 H6XL-A00-0-M	4	5	
	R928005961	1.0400 H3XL-A00-0-M	2	5	
	R928005962	1.0400 H6XL-A00-0-M	2	5	
	R928005997	1.0630 H3XL-A00-0-M	3	5	

Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	**Data sheet**
110	R928005998	1.0630 H6XL-A00-0-M	4	5	51420
	R928006033	1.1000 H3XL-A00-0-M	3	5	
	R928006034	1.1000 H6XL-A00-0-M	4	5	
	R928006049	2.0004 G10-A00-0-M	5	5	
	R928006050	2.0004 G25-A00-0-M	6	5	
	R928006051	2.0004 H3XL-A00-0-M	1	5	
	R928006052	2.0004 H6XL-A00-0-M	3	5	
	R928006053	2.0004 H10XL-A00-0-M	4	5	
	R928006105	2.0005 H3XL-A00-0-M	4	5	
	R928006107	2.0005 H10XL-A00-0-M	4	5	
	R928006160	2.0008 H6XL-A00-0-M	5	5	
	R928006161	2.0008 H10XL-A00-0-M	4	5	
	R928006162	2.0008 H20XL-A00-0-M	3	5	
	R928006214	2.0013 H6XL-A00-0-M	5	5	
	R928006215	2.0013 H10XL-A00-0-M	4	5	
	R928006216	2.0013 H20XL-A00-0-M	4	5	
	R928006269	2.0015 H10XL-A00-0-M	4	5	
	R928006323	2.0018 H10XL-A00-0-M	4	5	
	R928006376	2.0020 H6XL-A00-0-M	1	5	
	R928006377	2.0020 H10XL-A00-0-M	3	5	
	R928006430	2.0030 H6XL-A00-0-M	4	5	
	R928006431	2.0030 H10XL-A00-0-M	4	5	
	R928006432	2.0030 H20XL-A00-0-M	4	5	
	R928006484	2.0045 H6XL-A00-0-M	3	5	
	R928006486	2.0045 H20XL-A00-0-M	3	5	
	R928006645	2.0040 H3XL-A00-0-M	4	5	
	R928006646	2.0040 H6XL-A00-0-M	2	5	
	R928006699	2.0063 H3XL-A00-0-M	3	5	
	R928006700	2.0063 H6XL-A00-0-M	3	5	
	R928006753	2.0100 H3XL-A00-0-M	4	5	
	R928006754	2.0100 H6XL-A00-0-M	3	5	
	R928006807	2.0160 H3XL-A00-0-M	3	5	
	R928006808	2.0160 H6XL-A00-0-M	3	5	
	R928006861	2.0250 H3XL-A00-0-M	4	5	
	R928006862	2.0250 H6XL-A00-0-M	4	5	
	R928006915	2.0400 H3XL-A00-0-M	2	5	
	R928006916	2.0400 H6XL-A00-0-M	4	5	
	R928006970	2.0630 H6XL-A00-0-M	3	5	
	R928007023	2.1000 H3XL-A00-0-M	2	5	
	R928007024	2.1000 H6XL-A00-0-M	2	5	
	R928007211	2.0004 P10-A00-0-M	5	5	
	R928022274	2.0130 H3XL-A00-0-M	2	5	
	R928022275	2.0130 H6XL-A00-0-M	2	5	
	R928022283	2.0150 H3XL-A00-0-M	3	5	
	R928022284	2.0150 H6XL-A00-0-M	2	5	

Page	Material number	Description	**Maximum GoTo quantity** (units)	**Delivery time** (working days) **ex works**	**Data sheet**
111	R928017073	9.30LA H20XL-A00-0-M SO3000	3	5	51457
	R928017086	9.30LA H10XL-F00-0-M SO3000	4	5	
	R928017110	9.60LA H20XL-A00-0-M SO3000	3	5	
	R928017111	9.60LA H10XL-A00-0-M SO3000	4	5	
	R928017143	9.110LA H20XL-A00-0-M SO3000	3	5	
	R928017144	9.110LA H10XL-A00-0-M SO3000	5	5	
	R928017145	9.110LA H6XL-A00-0-M SO3000	2	5	
	R928017152	9.110LA H10XL-F00-0-M SO3000	4	5	
	R928017177	9.140LA H10XL-A00-0-M SO3000	2	5	
	R928017176	9.140LA H20XL-A00-0-M SO3000	3	5	
	R928017218	9.160LA H10XL-F00-0-M SO3000	4	5	
	R928017242	9.240LA H20XL-A00-0-M SO3000	3	5	
	R928017243	9.240LA H10XL-A00-0-M SO3000	4	5	
	R928017251	9.240LA H10XL-F00-0-M SO3000	4	5	
	R928017276	9.280LA H10XL-A00-0-M SO3000	3	5	
	R928017308	9.330LA H20XL-A00-0-M SO3000	2	5	
	R928017309	9.330LA H10XL-A00-0-M SO3000	4	5	
	R928017310	9.330LA H6XL-A00-0-M SO3000	4	5	
	R928017317	9.330LA H10XL-F00-0-M SO3000	4	5	
	R928017383	9.500LA H10XL-F00-0-M SO3000	4	5	
	R928017407	9.660LA H20XL-A00-0-M SO3000	4	5	
	R928017408	9.660LA H10XL-A00-0-M SO3000	4	5	
	R928017409	9.660LA H6XL-A00-0-M SO3000	3	5	
	R928017437	10.30LA H10XL-A00-6-M SO3000	3	5	
	R928017460	10.60LA H10XL-A00-6-M SO3000	4	5	
	R928017483	10.110LA H10XL-A00-6-M SO3000	4	5	
	R928017506	10.160LA H10XL-A00-6-M SO3000	4	5	
	R928017528	10.240LA H20XL-A00-6-M SO3000	3	5	
	R928017529	10.240LA H10XL-A00-6-M SO3000	4	5	
	R928017551	10.330LA H20XL-A00-6-M SO3000	3	5	
	R928017552	10.330LA H10XL-A00-6-M SO3000	4	5	
	R928017553	10.330LA H6XL-A00-6-M SO3000	3	5	
	R928017597	10.660LA H20XL-A00-6-M SO3000	4	5	
	R928017598	10.660LA H10XL-A00-6-M SO3000	4	5	
	R928017599	10.660LA H6XL-A00-6-M SO3000	3	5	
	R928017621	10.850LA H10XL-A00-6-M SO3000	3	5	
	R928017644	10.950LA H10XL-A00-6-M SO3000	4	5	
	R928017666	10.1300LA H20XL-A00-6-M SO3000	4	5	
	R928017667	10.1300LA H10XL-A00-6-M SO3000	4	5	
	R928017668	10.1300LA H6XL-A00-6-M SO3000	4	5	
	R928017690	10.2600LA H10XL-A00-6-M SO3000	4	5	
	R928019034	10.165LA H20XL-A00-6-M SO3000	2	5	
	R928019035	10.165LA H10XL-A00-6-M SO3000	2	5	
	R928019037	10.75LA H10XL-A00-6-M SO3000	3	5	
	R928019880	10.1700LA H10XL-A00-6-M SO3000	2	5	
	R928022585	10.2600LA H6XL-A00-0-M SO3000	2	5	
	R928045365	10.2600LA H6XL8-A00-0-M	2	5	

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