

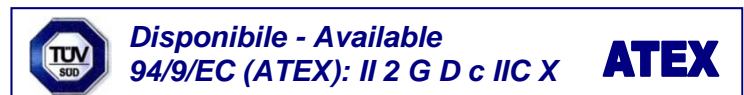
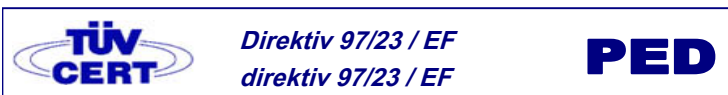
BESKRIVELSE

Den VL10 række styreventiler er af den tovejstypen med kroppen transporterer flow, et sæde og i linje angreb. Designet til at sikre en nøjagtig og effektiv kontrol over hele området regulering, i alle driftsbetingelser, ventilerne VL10 serien kan anvendes med de mest almindelige procesfluider, såsom vand, overhødet vand, mættet damp, gas og alle andre fluider så længe forenelig med de anvendte materialer.

DESCRIPTION

The VL10 single seated control valves are equipped of two-way body with in-line straight connections. The VL10 valves has been designed to assure an accurate control in any process condition. Their wide application ranges allows to use the VL10 with the most common process fluids such as water, superheated water, steam, air gas and other fluids.

DN15 ÷ DN100



FUNKTIONER

Fra DN15 til DN100
Tæthedsklasse VI
Clamp CEI EN 60534-6-1 std (ex.IEC534)
Pakning dobbelt tætning

DESIGN FEATURES

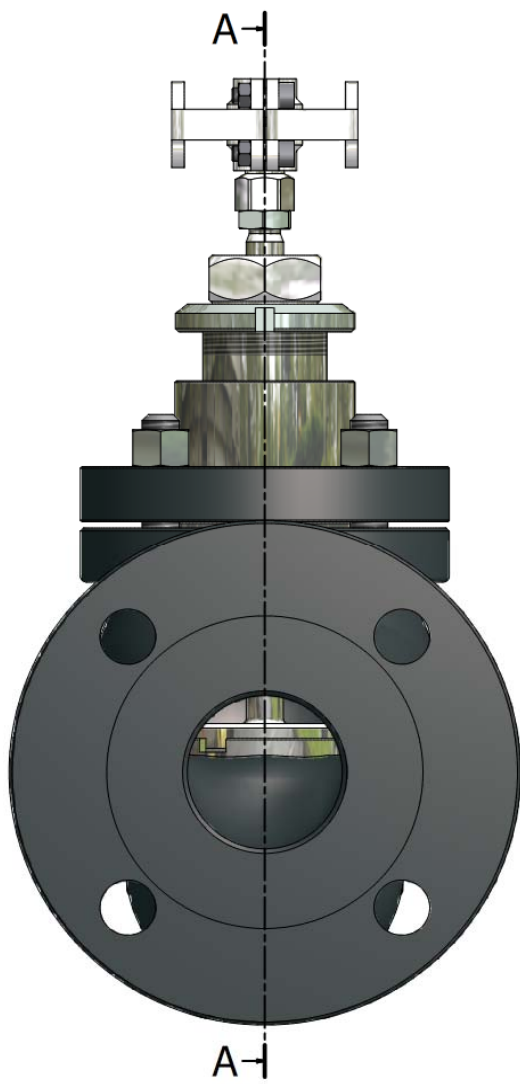
From DN15 to DN100
Tight shutoff : leakage Class VI
CEI EN 60534-6-1 clamp Std (ex.IEC534)
V-Ring double packing

MATERIALER BODY GROUP STD

Ventil Krop: sfærisk grafit støbejern EN-GJS-400-18 (EN-JS1025)	Bonnet: ASTM A105
	Interior: ASTM A213 type 304

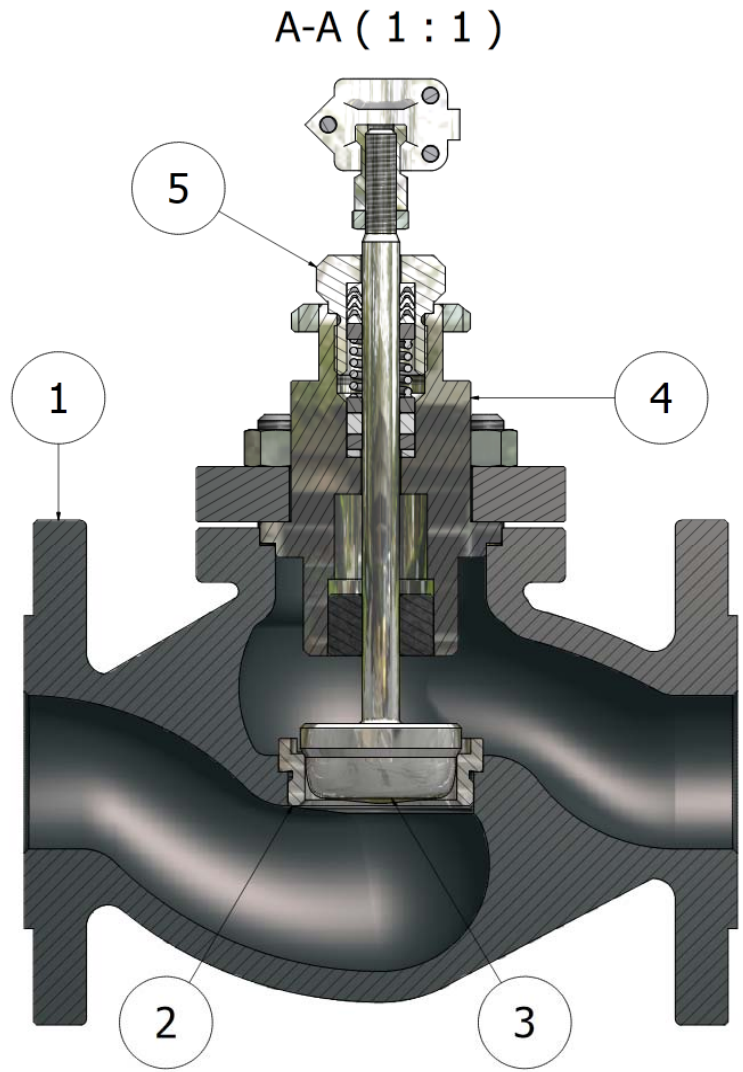
STD BODY & TRIM MATERIALS COMBINATION

Valve Body : Spheroidal graphite cast iron: EN-GJS-400-18 (EN-JS1025)	Bonnet: ASTM A105
	Trim: ASTM A213 Type 304



Dele

1- Ventilhus
2- Sædering
3- Shutter Tenuta Soft 2- Office
4- Bonnet
5- Gland



PARTS

1- Body Valve
2- Seat Ring
3- Soft Seal Plug
4- Bonnet
5- Packing

TEKNISKE DATA BODY

TYPE	Top indtastning, enkelt siddende kloten
nominel diameter	DN15 til DN100
RATING AF BODY	PN16
GAUGE	DA 558-1
FLANGE	EN 1092-2

VALVE BODY CHARACTERISTICS

Style	Top Entry, single seated, globe valve
SIZES	from DN15 to DN100
PRESSURE RATING	PN16
BODY FACE TO FACE DIMENSIONS	In accordance with EN 558-1
FLANGES CONNECTIONS	EN 1092-2

CORROSION BEHANDLINGER STD.

ventil Krop	<ul style="list-style-type: none"> - Mangan phosphatering ASTM F1137 - Fund høj styrke bikomponent akryl antikorrosiv - Slut af med to-komponent alifatisk akryl emalje RAL 7021
Bonnet	<ul style="list-style-type: none"> - Elektrolytisk forzinkning Fe / Zn 8 C1A ISO 4520

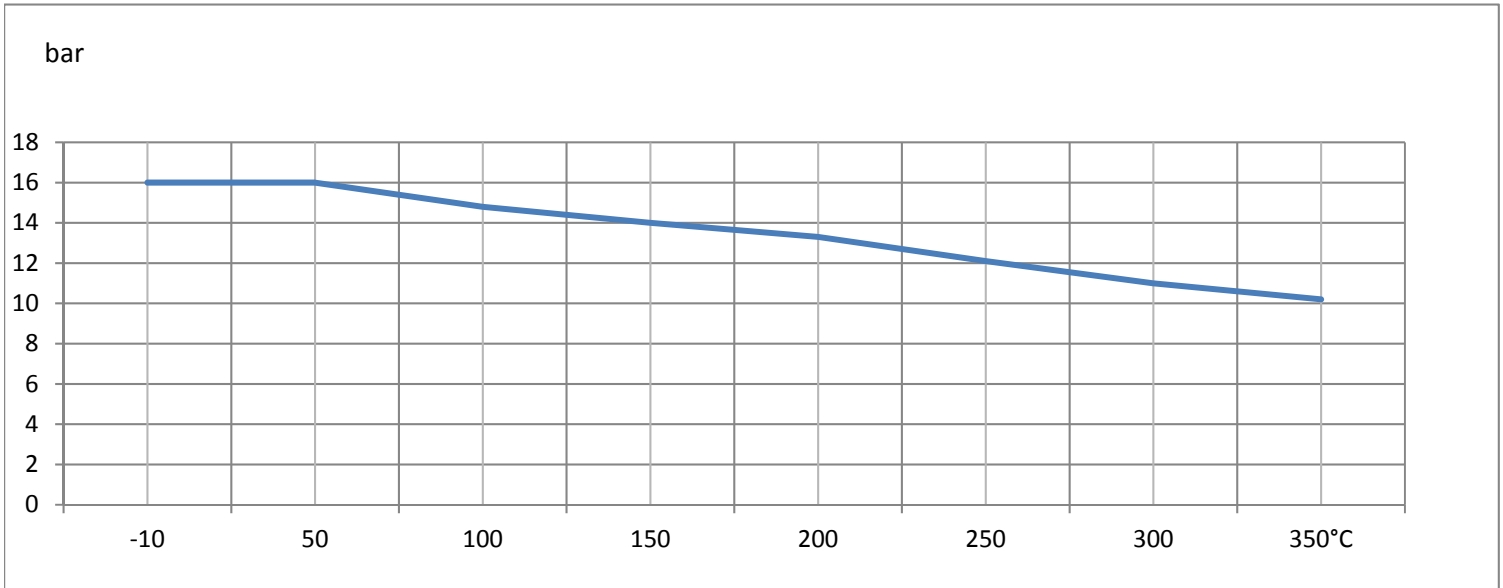
STD. ANTICORROSIVE TREATMENTS

Valve Body	<ul style="list-style-type: none"> - Manganese Phosphating ASTM F1137 - Fund bicomponent anticorrosive acrylic at high resistance - Finish with bicomponent aliphatic acrylic enamel RAL 7021
Bonnet	<ul style="list-style-type: none"> - Electrolytic zinc coatings Fe/Zn 8 c1A UNI ISO 4520

	European Std	ASTM Std	Temperaturgrænser Temperature Application Limits
Cast Iron GGG40.3 Ductil Iron GGG40.3	EN-GJS-400-18	A395	-10÷350°C

Rapport Tryk/ Temperatur

Relation between Pressure/Temperature



FORPAKNING

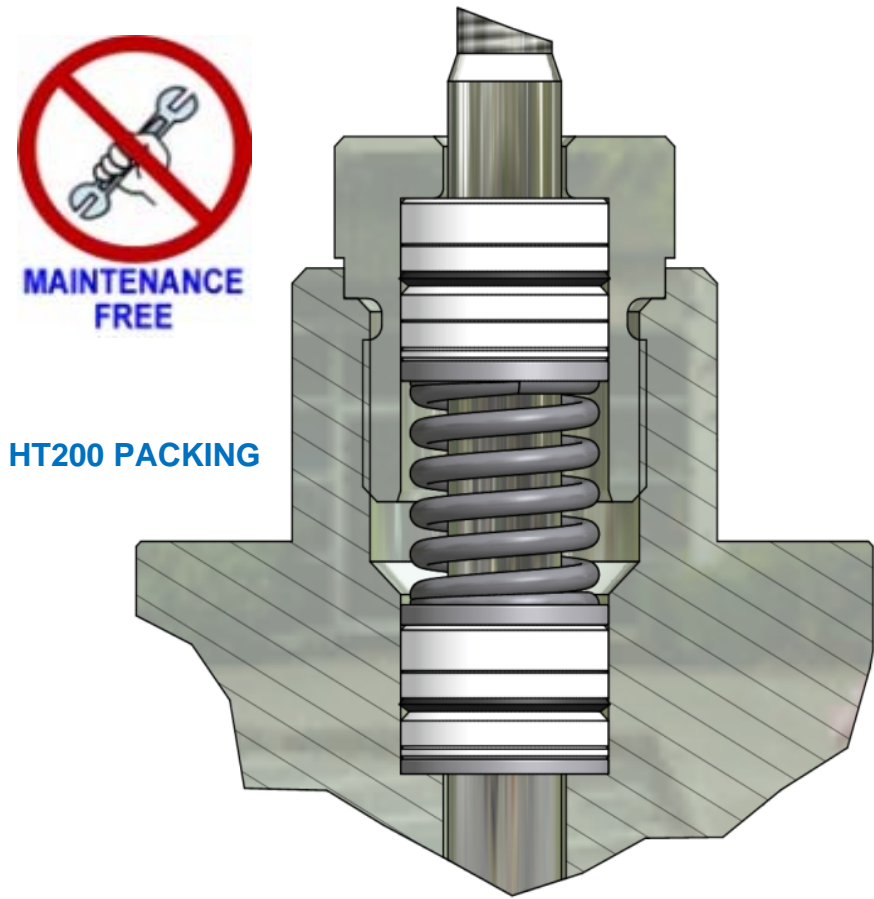
PACKING

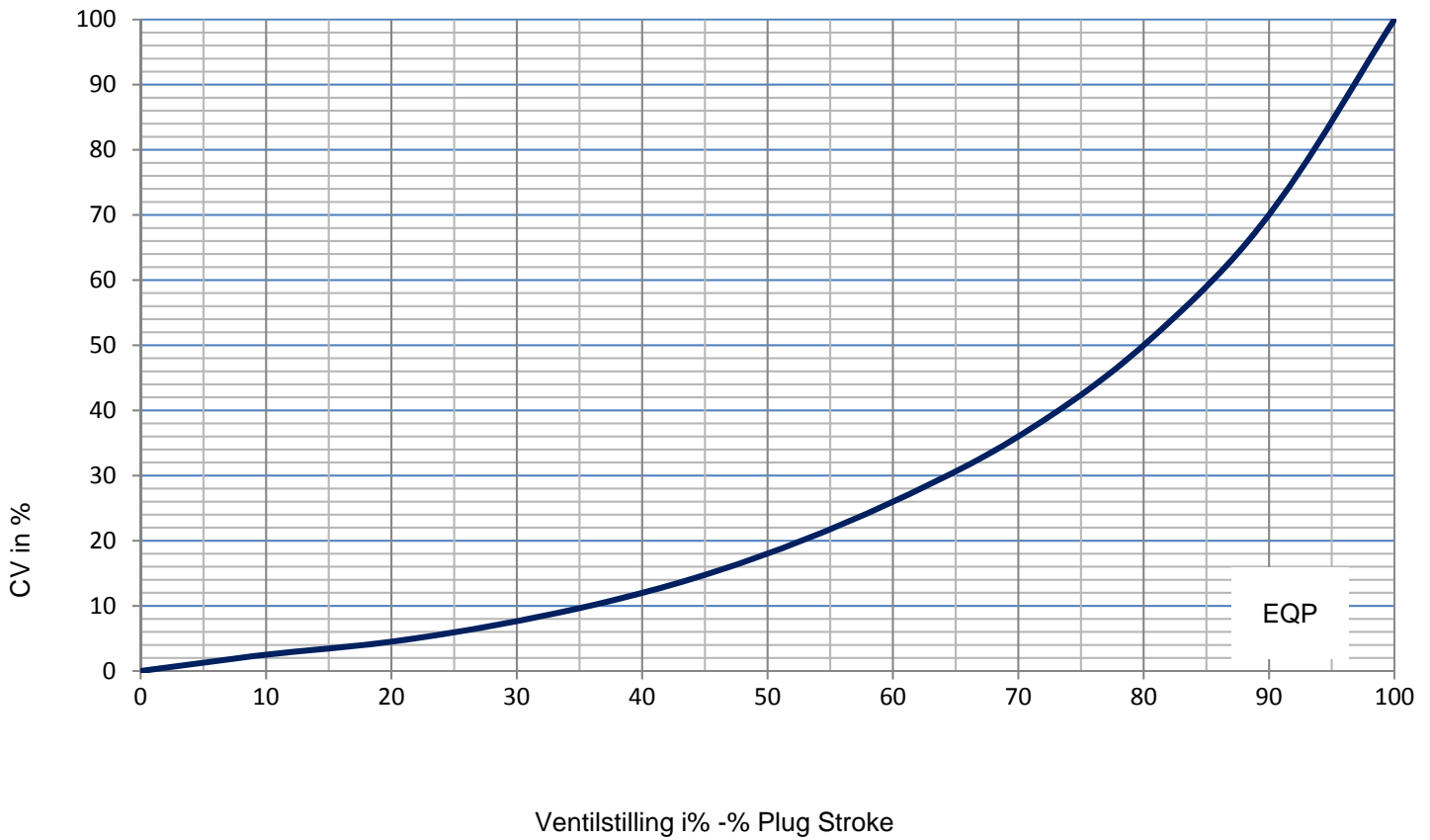
HT200 for temp. ≤ 200°C

MAINTENANCE FREE

HT200 for temp. ≤ 200°C

MAINTENANCE FREE





Lukkeren Karakteristisk logaritmisk (EQP)

I logaritmisk karakteristik, opnås en ensartet stigning af lukkeren slagtilfælde lige procentvise ændring i strømningshastighed. En ventil med denne funktion giver en nøjagtighed på betjening, der starter fra et minimum slagtilfælde shutter og hurtigt forøger strømningshastigheden for udstrømning, når det er tæt på den maksimale åbning. Ventiler med karakteristisk EQP lukkeren er de mest anvendte til tryk kontrol applikationer, til anvendelser, når en stor procentdel af trykfaldet normalt absorberes af det samme system og kun en minimal procentdel skal styres, og hvor man kan have store variationer i tryk.

Equal Percentage Flow Characteristic (EQP)

In equal percentage flow characteristic, equal increments of valve travel produce equal percentage changes in the existing flow. A valve with an inherent equal percentage flow characteristic provides precise throttling control through the lower portion of the travel range and rapidly increasing capacity as the valve plug nears the wide open position. Valves with equal percentage flow characteristics are used on pressure control applications, on applications where a large percentage of the pressure drop is normally absorbed by the system itself with only a relatively small percentage available at the control valve, and on applications where highly varying pressure drop conditions can be expected.

TRIMS

TÆTNING	blød PTFE tætning • 190 ° C - Klasse VI°
PLUGTYPER	Logaritmisk (EQP)
PORT	Fuld Port

TRIMS

SEAL	PTFE soft seal ≤190°C - Class VI°
PLUG TYPES	Parabolic Equal Perc. (EQP)
PORT	Full Port



slaglængde (mm) / Stroke (mm)

DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100
20	20	20	20	20	20	30	30	30

Flowhastighed Koefficienter

(CV = strømningshastighed i USGPM med 1 psi trykforskel) (Kv = strømningshastighed i m³/h med 1 bar differenstryk)

FLOW RATE COEFFICIENTS

(CV= flowrate in USGPM with 1 psi of differential Pressure) (Kv= flowrate in m³/h with 1 bar of differential Pressure)

CV	Kv	Nominal diameter - SIZES								
		DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100
4.5	3.8	std								
6	5.1		std							
11	9.4			std						
18	15.4				std					
27	22.2					std				
47	40.1						std			
73	63.4							std		
105	89.7								std	
160	136.7									std

PNEUMATIC CONTROL

MAXIMUM trykforskel
Privilegeret i BAR (Fluid åbner)

CONTROL PNEUMATIC ACTUATOR

MAXIMUM ADMISSIBLE PRESSURE
DROPS IN BAR (Fluid Open)

AKTUATOR ACTUATOR	SIGNAL SIGNAL (psi)	DN15	DN20	DN25	DN32	DN40	DN50	DN65	DN80	DN100
AL23	3÷15	21	18	12	8	4	3	-	-	-
	6÷18	26	22	17	10	5	4	-	-	-
	6÷30	60	28	25	15	8	6	-	-	-
	15÷60	80	60	56	33	17	12	-	-	-
AL28	3÷15	35	30	26	15	9	6	-	-	-
	6÷18	45	40	30	19	12	8	-	-	-
	6÷30	60	55	47	26	16	12	-	-	-
	15÷60	99	90	75	56	38	23	-	-	-
AL34 / AL35	3÷15	65	65	55	23	18	16	4	3	1
	6÷18	85	85	65	35	18	15	7	5	3
	6÷30	99	99	85	45	25	16	8	6	3
	15÷60	-	-	-	65	45	29	13	11	6
AL43 / AL44	3÷15	-	--	-	-	40	26	8	6	4
	6÷18	-	-	-	-	45	28	10	8	5
	6÷30	-	-	-	-	45	28	12	10	6
	15÷60	-	-	-	-	85	70	37	27	17

cl.VI	blød pakning - Klasse VI - CEI EN 60.534-4
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cl.VI	Soft seal- Class VI° - CEI EN 60534-4
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Værdierne er udtrykt i tabellen refererer til den kraft af MOTOR, rating af kroppen begrænser deres anvendelse.

The pressure drop values must be used within the body rating limit.

OPERATOR TYPE	membran multi-fjeder	
KONTROL SIGNAL	3 + 6 + 15 psi 18 psi 30 psi + 6	15 + 60 psi
TRYK MAX RELEVANT	50 psi (3,5 bar)	87 psi (6 bar)
TEMPERATUR	-20 ÷ 70 °C	
AKTUATOR dækjerd	Carbon Steel Fe410.1 Pulverlak polyester RAL 7032	
membranmaterialet	NBR70 Sort telata	
BÆRESTK MATERIALE	Søjle Indtast Carbon stål og jern Ductil	
pneumatiske forbindelser	1/4 "NPT-F	

TYPE	diaphragm type - multispring	
CONTROL SIGNAL	3÷15 psi 6÷18 psi 6÷30 psi	15÷60 psi
MAX AIR SUPPLY PRESSURE	50 psi (3,5 bar)	87 psi (6 bar)
AMBIENT TEMPERATURE	-20÷70°C	
ACTUATOR CASING MATERIAL	Carbon Steel Fe410.1 Finish powder coat polyesrer RAL 7032	
DIAPHRAGM MATERIAL	NBR70	
YOKE MATERIAL	Pillar Type in Carbon Steel and Ductil Iron	
PNEUMATIC CONNECTIONS	1/4"NPT-F	

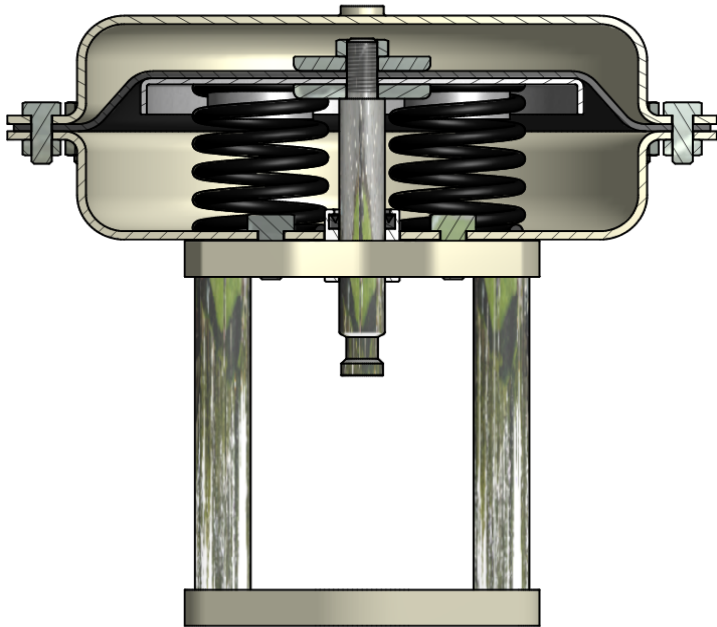


Fig.1

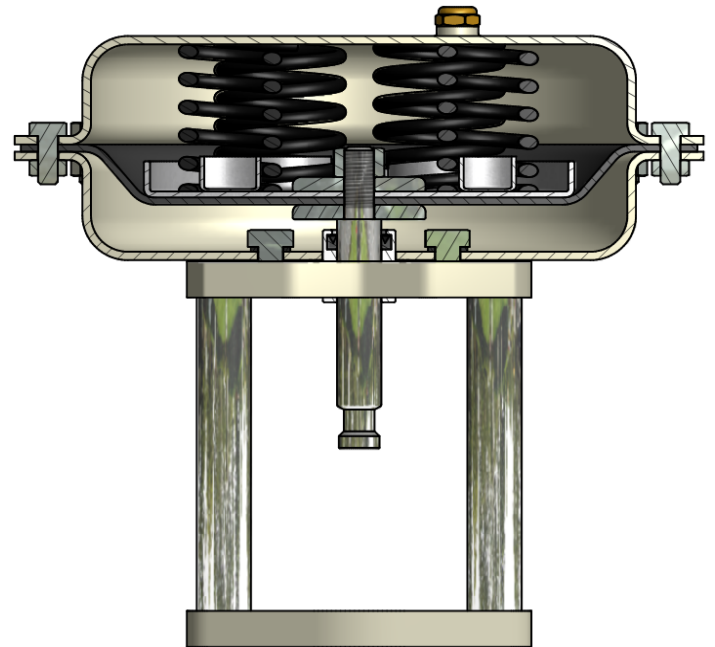


Fig.2

Direkte aktion	Luft Lukker (Fig.1 /)
OMVENDT ACTION	Air åbner (fig.2)

DIRECT ACTION	Air to Close (Fig.1)
REVERSE ACTION	Air to Open (Fig.2)

Tilbehør

Alarm kontakter
elektropneumatisk positioner
pneumatisk Stillingsregulator
manipulatorer SMART
I / P konverter
Position Transmitter
reducing filter
manøvrering håndhjul
Solenoid
blokering pneumatisk indretning (Lås UP)

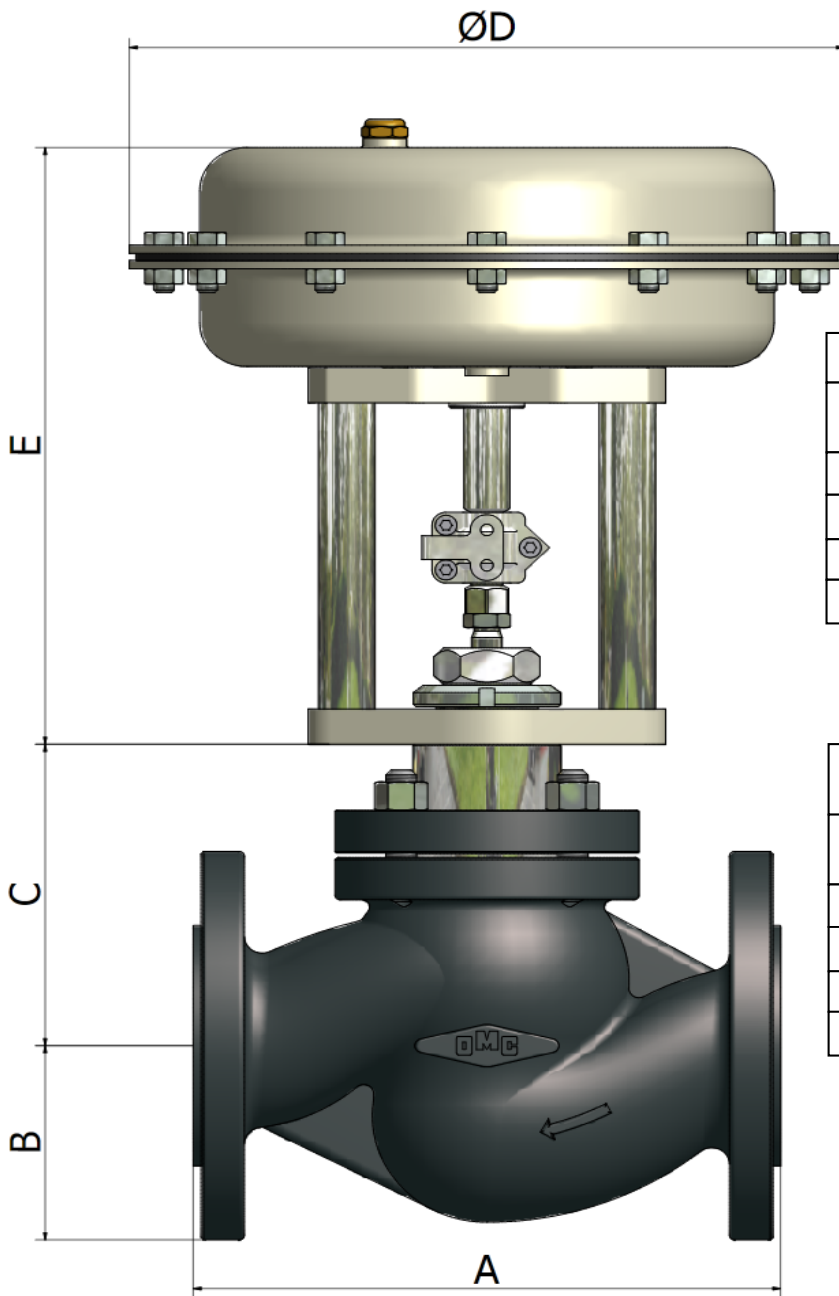
ACCESSORIES

Alarm contacts
Elettropneumatic positioner
Pneumatic positioner
SMART positioner
I/P Converter
4-20 mA Position feedback
Air filter regulator
Top mounted handwheel
Solenoid valves
Lock-Up pneumatic device

DIMENSIONER

DIMENSIONS

DN	A (mm)	B (mm)	N. Fori Nr. Holes	C (mm)
DN 15	130	47,5	4	126
DN 20	150	52,5	4	126
DN 25	160	57,5	4	129
DN 32	180	70	4	129
DN 40	200	75	4	128
DN 50	230	82,5	4	128
DN 65	290	92,5	4	165
DN 80	310	100	8	187
DN 100	350	110	8	184



MOTOR (mm) - ACTUATOR (mm)			
TIPO TYPE	Ø D	E	F
AL23	230	245	110
AL28	275	253	110
AL34 / AL35	335	276	150
AL43 / AL44	430	303	300

THRUST motorområdet ACTUATOR THRUST AREA	
TYPE TYPE	AREA cm ²
AL23	203
AL28	304
AL34 / AL35	475
AL43 / AL44	744

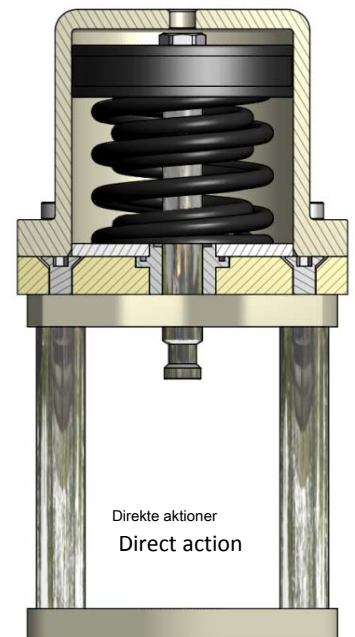
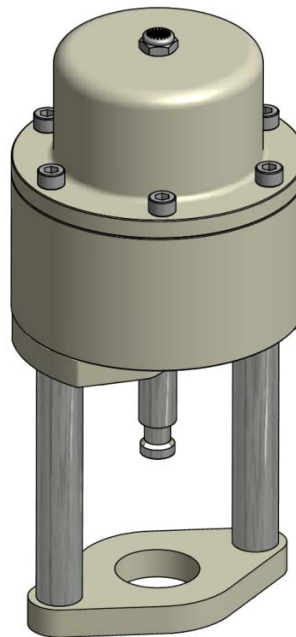
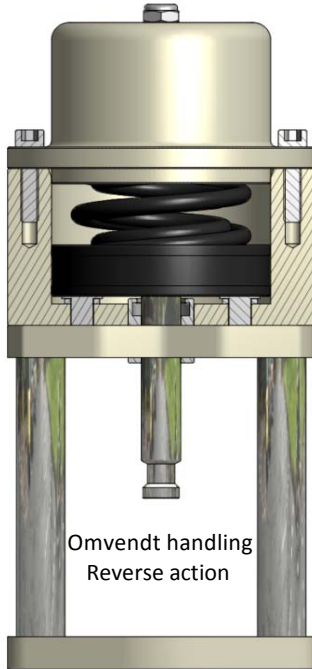
PNEUMATIC ACTUATOR STEMPEL

Tilladt differenstryk IN
BAR (Fluid åbner)

PISTON PNEUMATIC ACTUATOR

MAXIMUM PERMISSIBLE PRESSURE DROPS IN BAR
(Fluid Open)

TYPE	Ø	SIGNAL SIGNAL	CV								
			0.05 ÷ 4.5	6	11	18	27	47	73	105	160
OL10	DN15 ÷ DN50	6-10 bar	175psi (12Bar)	175psi (12Bar)	175psi (12Bar)	175psi (12Bar)	175psi (12Bar)	145psi (10Bar)			
OL16	DN80 ÷ DN100	6-10 bar							175psi (12Bar)	116psi (8Bar)	45psi (3Bar)



OPERATOR TYPE	Stempel med intern multimolle
KONTROL SIGNAL	90 psi (6 bar) til 145psi (10 bar)
Trykluft RELEVANT	145 psi (10 bar)
TEMPERATUR	-20 ÷ 70 °C
AKTUATOR støbning materiale	Aluminium Paint polyester RAL 7032
BÆRESTK MATERIALE	Søjle Indtast Carbon stål og jern Ductil
pneumatiske forbindelser	1/4 "NPT-F

TYPE	piston type - multispring
CONTROL SIGNAL	from 90psi(6 Bar) to 145psi(10bar)
MAX AIR SUPPLY PRESSURE	145 psi (10 bar)
AMBIENT TEMPERATURE	-20÷70°C
ACTUATOR CASTING MATERIAL	Alluminium Finish polyesrer RAL 7032
YOKE MATERIAL	Pillar Type in Carbon Steel and Ductil Iron
PNEUMATIC CONNECTIONS	1/4"NPT-F

TILBEHØR og muligheder til rådighed

Alarm kontakter
magnetventiler
Off-Shore maleri

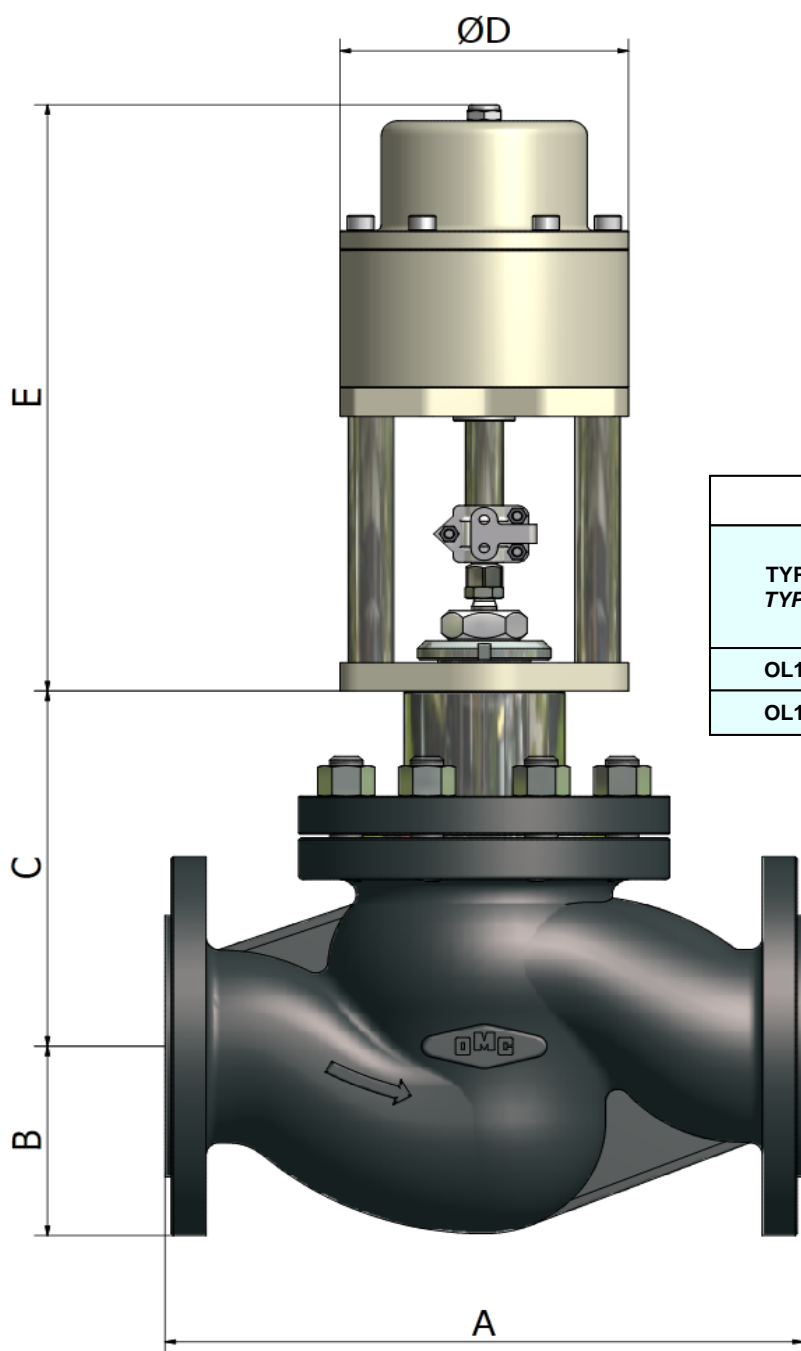
OPTIONS AND ACCESSORIES

Alarm contacts
Solenoid valves
Off-Shore painting

DIMENSIONER

DIMENSIONS

DN	A (mm)	B (mm)	Antal huller Nr. Holes	C (mm)
DN 15	130	47,5	4	126
DN 20	150	52,5	4	126
DN 25	160	57,5	4	129
DN 32	180	70	4	129
DN 40	200	75	4	128
DN 50	230	82,5	4	128
DN 65	290	92,5	4	165
DN 80	310	100	8	187
DN 100	350	110	8	184



MOTOR - ACTUATOR				
TYPE TYPE	Ø D (mm)	E (mm)		
		DN15÷DN40	DN50÷DN65	DN80÷DN100
OL10	140	267	292	/
OL16	192	/	/	335

Elektrisk aktuator

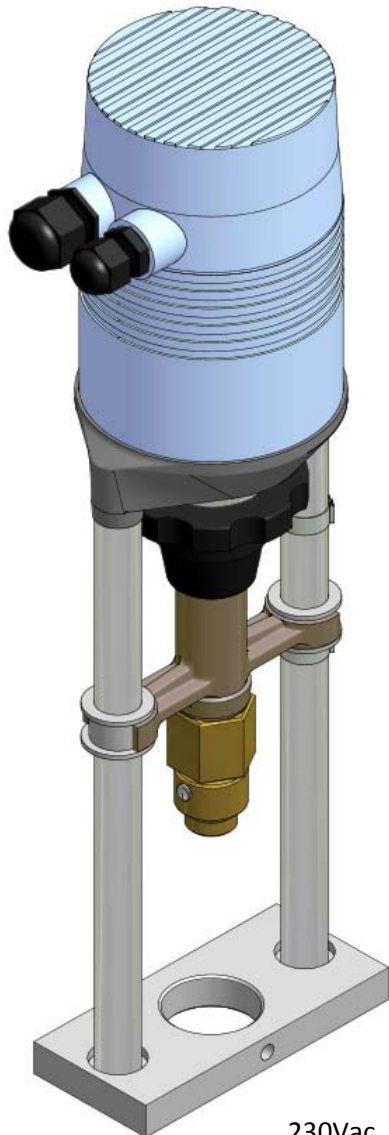
OPERATOR TYPE	elektrisk
KONTROL SIGNAL	0 ÷ 10 VDC - 2 ÷ 10 VDC 0 ÷ 20 mA - 4 ÷ 20 mA
UDGANGSSIGNAL	0 til 10. VDC Std
Kapslingsklasse STD	IP54

ELECTRIC ACTUATOR

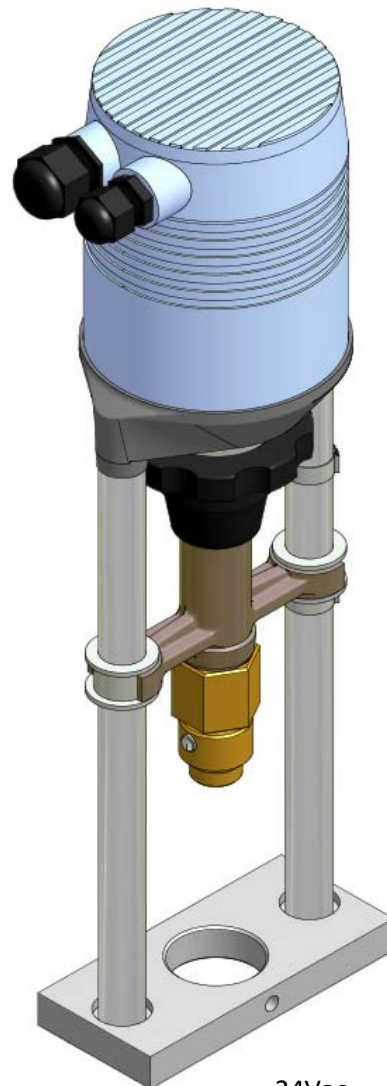
TYPE	Electric
CONTROL SIGNAL	0÷10 VDC - 2÷10 VDC 0÷20 mA - 4÷20 mA
OUTPUT SIGNAL	0÷10 VDC Std
STD ENCLOSURE PROTECTION	IP54

TYPE	STYRKE	CORSAMAX	DRIVE TIME
MC 103	1,0 kN	20 mm	12 • 9 • 4 • 9 s / mm
MC 163	1,6 kN	30 mm	6 • 4 s / mm
MC 253	2,5 kN	60 mm	5 • 2,5 s / mm
MC 403	4 kN	60 mm	0,6 • 0,4 s / mm
MC 503	5 kN	60 mm	5 • 2,5 s / mm
MC 1003	10 kN	80 mm	1 s / mm
MC 1503	15 kN	80 mm	2 s / mm

TYPE	THRUST	MAX STROKE	ACTUATING TIME
MC 103	1.0 kN	20 mm	12 • 9 • 4 • 9 s/mm
MC 163	1.6 kN	30 mm	6 • 0,4 s/mm
MC 253	2,5 kN	60 mm	5 • 2,5 s/mm
MC 403	4 kN	60 mm	0,6 • 0,4 s/mm
MC 503	5 kN	60 mm	5 • 2,5 s/mm
MC 1003	10 kN	80 mm	1 s/mm
MC 1503	15 kN	80 mm	2 s/mm



230Vac

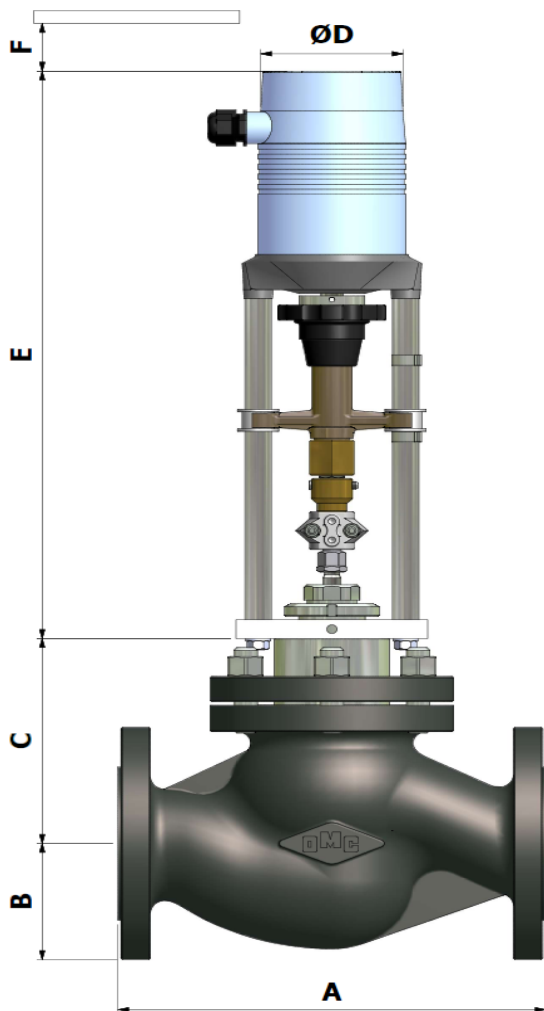


24Vac

DIMENSIONER

DIMENSIONS

DN	A (mm)	B (mm)	Antal huller Nr. Holes	C (mm)
DN 15	130	47,5	4	126
DN 20	150	52,5	4	126
DN 25	160	57,5	4	129
DN 32	180	70	4	129
DN 40	200	75	4	128
DN 50	230	82,5	4	128
DN 65	290	92,5	4	165
DN 80	310	100	8	187
DN 100	350	110	8	184



TYPE TYPE	Ø D (mm)	E (mm)	F (mm)
MC 103 (24Vac)	100	376	140
MC 103 (230Vac)	100	401	140
MC 163 (24Vac)	100	428	140
MC 163 (230Vac)	100	453	140
MC 253 / MC 503	135	670	200
MC 403	135	670	200
MC 1003 / MC 1503	135	770	200

TILBEHØR og muligheder til rådighed

OPTIONS AND ACCESSORIES

Kapslingsklasse IP65	Enclosure protection IP65
Viderespredning 4-20 mA	4-20 mA Feedback
Grænseafbrydere	Limit switches
Elektriske motorer med fjeder	Spring return electric actuator
Elektriske motorer og ATEX eksplosionssikker (Ex d)	ATEX & explosion proof (Exd) electric actuator

Ventilhus VÆGT
VALVE BODY WEIGHT

DN	Standard (Kg)
DN 15	4,6
DN 20	5,1
DN 25	6,7
DN 32	8,1
DN 40	11,1
DN 50	14,2
DN 65	25,2
DN 80	29
DN 100	39,4

Pneumatisk aktuator VÆGT
PNEUMATIC ACTUATOR WEIGHT

TYPE TYPE	SIGNAL SIGNAL (psi)	AKTUATOR ACTUATOR Kg	MANUEL HJUL HAND WHEEL Kg	TYPE TYPE	SIGNAL SIGNAL (psi)	AKTUATOR ACTUATOR Kg	MANUEL HJUL HAND WHEEL Kg	TYPE TYPE	SIGNAL SIGNAL (psi)	AKTUATOR ACTUATOR Kg	MANUEL HJUL HAND WHEEL Kg
AL23	3÷15	6,5	1	AL34 / AL35	3÷15	13,9	2,1	OL10	ON-OFF	6,7	//
	6÷18	6,6			6÷18	14,1					
	6÷30	6,5			6÷30	15					
	15÷60	7			15÷60	14,2					
APL8	3÷15	8,9	1	AL43 / AL44	3÷15	25,2	3	OL16	ON-OFF	11,7	//
	6÷18	9			6÷18	24,7					
	6÷30	7,8			6÷30	26					
	15÷60	10,7			15÷60	31,4	7,1				

VÆGT ELECTRIC SYSTEMS
ELECTRIC ACTUATOR WEIGHT

TIPO TYPE	24Vac Kg	230Vac Kg	TIPO TYPE	24Vac Kg	230Vac Kg	TIPO TYPE	24Vac Kg	230Vac Kg
MC 103	2,5	2,5	MC 403	9,5	9,5	MC 1503	11,5	11,5
MC 163	4	4	MC 503	7,4	8,6			
MC 253	7,4	8,6	MC 1003	11,5	11,5			

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