

Diaphragm Valve

SISTO-C

Sterile Process Engineering
PN 16
DN 6-200

Type Series Booklet



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Type Series Booklet SISTO-C

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Diaphragm Valves

Diaphragm Valves – No Dead Volume, Soft-seated, Glandless

SISTO-C



Main applications

- Chemical industry
- Homogenisation
- Food industry and beverage industry
- Pharmaceutical industry
- Process engineering
- Water treatment
- Sugar industry

Fluids handled

- Aggressive fluids
- Inorganic fluids
- Steam
- Distillate
- Gas
- Fluids posing a health hazard
- Toxic fluids
- High-temperature hot water
- Corrosive fluids
- Valuable fluids
- Volatile fluids
- Solvents
- Oil
- Organic fluids

- Polymerising/crystallising fluids
- Radioactive fluids
- Cleaning agents

Operating data

SISTO-C manually operated valve

Operating properties

Characteristic	Value
Nominal pressure	PN 16
Nominal size ¹⁾	DN 6 - 200
Max. permissible pressure [bar]	16
Min. permissible temperature [°C] ²⁾	≥ -20
Max. permissible temperature [°C] ²⁾	≤ +160

SISTO-C LAP actuated valve

Operating properties

Characteristic	Value
Nominal pressure	PN 16
Nominal size ¹⁾	DN 6 - 200
Max. permissible pressure [bar]	16
Min. permissible temperature [°C] ²⁾	≥ -20
Max. permissible temperature [°C] ²⁾	≤ +160
Control medium	Compressed air (min. 5.5 bar) (max. 7.0 bar)

Valve body materials

Overview of available materials

Material	Material number	Temperature limit
X2CrNiMo18-14-3 ³⁾	1.4435/316L	-20 °C to +160 °C
X1NiCrMoCu25-20-5	1.4539	-20 °C to +160 °C
NiCr21Mo14W	2.4602	-20 °C to +160 °C
NiCr23Mo16Al	2.4605	-20 °C to +160 °C
NiMo16Cr15W	2.4819	-20 °C to +160 °C
NiMo16Cr16Ti	2.4610	-20 °C to +160 °C

Design details

Design

- Soft-seated straightway shut-off valve in Y-pattern or T-pattern; manually or pneumatically actuated
- Shut-off and sealing to atmosphere by completely enclosed diaphragm; no dead volumes; suitable for sterilisation
- Suitable for CIP/SIP
- Self-drain angle marked on weld ends
- Manufactured and tested to EN 13397
- Marked in accordance with DIN EN 19 (ISO 5209)
- Marked in accordance with ASME BPE

1) Smaller and larger nominal sizes available on request
 2) The temperatures indicated are for orientation only; they are not valid for all operating conditions.
 3) Forged material to ASME BPE: sulphur content 0.005 to 0.015 %; chrome content 17 to 18 %; BN2: Δ Fe <0.5 %

Variants

- Handwheel made of stainless steel 1.4404/1.4409
- Tank valves or multi-port valves⁴⁾
- Pneumatic actuators
- Limit switches
- Positioners
- Adjustable travel stop
- High-temperature design for temperatures $\geq 80^{\circ}\text{C}$ at actuator cylinder

Diaphragm materials

Overview of diaphragm qualities

Diaphragm	Temperature limit [$^{\circ}\text{C}$]
EPDM	+140
TFM/EPDM, bonded	
TFM/EPDM, 2-piece	+160

Surface finish

Surface finish of wetted internal body surfaces

Internal body surfaces				
Ra [μm] ⁵⁾	Ra [μin]	ASME BPE Code	Hygiene class DIN 11866	Surface treatment
6,3	250	SF0	-	Ground
3,2	125	-	-	
1,6	60	-	-	
0,8	30	SF3	H3	
0,6	25	SF2	-	
0,5	20	SF1	-	
0,4	15	-	H4	Electropolished
0,8	30	-	HE3	
0,6	25	SF6	-	
0,5	20	SF5	-	
0,4	15	SF4	HE4	
0,25	10	-	HE5	

Bonnet

Overview of bonnet materials

MD ⁶⁾	Type	Bonnet	Handwheel
30 - 115	HV.510	Stainless steel 1.4409	PA66-GF30
30 - 202	HV.520	Stainless steel 1.4409	Stainless steel 1.4409
280 ⁷⁾	HV	-	-

Actuator

Overview of actuator materials

MD ⁶⁾	Type	Bonnet	Actuator
30 - 202	LAP.520	Stainless steel 1.4409	Stainless steel 1.4301 / 1.4409
168 - 202	LAP.530	Stainless steel 1.4409	Aluminium, hard anodised
280 ⁷⁾	LAP	-	-

SISTO-LAP piston actuator

- Actuator type LAP-AZ
 - Air-to-open
 - Air-to-close
- Actuator type LAP-OF
 - Spring-to-open
 - Air-to-close
- Actuator type LAP-SF
 - Air-to-open
 - Spring-to-close

Product benefits

- Reliable sealing ensured by one single sealing element (the diaphragm) which provides hermetic sealing to atmosphere and absolutely tight shut-off. The specially enclosed diaphragm ensures long service life and high operating reliability.
- Special design: All moving parts are separated from the fluid by the diaphragm.
- Compact valve design with integrated actuator requires minimal space.
- Actuator interface allows straightforward retrofitting of limit switches.
- Higher sterile requirements can be met with standard design by controlled discharge of exhaust air
- Pneumatic stainless steel actuators meet stringent requirements in sterile applications.
- High operating comfort thanks to visual position indicator, also with the limit switch enclosure mounted
- Low-friction piston seal minimises friction losses and ensures smooth movement of the pneumatic actuators.
- The valve hydraulics without dead volume offers optimum conditions for high-purity fluids.
- Optimised functional reliability of the diaphragm thanks to balanced diaphragm suspension
- Reliable processes ensured by limit switches in IP64 stainless steel enclosure for actuators
- Readily identifiable position: integral red position indicator on manually operated valves and pneumatic actuators
- The valves are self-draining and CIP/SIP-compatible, making them ideally suited for pharmaceutical applications
- Laser marking simplifies valve installation and identification of drain angle.

Product information

Product information as per Regulation No. 1907/2006 (REACH)

For information as per chemicals Regulation (EC) No. 1907/2006 (REACH), see <http://www.ksb.com/reach>.

Product information as per Pressure Equipment Directive 2014/68/EU (PED)

The valves satisfy the safety requirements of Annex I of the European Pressure Equipment Directive 2014/68/EU (PED) for fluids in Groups 1 and 2.

4) For further designs refer to the "Sterile Processes" catalogue, reference No. 8652.10. More variants on request.
 5) Exact values in accordance with ASME BPE: 0.76 / 0.64 / 0.51 / 0.38 μm
 6) MD = diaphragm diameter
 7) Design as per customer specifications

Product information as per Directive 2014/34/EU (ATEX)

Valves without electrical components do not have a potential internal source of ignition and can be used in potentially explosive atmospheres, Group II, category 1 (zones 0+20), category 2 (zones 1+21) and category 3 (zones 2+22) to ATEX 2014/34/EU. Components such as electric actuators, position switches, block terminals, solenoid valves, etc. may in certain circumstances be covered by Article 1 of Directive 2014/34/EU. They must be subjected to a conformity assessment procedure and separate evidence of compliance must be provided (e.g. EC Declaration of Conformity or manufacturer's declaration).

Related documents

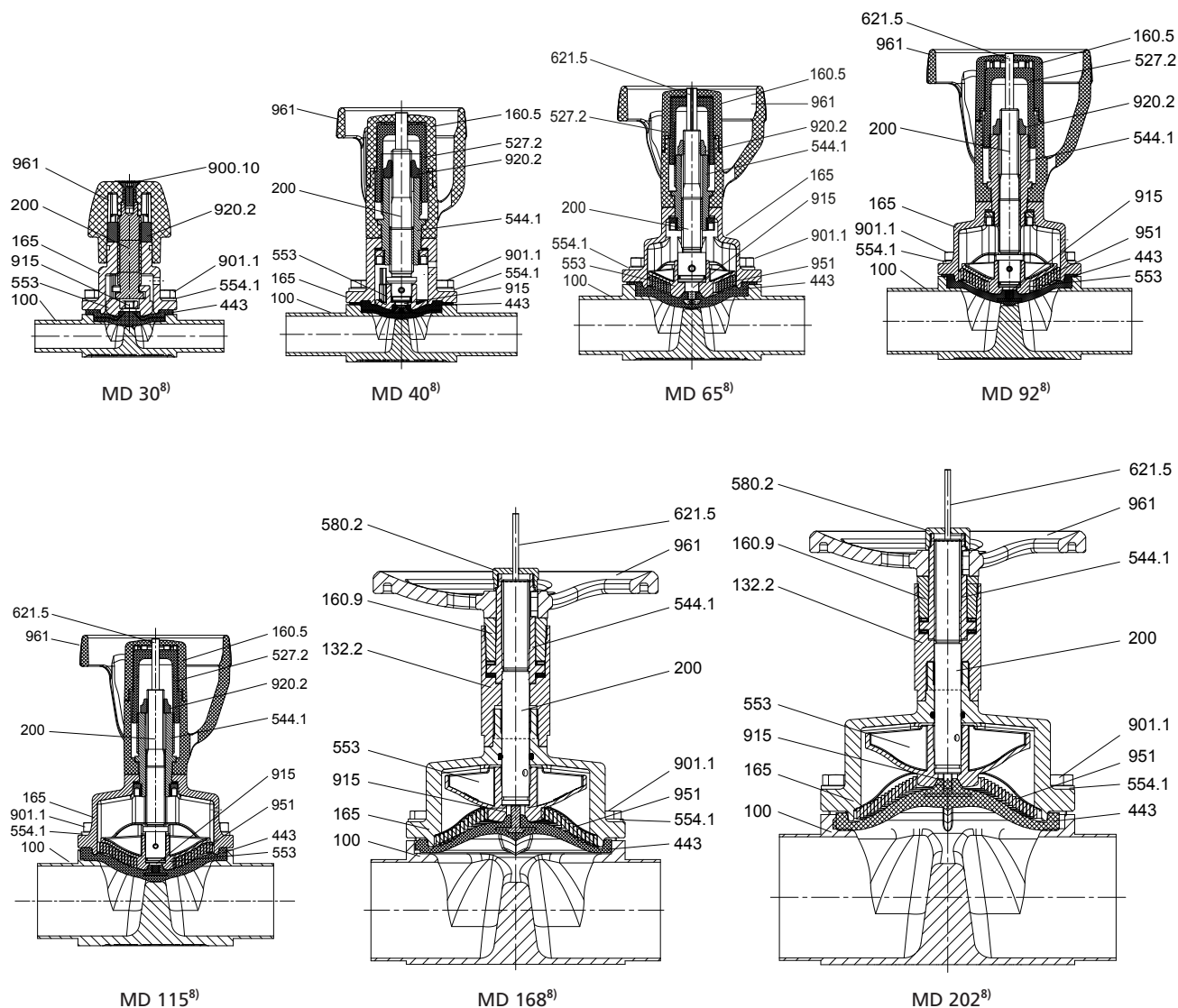
Information/documents

Document	Reference number
"Sterile Processes" catalogue	8652.10
Operating manual	0570.822
Type series booklet SK-i	8676.5

Materials

Materials of SISTO-C manually operated valve

SISTO-C HV.510/.520 mit Handrad



Parts list

Part No.	Description	Material	Material number	Note
100	Body	X2CrNiMo18-14-3	1.4435/316L	Forged
132.2	Intermediate piece	X2CrNiMo17-12-2	1.4404	-
160.5	Handwheel cover	PA66-GF30	-	30 % glass fibre, black
160.9	Bearing cover	X2CrNiMo17-12-2	1.4404	-
165	Bonnet	GX2CrNiMo19-11-2	1.4409	-
200	Stem	X2CrNiMo17-12-2 X8CrNiS18-9	1.4404/1.4305	MD 30 = 1.4404 Kolsterised
443 ⁹⁾	Diaphragm	EPDM	-	FDA, CFR 21, Section 177.2600 EC 1935/2004
527.2	Locating sleeve	PA66-GF30	-	-
544.1	Threaded bush	SoMs59	-	-
553	Thrust insert	GX2CrNiMo19-11-2	1.4409	-
554.1	Washer	A2	-	-
580.2	Cap	X2CrNiMo17-12-2	1.4404	-
621.5	Position indicator	PA6	-	-

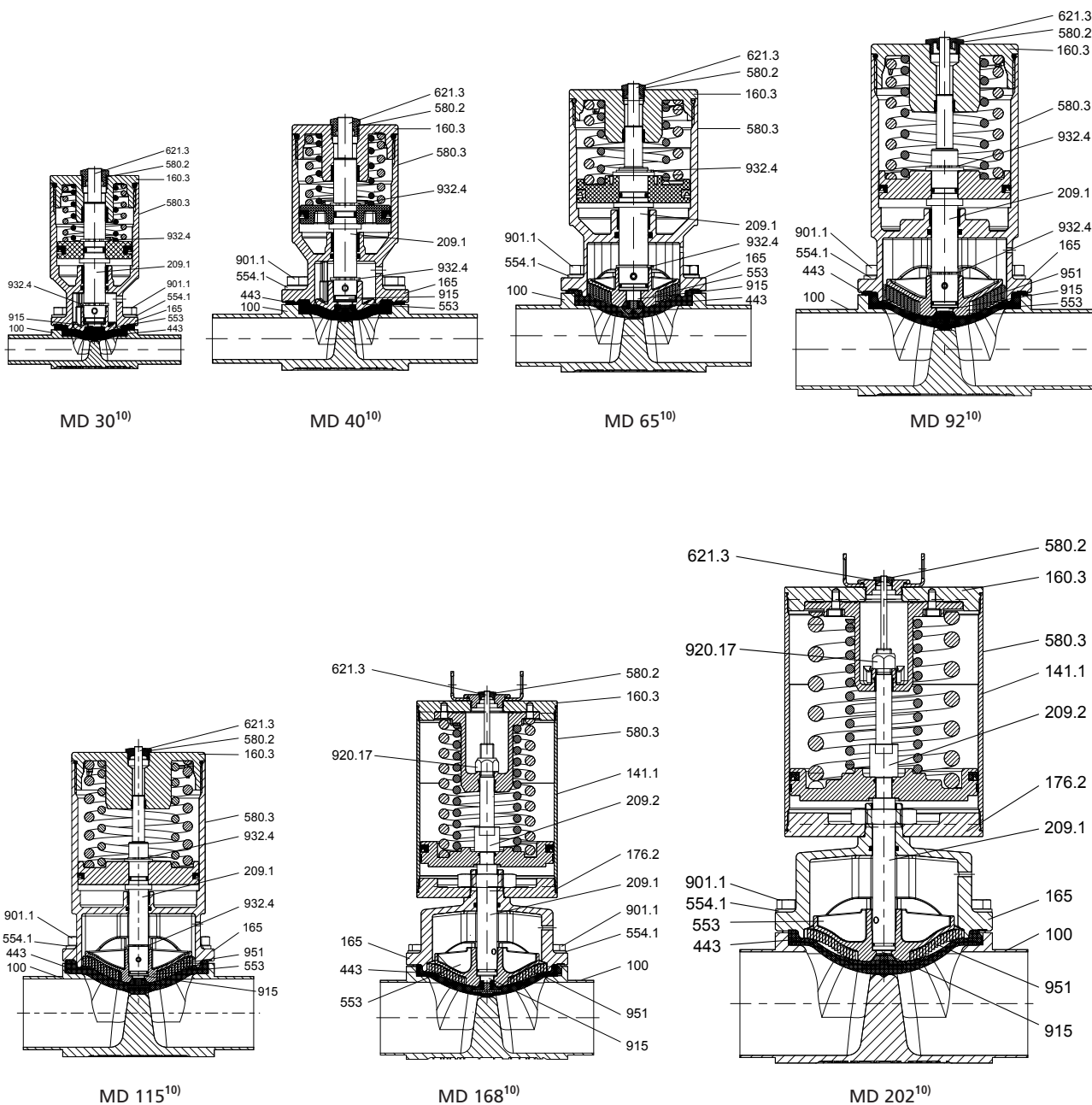
8) MD = diaphragm diameter

9) Recommended spare parts

Part No.	Description	Material	Material number	Note
900.10	Bolt/screw	A2	-	-
901.1	Hexagon head bolt	A2-70	-	DIN 933
915	Floating nut	A2	-	-
920.2	Nut	A2	-	-
951	Support spiral	X5CrNi18-10	1.4301	-
961	Handwheel	PA66-GF30	-	MD 30 - 115; 30 % glass fibre, black
		GX2CrNiMo19-11-2	1.4409	MD 168 - 202

Materials of SISTO-C with actuator

SISTO-C mit LAP.520/.530SF



Parts list

Part No.	Description	Material	Material number	Note
100	Body	X2CrNiMo18-14-3	1.4435/316L	Forged
141.1	Cylinder	X5CrNi18-10 / X6CrNiTi18-10	1.4301/1.4541	Variant MD168-202 Aluminium, hard anodised
160.3	Cover	X2CrNiMo17-12-2	1.4404	Variant MD168-202 Aluminium, hard anodised
165	Bonnet	GX2CrNiMo19-11-2	1.4409	-
176.2	Bottom	X2CrNiMo17-12-2	1.4404	-
209.1	Lower piston rod	X8CrNiS18-9	1.4305	-
209.2	Upper piston rod	X8CrNiS18-9	1.4305	-
443 ¹¹⁾	Diaphragm	EPDM	-	FDA, CFR 21, Section 177.2600 EC 1935/2004
553	Thrust insert	GX2CrNiMo19-11-2	1.4409	-

10) MD = diaphragm diameter

11) Recommended spare parts

Part No.	Description	Material	Material number	Note
554.1	Washer	A2	-	-
580.2	Cap	PA	-	-
580.3	Cap	PA	-	-
621.3	Position indicator	PA	-	-
901.1	Hexagon head bolt	A2-70	-	DIN 933
915	Floating nut	A2	-	-
920.17	Nut	A2	-	-
932.4	Circlip	A2	-	-
951	Support spiral	X5CrNi18-10	1.4301	From MD 65

Dimensions

Dimensions to DIN

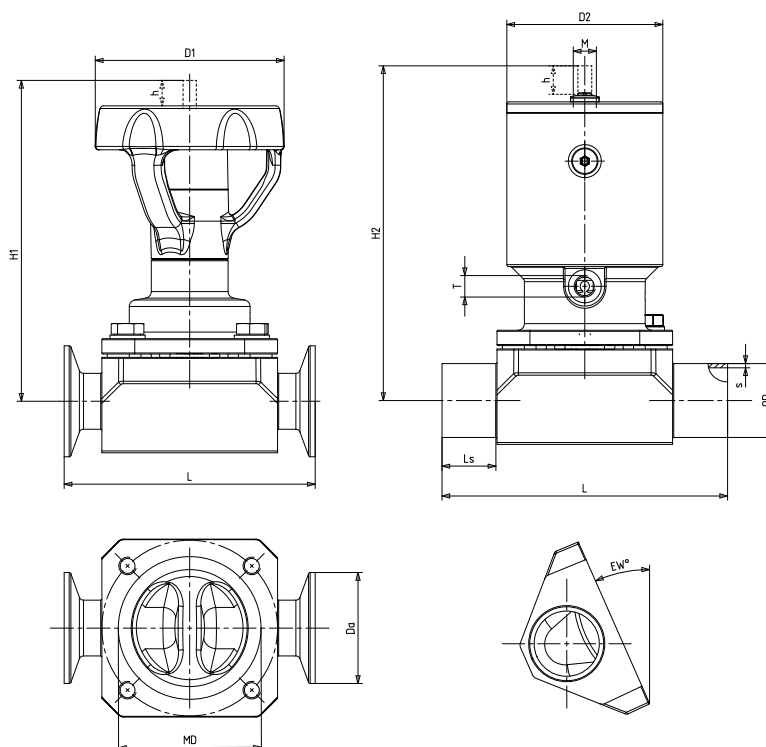


Fig. 1: Dimensions to DIN

Dimensions and weights to DIN

DN	Inch	MD ¹²⁾	h [mm]	EW ¹³⁾	Manually operated valve			Actuator					Butt weld ends ¹⁴⁾ to DIN 11866-A			Clamps ¹⁴⁾ to DIN 32676-A (DIN 11866-A)		K _{vs} value
					H1 [mm]	D1 [mm]	[kg] ¹⁵⁾	H2 [mm]	D2 [mm]	[kg] ¹⁶⁾	T	M	L [mm]	Ls [mm]	OD×s [mm]	L [mm]	Da [mm]	
6	1/4	30	5	41,2	68	35	0,4	87	41	0,6	M 5	M 12×1	80	20,0	8×1,0	63,5	25,0	1,1
8	5/16			34,6	68			87							10×1,0	63,5	25,0	1,8
10	3/8			24,0	69			88							13×1,5	63,5	34,0	2,1
15	1/2	40	7	21,7	116	66	0,9	103	46	0,9			115	30,0	19×1,5	88,9	34,0	5,0
20	3/4	65	13	34,6	146	88	2,0	149	71	2,9	G 1/8		130	25,0	23×1,5	101,6	34,0	11,8
25	1			24,1	148			151							29×1,5	114,3	50,5	16,5
32	1 1/4	92	21	31,3	215	125	4,6	207	89	6,3		M 18×1	180	37,5	35×1,5	139,7	50,5	34,0
40	1 1/2			24,7	216			208							41×1,5	139,7	50,5	42,5
50	2	115	24	21,7	231	125	7,1	242	110	10,3			190	32,5	53×1,5	158,8	64,0	65,0
65	2 1/2	168	40	31,0	327	250	23,8	421	167	27,7/ 34,9			254	31,0	70×2,0	-	-	137,0
80	3			21,0	336		22,8	430		26,7/ 33,9					85×2,0	-	-	156,0
100	4	202	55	20,0	377	250	37,7	501	210	48,5/ 59,3			305	37,5	104×2,0	-	-	245,0
125	4 1/2			8,8	392		49,7	- ¹⁷⁾					356	63,0	129×2,0	-	-	230,0
150	5	280	80	17,9	512	400	97,0	- ¹⁷⁾					414	50,0	154×2,0	-	-	490,0
200	6			4,1	536		114,0	- ¹⁷⁾					521	103,5	204×2,0	-	-	500,0

12) MD = diaphragm diameter

13) EW° = drain angle

14) Smaller and larger nominal sizes available on request

15) Variant HV.510 for MD 30 - 115, variant HV.520 for MD 168 - 202

16) Variant LAP.520 for MD 30 - 115, variant LAP.530/.520 for MD 168 - 202

17) Design as per customer specifications

Dimensions to ISO

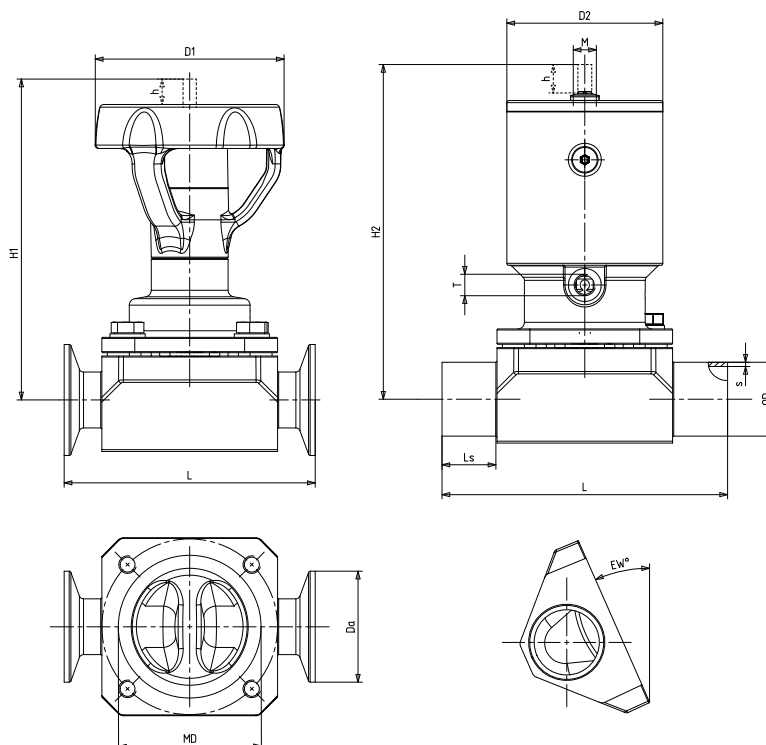


Fig. 2: Dimensions to ISO

Dimensions and weights to ISO

DN	Inch	MD ⁽¹⁸⁾	h [mm]	EW ⁽¹⁹⁾	Manually operated valve			Actuator					Butt weld ends ²⁰⁾ to DIN 11866-B (ISO 4200)			Clamps ²⁰⁾ to DIN 32676-A (ISO 4200)		K _{vs} value		
					H1 [mm]	D1 [mm]	[kg] ⁽²¹⁾	H2 [mm]	D2 [mm]	[kg] ⁽²²⁾	T	M	L [mm]	Ls [mm]	OD×s [mm]	L [mm]	Da [mm]	m³/h		
6	1/4	30	5	38,0	68	35	0,4	87	41	0,6	M 5	M 12×1	80	20,0	10.2×1,6	63,5	25,0	1,5		
8	5/16			23,0	69			88							13.5×1,6	63,5	25,0	2,2		
10	3/8	40	7	27,7	115	66	0,9	102	46	0,9			G 1/8		115	30,0	17.2×1,6	88,9	25,0	4,5
15	1/2			15,7	117			104									21.3×1,6	88,9	50,5	5,2
20	3/4	65	13	27,1	148	88	2,0	151	71	2,9	M 18×1	180			25,0	26.9×1,6	101,6	50,5	14,7	
25	1			17,7	150			153								33.7×2,0	114,3	50,5	17,5	
32	1 1/4	92	21	24,4	216	125	4,6	208	89	6,3				37,5		42.2×2,0	139,7	64,0	43,0	
40	1 1/2			17,1	219			211								48.3×2,0	139,7	64,0	45,5	
50	2	115	24	15,6	234	125	7,1	245	110	10,3		190			32,5	60.3×2,0	158,8	77,5	69,0	
65	2 1/2			168	40			27,0								330	250	23,8	424	167
80	3	19,6	336			22,8	430	26,7/ 33,9	88.9×2,3	-			-	161,0						
100	4	202	55	15,3	382	250	37,7	506	210	48,5/ 59,3				305	37,5	114.3×2,3	-	-	255,0	
125	4 1/2			5,4	392			47,7		- ⁽²³⁾						356	63,0	139.7×2,6	-	-
150	5	280	80	13,5	518	400	92,0	- ⁽²³⁾			414	50,0			168.3×2,6	-	-	500,0		
200	6			0,9	543			111,0	- ⁽²³⁾			521			103,5	219.1×2,6	-	-	510,0	

18) MD = diaphragm diameter

19) EW° = drain angle

20) Smaller and larger nominal sizes available on request

21) Variant HV.510 for MD 30 - 115, variant HV.520 for MD 168 - 202

22) Variant LAP.520 for MD 30 - 115, variant LAP.530/.520 for MD 168 - 202

23) Design as per customer specifications

Dimensions to OD

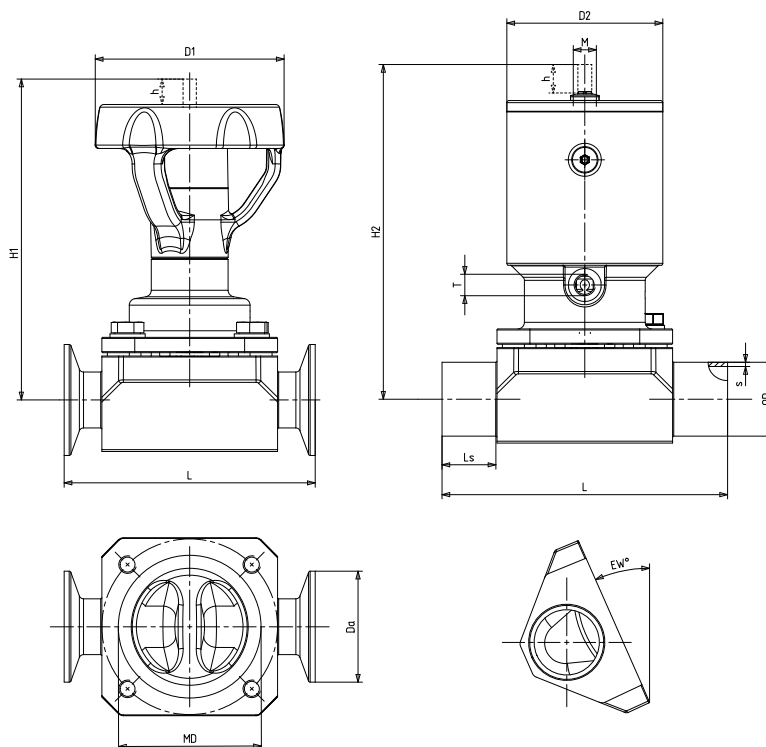


Fig. 3: Dimensions to OD

Dimensions and weights to OD

DN	Inch	MD ²⁴⁾	h [mm]	EW ²⁵⁾	Manually operated valve			Actuator					Butt weld ends ²⁶⁾ to OD ASME BPE			Clamps ²⁶⁾ to DIN 32676-A (OD ASME BPE)		K _{vs} value
					H1 [mm]	D1 [mm]	[kg] ²⁷⁾	H2 [mm]	D2 [mm]	[kg] ²⁸⁾	T	M	L [mm]	Ls [mm]	ODxS [mm]	L [mm]	Da [mm]	
6	1/4	30	5	45,8	68	35	0,4	87	41	0,6	M 5	M 12x1	80	20,0	6.35x0,89	63,5	25,0	0,6
10	3/8			35,5	68			87							9.53x0,89	63,5	25,0	1,7
15	1/2			26,0	69			88							12.70x1,65	63,5	25,0	2,1
15	1/2	40	7	37,3	115	66	0,9	102	46	0,9			115	30,0	12.70x1,65	88,9	25,0	2,6
20	3/4			22,2	116			103							19.05x1,65	101,6	25,0	4,9
25	1	65	13	31,8	146	88	2,0	149	71	2,9	G 1/8		130	25,0	25.40x1,65	114,3	50,5	13,8
40	1 1/2	92	21	28,8	215	125	4,6	207	89	6,3		M 18x1	180	37,5	38.10x1,65	139,7	50,5	39,0
50	2	115	24	23,5	231	125	7,1	242	110	10,3			190	32,5	50.80x1,65	158,8	64,0	62,0
65	2 1/2			12,3	236		6,4	247		9,6					63.50x1,65	193,8	77,5	71,0
80	3	168	40	26,7	330	250	22,8	424	167	26,7/ 33,9			254	31,0	76.20x1,65	222,3	91,0	151,0
100	4	202	55	20,9	377	250	37,7	501	210	48,5/ 59,3			305	37,5	101.60x2,11	292,1	119,0	237,0
150	5	280	80	18,8	512	400	93,4	- ²⁹⁾					414	50,0	152.4x2,77	-	-	490,0

24) MD = diaphragm diameter

25) EW° = drain angle

26) Smaller and larger nominal sizes available on request

27) Variant HV.510 for MD 30 - 115, variant HV.520 for MD 168 - 202

28) Variant LAP.520 for MD 30 - 115, variant LAP.530/.520 for MD 168 - 202

29) Design as per customer specifications

Specifications

Butt weld ends:	DIN 11866 Series A (DIN 11850) DIN 11866 Series B (DIN EN ISO 1127/ISO 4200) DIN 11866 Series C (OD ASME BPE) SMS 3008 JIS-G 3447
Clamps:	DIN 32676 ASME BPE SMS 3017 JIS-G 3447
Marking:	DIN EN 19 (ISO 5209) ASME BPE

Actuator selection by operating pressure

Operating pressure³⁰⁾ in bar in acc. with DIN EN 12266-2 and actuator dimensions

Operating pressure [bar] for actuator function: (LAP.520/530-SF) air-to-open/spring-to-close

Diaphragm size [mm]			EPDM [bar]		TFM, bonded [bar]		TFM, 2-piece [bar]		Dimensions [mm]	
MD ³¹⁾	Function	Piston [mm]	One side	Both sides	One side	Both sides	One side	Both sides	H2 max.	D2
30	SF	35	10	5	7	3,5	-	-	88	41
		40	14	7	12	6	12	6	95	46
		50	16	8	16	8	16	8	119	60
40	SF	40	10	5	7	3,5	-	-	104	46
		50	14	7	12	6	12	6	136	58
		63	16	8	16	8	16	8	168	77
65	SF	63	10	5	7	3,5	8	4	153	71
		80	14	7	12	6	12	6	197	89
		100	16	8	16	8	16	8	244	116
92	SF	80	10	5	7	3,5	8	4	211	89
		100	14	7	12	6	12	6	243	110
		160	16	8	16	8	16	8	371	167
115	SF	100	10	5	7	3,5	8	4	247	110
		160	14	7	12	6	12	6	379	167
168	SF	160	10	5	-	-	8	4	430	167
		200	14	7	-	-	12	6	460	210
202	SF	200	10	5	-	-	8	4	506	210
		D200	14	7	-	-	12	6	677	210
280 ³²⁾	SF	-	-	-	-	-	-	-	-	-

Operating pressure [bar] for actuator function: (LAP.520/530-OF) spring-to-open/air-to-close

Diaphragm size [mm]			EPDM [bar]		TFM, bonded [bar]		TFM, 2-piece [bar]		Dimensions [mm]	
MD ³¹⁾	Function	Piston [mm]	One side	Both sides	One side	Both sides	One side	Both sides	H2 max.	D2
30	OF	35	9	4,5	7	3,5	8	4	88	41
40	OF	40	9	4,5	7	3,5	8	4	104	46
65	OF	63	9	4,5	7	3,5	8	4	153	71
92	OF	80	9	4,5	7	3,5	8	4	211	89
115	OF	100	9	4,5	7	3,5	8	4	247	110
168	OF	160	9	4,5	-	-	8	4	430	167
202	OF	200	9	4,5	-	-	8	4	506	210
280 ³²⁾	OF	-	-	-	-	-	-	-	-	-

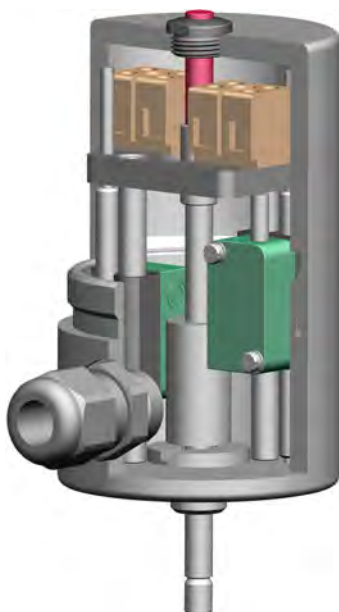
30) Higher operating pressures are possible with specific combinations.
31) MD = diaphragm diameter
32) Design as per customer specifications

Operating pressure [bar] for actuator function: (LAP.520/530-AZ) air-to-open/air-to-close

Diaphragm size [mm]			EPDM [bar]		TFM, bonded [bar]		TFM, 2-piece [bar]		Dimensions [mm]	
MD ³¹⁾	Function	Piston [mm]	One side	Both sides	One side	Both sides	One side	Both sides	H2 max.	D2
30	AZ	35	12	6	8	4	12	6	88	41
40	AZ	40	12	6	8	4	12	6	104	46
65	AZ	63	12	6	8	4	12	6	153	71
92	AZ	80	12	6	8	4	12	6	211	89
115	AZ	100	12	6	8	4	12	6	247	110
168	AZ	160	12	6	-	-	12	6	430	167
202	AZ	200	12	6	-	-	12	6	506	210
280 ³²⁾	AZ	-	-	-	-	-	-	-	-	-

Accessories

Electrical actual-position feedback unit SK.500/SK.510 for linear actuators, stroke: 5-60 mm



Example: SK.500

- Straightforward adjustment of limit switches by means of threaded stem
- No special tools required for retrofitting on SISTO-C
- ATEX-compliant model (sensor, block terminals and cable entry with ATEX certification)
- Block terminals easily accessible for connection
- Visual position indicator as standard
- Stainless steel housing as standard
- Reliable adjustment of limit switches even under vibration conditions

Technical data of SK.500/SK.510

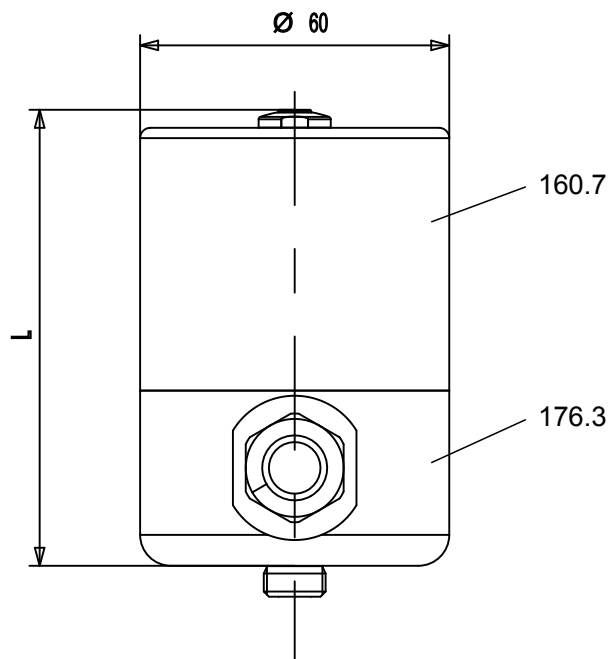
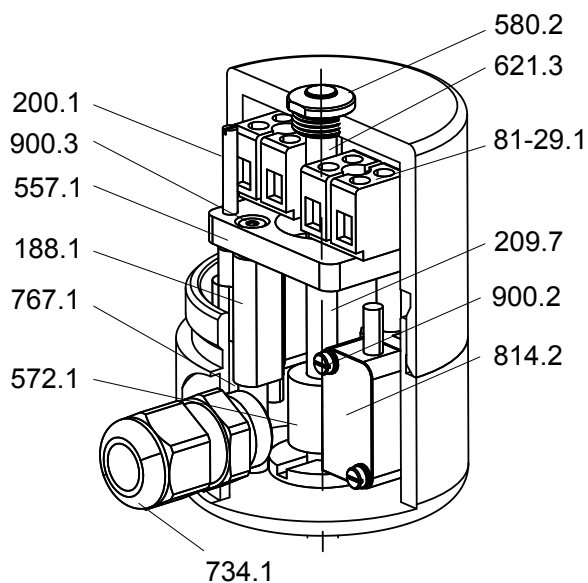
Characteristic	Type	
	SK.500	SK.510
Stroke [mm]	5-26	5-60
Housing material	1.4404	1.4404
Electrical connection	Terminal strip and cable entry (optional: connector)	
Setting the proximity sensors	Threaded stem (optional: from outside the housing)	
Travel stop	Optional	
Enclosure	IP64	

Technical data of limit switches

Characteristic	NCB2-V3-N0 (inductive) 2-wire system	NBB2-V3-E2 (inductive) 3-wire system	ABV161651 (mechanical) ³³⁾
Manufacturer	Pepperl & Fuchs	Pepperl & Fuchs	Matsushita (with modified switching flag)
Type	NAMUR normally closed contact	PNP normally open contact	Changeover contact
Voltage	8 V	10.....30V	24 VDC / 250 VAC
Temperature range	-25 °C to +100 °C	-25 °C to +70 °C	-40 °C to +85 °C
Housing material	PBT	PBT	-
ATEX	SK.500/SK.510	-	-

33) Can be used from diaphragm diameter 40 only

List of components of SK.500/SK.510



General assembly drawing of SK.500/SK.510

SK.500/SK.510 (MD 30-202)

Parts list

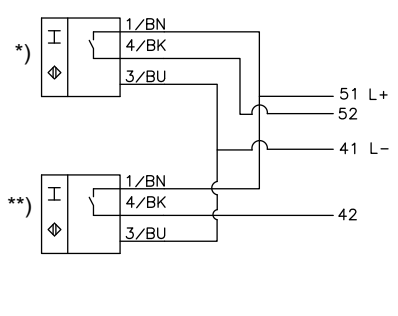
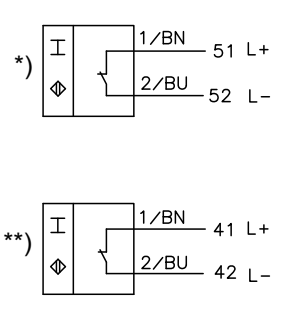
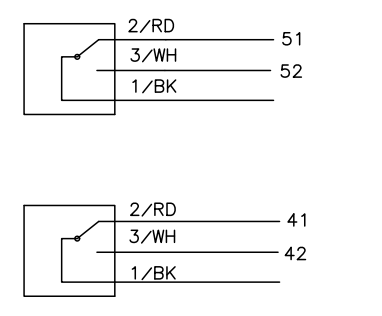
Part No.	Description	Material	Material number	Note
81-29.1	Terminal	Plastic	-	-
160.7	Cover	X2CrNiMo17-12-2	1.4404	-
176.3	Bottom	X2CrNiMo17-12-2	1.4404	-
188.1	Holder	PA6	-	-
200.1	Stem	A2	-	-
209.7	Switching rod	X2CrNiMo17-12-2	1.4404	-
557.1	Guide disc	PA6	-	-
572.1	Contact piece	X14CrMoS17	1.4104	-
580.2	Cap	PA6	-	-
621.3	Position indicator	PA	-	-
734.1	Cable gland	Plastic	-	M16x1.5
767.1	Rod guide	A2	-	-
814.2	Limit switch	Plastic	-	-
900.2	Bolt/screw	A2	-	-
900.3	Bolt/screw	A2	-	-

Dimensions table of SK.500/SK.510

Model	Diaphragm diameter [MD]	Length (L) [mm]	Stroke [mm]
SK.500	MD 30-115	101	5-26
SK.510	MD 168-202	152	5-60

Terminal diagram for SK.500/SK.510

Terminal diagram for SK.500/SK.510

		
Inductive 3-wire system	Inductive 2-wire system	Mechanical Changeover contact

Symbols key

Symbol	Description
*)	Open
**))	Closed

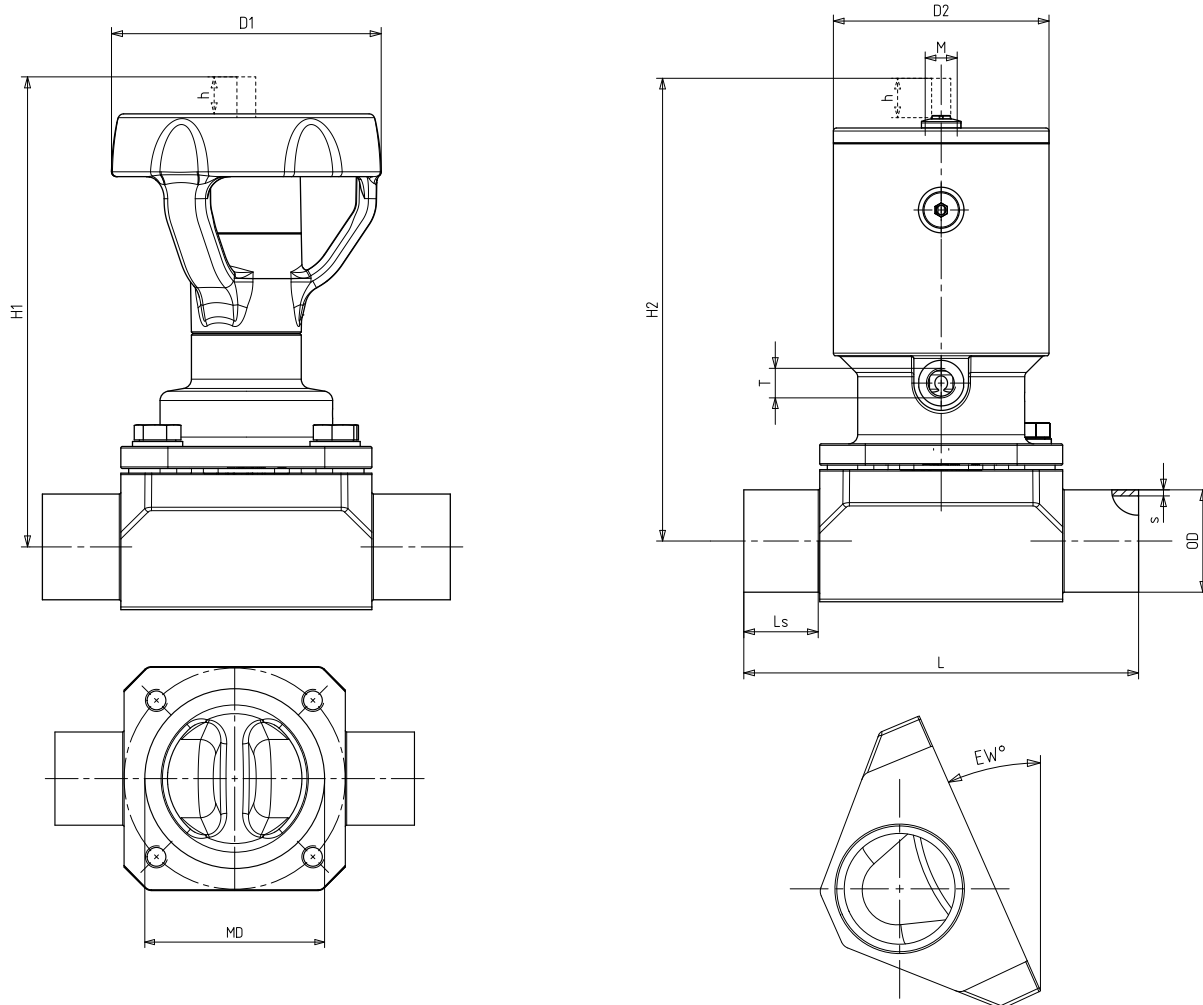


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SISTO-C - Non-standard

Dimensions and Kvs-Values



Dimensions to DIN [mm]

DN	NPS	MD	h	EW°	Manually operated valve			Actuator				Butt weld ends to DIN 11866 Series A			K _{vs} -Value
					H1	D1	[kg]	H2	D2	[kg]	T	L	Ls	ODxs	
20	¾"	40	7	9,6	120	66	1,0	107	46	1,0	M5	115	30	23x1,5	4,4
32	1 ¼"	65	13	12,2	154	88	2,6	157	71	3,5	G½	140	30	35x1,5	15,4
50	2"	92	21	10	226	125	6,5	218	89	8,2	G½	190	42,5	53x1,5	42,4
65	2 ½"	115	24	11	241	125	8,0	252	110	11,2	G½	200	37,5	70x2	65
100	4"	168	40	10,2	351	250	30,9	445	167	34,8/42,0	G½	305	56,5	104x2	143

Dimensions to ISO [mm]

DN	NPS	MD	h	EW°	Manually operated valve			Actuator				Butt weld ends to DIN 11866-B (ISO 4200)			K _{vs} -Value
					H1	D1	[kg]	H2	D2	[kg]	T	L	Ls	ODxs	
10	¾"	30	5	7,7	72	35	0,4	91	41	0,6	M5	80	20	17,2x1,6	2,2
20	¾"	40	7	2,8	120	66	1	107	46	1	M5	115	30	26,9x1,6	4,7
32	1 ¼"	65	13	4,2	154	88	2,6	157	71	3,5	G½	140	30	42,4x2	17,5
50	2"	92	21	4,9	226	125	6,5	218	89	8,2	G½	190	42,5	60,3x2	45,7
65	2 ½"	115	24	7,1	241	125	7,6	252	110	10,8	G½	200	37,5	76,1x2	67
100	4"	168	40	6,25	351	250	29,8	445	167	34,8/42,0	G½	305	56,5	114,3x2,3	157

Dimensions to OD [mm]

DN	NPS	MD	h	EW°	Manually operated valve			Actuator				Butt weld ends to OD ASME BPE			K _{vs} -Value
					H1	D1	[kg]	H2	D2	[kg]	T	L	Ls	ODxs	
50	2"	92	21	12	226	125	6,5	218	89	8,2	G½	190	42,5	50,8x1,65	42,4
80	3"	115	24	6,4	241	125	7,6	252	110	10,8	G½	200	37,5	76,2x1,65	67
100	4"	168	40	11,2	351	250	30,9	445	167	34,8/42,0	G½	305	56,5	101,6x2,11	143