



SERIES DSDU, R4V AND R6V OPERATING INSTRUCTIONS

Pilot operated pressure relief valve subplate mounted

Series R4V*V* / R4V*W*

Series R6V*V* / R6V*W*

Pilot operated pressure relief valve 2-way cartridge valves

Series DSDU*1078 E*E TÜV

Bulletin MSG11-5715-661/UK



WARNING — USER RESPONSIBILITY

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

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1. Basic information

Warnings and symbols

The following symbols are used to identify important information.



Special information about requirements that must be noted/observed by the user.



Information about a hazard that may cause injury or damage.

General notes

Technical changes

We reserve the right to make technical changes as a result of further development of the product described in these operating instructions. Figures and drawings in these instructions are simplified depictions. As a result of developments, improvements and changes to the product, it is possible that the figures are not fully consistent with the valve in operation. The technical details and dimensions are non-binding. They may not form the basis of any claims. Copyright reserved.

Package contents

The package contents for the products are:

- Series R4V or R6V or DSDU safety valve
- Operating instructions with declaration of conformity
- Attestation for product acceptance
- Certificate for product acceptance

Warranty and liability

In principle the general terms and conditions of sale and delivery are applicable.

We cannot accept warranty or liability claims in respect of personal injury or material damage in the following circumstances:

- If the product is used other than as specified
- If the installation, commissioning, operation and maintenance of the product are incorrect
- If the product is used with safety devices that are defective or not properly installed
- If the operating instructions are not followed with regard to transport, storage, commissioning, operation, modification, maintenance/servicing, decommissioning/removal

- If unauthorised structural changes are made to the product
 - If wear and tear are not properly monitored
 - If repairs are carried out incorrectly
 - If outages are caused by a third party
- If outages are the result of force majeure

CE mark

The CE mark appears on the main nameplate. If the product is installed as part of a larger machine, this larger machine is in turn subject to EU directives and must therefore obtain a general CE mark for the machine as a whole. The machine must not enter circulation in the EU until this is done.

Conformity

The declaration of conformity (see section 15. "Other documentation") attests that the products comply with all essential health and safety requirements set out in Annex I of the Machinery Directive 2006/42/EC.



If our product is used other than as specified, hazards may occur that could not be foreseen by the manufacturer. Any result loss or damage is not the responsibility of Parker Hannifin.



If the described product is installed in a machine that came into circulation before 1995, note the following: If the function has not been changed significantly, commissioning may not take place until conformity with national occupational health and safety provisions has been established for the machine as a whole, in particular those provisions implementing the Use of Work Equipment Directive
If the function has been changed significantly, a new conformity procedure must be carried out in accordance with the Machinery Directive 2006/42/EC.

Electronic control system

Dependent on the concrete type, the valve series **R6V*V* / R6V*W* with vent function** requires an electronic control system. The appropriate electronic control system can be selected from the catalogue ("Electronics" section). Please ask the factory if you are not clear.



Connecting to an unsuitable electronic control system may result in irreparable damage to the valve or the electronic control system.

Choice of solenoid

The choice of a suitable solenoid is an important factor in the operational reliability of the valve. Various valve series are available with several options for solenoid voltage. If the solenoid can be adjusted by setting parameters in the electronic control system, the suitable solenoid options must be selected.



Note about using valves with 24 V solenoids:

Because the coil resistance increases by up to 40% on heating, the electronic control system increases the solenoid voltage in order to keep the set current constant. In the case of solenoids with a nominal voltage of 24 V, this requires the supply voltage from the electronic control system to be higher than 24 V in order to supply the solenoid's rated current. For example, if solenoids with nominal data 24 V / 1.3 A are used, the operating voltage of the electronic control system may have to be increased to up to 30 V in order to ensure the solenoid is correctly energised.

For this reason, choose solenoids with lower voltages!



A suitable tool must be used for manual emergency actuation of the solenoid.

Pressure fluids

Certain rules apply to valve operation using different pressure fluids:

Mineral oil		No restrictions
HFA	Oil in water emulsions	Mandatory check
HFB	Water in oil emulsions	Mandatory check
HFC	Water glycols	Possible restrictions, recommended check
HFD	Anhydrous fluids (phosphate ester)	Possible restrictions, recommended check



The details of the various pressure fluids are provided for information only and do not replace in-house testing under the applicable operating conditions. In particular, the details cannot be interpreted as a guarantee of media compatibility. For detailed information about pressure fluids, see VDMA sheet 24317 and DIN 51524, 51502. Special sealing materials are supplied depending on the fluid used. Please ask the factory if you are unsure.

After a certain period of service, the hydraulic fluid must be replaced. The frequency of the change depends on the following circumstances:

- Type and grade of pressure fluid (ageing)
- Filtration
- Operating temperature and ambient conditions

Venting of hydraulic system

The hydraulic system must be vented on initial commissioning, after an oil change or after lines or valves are opened.

Flushing



With large central pressurised oil stations in particular, you are recommended to flush the long pipes by short circuiting the pressure and return lines. This prevents the dirt occurring during installation from being carried to the valve.

Product support

If you require further support about the product, about order processing or about solutions to problems, please contact your relevant sales company.

2. General notes on safety

Use of operating instructions

We would again like to remind you that the commissioning and use of our product must be based on these operating instructions. They must

- **be followed in full at all times,**
- **be kept in close proximity to the installed product, and be accessible at all times,**
- **be passed on to any later owners,**
- **always be used in the version supplied.**

The personnel whose job is to work with this product must have read the operating instructions – in particular the section entitled "General notes on safety" – before starting work. This specifically applies to personnel who will only work with the product occasionally (e.g. setting up, maintenance).

Compliance with other rules and instructions

Carry out transport and installation/repair activities only in accordance with the valid and applicable safety and accident prevention regulations issued by the trade associations.

The valve contains hydraulic oil. The normal local environmental protection requirements must therefore be met when handling the product.

The particular circumstances of each place of installation mean that instructions must be followed in order to install and use the product safely.



Any health and safety warnings attached to the product must be observed and must be maintained in a legible state.

Personnel requirements

The product may only be used, installed, removed, operated and maintained by specialist personnel. For the purposes of these instructions, a specialist is defined as someone who, on the basis of their education, expertise and professional experience, is able to correctly evaluate and carry out the tasks and duties assigned to him/her, and identify and correct potential hazards.

Skilled, semi-skilled or trained personnel may not use this product under their own responsibility unless they have the required specialist knowledge. Otherwise, they may only use the product under the constant supervision of a specialist person.

Use of the product

The product must only be used if it is perfect working order. Problems that may impair safety must be corrected.



This product is a safety component that may only be repaired by the manufacturer if it malfunctions.

If the safety components are repaired by the user, the manufacturer's warranty is invalidated because the manufacturer is demonstrably unable to ensure that the product is used as specified.

Limits of use

The product may only be operated within the specified limits of use. The relevant details can be found in "Technical data" (section 16.).



The ambient conditions must be observed. Unauthorised temperatures, shocks, the effects of aggressive chemicals, radiation, unauthorised electromagnetic emissions may result in disruptions and failures.

Observe the limits of operation set out in "Technical data" (section 16.).

Contamination

The function and service life of the valve are heavily dependent on the purity and quality of the pressure fluid and depend upon the operating conditions of the hydraulic components.

Appropriate filters must be used and regular inspections of the medium must be carried out to prevent contamination of the pressure fluid. The permitted level of contamination is set out in the "Technical data".



Be aware of three important sources of contamination:

- Contaminations entering during installation
- Contaminations occurring during operation
- Dirt entering from the surroundings

3. Remaining risk

Allergic reactions

Hydraulic oil can cause allergic reactions on susceptible skin. This can be prevented by taking the precautions that are usual when handling mineral oil products and by using personal protective equipment.

Leaking plugs



Leaking plugs can cause a malfunction. That is why the plugs must be checked for leaks at the regular maintenance interval.

Leaking plugs may constitute a safety hazard, so the valve must be returned to the manufacturer for repair.

Lightning



If electronic components are exposed to electromagnetic fields as a result of lightning, they must be checked to ensure they are still working perfectly. If there is a malfunction, the product must be returned to the manufacturer.

Temperature

The surface of our product may heat up in use.



The service temperatures may exceed the temperature threshold for burn injury, 70°C. Above this threshold, even brief contact with the surface may result in a burn.

The only way to consistently prevent burn injuries is to use personal protective equipment and to remain safety-conscious at all times.



If integrated electronics are exposed to a temperature above 80°C, they may malfunction.

Power failure

Pressure relief valve series R6V*V* / R6V*W* with vent function



In a power failure, the pressure relief valve is automatically depressurised because the vent valve no longer receives current. You must check whether this creates potential hazards when the system/machine is used.

4. Correct use

Our products are manufactured using state of the art technology and recognised safety procedures. These pilot operated pressure relief valves

Series DSDU 1078 E16/-E26/-E32 TÜV

Series R4V*/R4V*W

Series R6V*/R6V*W

have a maximum pressure which is preset at the factory and cannot be changed (lead seal), and are used for maximum pressure protection.

To guarantee correct operation, these valves should be integrated in the user system as follows:

- Port P (R6V) or port A (DSDU, R4V) directly at the point where pressure protection is required
- Port T (RV) or port B (DSDU, R4V) directly at the unpressurised tank

The nominal sizes of the valve and the connections must be dimensioned for the maximum occurring displacement and pressure.

5. Function

Series DSDU*

The system pressure in port A is applied via an aperture in the main cone to the spring loaded cone in the pilot head.

If the system pressure exceeds the pilot pressure, the pilot cone opens and thus limits the pilot pressure. If the system pressure exceeds the pilot pressure plus the spring force, the main cartridge opens to the tank port and limits the system pressure to the pressure setting for the valve.

Series R4V*V* / R4V*W* / R6V*V* / R6V*W* without vent function

The system pressure in port P (R6V) is applied via the X line to the spring loaded cone in the pilot head.

If the system pressure exceeds the pilot pressure, the pilot cone opens and thus limits the pilot pressure. If the system pressure exceeds the pilot pressure plus the spring force, the main cartridge opens to the tank port and limits the system pressure to the pressure setting for the valve.

Series R4V*V* / R4V*W* / R6V*V* / R6V*W* with vent function

The system pressure in port P (R6V) or port A (R4V) is applied via the X line to the spring loaded cone in the pilot head.

If the system pressure exceeds the pilot pressure, the pilot cone opens and thus limits the pilot pressure. If the system pressure exceeds the pilot pressure plus the spring force, the main cartridge opens to the tank port and limits the system pressure to the pressure setting for the valve.

Additionally to the relief function, a solenoid operated vent valve connects the Z area to tank. This allows oil circulation from P to T at minimum pressure drop. The vent position can be either at the energized or de-energized solenoid.

6. Transport

The low weight of the product means that no lifting equipment or transport aids are needed.

Our product leaves the factory in perfect working order, and appropriate packaging is used to protect it from damage.



As Parker has no influence on the state the product arrives in, please check for transport damage/defects immediately after arrival.

Document the transport damage and immediately notify the carrier, the insurance company and the manufacturer.

Do not dispose of the packaging unless

- there is no transport damage
- the entire package contents have been removed from the packaging.



If the product has been damaged during transport, it must be exchanged for a new one.

When transporting the product within your premises, make sure it is kept in a safe position and protected in its original packaging until it is ready to use.

Note also the information in sections 1. "Warranty and liability", 2. "Use of operating instructions", "Compliance with other rules and instructions", "Personnel requirements" and 3. "Remaining risk".

7. Storage

If the product needs to be temporarily stored, it must be protected from dirt, the weather, and damage. Each valve is tested with hydraulic oil in the factory, so that the internal components are protected from corrosion. However, this protection can only be guaranteed under the following conditions:

Storage time:	Conditions:
12 months	Stable air humidity 60 % and stable temperature >5 °C - <25 °C
6 months	Fluctuating air humidity and fluctuating temperature >5 °C - <35 °C

The product is delivered with adequate corrosion protection, provided our recommendations for the ambient conditions are followed.



Storage outside or in maritime or tropical climates without appropriate packaging leads to corrosion and may make the product unusable.



Make sure the product is stored so that no injuries can be caused by tipping or falling. In particular, make sure that the safety rules for high-bay racking are followed.

8. Commissioning

After installing our product in a system/machine, make sure that the requirements of the Machinery Directive are met if applicable.

Access should be provided to the hydraulic diagram, the equipment list and the logic diagram for the system/machine. The hydraulic diagram must contain the design pressure settings for all pressure valves.



The product must be checked for damage and missing parts (e.g. seals) before installation, especially in the area of the sealing surfaces and the safety devices. If the safety devices or sealing surfaces are damaged or are missing individual parts with relevance to the product's function, the product may not be used. Remove all transport securing devices, protective covers and packaging.



Check for foreign objects in the open hydraulic passages. Contaminations may impair operational reliability and shorten the service life.



Make sure that the hydraulic system/machine is unpressurised before the product is installed.

Use the nameplate to compare the valve type with the bill of materials/diagrams.

Take care during installation, to guarantee that all requirements for the safe use of the product are met.

Ensure that the sealing rings are seated correctly. Only use the fastening bolts specified by the manufacturer for installing the product (see "Technical data", section 16.).

Use the correct tool for installing the fastening bolts.



Install the fastening bolts to the torques specified by the manufacturer (see "Technical data", section 16). Tighten the bolts diagonally.



The factory setting for the maximum pressure must not be changed – "safety function".

If the lead seal for the pressure setting is damaged, the product must not be used until the product-specific pressure setting has been restored and sealed by an accredited inspector to prevent the setting being changed.



Subplate mounted valves must only be installed as indicated in ISO 6264.



Before commissioning, the specialist personnel must verify that the entire hydraulic system has been installed correctly.

Commissioning must be carried out with care, taking account of all safety regulations.

If necessary, erect warning signs to prevent unintended operation.

Note also the information in sections 1. "Warranty and liability", 2. "Use of operating instructions", "Compliance with other rules and instructions", "Personnel requirements" and 3. "Remaining risk".

Installation instructions DSDU*

The valve as packed consists of several individual parts, which are packed separately. When removing the product from the packaging, make sure no parts fall out. Falling parts may cause injury or be damaged.

Before installation, check the outer O-rings to ensure they are intact and complete. Damaged parts of O-rings may impair the function of the valve and must not be installed. Lifting and installation equipment should be used as necessary for installation/removal.

To facilitate installation and to prevent damage caused by detachment, all outer O-rings and back-up rings must be moistened with hydraulic fluid. Start by inserting the cartridge unit (sleeve, cone, spring, locating ring) into the hole. Then place the cover onto the valve and tighten all bolts diagonally and evenly in several passes, to the torque specified by the manufacturer. The first time the valve is pressurised, check the sealing surface for leaks.

Electrical connections

Before commissioning

- all electrical connections must be made professionally, using suitable ducting,
- parts of the machine and individually installed components must be adequately earthed,
- all limit switches and control elements must be properly integrated with the control system.

9. Operation



If any of the safety features of the product are not operational, the system/machine must be shut down immediately.



Do not carry out any activities that might jeopardise safety.

Note also the information in sections 1. "Warranty and liability", 2. "Use of operating instructions", "Compliance with other rules and instructions", "Personnel requirements" and 3. "Remaining risk".

10. Troubleshooting

A systematic approach must always be used in the troubleshooting process. Begin by answering the following questions:

- Does anyone have practical experience of similar faults?
- Have any of the settings been changed in the system/machine?
- Was the system/machine in perfect working order before the fault occurred?

The following list contains the problems that are possible in our view:

Problem / Error message	Possible cause	Actions
The maximum pressure is exceeded in the machine	The safety valve does not perform its specified function	Shut down the system/machine immediately. Return the valve to the manufacturer
The pressure setting is not reached in the machine	Malfunction of safety valve. Malfunction of R4V vent valve if there is one	Check safety valve. If there is a malfunction, shut down the system/machine immediately. Return the valve to the manufacturer
Valve seizes	Contamination	Return the valve to the manufacturer Check the pressure fluid and filter in the system/machine, and replace if necessary
No pressure or insufficient pressure	Wrong pressure setting for R4V*V* and R6V*V* (below maximum pressure) Valve does not close because of dirt or a defect	Set the valve to a higher pressure if possible. Otherwise return the valve to the manufacturer
Leakage at the valve	O-ring at the mating flange leaking or missing	Shut down the system/machine immediately. Replace the O-ring
	Plug, plunger tube or case leaking	Shut down the system/machine immediately. Replace the valve with a new one of the same series
Valve does not switch on	Valve not correctly wired	Check the electrical connections
	No electrical signal from general control system	Check the control system
	Defective coil	Measure coil resistance. Replace defective coil
	Piston jams	Check the operating conditions. Check the torques of the fastening bolts If the operating conditions and the torques are correct, return the valve to the manufacturer for inspection.
Valve does not switch off	Electrical control system for the coil not deactivated	Check the control system
	Operating conditions incorrect	Check the operating conditions
	Silting effect	Check the purity of the medium – if necessary improve filtering and replace the medium Actuate the valve periodically
	Broken spring	Return the valve to the manufacturer for inspection
	Pilot oil discharge interrupted	Check pilot oil discharge and delivery

11. Modification

We define modification as the replacement of a defective valve with a new valve of the same series.



Make sure that the hydraulic system/machine is unpressurised before the product is installed/removed.

Note also the information in sections 1. "Warranty and liability", 2. "Use of operating instructions", "Compliance with other rules and instructions", "Personnel requirements" and 3. "Remaining risk".

12. Service/maintenance

Regular maintenance is essential in prolonging the service life of the system/machine, and safeguards plant safety and the operational availability of all components.

Regular maintenance intervals must be adhered to, according to the cycles established for the user.



The minimum maintenance requirements for our products are visual inspections

- to check the lead seal of the pressure setting
- to check for leaks



Make sure that the hydraulic system/machine is unpressurised before the product is installed/removed.



If the product is removed from the system/machine for maintenance work, the system/machine must be disabled so it cannot be switched on unexpectedly.

Note also the information in sections 1. "Warranty and liability", 2. "Use of operating instructions", "Compliance with other rules and instructions", "Personnel requirements" and 3. "Remaining risk".

13. Decommissioning



Make sure that the hydraulic system/machine is unpressurised before the product is removed.

Note also the information in sections 1. "Warranty and liability", 2. "Use of operating instructions", "Compliance with other rules and instructions", "Personnel requirements" and 3. "Remaining risk".

14. Disposal



At the end of the service life of this product

- all escaping pressure fluids must be removed and disposed of properly
- any significant fluids remaining in the product must be removed and disposed of properly
- all materials must be segregated for recycling when they are removed and taken to a suitable recycling centre.

Please segregate the packaging material properly (e.g. paper, plastic).

None of the components of the product contain hazardous materials.



- **The normal local environmental protection laws must always be met when disposing of the product.**

Note also the information in sections 1. "Warranty and liability", 2. "Use of operating instructions", "Compliance with other rules and instructions", "Personnel requirements" and 3. "Remaining risk".

15. Other documentation**Other applicable standards / rules**

- 2014/68/EU
Pressure Equipment Directive
- 2006/42/EC
Machinery Directive
- 2014/35/EU
Low Voltage Directive
- ISO 4406:1999-12
Hydraulic fluid power - Fluids - Method for coding the level of contamination by solid particles
- ISO 6264:1998-03
Hydraulic fluid power - Pressure relief valves - Mounting surfaces
- DIN EN ISO 4126-4:2013-12
Safety devices for protection against excessive pressure - Part 4: Pilot-operated safety valves
- DIN EN 60204-1:2007-06;
VDE 0113-1:2007-06
Safety of machinery – Electrical equipment of machines – Part 1: General requirements
- DIN EN 60529:2014-09; VDE 0470-1:2014-09
Degrees of protection provided by enclosures (IP code)
- ISO 4401:2005-07
Hydraulic fluid power - Four-port directional control valves - Mounting surfaces
- DIN 51524-1:2017-06
Pressure fluids - hydraulic oils - Part 1: hydraulic oils HL; Minimum requirements
- DIN 51524-2:2017-06
Pressure fluids - hydraulic oils - Part 2: hydraulic oils HLP; Minimum requirements
- AD 2000-Merkblatt W 3/1:2015-11
Cast iron materials - Cast iron with lamellar graphite (grey cast iron) non-alloy and low alloy
- AD-2000-Regelwerk W3/2:2015-11
Spheroidal-graphite cast iron, non-alloy and low alloy

Declaration of Conformity

EC Declaration of Conformity / Translation from German 2006/42/EC



Parker Hannifin Manufacturing Germany GmbH & Co. KG

Hydraulic Valve Systems Division Europe
Gutenbergstrasse 38
41564 Kaarst, Germany

Parker Hannifin Manufacturing Germany GmbH & Co. KG declares that the safety valves

Type R4V*V and R4V*W

Type R6V*V and R6V*W

Type DSDU 1078 E*E TÜV

fulfil all the relevant provisions of the

Machinery Directive 2006/42/EC

and

also fulfil all the relevant provisions of the following EU Directives:

Pressure Equipment Directive 2014/68/EU

The valves have been approved for module G / category IV / fluid group 1 as defined in the Pressure Equipment Directive 2014/68/EU, by

TÜV Süd Industrie Service GmbH
Gottlieb-Daimler-Str. 7
70794 Filderstadt
ID 0036

Harmonised standards applied:

DIN EN ISO 4126-4:2013-12

Safety devices for protection against excessive pressure

DIN EN 60529:2014-09

Degrees of protection provided by enclosures (IP code)

National standards and technical specifications applied:

VDTÜV Merkblatt Sicherheitsventil 823 / 565 / 566 / 567 (Safety valves)

AD-2000-Regelwerk W3/2 - Spheroidal-graphite cast iron, non-alloy and low alloy

Place, Date:

Kaarst, 04.11.2024

Signature:

The undersigned:

Dr.-Ing. Oliver-Carlos Göhler / Division Engineering Manager HVSE



Any unauthorised structural change or addition to the product may jeopardise safety to an unacceptable degree. This

would invalidate the declaration of conformity supplied with the product.

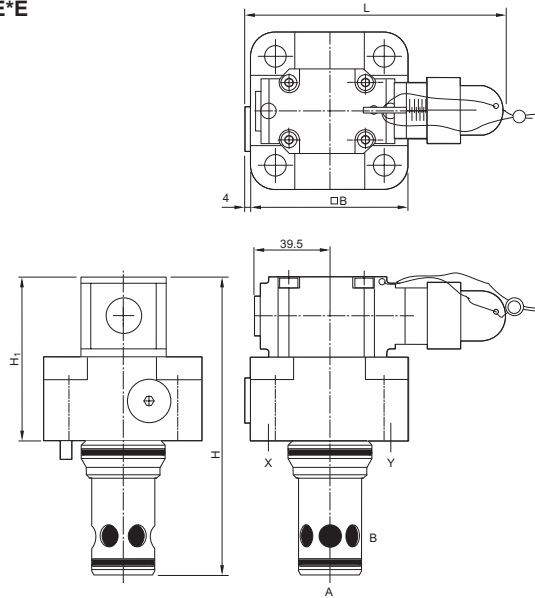
16. Technical data

Series DSDU*E*

Technical data

General			
Size	E16, E25, E32		
Interface	Slip-in to DIN ISO 7368		
Mounting position	As desired, horizontal mounting preferred		
Ambient temperature	[°C]	-20...+60	
MTTF _D value	[years]	75	
Weight	[kg]	E16 = 2.2 / E25 = 3.5 / E32 = 4.9	
Hydraulic			
Max. operating pressure	[bar]	Ports A and X 350, B and Y depressurised	
Pilot oil		external/external	
Pressure setting	[bar]	See ordering information	
Nominal flow	[l/min]	See ordering information	
Fluid		Hydraulic oil according to DIN 51524	
Fluid temperature	[°C]	-10...+70	
Viscosity, permitted	cSt / [mm²/s]	20...400	
Recommended	cSt / [mm²/s]	30...80	
Filtration		ISO 4406: 18/16/13	

Dimensions DSDU*E*

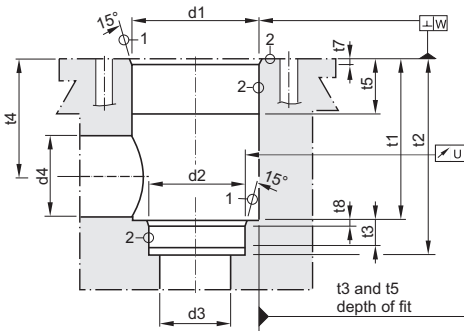
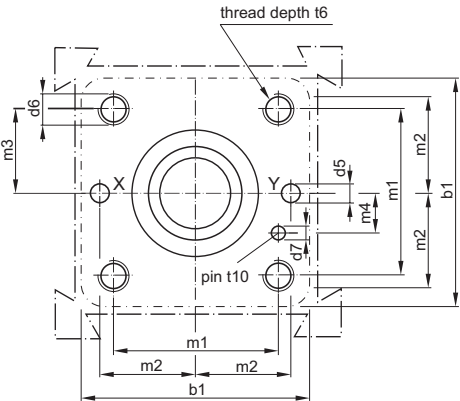


Size	H	H ₁	B	L
E16	141	85	79*	162
E25	162	90	85	156
E32	182	97	102	162

* Width 65 mm

Installation	NG	Kit	Kit	Kit	NBR	Kit
Mounting	16	BK414	4x M8x40 ISO 4762-12.9	31,8 Nm	SK-DSDU10E16	SK-DSDU10E16V
	25	BK391	4x M12x50 ISO 4762-12.9	108 Nm	SK-DSDU10E25	SK-DSDU10E25V
	32	BK415	4x M16x55 ISO 4762-12.9	264 Nm	SK-DSDU10E32	SK-DSDU10E32V

Mounting Surface



Surface quality:

① = $\sqrt{R_{\max} 16}$, ② = $\sqrt{R_{\max} 8}$



NG	b1	d1 H7	d2 H7	d3	d3 max	d4	d4 max*	d5 max	d6	d7 H13	m1±0.2	m2±0.2	m3±0.2
16	65	32	25	16	18	16	25	4	M 8	4	46	25	23
25	85	45	34	25	25.5	25	32	6	M 12	6	58	33	29
32	102	60	45	32	36	32	40	8	M 16	6	70	41	35

NG	m4±0.2	t1+0.1	t2+0.1	t3	t4	t4 max*	t5	t6	t7	t8	t10	U	W
16	10.5	43	56	11	34	29.5	20	20	2	2	10	0.03	0.05
25	16	58	72	12	44	40.5	30	25	2.5	2.5	10	0.03	0.05
32	17	70	85	13	52	48.0	30	35	2.5	2.5	10	0.03	0.1

* only with d4_{max} and t4_{max}

Serie R4V*V* / R4V*W* / R6V*V* / R6V*W*

Technical data

R*V without vent function

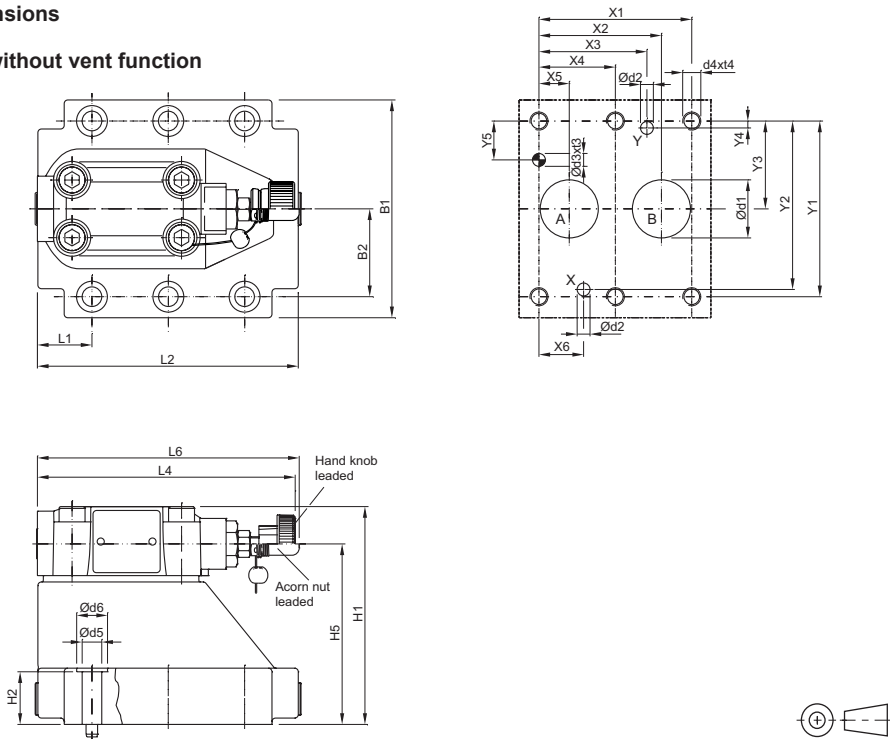
General				
Nominal size		10	25	32
Interface		Subplate mounting acc. ISO 6264		
Mounting position		as desired, horizontal mounting preferred		
Ambient temperature	[°C]	-20...+60		
MTTF _D value	[years]	75		
Weight	Series R4V [kg]	2.7	4.5	6.0
	Series R6V [kg]	—	5.8	7.8
Hydraulic				
Max. operating pressure	[bar]	Ports P (or A) and X up to 350, port T (or B) and Y 30		
Pressure stages	[bar]	350		
Max. flow	Series R4V [l/min]	90	300	600
	Series R6V [l/min]	250	500	650
Fluid		Hydraulic oil according to DIN 51524		
Fluid temperature	[°C]	-10...+70		
Viscosity, recommended	[cSt] / [mm ² /s]	20...400		
permitted	[cSt] / [mm ² /s]	30...80		
Filtration		ISO 4406; 18/16/13		

R*V with vent function

General				
Nominal size			25	32
Interface			Subplate mounting acc. ISO 6264	
Mounting position			as desired, horizontal mounting preferred	
Ambient temperature		[°C]	-20...+60	
MTTF _D value		[years]	75	
Weight	Series R6V	[kg]	7.2	9.2
Hydraulic				
Max. operating pressure		[bar]	Ports P and X 350,	
		[bar]	Port T and Y 30	
Pressure stages		[bar]	350	
Max. flow	Series R6V	[l/min]	500	650
Fluid			Hydraulic oil according to DIN 51524	
Fluid temperature		[°C]	-10...+70	
Viscosity,	recommended	[cSt] /	20...400	
	permitted	[cSt] /	30...80	
Filtration			ISO 4406; 18/16/13	
Electrical				
Duty ratio		[%]	100 ED; CAUTION: coil temperature up to 150 °C possible	
Protection class			IP 65 in according with EN 60529 (plugged and mounted)	
Code			G0R	G0Q
Supply voltage		[V]	12 V =	24 V =
Supply tolerance		[%]	±10	±10
Power consumption	hold	[W]	32.7	31
	in rush	[W]	32.7	31
Connector			Connector to EN 175301-803	
Wiring min.		[mm²]	3 x 1.5 recommended	
Wiring length max.		[m]	50 recommended	

Dimensions

R4V without vent function

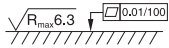


NG	ISO-Code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
10	6264-06-07-*-97	42.9	35.8	21.5	—	7.2	21.5	—	66.7	58.8	33.4	7.9	14.3	—
25	6264-08-11-*-97	60.3	49.2	39.7	—	11.1	20.6	—	79.4	73	39.7	6.4	15.9	—
32	6264-10-15-*-97	84.2	67.5	59.5	42.1	16.7	24.6	—	96.8	92.8	48.4	3.8	21.4	—

Tolerance at X and Y pin holes and screw holes ±0.1, at port holes ±0.2.

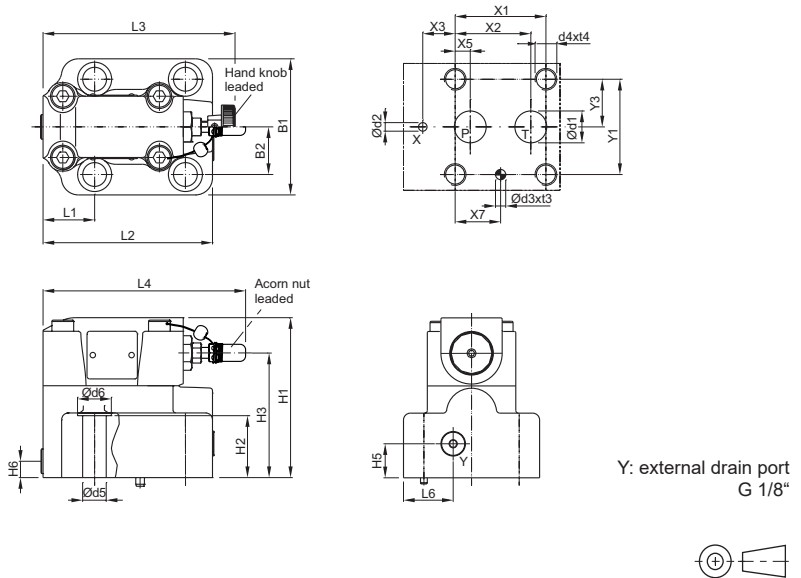
NG	ISO-Code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
10	6264-06-07-*-97	87.3	33.35	83	21	—	—	62.5	—	25	90.8	—	143	—	144.8
25	6264-08-11-*-97	105	39.7	107.5	29	—	—	87	—	30.9	123	—	143	—	144.8
32	6264-10-15-*-97	120	48.4	120	30	—	—	99.5	—	29.8	143.5	—	143	—	144.8

NG	ISO-Code	d1max	d2max	d3	t3	d4	t4	d5	d6
10	6264-06-07-*-97	15	7	7.1	8	M10	16	10.8	17
25	6264-08-11-*-97	23.4	7.1	7.1	8	M10	18	10.8	17
32	6264-10-15-*-97	32	7.1	7.1	8	M10	20	10.8	17

NG	Surface finish	 Kit	 Kit	 Kit	NBR	FPM
10		BK505	4x M10x35 ISO 4762-12.9	63 Nm ±15%	S26-58507-0	S26-58507-5
25		BK485	4x M10x45 ISO 4762-12.9	63 Nm ±15%	S26-58475-0	S26-58475-5
32		BK506	6x M10x45 ISO 4762-12.9	63 Nm ±15%	S26-58508-0	S26-58508-5

Dimensions

R6V without vent function



NG	ISO-Code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
25	6264-08-13-*-97	66.7	55.6	23.8	—	11.1	—	33.4	70	—	35	—	—	—
32	6264-10-17-*-97	88.9	76.2	31.8	—	12.7	—	44.5	82.6	—	41.3	—	—	—

Tolerance at X and Y pin holes and screw holes ± 0.1 , at port holes ± 0.2 .

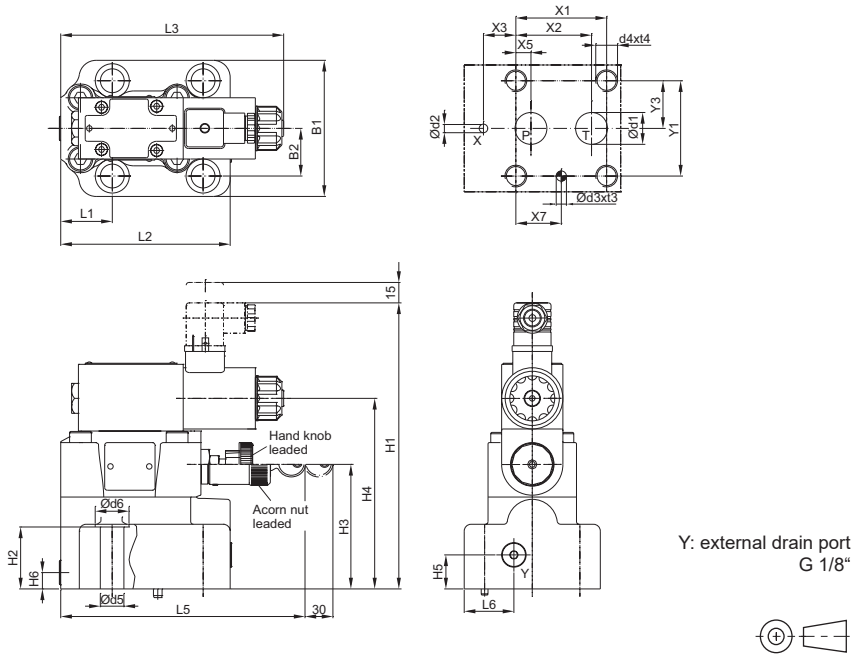
NG	ISO-Code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
25	6264-08-13-*-97	100	35	117.5	46.5	91.5	—	25	12	37.9	124.5	141	148,3	—	36.5
32	6264-10-17-*-97	120	41.3	124.5	51,3	98,5	—	26.5	13.5	44.3	153	141	148,3	—	46.5

NG	ISO-Code	d1max	d2max	d3	t3	d4	t4	d5	d6
25	6264-08-13-*-97	23.4	6.3	7.5	10	M16	27	17.5	25
32	6264-10-17-*-97	32	6.3	7.5	10	M18	28	20	30

NG	Surface finish	Kit	Kit	Kit	NBR	Kit
25	$\sqrt{R_{max} 6.3}$	BK366	4x M16x70 ISO 4762-12.9	264 Nm $\pm 15\%$	S26-96396-0	S26-96396-5
32	$\sqrt{R_{max} 6.3}$	BK507	4x M18x75 ISO 4762-12.9	398 Nm $\pm 15\%$	S26-96392-0	S26-96392-5

Dimensions

R6V with vent function

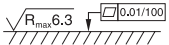


NG	ISO-Code	x1	x2	x3	x4	x5	x6	x7	y1	y2	y3	y4	y5	y6
25	6264-08-13-*-97	66.7	55.6	23.8	—	11.1	—	33.4	70	—	35	—	—	—
32	6264-10-17-*-97	88.9	76.2	31.8	—	12.7	—	44.5	82.6	—	41.3	—	—	—

Tolerance at X and Y pin holes and screw holes ±0.1. at port holes ±0.2.

NG	ISO-Code	B1	B2	H1	H2	H3	H4	H5	H6	L1	L2	L3	L4	L5	L6
25	6264-08-13-*-97	100	35	206.9	46.5	91.5	139.8	25	12	37.9	124.5	163.8	141	—	36.5
32	6264-10-17-*-97	120	41.3	213.9	51.3	98.5	146.8	25	12	44.3	153	163.8	141	—	36.5

NG	ISO-Code	d1max	d2max	d3	t3	d4	t4	d5	d6
25	6264-08-13-*-97	23.4	6.3	7.5	10	M16	27	17.5	25
32	6264-10-17-*-97	32	6.3	7.5	10	M18	28	20	30

NG	Surface finish	 Kit			NBR 	Kit 
25		BK366	4x M16x70 ISO 4762-12.9	264 Nm ±15%	S26-96396-0	S26-96396-5
32		BK507	4x M18x75 ISO 4762-12.9	398 Nm ±15%	S26-96392-0	S26-96392-5