rexroth
A Bosch Company

Explosion-protected hydraulic products for industrial and mobile applications

Product overview

www.boschrexroth.com/atex

Occupational health and safety: Standards-compliant explosion protection

Gases, steam, solvent mist, or dust: Whenever technical operating resources are used in areas that pose a potential explosion hazard, legislators around the world require that special safety precautions be taken to protect both man and machine. Rexroth assists users, operators, and machine manufacturers alike by offering a wide variety of components and solutions that meet national and international explosion protection requirements.

An explosive atmosphere arises as a result of oxygen bonding with explosive substances in the form of gas, fog/mist, vapor, or dust. Ignition sources such as sparks and hot surfaces can trigger explosions in this environment and thus pose considerable risk. Ensuring the safety of personnel, the environment, and production machinery is the utmost priority in explosive atmospheres.

Explosion protection focuses on providing protection from the development of an explosion and its effects and is rooted in legal requirements such as ATEX Directive 2014/34/EU in Europe, NEC in the USA, and CEC in Canada as well as other national regulations. The standards that are derived (e.g. IEC and EN) describe the specific requirements for machine manufacturers and operators and define zones and ignition protection types. It is in this context that Rexroth offers you an extensive portfolio of products and solutions.

STRICT GUIDELINES AND STANDARDS

- Rexroth products for use in areas that pose a potential explosion hazard have successfully passed systematic risk analyses, conformity assessment procedures and type testing routines if necessary.
- Quality assurance measures safeguard traceability.
- Delivery according to the ATEX guidelines includes the declaration of conformity, a CE and EX label, and operating instructions in several languages.

▶ **The nameplate references the respective product approval for use in areas that pose a potential explosion hazard.**

Recognizing hazards and categorizing them correctly

Legal directives such as 2014/34/EU (ATEX) in Europe or NEC/CEC in the USA and Canada as well as other national and international regulations define the intended application of operating resources in areas that pose a potential explosion hazard. The place of use and zoning as well as the ignition protection type and equipment protection level determine the requirements for components, units and devices. To this end, Rexroth offers you a wide variety of suitable hydraulic and electric drive products.

CLASSIFICATION OF OPERATING RESOURCES USING THE ATEX DIRECTIVE AS AN EXAMPLE

Zoning

The ATEX directive calls for a risk assessment to be conducted by the operator or a commissioned external party as the first step. The relevant standards differentiate, for example, between areas subject to gas explosions caused by solvents or other process vapors, for example, and areas subject to dust explosions as are found in the food and wood industries. The frequency with which these potentially explosive atmospheres arise defines the correlation with a standardized zone which, in turn, dictates the level of protection required. Every zone is assigned an equipment category.

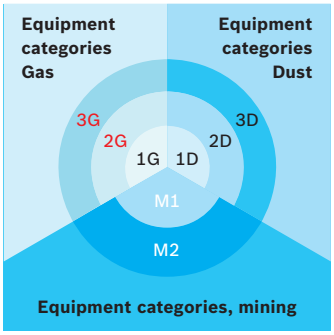
Equipment group and category

Our products are assigned to equipment groups and categories in line with the regulations specified by the ATEX directive and intended use applications. Underground operation (mining) and the above-ground installation are assigned equipment group I. All other areas with an explosion risk are assigned equipment group II. In addition to the equipment groups that fall under the ATEX directive, equipment is also assigned to a specific equipment category in line with the EN 60079 series of standards and the subsequent area of application.

Equipment category 1G/1D/M1 – Very high level of protection
Equipment category 2G/2D/M2 – High level of protection
Equipment category 3G/3D – Normal level of protection

Ignition protection types

Appropriate technical measures ensure that no effective source of ignition can develop. Several technical options exist for realizing explosion protection for an electrical and non-electric device, such as flameproof encapsulation, pressurized encapsulation, intrinsic safety and cast encapsulation.



◀ **Rexroth offers a wide variety of certified products for different hazard zones and equipment categories**

Explosive area Gas	Frequency	Equipment group	quipment category	Area of application	Level of protection
Zone 0	Continuous, frequent, long-term	II	1G	Gases, vapors, fog/mist	Ga Very high level of protection
Zone 1	Occasional	II	2G	Gases, vapors, fog/mist	Gb High level of protection
Zone 2	Seldom, short time frame, at malfunction	II	3G	Gases, vapors, fog/mist	Gc Normal level of protection

Explosive area Dust	Frequency	Equipment group	Equipment category	Area of application	Level of protection
Zone 20	Continuous, frequent, long-term	II	1D	Dusts	Da Very high level of protection
Zone 21	Occasional	II	2D	Dusts	Db High level of protection
Zone 22	Seldom, short time frame, at malfunction	II	3D	Dusts	Dc Normal level of protection

Explosive area Mining	Frequency	Equipment group	Equipment category	Area of application	Level of protection
Mining	Continuous	I	M1	Methane, coal dust	Ma Very high level of protection
Mining	Frequent	I	M2	Methane, coal dust	Mb High level of protection

Temperature classes, temperature limits

The ignition temperature of a combustible gas or liquid is the lowest temperature at which the gas/air or vapor/air ignition event occurs. The highest surface temperature of an operating resource must therefore always be lower than the ignition temperature of the surrounding atmosphere. The maximum permissible surface temperature of operating resources assigned to equipment group I depends on the accumulation of coal dust (with/without coal dust deposits).

Temperature classes T1 to T6 were introduced for electrical operating resources of equipment group II used in areas subject to gas and vapor explosions. Every operating resource is assigned a respective temperature class based on its maximum surface temperature. For electrical operating resources of equipment group II used in areas subject to dust explosions, the maximum surface temperature is specified as a temperature value in °C. The maximum surface temperature of the operating resource must not exceed the ignition temperature of a layer of dust or a cloud of combustible dust.

Operating resources that correspond to a higher temperature class can also be used for applications with a lower temperature class in the same way that equipment with a high level of protection can likewise be used in areas with a lower level of protection (e.g. equipment category 1 in the vicinity of application areas aligned with equipment categories 2 and 3).

Non-electrical equipment

Non-electrical equipment is also subject to the requirements defined by the ATEX directive. Rexroth has carried out and documented an ignition risk assessment in accordance with DIN EN 80079-36 and a risk assessment EN ISO 12100 for these product series and thus meets the basic health and safety requirements defined by explosion protection directive 2014/34/EU.

Conformity assessment procedures

Different procedures for verifying standardized characteristics and properties of operating resources are prescribed depending on the level of equipment protection. For example, for electrical devices category 1 and 2, type testing routines must be carried out by a notified body and a certified QM system is required, whereas a conformity assessment made by the manufacturer is sufficient for non-electrical devices category 2 and for devices category 3.

Category	Type of product	Procedure
IM1 **II1G** **II1D**	Electrical or non-electrical	EC type testing by a notified body and certification of the QM system
IM2 **II2G** **II2D**	Electrical	EC type testing by a notified body and certification of the QM system
IM2 **II2G** **II2D**	Non-electrical	Conformity assessment by manufacturer
II3G **II3D**	Electrical or non-electrical	Conformity assessment by manufacturer

INDIVIDUAL SOLUTION FOR EVERY SITUATION

Tailor-made products with the required level of protection for your application: Rexroth supports you with experience and offers you a wide range of products portfolio.

All Rexroth products for potentially explosive atmospheres in Europe meet the requirements defined by the ATEX directive and other regulations regarding local explosion protection as a result of their design, the manufacturing process behind them, which is controlled and checked by a sophisticated quality management system, and full and complete documentation and labeling in line with requirement specifications upon delivery.

ATEX: SYSTEMATIC APPROACH

ATEX Directive 2014/34/EU applies to the entire European Union and encompasses all electrical and non-electrical components, equipment, and protective devices that are used in potentially explosive atmospheres:

- Operating resources that have their own potential ignition sources
- Electrical operating resources whose ignition source could be electricity and all associated physical effects such as heat, sparks, and radiation emissions
- Non-electrical operating resources whose ignition sources could be hot surfaces, friction, and mechanically generated sparks

The directive also makes reference to control and regulation units used outside the explosion zones that safeguard the reliable operation of equipment and safety systems designated to provide explosion protection.

Other international and national regulations are worded very similarly when it comes to classification characteristics.

Explosion protection for your industry

Every industry has its own special requirements, which is why we coordinate our global application experience accordingly to offer customers tailor-made solutions for a wide variety of applications, particularly as they concern explosive atmospheres containing zone 1 (2G) and zone 2 (3G) gas/air mixtures and dust/air mixtures of zone 21 (2D) – the main application areas of our focus sectors.

EXEMPLARY INDUSTRIES AND APPLICATIONS

Drilling rigs

- Land-based drilling platforms
- Flushing pumps (drilling fluid)
- Lifting equipment

Mining

- Feeder units
- Bucket-wheel excavators
- Clamping systems for conveyor belts

Metallurgy

- Coal gasification equipment

Energy technology

- Turbine starters
- Control systems for gas pipelines
- Gas turbines

Escaping gases, vapor, fog/mist, or dust in factories, large facilities, or off-shore environments: The solutions from Rexroth offer proven performance in numerous applications for safe and reliable explosion protection. To this end, Rexroth always combines a standards-compliant design with ultrahigh reliability and component performance geared toward high productivity throughout the entire lifecycle.

Chemical industry

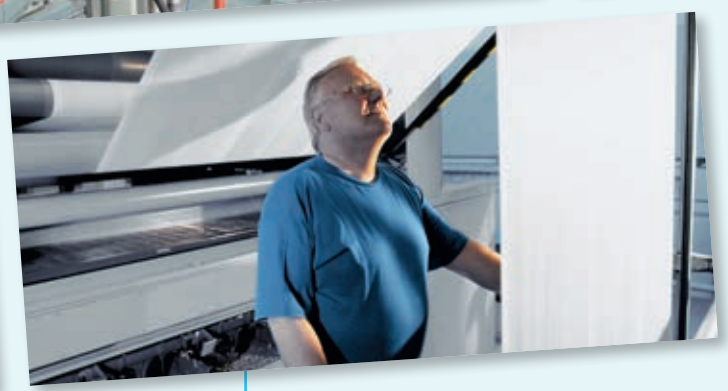
- Chemical reactors
- Kneader systems
- Extruder systems

Off-shore industry

- Drilling platforms
- Oil refinery ships

Oil production technology

- Crude oil pumps



Printing industry

- Printing machines

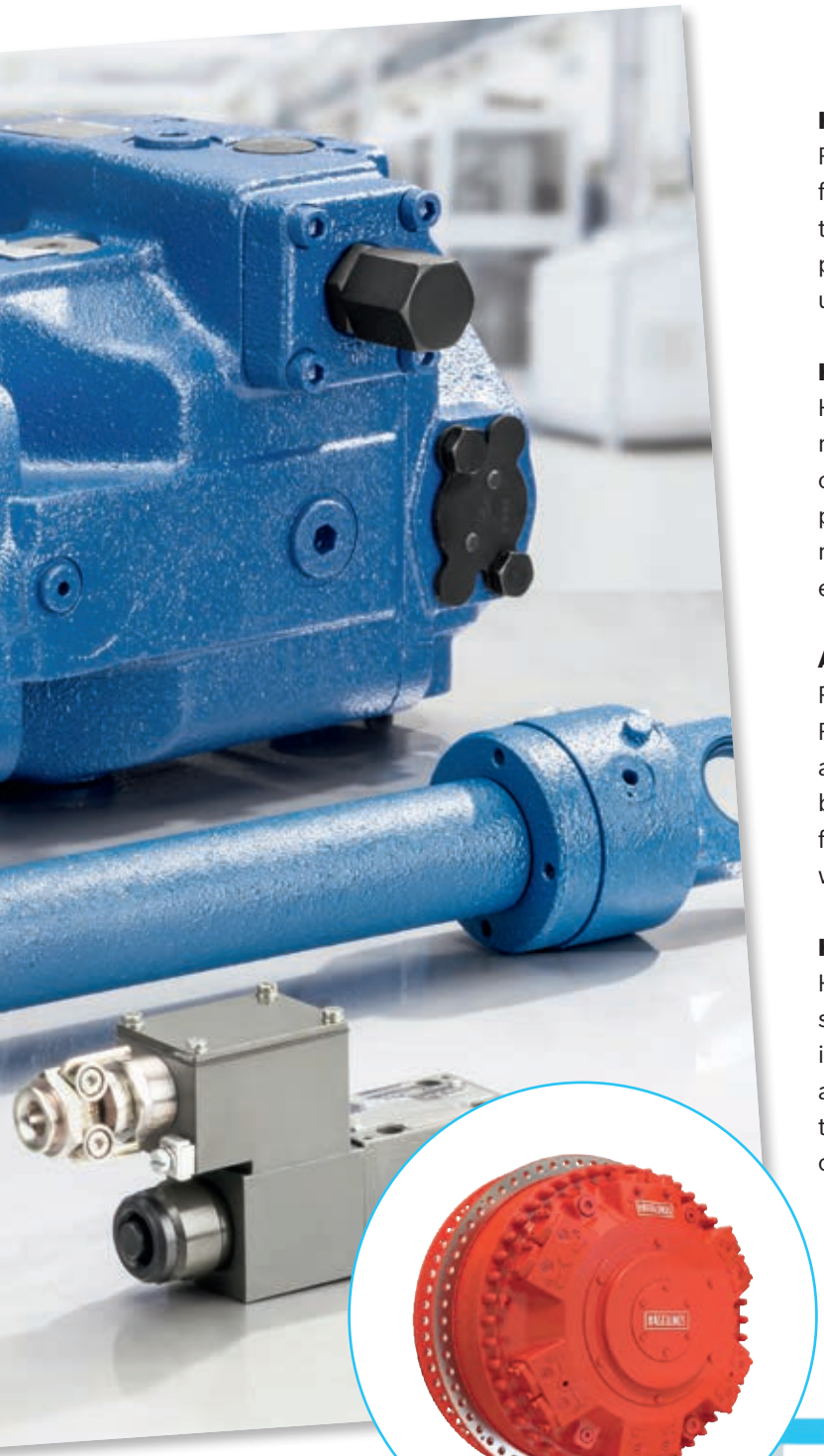
Automotive industry

- Paint shops

Powerful, highly dynamic, and explosion-proof: Hydraulic and electrical components and systems

Rexroth products with built-in explosion protection help machine manufacturers and users alike play it safe. All components for which it is necessary have successfully passed documented type testing routines and are designated or marked accordingly.

Rexroth guarantees the quality and traceability of its ex-protected products, which are always delivered together with comprehensive, multilingual documentation that meets all relevant documentation requirements.



Hydraulic valves
Rexroth offers a wide variety of hydraulic valves that range from directional to highly dynamic servo valves. This, in turn, allows you to cover all hydraulic control tasks and pressure ranges while combining explosion protection with ultrahigh flexibility and productivity.

Hydraulic cylinder
Hydraulic cylinders move heavy loads without exhibiting mechanical wear. Mill type cylinders with piston diameters of up to 320 mm, strokes of up to 6,000 mm, and different pressure ratings meet the operative requirements of a large number of industrial applications in on-shore and off-shore environments.

Axial piston machines
For ultra-high levels of safety, availability, and efficiency Rexroth offers high pressure pumps and motors in proven axial piston design. The product line includes not only bent-axis motors, but also open and closed-circuit pumps for applications involving up to 350 bar in pressure and with a power transfer capacity of up to 525 KW.

Heavy-duty motors
Hägglunds heavy-duty motors for environments with explosion protection offer a high degree of freedom for customized solutions thanks to their modular configuration. They are frequently used in mining operations, recycling facilities, oil and natural gas production, and on-shore and offshore applications.

DRIVE AND CONTROL SOLUTIONS IN ACCORDANCE WITH THE ATEX DIRECTIVE

Hydraulic power units
Rexroth will work closely with you to develop tailor-made hydraulic power units for standards-compliant installation and operation in environments subject to explosions. The modular design of the units combines the benefits of explosion protection with application-specific performance data. Your benefit: Safe, reliable hydraulic power units that maintain ultrahigh levels of productivity in gas and dust-laden atmospheres.

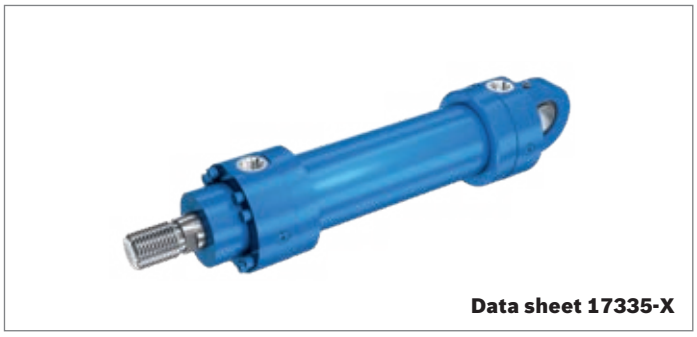
Individual application-related system solutions
It goes without saying that Rexroth will work with the customer to develop application-specific system solutions for areas subject to explosions and even realize turn-key systems if required. In the process, we combine the application experience we have gained in your industry with our explosion protection know-how and knowledge of all relevant national and international regulatory requirements.

Contents

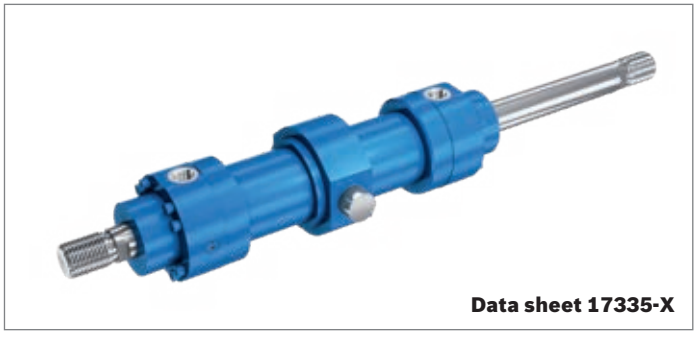
A complete overview of all products featuring built-in explosion protection and your level of equipment protection can be found online at: www.boschrexroth.com/exprotection

Products/type	Data sheet	Area of application in accordance with Explosion Protection Directive 2014/34/EU								Certification Products					Certification Solenoid		
		I M1	I M2	Zone 0 II 1G	Zone 20 II 1D	Zone 1 II 2G	Zone 21 II 2D	Zone 2 II 3G	Zone 22 II 3D	IECEx	CCC	NEC505	KCs	TS	IECEx	NEC505	NEC500
Cylinders																	
CDH2...XC	17335-X					XC	XC										
CSH2...XE	17335-X							XE	XE								
CGH2...XC	17335-X					XC	XC										
Directional seat valves																	
SE 6 ...XD	22047-XD		XD			XD					●				●		
SE 6 ...XM; SE 6 ...XH	22047-XH		XM			XH									●		
SED 6 ...XE	22049-XE					XE	XE				●				●		
SEW 6 ...XE	22058-XE					XE	XE				●				●		
SEW 10 ...XE	22075-XE					XE	XE				●				●		
SED 6 ...XN	22049-XN							XN	XN		●						
SED 10 ...XN	22045-XN							XN	XN		●						
SED 6 ...VE1	22049-VE1															●	
Directional spool valves																	
WMM 6 ...XC	22280-XC		XC			XC	XC										
WP 6 ...XC; WH 6 ...XC	22282-XC		XC			XC	XC										
WE 6 ...XM; WE 6 ...XH	23177-XH		XM			XH									●		
WE 6 ...XN	23178-XN							XN	XN		●						
WE 6 ...XE	23178-XE					XE	XE				●				●		
WE 6 ...XD	23178-XD		XD			XD					●				●		
WE 6 ...VE1	23178-VE1															●	
WE 6 ...VP1	23178-VP1																●
H-4WEH ...XE	24751-XE					XE	XE				●				●		
H-4WEH ...XD	24751-XD		XD			XD					●				●		
H-4WEH ...VP1	24751-VP1																●
Pressure valves																	
DB ...XC	25802-XC		XC			XC	XC										
Proportional directional valves																	
4WRA 6 ...XE	29055-XE					XE	XE								●		
4WRZ ...XE	29115-XE					XE	XE				●				●		
Proportional pressure valves																	
3DREP 6 ...XE	29184-XE					XE	XE								●		
DBET ...XE	29162-XE					XE	XE				●				●		
Directional servo valves																	
4WS2EM 10 ...XD	29583-XD					XD				●	●						
4WS2EM 10 ...XD5	29583-XD5									●			●				
4WS2EM 10 ...XD6	29583-XD6									●				●			
4WS2EM 10 ...XH	29583-XH			XH							●						
4WS2EM 10 ...VH1	29583-VH1											●					
4WS2EM 10 ... XL	29583-XL							XL		●	●						
4WS2EM 6 ... XL	29564-XL							XL		●	●						
Power units																	
Hägglunds DUe	15420-X					X											
Axial piston pumps																	
A4VSO	92050-01-X-B2					X											
A4CSG	92105-01-X-B2					X											
A10VSO	92711-01-X-B2					X											
A4VSG	92100-01-X-B2					X											
Axial piston motos																	
A2FM	91001-01-X-B2					X											
A6VLM	91604-01-X-B2					X											
Radial piston motors																	
Haegglunds CBM	15300-X-B0		X			X	X										
Haegglunds CB/CBP	15301-X-B0		X			X	X										
Haegglunds CA	15305-X-B0		X			X	X										
Haegglunds VI	15310-X-B0		X			X	X										
Haegglunds Atom	15354		X			X	X										

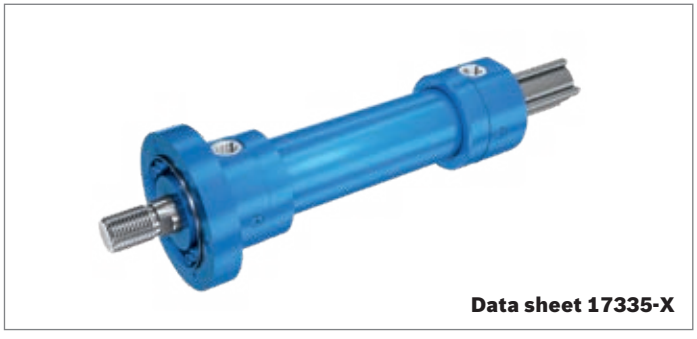
Cylinders



Data sheet 17335-X



Data sheet 17335-X



Data sheet 17335-X

Differential cylinder CDH2 ... XC
Synchronous cylinder CGH2 ... XC
Differential cylinder with position measuring system CSH2 ... XE

- Series H2
- Component series 3X
- Nominal pressure 250 bar [25 MPa]

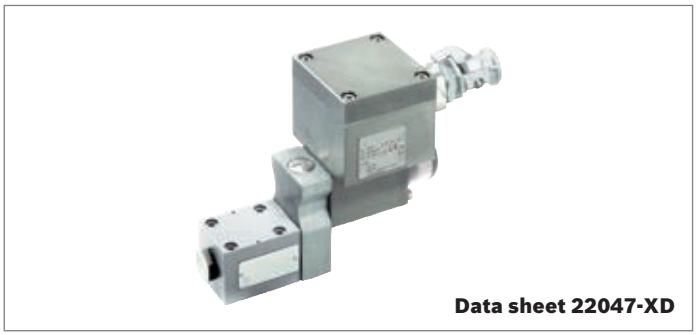
Product description

Series CDH2 ... XC (Differential design) CGH2 ... XC (Synchronous design) und CSH2 ... XE (Sensor design) are hydraulic cylinders in round design for applications under extreme conditions. They are suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Features

- Norms:
  - CD: DIN 24333, ISO 6022
  - CG/ CS: Rexroth Standard
- Types of mounting
  - CD: 6
  - CG: 3
  - CS: 4
- Piston diameter (AL): 40 ... 320 mm
- Piston rod diameter(MM): 25 ... 220 mm
- Stroke lengths up to bis 6 m

Directional valves



Data sheet 22047-XD

Directional seat valves, direct operated, with solenoid actuation SE 6 ... XD

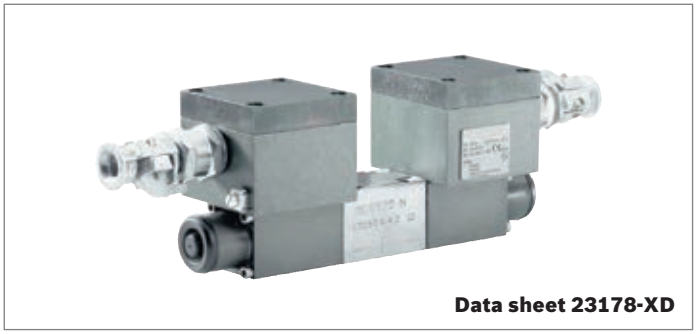
- Size 6
- Component series 6X
- Maximum operating pressure 420 bar
- Maximum flow 12 l/min

Features

- 3/2 or 4/2-way version
- Porting pattern according to ISO 4401-03-02-0-05 (however, without locating hole)
- Blocked port is tight
- Safe switching with longer standstill periods under pressure
- Manual override
- Electrical connection with individual connection and cable gland
- Valve solenoid IECEx certified

Product description

Valve type SE 6 ...XD is a direct operated directional seat valve with solenoid actuation. It controls the start, stop and direction of a flow. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU. Directional seat valves connect or isolate the connections by lowering or raising a sealing element (poppet, ball). The blocking is leakage-free.



Data sheet 23178-XD

Directional spool valves, direct operated, with solenoid actuation WE 6 ... XD

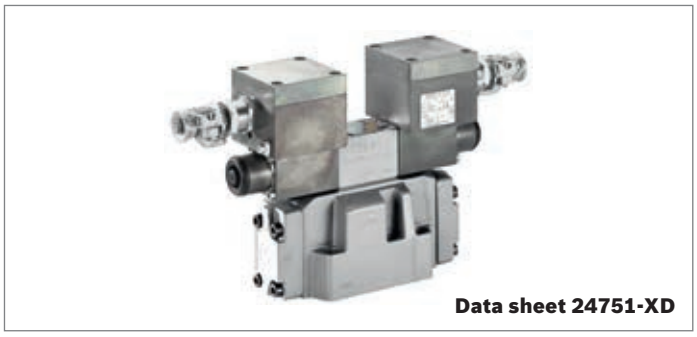
- Size 6
- Component series 6X
- Maximum operating pressure 315 bar
- Maximum flow 60 l/min

Features

- 4/3, 4/2 or 3/2-way version
- Porting pattern according to ISO 4401-03-02-0-05
- Manual override
- DC solenoids switching in oil
- Electrical connection with individual connection and cable gland
- Valve solenoid IECEx certified

Product description

Valve type WE 6 ...XD is a direct operated directional spool valve with solenoid actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.



Data sheet 24751-XD

Directional spool valves, pilot operated, with electro-hydraulic actuation H-4WEH ... XD

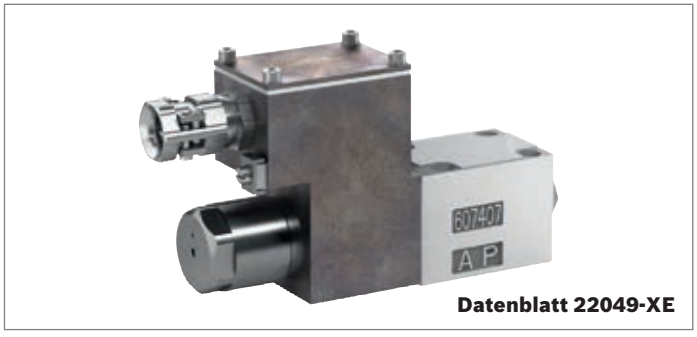
- Size 10, 16, 25, 32
- Component seres 4X, 6X, 7X
- Maximum operating pressure 350 bar
- Maximum flow 1,100 l/min

Features

- 4/2 or 4/3-way version
- Porting pattern according to ISO 4401
- Spring centering, spring end position or hydraulic end position
- Switching time adjustment optional
- Manual override
- Internal or external pilot control
- Valve solenoid IECEx certified

Product description

The valve type H-4WEH...XD is a pilot operated directional spool valve with electro-hydraulic actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.



Datenblatt 22049-XE

Directional seat valves, direct operated, with solenoid actuation SED 6 ... XE

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

Features

- 3/2 or 4/2-way version
- Porting pattern according to ISO 4401-03-02-0-05
- (however, without locating hole)
- Blocked port is tight
- Safe switching with longer standstill periods under pressure
- Solenoid coil can be rotated by 90°
- Manual override
- Valve solenoid IECEx certified

Product description

Valve type SED 6...XE is a direct operated directional seat valve with solenoid actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU. Directional seat valves connect or isolate the connections by lowering or raising a sealing element (poppet, ball). The blocking is leakage-free.

Data sheet 22058-XE

Directional seat valves, direct operated, with solenoid actuation SEW 6 ... XE

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

Features

- 2/2, 3/2 or 4/2-way version
- Porting pattern according to ISO 4401-03-02-0-05 (however, without locating hole)
- Safe switching with longer standstill periods under pressure
- Solenoid coil can be rotated by 90°
- Manual override
- Air-switching DC and AC voltage solenoids
- Valve solenoid IECEx certified

Product description

Valve type SEW 6...XE is a direct operated directional seat valve with solenoid actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU. Directional seat valves connect or isolate the connections by lowering or raising a sealing element (poppet, ball). The blocking is leakage-free.

Data sheet 22075-XE

Directional seat valves, direct operated, with solenoid actuation SEW 10 ... XE

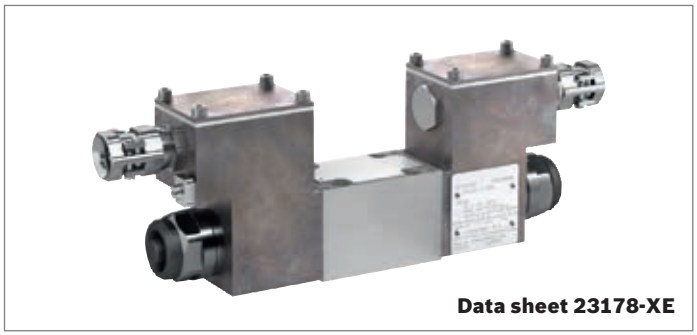
- Size 10
- Component series 1X
- Maximum operating pressure 420 bar
- Maximum flow 40 l/min

Features

- 3/2 or 4/2-way version
- Porting pattern according to ISO 4401-05-04-0-05
- Safe switching with longer standstill periods under pressure
- Solenoid coil can be rotated by 90°
- Manual override
- Air-switching DC and AC voltage solenoids
- Valve solenoid IECEx certified

Product description

Valve type SEW 10...XE is a direct operated directional seat valve with solenoid actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU. Directional seat valves connect or isolate the connections by lowering or raising a sealing element (poppet, ball). The blocking is leakage-free.



Data sheet 23178-XE

Directional spool valves, direct operated, with solenoid actuation WE 6 ... XE

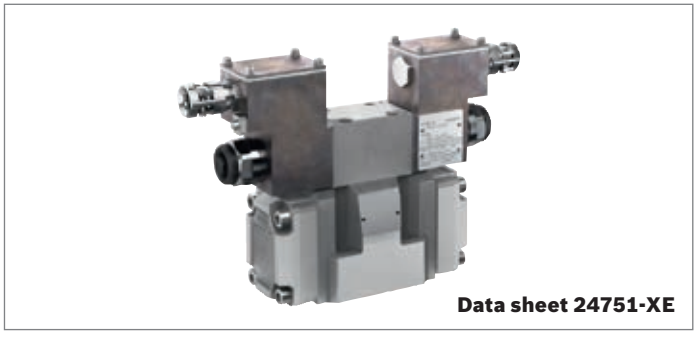
- Size 6
- Component series 6X
- Maximum operating pressure 350 bar
- Maximum flow 70 l/min

Features

- 4/3, 4/2 or 3/2-way version
- Porting pattern according to ISO 4401-03-02-0-05
- Manual override
- Oil-switching DC or AC voltage solenoids
- Electrical connection with individual connection and cable gland
- Valve solenoid IECEx certified

Product description

Valve type WE 6 ...X is a direct operated directional spool valve with solenoid actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.



Data sheet 24751-XE

Directional spool valves, pilot operated, with electro-hydraulic actuation H-4WEH ... XE

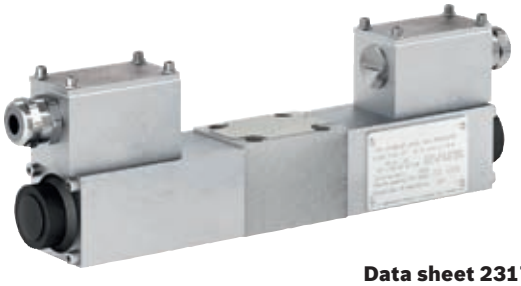
- Sizes 10, 16, 25, 32
- Component series 4X, 6X, 7X
- Maximum operating pressure 350 bar
- Maximum flow 1,100 l/min

Features

- 4/2 or 4/3-way version
- Porting pattern according to ISO 4401
- Spring centering, spring end position or hydraulic end position
- Switching time adjustment, optional
- Manual override
- Preload valve in channel P of the main valve, optional
- Valve solenoid IECEx certified

Product description

Valve type H-4WEH...XE is a pilot operated directional spool valve with electro-hydraulic actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.



Data sheet 23177-XH

Directional spool valves, direct operated, with solenoid actuation WE 6 ... XH and WE 6 ... XM

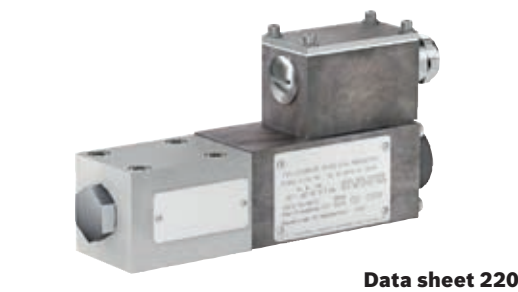
- Size 6
- Component series 3X
- Maximum operating pressure 420 bar
- Maximum flow 25 l/min

Features

- 4/3, 4/2 or 3/2-way version
- Porting pattern according to ISO 4401-03-02-0-05
- Manual override
- DC solenoids switching in oil
- Valve solenoid IECEx certified

Product description

Valve type WE 6 ...X. is a direct operated directional spool valve with solenoid actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU and optionally complies with device group I or II.



Data sheet 22047-XH

Directional seat valves, direct operated, with solenoid actuation SE 6 ... XH and SE 6 ... XM

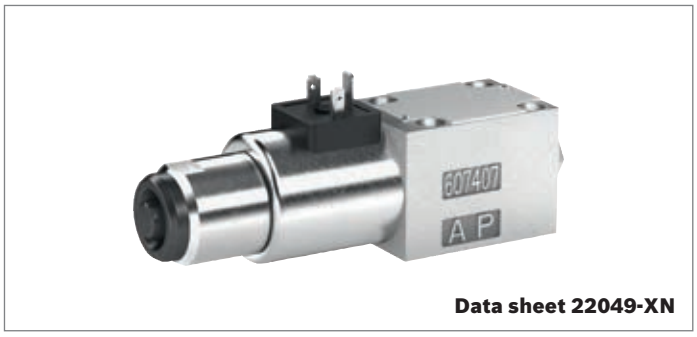
- Size 6
- Component series 6X
- Maximum operating pressure 420 bar
- Maximum flow 4 l/min

Features

- 3/2 or 4/2-way version
- Porting pattern according to ISO 4401-03-02-0-05 (however, without locating hole)
- Blocked port is tight
- Safe switching with longer standstill periods under pressure
- Manual override
- Valve solenoid IECEx certified

Product description

Valve type E(W)-.SE 6 ...X. is a direct operated directional seat valve with solenoid actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU and optionally complies with device group I or II. Directional seat valves connect or isolate the connections by lowering or raising a sealing element (poppet, ball). The blocking is leakage-free.



Data sheet 22049-XN

Directional seat valves, direct operated, with solenoid actuation SED 6 ... XN

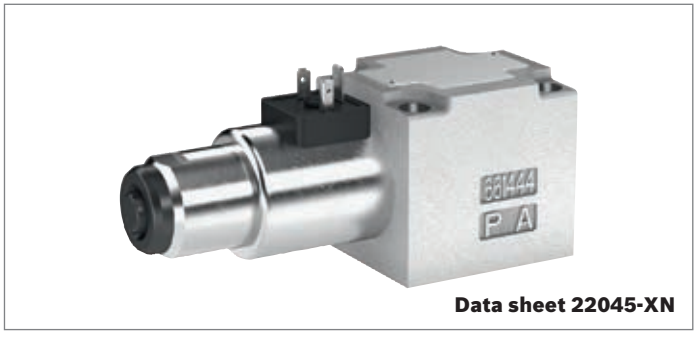
- Size 6
- Component series 1X
- Maximum operating pressure 350 bar
- Maximum flow 25 l/min

Features

- 3/2 or 4/2-way version
- Porting pattern according to ISO 4401-03-02-0-05 (however, without locating hole)
- Safe switching with longer standstill periods under pressure
- Solenoid coil can be rotated by 90°
- Manual override
- DC solenoids switching in oil

Product description

Valve type SED 6 ...XN is a direct operated directional seat valve with solenoid actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU. Directional seat valves connect or isolate the connections by lowering or raising a sealing element (poppet, ball). The blocking is leakage-free.



Data sheet 22045-XN

Directional seat valves, direct operated, with solenoid actuation SED 10 ... XN

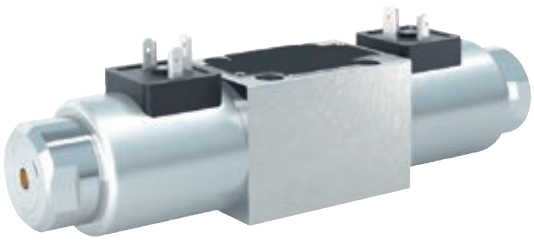
- Size 10
- Component series 1X
- Maximum operating pressure 350 bar
- Maximum flow 40 l/min

Features

- 3/2 or 4/2-way version
- Porting pattern according to ISO 4401-05-04-0-05
- Safe switching with longer standstill periods under pressure
- Solenoid coil can be rotated by 90°
- Manual override
- DC solenoids switching in oil

Product description

Valve type SED 10 ...XN is a direct operated directional seat valve with solenoid actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU. Directional seat valves connect or isolate the connections by lowering or raising a sealing element (poppet, ball). The blocking is leakage-free.



Data sheet 23178-XN

Directional spool valves, direct operated, with solenoid actuation WE 6 ... XN

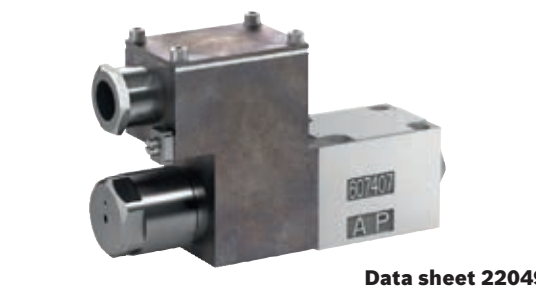
- Size 6
- Component series 6X
- Maximum operating pressure 350 bar
- Maximum flow 80 l/min

Features

- 4/3, 4/2 or 3/2-way version
- Porting pattern according to ISO 4401-03-02-0-05
- Solenoid coil can be rotated by 90°
- Manual override
- DC solenoids switching in oil
- Electrical connection with individual connection

Product description

Valve type WE 6 ...XN is a direct operated directional spool valve with solenoid actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.



Data sheet 22049-VE1

Directional seat valves, direct operated, with solenoid actuation SED 6 ... VE1

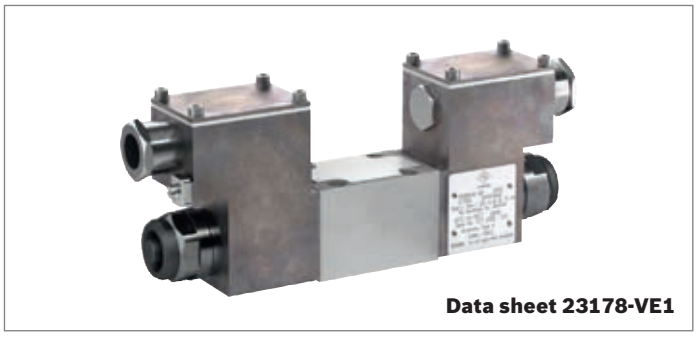
- Size 6
- Component series 1X
- Maximum operating pressure 350 bar
- Maximum flow 25 l/min

Features

- 3/2 or 4/2-way version
- Porting pattern according to ISO 4401-03-02-0-05
- ▶ Blocked port is tight
- Safe switching with longer standstill periods under pressure
- Solenoid coil can be rotated by 90°
- Manual override
- Electrical connection as single connection with pipe thread NPT 1/2"
- Valve solenoid FM certified

Product description

Valve type SED 6...VE1 is a direct operated directional seat valve with solenoid actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to NEC 505 (class I, zone 1). Directional seat valves connect or isolate the connections by lowering or raising a sealing element (poppet, ball). The blocking is leakage-free.



Data sheet 23178-VE1

Directional spool valves, direct operated, with solenoid actuation WE 6 ... VE1

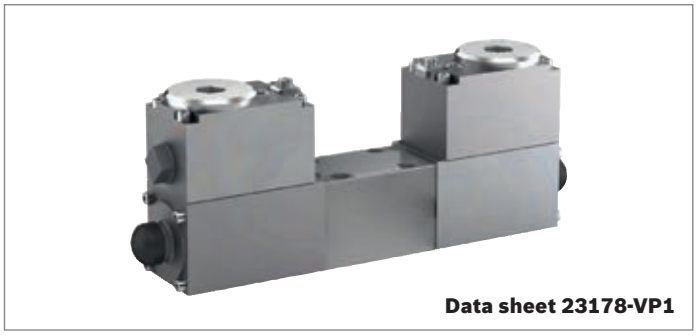
- Size 6
- Component series 6X
- Maximum operating pressure 350 bar
- Maximum flow 70 l/min

Features

- 4/3, 4/2 or 3/2-way version
- Porting pattern according to ISO 4401-03-02-0-05
- Manual override
- Electrical connection as single connection with pipe thread NPT 1/2"
- Valve solenoid FM certified
- DC solenoids switching in oil

Product description

Valve type WE 6 ...VE1 is a direct operated directional spool valve with solenoid actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to NEC 505 (class I, zone 1).



Data sheet 23178-VP1

Directional spool valves, direct operated, with solenoid actuation WE 6 ... VP1

- Size 6
- Component series 5X
- Maximum operating pressure 350 bar
- Maximum flow 70 l/min

Features

- 4/3, 4/2 or 3/2-way version
- Porting pattern according to ISO 4401-03-02-0-05
- Wet-pin DC solenoids in hydraulic fluid
- Manual override
- Valve housing and solenoid are galvanized
- Electrical connection as single connection with pipe thread NPT 1/2"
- Valve solenoid FM certified

Product description

Valve type WE 6 ...VP1 is a direct operated directional spool valve with solenoid actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to NEC500 and CEC Annex J as well as NEC502 and CEC Section 18.

Data sheet 24751-VP1

Directional spool valves, pilot operated, with electro-hydraulic actuation H-4WEH ... VP1

- Sizes 10, 16, 25, 32
- Component series 4X, 6X, 7X
- Maximum operating pressure 350 bar
- Maximum flow 1,100 l/min

Features

- 4/2 or 4/3-way version
- Porting pattern according to ISO 4401
- Spring centering, spring end position or hydraulic end position
- Switching time adjustment
- Manual override
- Electrical connection as single connection with pipe
- thread NPT 1/2"
- Valve solenoid FM certified
- Oil-switching DC or AC voltage solenoid, optional
- Preload valve in channel P of the main valve, optional

Product description

Valve type H-4WEH...XE is a pilot operated directional spool valve with electro-hydraulic actuation. It controls start, stop and direction of flow. The valve is suitable for use in potentially explosive atmospheres according to NEC500 and CEC Annex J as well as NEC502 and CEC Section 18.

Data sheet 22280-XC

Directional spool valves, direct operated, with manual actuation WE 6 ... XC

- 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 4401-03-02-0-05 (with or without locating hole)
- Type of actuation: hand lever

Product description

The valve type WMM 6 ...XC is a direct operated directional spool valve with manual actuation. It controls start, stop and direction of flow. The valve and is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Data sheet 22282-XC

Directional spool valves, direct operated, with fluidic actuation WP 6 ... XC und WH 6 ... XC

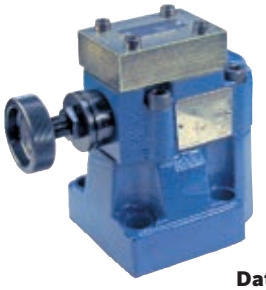
- Size 6
- Component series 5X (WH),
- Component series 6X (WP)
- Maximum operating pressure 315 bar
- Maximum flow 60 l/min

Features

- 4/3, 4/2 or 3/2-way version
- Porting pattern according to ISO 4401-03-02-0-05 (with or without locating hole)
- Types of actuation:
  – Pneumatic (WP)
  – Hydraulic (WN)

Product description

Valves type WP 6...XC and WH 6...XC are direct operated directional spool valves with pneumatic or hydraulic actuation. They control start, stop and direction of flow. The valves are suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.



Data sheet 25802-XC

Pressure relief valves, pilot operated DB ... XC

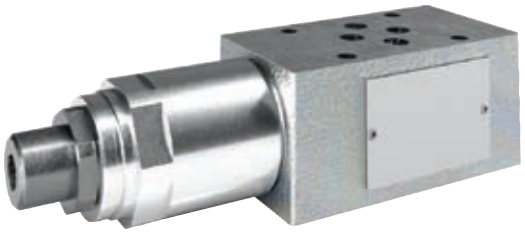
- Size 10, 20, 30
- Component series 5X
- Maximum operating pressure 350 bar
- Maximum flow 650 l/min

Features

- Adjustment type rotary knob
- 5 pressure levels
- position of the connections ISO 6264-06-09 (size 10), ISO 6264-08-13 (size 25) und ISO 6264-10-17 (size 32)
- For panel construction
- For threaded connection

Product description

The valve type DB...XC is a pilot operated pressure relief valve for subplate mounting or pipeline installation. It is used to limit the operating pressure. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.



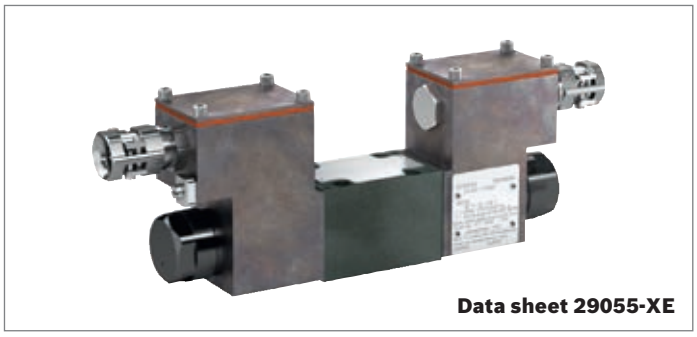
Data sheet 07011

Additional non-electrical hydraulic components in potentially explosive atmospheres (ATEX)

In contrast to other applicable international standards and regulations, ATEX directive 2014/34/EU also includes requirements on "non-electrical devices for use in potentially explosive atmospheres". In hydraulic systems, these are simple components like fittings, plates, blocks, valve inserts and mechanical hydraulic valves without electrical control, sensor technology or attachment parts.

- Isolator valves
- Directional valves
- Flow control valves

For selected Bosch Rexroth products from the standard catalog without design-specific potential ignition sources like sparks, electric arcs or hazardous hot surfaces during application and under environmental conditions according to related data sheet and operating instructions 07600-B, please refer to separate data sheet 07011. For this reason, directive 2014/34/EU does not apply. In consideration of external influences and environmental conditions, non-electric hydraulic components (isolator valves, directional valves and flow control valves) listed in data sheet 07011 can also be used in potentially explosive atmospheres.



Data sheet 29055-XE

Proportional directional valves, direct operated, without electrical position feedback 4WRA 6 ... XE

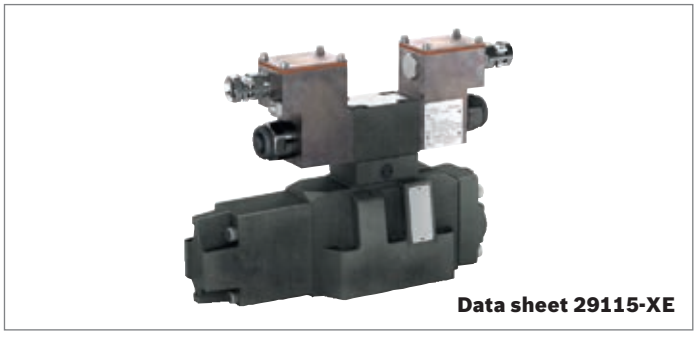
- Size 6
- Component series 2X
- Maximum operating pressure 315 bar
- Maximum flow 22 l/min

Features

- 4/2 or 4/3-way version
- Porting pattern according to ISO 4401-03-02-0-05
- Seawater-resistant
- Solenoid coil can be rotated by 90°
- Valve solenoid IECEx certified
- For controlling the direction and size of a volume flow
- For panel construction
- Electrical connection as a single connection with cable gland

Product description

Valve type 4WRA 6 ...XE is a direct operated proportional directional valve with solenoid actuation. They control the flow direction and volume. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.



Data sheet 29115-XE

Proportional directional valves, pilot operated, without electrical position feedback 4WRZ ... XE

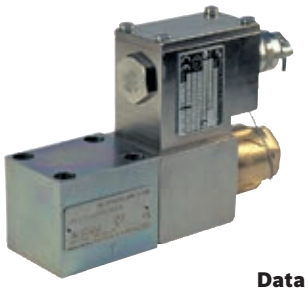
- Size 10, 16, 25, 32
- Component series 7X
- Maximum operating pressure 350 bar
- Maximum flow 1,600 l/min

Features

- 4/2 or 4/3-way version
- Porting pattern according to ISO 4401
- Seawater-resistant
- Solenoid coil can be rotated by 90°
- Type of protection "e" (increased safety)
- Valve housing and solenoid are galvanized
- Valve solenoid IECEx certified

Product description

Valve type 4WRZ...XE is a pilot operated proportional directional valve with solenoid actuation. They control the flow direction and volume. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.



Data sheet 29162-XE

Proportional pressure relief valves, direct operated
DBET ... XE

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

Features

- Porting pattern according to ISO 4401-03-02-0-05
- Type of protection "e" (increased safety)
- Valve solenoid IECEx certified
- For panel construction
- The metallic outer parts are galvanically protected against corrosion (seawater resistant)

Product description

Valve type DBET...XE is a direct operated proportional pressure relief valve with solenoid actuation in seat design. It serves for system pressure limitation. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Data sheet 29184-XE

Proportional pressure reducing valve in 3-way version
3DREP 6 ... XE

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

Features

- Porting pattern according to ISO 4401-03-02-0-05
- Solenoid coil can be rotated by 90°
- Valve solenoid IECEx certified
- For panel construction
- Electrical connection as a single connection with cable gland
- 3-way version

Product description

Valve type 3DREP 6 ...XE is a direct operated proportional directional valve with solenoid actuation. They control the flow direction and volume. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Data sheet
29583-XH
29583-XH-100
29583-XH-102
29583-XH-104

Directional servo valves, with mechanical position feedback 4WS2EM 10 ... XH

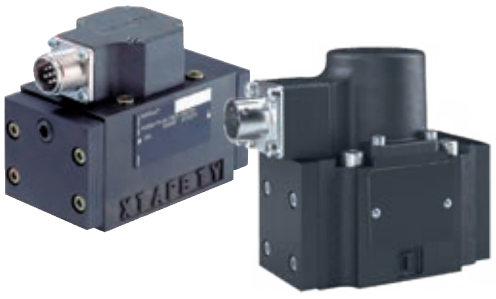
- Size 10
- Component series 5X
- Maximum operating pressure 315 bar
- Maximum flow 180 l/min

Features

- Porting pattern according to 4401-05-05-0-05
- Dry control motor, no contamination of the solenoid gaps by the hydraulic fluid
- 4- or 3-way version
- Panel construction
- Wear-free spool feedback element
- External control electronics in modular design, additional security barrier

Product description

Valve type 4WS2EM 10 ...XH is a directional servo valve with solenoid actuation. It is suitable for the position, velocity, pressure and force control with very high requirements on the dynamics and the response sensitivity. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.



Data sheet
29583-XL
29564-XL
29583-XL-100
29583-XL-102

Directional servo valves, with mechanical position feedback 4WS2EM 10 ... XL 4WS2EM 6 ... XL

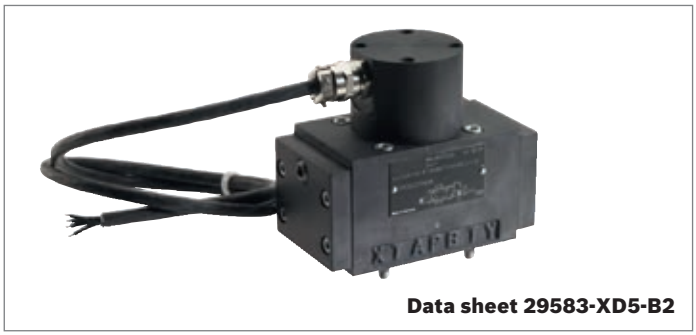
- Sizes 10 and 6
- Component series 5X respectively 2X
- Maximum operating pressure 315 bar
- Maximum flow 180 l/min

Features

- Porting pattern according to
  - 4401-05-05-0-05 (4WS2EM 10 ... XL)
  - 4401-03-02-0-05 (4WS2EM 6 ... XL) without locating hole
- Trockener Steuermotor, keine Verschmutzung der Magnetspalte durch die Druckflüssigkeit
- 4- or 3-way version
- Panel construction
- Wear-free spool feedback element
- External control electronics in modular design, additional security barrier (applies for size 6 and size 10)

Product description

Valves of type 4WS2EM 10 ... XL and type 4WS2EM 6 ... XL are directional servo valves with solenoid actuation. They are suitable for the position, velocity, pressure and force control with very high requirements on the dynamics and the response sensitivity. The valves are suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.



Data sheet 29583-XD5-B2

Directional servo valves, with mechanical position feedback 4WS2EM 10 ... XD

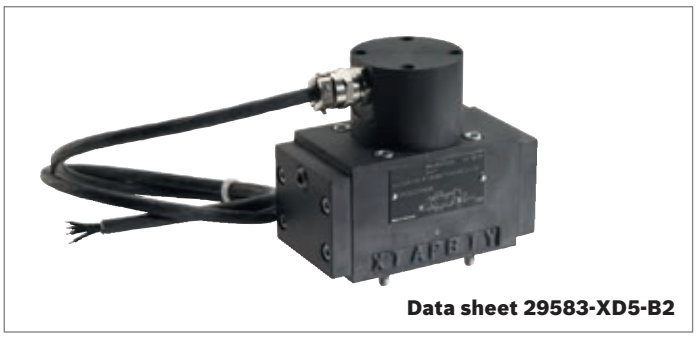
- Size 10
- Component series 5X
- Maximum operating pressure 315 bar
- Maximum flow 180 l/min

Features

- Porting pattern according to 4401-05-05-0-05
- Dry control motor, no contamination of the solenoid gaps by the hydraulic fluid
- 4- or 3-way version
- Panel construction
- Wear-free spool feedback element
- Pressure chambers on the control sleeve with gap seal, therefore no sealing ring wear
- Valve for position, force, pressure or speed control

Product description

Valve type 4WS2EM 10 ...XD is a directional servo valve with solenoid actuation. It is suitable for the position, velocity, pressure and force control with very high requirements on the dynamics and the response sensitivity. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.



Data sheet 29583-XD5-B2

Directional servo valves, with mechanical position feedback 4WS2EM 10 ... XD5

- Size 10
- Component series 5X
- Maximum operating pressure 315 bar
- Maximum flow 180 l/min

Features

- Porting pattern according to 4401-05-05-0-05
- Dry control motor, no contamination of the solenoid gaps by the hydraulic fluid
- 4- or 3-way version
- Panel construction
- Wear-free spool feedback element
- Pressure chambers on the control sleeve with gap seal, therefore no sealing ring wear
- Valve for position, force, pressure or speed control

Product description

Valve type 4WS2EM 10 ...XD5 is a directional servo valve with solenoid actuation. It is suitable for the position, velocity, pressure and force control with very high requirements on the dynamics and the response sensitivity. The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Data sheet 29583-XD6-B2

Directional servo valves, with mechanical position feedback 4WS2EM 10 ... XD6

- Size 10
- Component series 5X
- Maximum operating pressure 315 bar
- Maximum flow 180 l/min

Features

- Porting pattern according to 4401-05-05-0-05
- Dry control motor, no contamination of the solenoid gaps by the hydraulic fluid
- 4- or 3-way version
- Panel construction
- Wear-free spool feedback element
- Pressure chambers on the control sleeve with gap seal, therefore no sealing ring wear
- Valve for position, force, pressure or speed control

Product description

Valve type 4WS2EM 10 ...XD6 is a directional servo valve with solenoid actuation. It is suitable for the position, velocity, pressure and force control with very high requirements on the dynamics and the response sensitivity.The valve is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Data sheet
29583-VH1
29583-VH1-100
29583-VH1-102
29583-VH1-104
29583-VH1-114

Directional servo valves, with mechanical position feedback 4WS2EM 10 ... VH1

- Size 10
- Component series 5X
- Maximum operating pressure 315 bar
- Maximum flow 180 l/min

Features

- Porting pattern according to 4401-05-05-0-05
- Dry control motor, no contamination of the solenoid gaps by the hydraulic fluid
- Variants SO100, SO102, SO104 and SO114 with special control spools
- 4- or 3-way version
- Panel construction
- Wear-free spool feedback element
- Wear-free spool feedback element
- Pressure chambers on the control sleeve with gap seal, therefore no sealing ring wear
- Valve for position, force, pressure or speed control

Product description

Valve type 4WS2EM 10 ...VH1 is a directional servo valve with solenoid actuation. It is suitable for the position, velocity, pressure and force control with very high requirements on the dynamics and the response sensitivity. The valve is suitable for use in potentially explosive atmospheres according to NEC505.

Power units

Data sheet
15417-X-B1
15325-WA
15420-X-B2

Haegglunds DUe

- Model series H2
- Maximum flow
  3,000 l/min at 50 Hz, 3,600 l/min at 60 Hz
- Maximum operating pressure 350 bar [5076 psi]
- Frame size: Compact, Small, Medium and Large
- Hydraulic assembly with 1 to 3 fields
- Pump size 40 ... 750 ccm
- Assembly with 1 to 4 pumps

Features

- Modular set-up
- Closed, noise-insulated cabinet
- Vertical installation – low footprint
- Configurable for numerous applications and customer requirements
- Equipped with the latest Hägglunds control systems

Product description

The DUe drive unit from Hägglunds DUe supplies power by means of a variable flow to the radial piston hydraulic motors. The proven modular solution offers high flexibility, maximum operating time as well as uncomplicated and quick maintenance. The drive unit is suitable for use in potentially explosive atmospheres according to 2014/34/EU.

Pumps

Data sheet
92050-01-X-B2
HPI 045-19

Axial piston variable displacement pump A4VSO

- Size 40 ... 500
- Nominal pressure 350 bar
- Maximum pressure 400 bar
- Open circuit

Features

- Axial piston swash plate design
- Good suction behavior
- Long life cycle
- Short control time
- Low noise level
- Variable through drive options

Product description

The variable displacement pump A4VSO is suitable for hydrostatic drives in the open circuit. The flow is proportional to the drive speed and to the displacement and increases upon adjustment of the swash plate from zero to its maximum value. The pump is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Data sheet
92100-01-X-B2
HPI 045-19

Axial piston variable displacement pump A4VSG

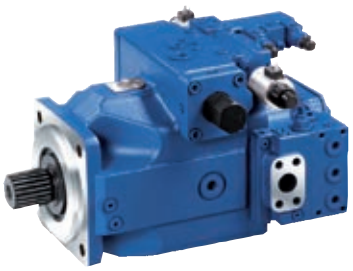
- size 40 ... 180
- Nominal pressure 350 bar
- Maximum pressure 400 bar
- closed circuit

Features

- Robust pump with a very long life cycle
- Low noise level
- Axial and radial load capacity of the drive shaft
- Short control time
- Swash plate type
- Change in flow direction when adjusting the swash plate through the zero position

Product description

The variable displacement pump A4VSO is suitable for hydrostatic drives in the open circuit. The flow is proportional to the drive speed and to the displacement and increases upon adjustment of the swash plate from zero to its maximum value. The pump is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.



Data sheet
92105-01-X-B2
HPI 045-19

Axial piston variable displacement pump A4CSG series

- Size 250, 355 and 500
- Nominal pressure 350 bar
- Maximum pressure 400 bar
- Closed circuit

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

Product description
The variable displacement pump A4CSG is suitable for hydrostatic drives in the closed circuit. The flow is proportional to the drive speed and to the displacement and increases upon adjustment of the swash plate from zero to its maximum value. The pump is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Data sheet
92711-01-X-B2
HPI 045-19

Axial piston variable displacement pump A10VSO series

- Size 18 ... 100
- Nominal pressure 280 bar
- For industrial applications
- Maximum pressure 350 bar
- Open circuit

Features
- Axial piston swash plate design
- Good suction behavior
- Low noise level
- Long life cycle
- Short control time
- Favorable power-to-weight ratio

Product description
The variable displacement pump A10VSO is suitable for hydrostatic drives in the open circuit. The flow is proportional to the drive speed and to the displacement and increases upon adjustment of the swash plate from zero to its maximum value. The pump is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Motors

Data sheet
91001-01-X-B2
HPI 045-19

Axial piston constant motor A2FM

- Size 10 ... 180
- Nominal pressure 400 bar
- Maximum pressure 450 bar
- Open and closed circuit

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

Product description
Constant motor A2FM is suitable for hydrostatic drives in the closed circuit. The output speed depends on the pump flow and motor displacement. The output torque is increased with the pressure differential between the high and low-pressure side and with increasing displacement. The motor is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Data sheet
91604-01-X-B2
HPI 045-19

Axial piston variable displacement motor A6VLM

- Size 250 ... 1,000
- Nominal pressure 350 bar
- Maximum pressure 400 bar
- Open and closed circuit
- Universally applicable high-pressure motor

Features
- Bent-axis design
- Robust motor with a long life cycle
- Approved for very high speeds
- Large control range (zero swivel)
- High torque
- With attached flushing and boost pressure valve

Product description
Variable displacement motor A6VLM is suitable for hydrostatic drives in the closed circuit. The output speed depends on the pump flow and motor displacement. The output torque is increased with the pressure differential between the high and low-pressure side and with increasing displacement. The motor is suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Data sheet
15417-X-B1
15300-WA
15440-X-B2

Radial piston motors Haegglunds CBM

- Size 2,000 ... 6,000
- Displacement 75,838 ... 380,133 cm³/U
- Specific torque 1,200 ... 6,000 Nm/bar
- Rated speed 8 ... 53 rpm
- Maximum operating pressure 350 bar

Features

- The most powerful direct drive worldwide
- Torque increased by 50 % – now up to 1970 kNm
- High specific torque
- Modular design

Product description

The Haegglunds CBM hydraulic motor is a slow-running motor for direct assembly at the output shaft. This compact motor provides reliable power at full torque and as of zero speed, is protected against shock loads and suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Data sheet
15417-X-B1
15301-WA
15440-X-B2

Radial piston motors Haegglunds CB

- Size 280 ... 1,120
- Displacement 15,100 ... 70,400 cm³/U
- Specific torque 240 ... 1,120 Nm/bar
- ▶ Rated speed 20 ... 94 rpm
- ▶ Maximum operating pressure 350 bar

Features

- Compact design and low weight
- High torque-weight ratio
- Resistant against shock loads
- Right through hollow shaft
- Various mounting options

Product description

The Haegglunds CB hydraulic motor enables direct assembly at the output shaft. This compact motor provides reliable power at full torque and as of zero speed, is protected against shock loads and suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Data sheet
15417-X-B1
15301-WA
15440-X-B2

Radial piston motors Hägglunds CBP

- Size 140 ... 840
- Displacement 5,024 ... 52,800 cm³/U
- Specific torque 80 ... 840 Nm/bar
- Rated speed 80 ... 320 rpm
- Maximum operating pressure 350 bar

Features

- High performance capability
- Compact design and low weight
- Higher speeds at higher efficiency
- Resistant against shock loads
- Right through hollow shaft

Product description

The Haegglunds CBP hydraulic motor offers high torque at higher speeds and enables direct assembly at the output shaft. This compact motor provides reliable power at full torque and as of zero speed, is protected against shock loads and suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Data sheet
15417-X-B1
15302-WA
15440-X-B2

Radial piston motors Hägglunds CA

- Size 50 ... 210
- Displacement 1,256 ... 13,200 cm³/U
- Specific torque 20 ... 210 Nm/bar
- Rated speed 85 ... 400 rpm
- Maximum operating pressure 350 bar

Features

- Compact design and low weight
- High torque-weight ratio
- Resistant against shock loads
- Right through hollow shaft
- Various mounting options

Product description

The Haegglunds CA hydraulic motor enables direct assembly at the output shaft. This compact motor provides reliable power at full torque and as of zero speed, is protected against shock loads and suitable for use in potentially explosive atmospheres according to directive 2014/34/EU.

Data sheet
15417-X-B1
15310-WA
15440-X-B2

Radial piston motors Haegglunds VI

- Size 3,300 ... 38,000
- Displacement 3,325 ... 38,000 cm³/U
- Specific torque 53 ... 605 Nm/bar
- Rated speed 25 ... 100 rpm
- Maximum operating pressure 250/320 bar

Features

- Direct drive - direct brake
- Genuinely free movement
- Outstanding controllability
- Low moment of inertia
- Full torque over the entire speed range

Product description

The Haegglunds VI hydraulic motor is a slow-running motor for direct assembly at a winch drum or shaft. This compact motor provides reliable power at full torque and as of zero speed, is protected against shock loads and suitable for use in potentially explosive atmospheres according to directive 2014/34/EU..

Data sheet
15354

Radial piston hydraulic motors Haegglunds Atom

- Size 8 ... 40
- Displacement 503 ... 2,513 cm³/U
- Specific torque 8 ... 40 Nm/bar
- Rated speed 280 ... 400 rpm
- Maximum operating pressure 350 bar

Features

- Compact design and low weight
- Extremely high torque to weight ratio
- Insensitive to shock loads
- Through hollow shaft
- Various mounting options

Product description

The Haegglunds hydraulic motor Atom can be mounted directly on the output shaft. This compact motor provides reliable power at full torque as of zero speed, is protected against shock loads and suitable for use in potentially explosive areas according to directive 2014/34/EU.

Rexroth Service – your key to higher productivity

Explosion protection applies to the entire service life of a machine, which is why only well-trained Rexroth workshops may carry out repairs to products with built-in explosion protection. Because only repairs by the manufacturer ensure that requirements remain consisting of guarantee and product liability for the products, certified for explosion protection.

Maximum equipment availability and ultrahigh efficiency throughout the entire lifecycle of your machines and plants are also key factors that determine the productivity of your manufacturing processes. Rexroth offers comprehensive services to ensure that you get the most out of your production application.

Our modular service portfolio reduces the complexity and costs associated with maintaining and repairing your production equipment, and our qualified technicians are available at short notice – guaranteed. With our know-how of drive and control technology, we can meet whatever requirements you may have quickly and reliably. We ensure accurate diagnosis and fast delivery of spare parts while reducing costs by implementing standardized processes and testing procedures thanks to our highly qualified employees in 80 countries.

We can also ensure that your machines operate at peak efficiency throughout their entire lifecycle with our preventive services, which include fitness checks and oil analyses. Working together with you, we analyze the benefits of modernization/retrofit measures and implement them in a practical manner. Your operating costs are considerably reduced as a direct result of higher productivity, better energy efficiency, and optimal safety standards. Choose from our range of services; we offer tailor-made solutions that target your specific requirements.

Detailed information is available online at www.boschrexroth.com/service

rexroth
A Bosch Company

Bosch Rexroth AG
Zum Eisengießer 1
97816 Lohr, Germany
www.boschrexroth.com

For your local contact, please refer to:
www.boschrexroth.com/contact

R999002156 (2022_05)