



DISCO CHECK VALVES

SERIES
932-HD

AWS
APPARATEBAU

GENERAL DESCRIPTION

DISCO CHECK VALVES

Description and intended purpose

AWS disco check valves are suitable for universal use in piping systems for the transport of liquid and gaseous substances as well as in plants or environments in which particularly high demands are placed on the material. They can be installed directly between flanges (PN 6 - PN 160 or Class 150 - Class 900).

AWS disco check valves are maintenance-free.

Function

AWS disco check valves require a low opening pressure. The resulting opening force pushes the disc against a spring and, if necessary, also the weight force of the disc (depending on the installation position), so that the medium can flow. If the inlet pressure drops or if the backpressure exceeds the inlet pressure, the valve closes and seals against the medium by means of the soft seat or the metal seat.

WHY CHOOSE AWS

DISCO CHECK VALVES?

IN BRIEF:

Many years of experience in the production of check valves

In-house assembly department with maximum flexibility and expertise

Advice and technical design via in-house design and engineering team

High availability ensuring short delivery times of standard articles

QUALITY AND TESTING AT AWS:

Own test benches for pressure and leak tests in accordance with EN 12266-1, API 598 and other common standards

Experience and routine in the preparation of works and acceptance test certificates in accordance with DIN EN 10204 (2.2, 3.1 or 3.2 certificate)

Regular auditing of processes and quality mechanisms by TÜV Süd, discerning customers and other external bodies

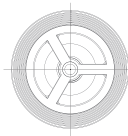
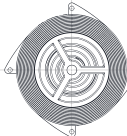
In-house spectral analyses for metallic materials

Additional quality assurance measures (external and internal), for example corrosion testing, dye penetrant testing, X-ray testing, preparation of QCPs, etc.

OVERVIEW MATRIX

DISCO CHECK VALVES

DESCRIPTION

		930	931		932		932-HD	936
								
NOMINAL SIZES		DN 15–DN 100	DN 15–DN 100	DN 125–DN 200	DN 15–DN 100	DN 125–DN 300	DN 15–DN 100	DN 15–DN 100
FLANGE CONNECTION *1		PN 6 *2/ PN 10/PN 16/ PN 25/PN 40 Class 150 *2	PN 6/PN 10/PN 16 Class 150		PN 6 / PN 10 / PN 16 / PN 25 / PN 40 Class 150/ Class 300	PN 10 / PN 16 / PN 25 / PN 40 Class 150/ Class 300 *2	PN 63/ PN 100 / PN 160 Class 600/ Class 900	PN 10
PRESSURE		max. 40 bar	max. 16 bar		max. 50 bar		max. 160 bar	max. 10 bar
TEMPERATURE RANGES		-20 °C to +300 °C	-10 °C to +200 °C	-20 °C to +300 °C	-196 °C to +400 °C*3		-200 °C to +450 °C*3	-20 °C to +120 °C
MATERIALS AVAILABLE *4	Stainless steel	x	–	–	x	x	x	–
	Brass	–	x	–	–	–	–	–
	Alu bronze	–	–	–	x	–	–	–
	Carbon steel	–	–	–	x	x	–	–
	Superduplex	–	–	–	x	x	x	–
	Ductile iron	–	–	x	–	–	–	–
	PVC	–	–	–	–	–	–	x
	PP	–	–	–	–	–	–	x
	PVDF	–	–	–	–	–	–	x
SEALS AVAILABLE		Metal, NBR, EPDM, FKM, PTFE	Metal, NBR, EPDM, FKM		Metal, NBR, EPDM, FKM, PTFE		Metal, NBR, EPDM, FKM, PTFE	NBR, EPDM, FKM, PTFE
DIFFERENT OPENING PRES- SURES AS SPECIAL OPTION		–	–		x		x	x

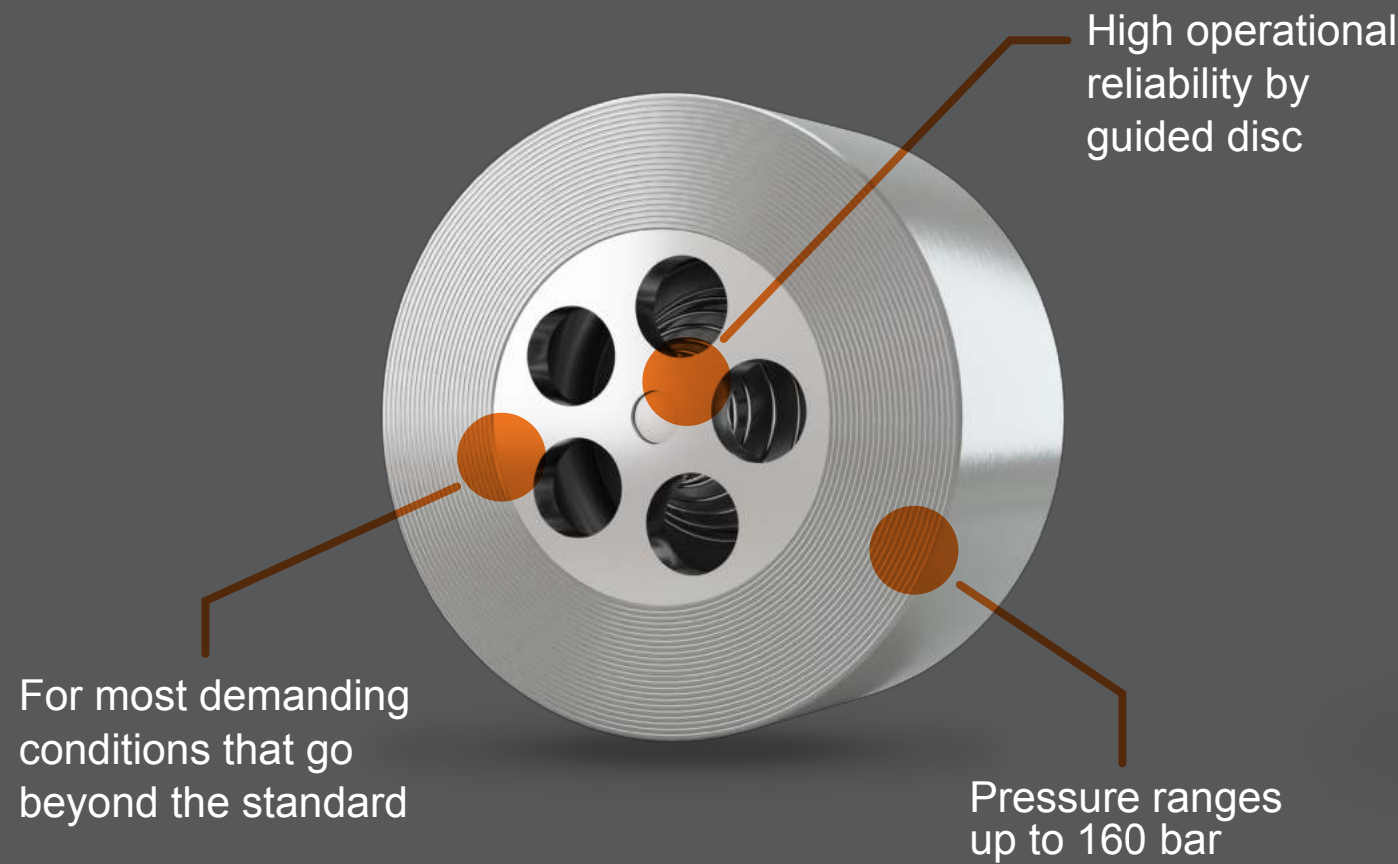
*1 other flange connections on request *2 not for at all nominal sizes *3 higher or lower temperatures on request *4 other materials on request

... AND BECAUSE WE KNOW

WHAT MATTERS IN YOUR INDUSTRY!

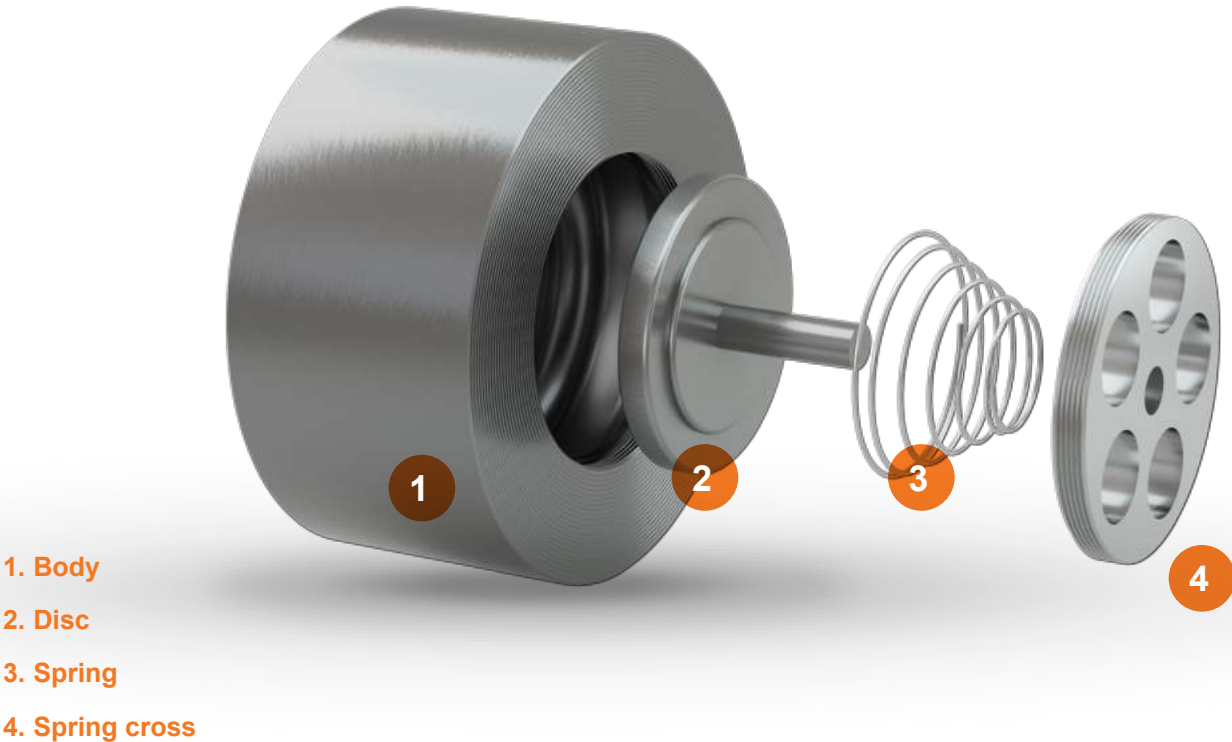


TECHNICAL DATA
DISCO CHECK VALVE | SERIES 932-HD



Nominal sizes
DN 15 - DN 100
Flange connection
PN 63 - 160 | Class 600 - 900
FTF (face-to-face) dimensions
DIN EN 558, Series 52
Temperature range
-200 °C to +450 °C

TECHNICAL DATA
DISCO CHECK VALVE | SERIES 932-HD



Design	Body	Disc	Spring cross	Spring	Pressure range*1
1	1.4404	1.4404	1.4404	1.4571	0 to max. 160 bar
6	1.4410 (Superduplex)	1.4410 (Superduplex)	1.4410 (Superduplex)	Hastelloy C4 (2.4610)	0 to max. 160 bar

*1 max. allowable pressure is dependent on the temperature

Seal	Design	Temperature	Leakage rate*2
Metal seated	1	-200 °C to +450 °C*3	G
NBR*4	6	-10 °C to +250 °C	A
EPDM*4	—	-30 °C to +100 °C	A
FKM*4	—	-65 °C bis +150 °C	A
PTFE*4	—	-30 °C to +230 °C	A
PTFE*4	—	-200 °C to +250 °C	A

*2 acc. to EN 12266-1

*3 temperatures above 300 °C require spring material Hastelloy C4 (low temperature limit for design 1: -100 °C)

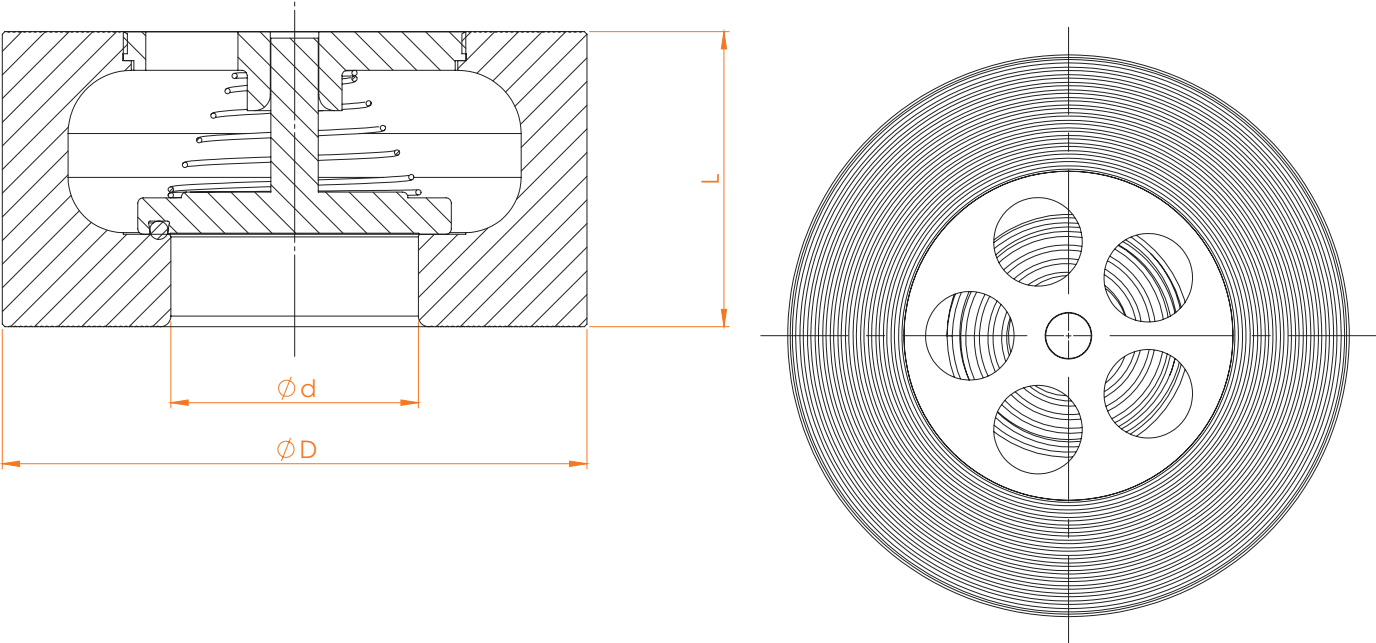
*4 low temperature limit for design 6: -10 °C

Seals comply with the following approvals / conformities:

NBR: DIN EN 549, BAM, REACH, RoHS etc.
EPDM: KTW UBA, DVGW W 270, WRAS, NSF, FDA, BfR XXI Kat. 4, ADI-free, 3A, USP Cl. 6, BAM, REACH, RohS etc.
FKM: DIN EN 549, ADI-frei, REACH, RoHS etc.
PTFE: KTW UBA, DVGW W 270, WRAS, FDA, BfR, ADI-free, EU 10/2011, 3A, USP Cl. 6, REACH, RoHS etc.

TECHNICAL DATA

DISCO CHECK VALVE | SERIES 932-HD



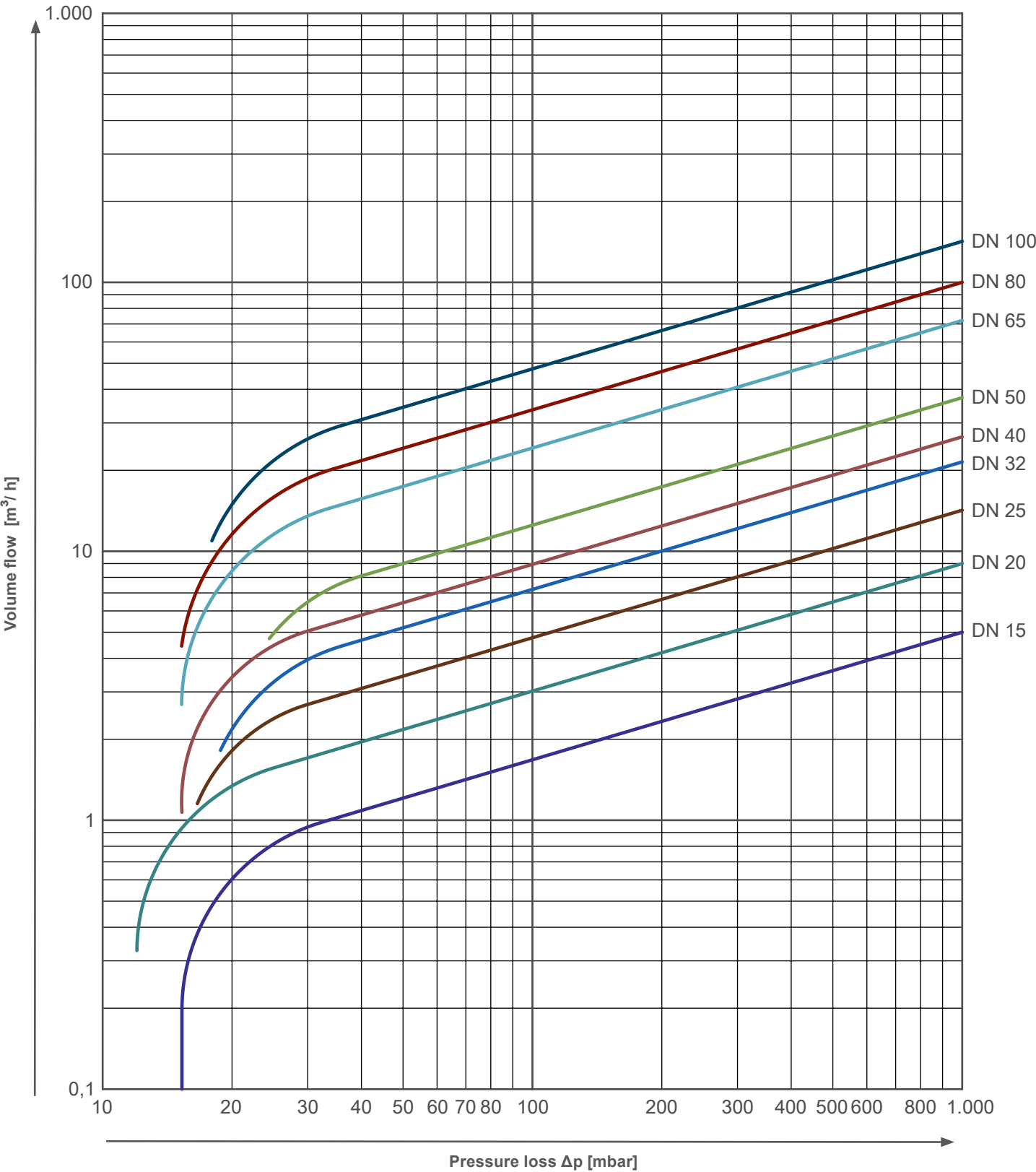
Nominal size	Ø D	Ø d	L	Kv value [m³/h]	Opening pressure*5 [mbar]			w/o spring [kg]	Weight*6 [kg]
					↔	↑	↓		
DN 15	54	15	25	5	~ 16	~ 23	~ 9	~ 7	0.4
DN 20	68	19	31.5	9	~ 12	~ 19	~ 5	~ 7	0.7
DN 25	74	25	35.5	14	~ 15	~ 23	~ 7	~ 8	0.9
DN 32	83	32	40	21	~ 18	~ 27	~ 9	~ 9	1.2
DN 40	95	38	45	27	~ 16	~ 24	~ 8	~ 8	1.7
DN 50	110	47	56	37	~ 19	~ 29	~ 9	~ 10	2.8
DN 65	130	63	63	71	~ 16	~ 31	-	~ 15	3.9
DN 80	149	77	71	100	~ 16	~ 32	-	~ 16	5.6
DN 100	176	97.5	80	143	~ 17	~ 36	-	~ 18	11.6

*5 other opening pressures on request (for high opening pressures the Kv value may be reduced if disc-springs must be used)
*6 weight may vary slightly, depending on the design

TECHNICAL DATA

DISCO CHECK VALVE | SERIES 932-HD

Pressure-Loss Diagram Type 932-HD
The diagram values are valid for water at a temperature of 20 °C and for valves with face-to-face dimensions in accordance with DIN EN 558, suitable for flanges in accordance with PN 10 - PN 40. At the opening of the valve, the curves apply to operation in horizontal pipelines. For calculations for other fluids or temperatures, please contact us.



SPECIAL OPTIONS

DISCO CHECK VALVES

With many years of experience and our understanding of the demands of the market and the constantly rising expectations of our customers, we always strive to develop and implement solutions that go well beyond the standard. Here are just a few examples of special designs that we have created either in-house, based on our standard models, or with the help of our long-standing pool of partners. Here we adhere to the criteria of technical and economic feasibility combined with a healthy dose of pragmatism.



Various special bodies

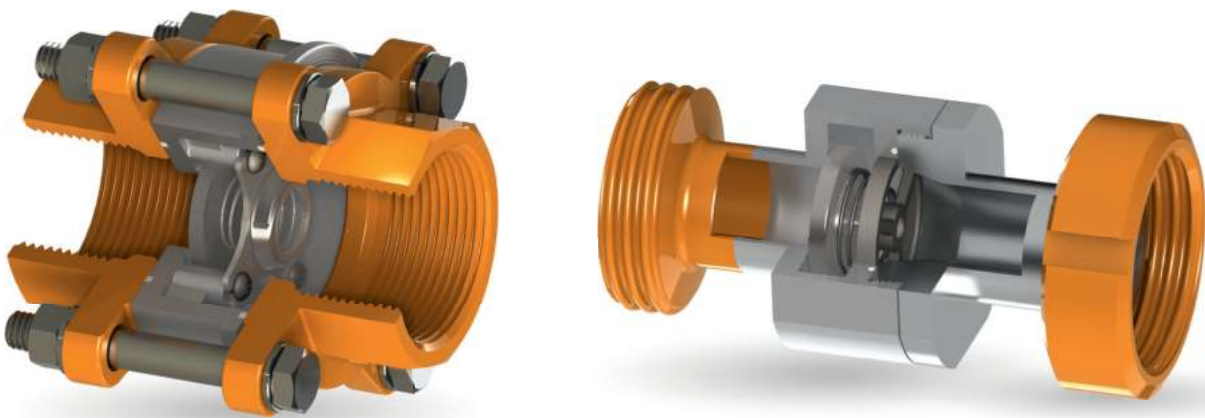


With various forms of flange sealing surfaces acc. to diverse standards

With thread holes

With lug type body

With mounted connecting pieces for thread connections



Other special options:

- Special opening pressure (type 932, 932-HD, 936)
- Cleaned free of oil and grease
- Cleaned free of silicone
- Cleaned free of PWIS

- Seals with additional approvals which go beyond the standard
- Metal seated with reduced leakage rate acc. to DIN EN 12266-1 (type 932, 932-HD)

- Seal glued in for vacuum applications
- Other materials on request
- Other flange dimensions on request
- Other special options on request



With attached ground cable



AWS Apparatebau Arnold GmbH
Zimmerbachstraße 51
74676 Niedernhall - Waldzimmern
Tel.: +49 (0)7940 9308-200
info@aws-apparatebau.de
www.aws-apparatebau.de