



KIESELMANN

FLUID PROCESS GROUP

Translation of the original

Operating Instructions

Sight glass

Type: 7005

DN25 - DN150

Glass types: Borosilicate, Soda-lime glass

Seal type: NBR, HNBR, EPDM, FKM, VMQ

Material: 1.4307 (AISI 304L), 1.4404 (AISI 316L)

Housing connection: Weld-on end (S)



KIESELMANN GmbH

Paul-Kieselmann-Str. 4-10
D - 75438 Knittlingen

 +49(0) 7043 371-0 •  +49(0) 7043 371-125
www.kieselmann.de • info@kieselmann.de

Copyright: © KIESELMANN FLUID PROCESS GROUP

1 General informations

1.1 Informations for your safety

We are pleased that you have decided for a high-class KIESELMANN product. With correct application and adequate maintenance, our products provide long time and reliable operation.

Before installation and initiation, please carefully read this instruction manual and the security advices contained in it. This guarantees reliable and safe operation of this product and your plant respectively. Please note that an incorrect application of the process components may lead to great material damages and personal injury.

In case of damages caused by non observance of this instruction manual, incorrect initiation, handling or external interference, guarantee and warranty will lapse!

Our products are produced, mounted and tested with high diligence. However, if there is still a reason for complaint, we will naturally try to give you entire satisfaction within the scope of our warranty. We will be at your disposal also after expiration of the warranty. In addition, you will also find all necessary instructions and spare part data for maintenance in this instruction manual. If you don't want to carry out the maintenance by yourself, our KIESELMANN - service team will naturally be at your disposal.

1.2 Marking of security instructions

Hints are available in the chapter "safety instructions" or directly before the respective operation instruction. The hints are highlighted with a danger symbol and a signal word. Texts beside these symbols have to be read and adhered to by all means. Please continue with the text and with the handling at the valve only afterwards.

Symbol	Signal word	Meaning
	DANGER	Imminent danger which will result severe personal injury or death.
	WARNING	Imminent danger which may result severe personal injury or death.
	CAUTION	Dangerous situation which may cause slight personal injury or material damages.
	NOTICE	An harmful situation which may result in damages of the product itself or of adjacent vicinity.
	INFORMATION	Marks application hints and other information which is particularly useful.

1.3 General designated use

The fitting is designed exclusively for the purposes described below. Using the fitting for purposes other than those mentioned is considered contrary to its designated use. KIESELMANN cannot be held liable for any damage resulting from such use. The risk of such misuse lies entirely with the user. The prerequisite for the reliable and safe operation of the fitting is proper transportation and storage as well as competent installation and assembly. Operating the fitting within the limits of its designated use also involves observing the operating, inspection and maintenance instructions.

1.4 Personnel

Personnel entrusted with the operation and maintenance of the tank safety system must have the suitable qualification to carry out their tasks. They must be informed about possible dangers and must understand and observe the safety instructions given in the relevant manual. Only allow qualified personnel to make electrical connections.

1.5 Modifications, spare parts, accessories

Unauthorized modifications, additions or conversions which affect the safety of the fitting are not permitted. Safety devices must not be bypassed, removed or made inactive. Only use original spare parts and accessories recommended by the manufacturer.

1.6 General instructions

The user is obliged to operate the fitting only when it is in good working order. In addition to the instructions given in the operating manual, please observe the relevant accident prevention regulations, generally accepted safety regulations, regulations effective in the country of installation, working and safety instructions effective in the user's plant.

2 Safety instructions

2.1 Intended use

The fitting to be built into pipe conduits to allow the inspection of liquids.

2.2 General notes



NOTICE - observe the operating instructions

To avoid danger and damage, the fitting must be used in accordance with the safety instructions and technical data contained in the operating instructions.



NOTICE

All data are in line with the current state of development. Subject to change as a result of technical progress.

2.3 General safety instructions



⚠ WARNING

Risk of injury by outflowing medium

Dismantling the valve or valve assemblies from the plant can cause injuries.

- Media flowing through the leakage drain outlet are to be drained off without splashing into a discharge arrangement.
- Carry the disassembling only if when the plant has been rendered pressure-less and free of liquid and gas.



⚠ WARNING

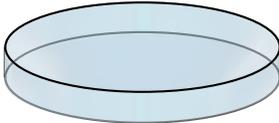
Danger of injury due exceeding the operating pressure

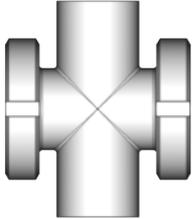
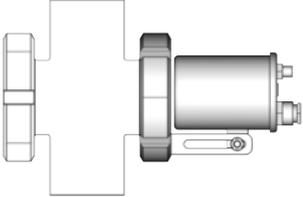
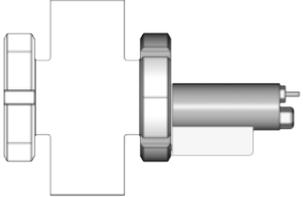
If the maximum permissible working pressure is exceeded, accident hazard due to bursting of the glass cylinder or discharge of liquids into the atmosphere is possible.

- In order to avoid excess pressure install overpressure protections.
- The fitting position has to be chosen in such a way as to exclude danger of accident. In order to prevent accident hazards, provide appropriate protective devices.

3 Modular system

Seal material				
EPDM	HNBR	NBR	FKM	VMQ
				

Material -Sight glass	
Borosilicate	Soda-lime glass
	

Version	
S-S, with 2xsight glass	
	
S-S, with 2xsight glass Halogen-Lighting 24V 20W	S-S, with 2xsight glass LED-Lighting 24V 2W
	

4 Function and operation

4.1 Installation instructions

External forces due to the installation must always be avoided.

Fitting position

- The installation position is without importance.

4.1.1 Cleaning

Optimum cleaning is achieved with pipeline cleaning.

4.2 General welding guidelines

Sealing elements integrated in weld components must generally be removed prior to welding. To prevent damage, welding should be undertaken by certified personnel (EN ISO 9606-1). Use the TIG (Tungsten Inert Gas) welding process.



CAUTION

Damage and injuries due to high temperature supply

To avoid a distortion of the components, all welding parts must be welded to stress-relieved. Allow all components to cool before assembling.



NOTICE

Damage due to impurities

Impurities can cause damage to the seals and seals area. Clean inside areas prior to assembly.

5 Technical data

Model	Sight glass
Size	DN25 - DN150
Connection type	Weld-on end DIN EN 10357

Temperature range

Ambient	+4° to +45°C (air)
Operation	+0° to +100°C (medium dependent)
Sterilization	EPDM +140°C HNBR +100°C NBR +100°C FKM +100°C VMQ +100°C

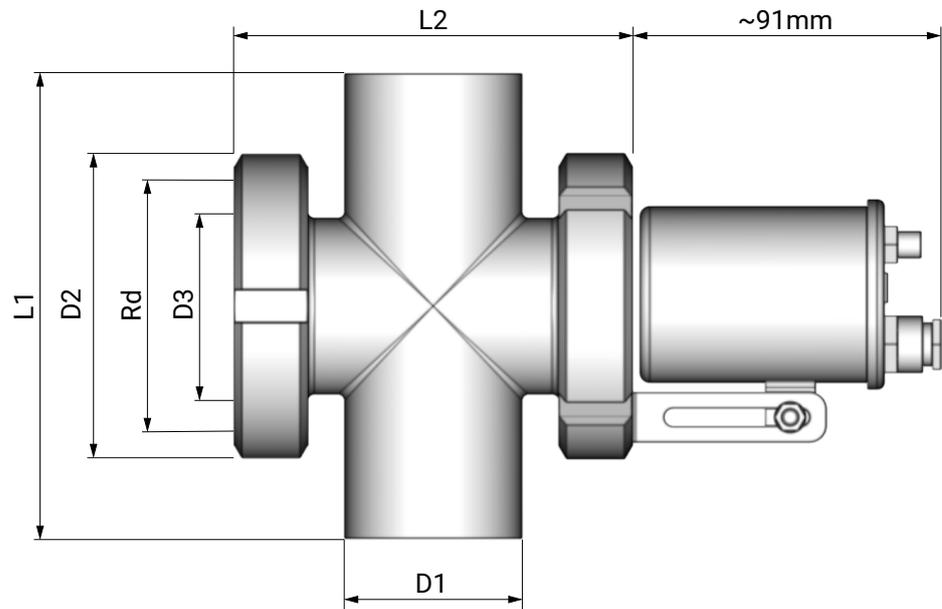
Lighting

Sight glass lighting	<ul style="list-style-type: none"> • Halogen 24V 20W AC/DC IP 65 Push button and tilt hinge • LED 24V 2W AC/DC IP 65 On/off switch and tilt hinge
----------------------	---

Materials in product contact

stainless steel	1.4307 / AISI 304L 1.4404 / AISI 316L
Surface	Ra ≤ 0,8µm
Sight glass	<ul style="list-style-type: none"> • Soda-lime glass • Borosilicate

7 Drawings and dimensions



Nominal size	Ø D1	Ø D2	Ø D3	Ø Rd	L1	L2
DN 25	29 x 1,5	63	26	Rd 52x1/6	100	87
DN 32	35 x 1.5	70	33	Rd 58x1/6	110	93
DN 40	41 x 1,5	78	38	Rd 65x1/6	120	100
DN 50	53 x 1,5	92	50	Rd 78x1/6	140	116
DN 65	70 x 2,0	112	66	Rd 95x1/6	160	142
DN 80	85 x 2,0	127	81	Rd 110x1/4	180	160
DN 100	104 x 2,0	148	100	Rd 130x1/4	200	192
DN 125	129 x 2,0	178	125	Rd 160x1/4	375	257
DN 150	154 x 2,0	210	150	Rd 190x1/4	450	290

Table 1 Dimensions [mm]

8 Wearing parts

Nominal size	Material	Glass (3)		Slide ring (5)
		Borosilicate	Soda-lime glass	PTFE
DN 25	1.4307	7026025000-073	7002025000-072	8040052026-053
	1.4404	[30 bar]	[25 bar]	
DN 32	1.4307	7026032000-073	7002032000-072	8040065038-053
	1.4404	[30 bar]	[20 bar]	
DN 40	1.4307	7026040000-073	7002040000-072	8040065038-053
	1.4404	[16 bar]	[16 bar]	
DN 50	1.4307	7026050000-073	7002050000-072	8040078050-053
	1.4404	[14 bar]	[10 bar]	
DN 65	1.4307	7026065000-073	7002065000-072	8040095066-053
	1.4404	[8 bar]	[10 bar]	
DN 80	1.4307	7026080000-073	7002080000-072	8040110081-053
	1.4404	[6 bar]	[7 bar]	
DN 100	1.4307	7026100000-073	7002100000-072	8040130100-053
	1.4404	[8 bar]	[7 bar]	
DN 125	1.4307	7026125000-073	7002125000-072	8040160125-053
	1.4404	[7 bar]	[7 bar]	
DN 150	1.4307	7026150000-073	7002150000-072	8040190150-053
	1.4404	[5 bar]	[5 bar]	

Nominal size	Seal (4)				
	EPDM	HNBR	NBR	FKM	VMQ
DN 25	2005025000-054	2004025000-050	2004025000-056	2008025000-051	2007025000-052
DN 32	2005032000-054	2004032000-050	2004032000-056	2008032000-051	2007032000-052
DN 40	2005040000-054	2004040000-050	2004040000-056	2008040000-051	2007040000-052
DN 50	2005050000-054	2004050000-050	2004050000-056	2008050000-051	2007050000-052
DN 65	2005065000-054	2004065000-050	2004065000-056	2008065000-051	2007065000-052
DN 80	2005080000-054	2004080000-050	2004080000-056	2008080000-051	2007080000-052
DN 100	2005100000-054	2004100000-050	2004100000-056	2008100000-051	2007100000-052
DN 125	2005125000-054	2004125000-050	2004125000-056	2008125000-051	2007125000-052
DN 150	2005150000-054	2004150000-050	2004150000-056	2008150000-051	2007150000-052