

MODU ONE®
a modular valve system
that shares the
same connections
and spare parts.

A10

MODU ONE® • 3-Piece Ball Valve

MODU ONE® is a modular valve system where parts are standardized and interchangeable, making it easier to design, install, and maintain piping systems.

Unique to MODU ONE®



Modularity

All MODU ONE® valves come with identical face to face dimensions, for each valve size, independent on connection type



Error-Free Mounting

MODU Safe Mounting (MSM) means that actuators cannot be mounted incorrectly on the valve.



Sharing Spare Parts

MODU ONE® valves share same spare parts, making maintenance and procurement easier.



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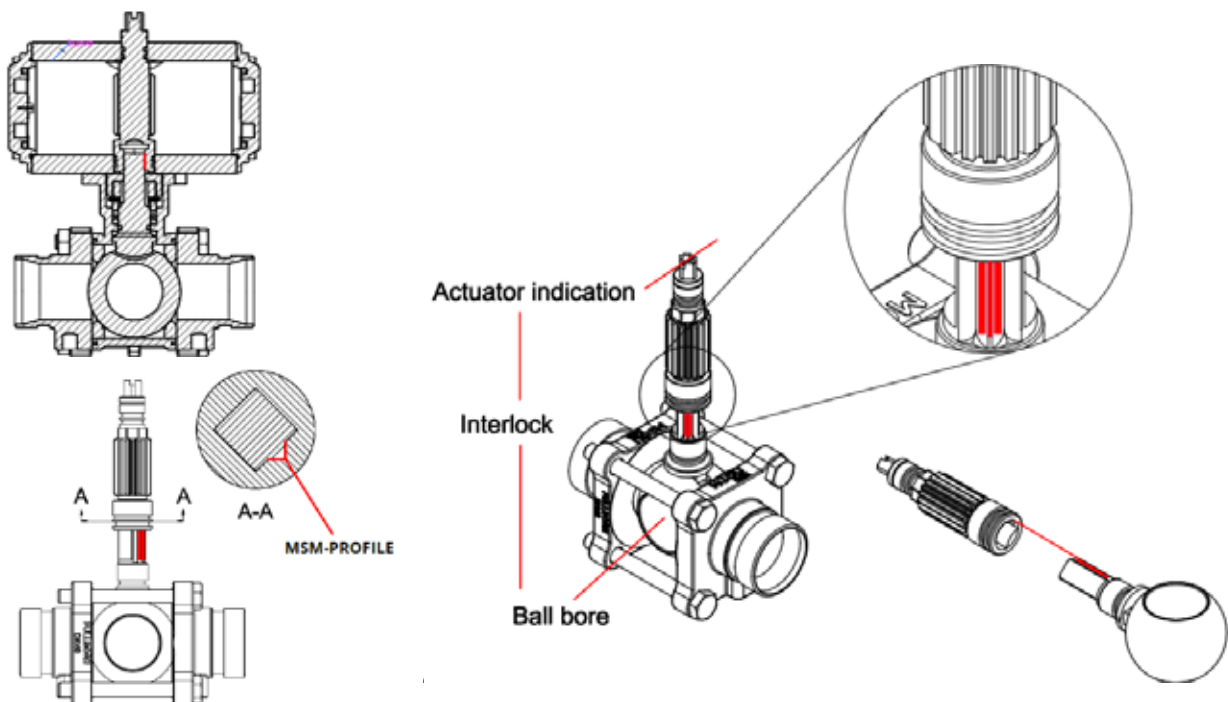
MODU ONE® • 3-Piece Ball Valve

Description

- Part of the modular valve system MODU ONE®
- Shares the same spare parts (e.g., seat rings and gaskets)
- Specially designed handle with no slack between stem and handle, featuring a spring lock
- Handle, bolts, and nuts made of stainless steel AISI 316
- 100% traceability for all wetted parts
- Serial number on all valves
- The ball valve is food-grade approved
- ISO 14001 certified
- Ready for temperature/pressure gauge and other accessories
- Extended mounting connection for orbital welding, direct welding without disassembling the valve, or for Victaulic couplings
- Available 1/4" connection in the valve flange

MODU Safe Mounting (MSM)

MODU Safe Mounting for optimal process safety. It is an important part of Process Safety Management (PSM) and a unique safety feature for protecting personnel and production, as it prevents incorrect valve installation. The advantage of the MSM system is that it ensures the position of the ball always aligns with the actuator's display. There will always be an interlock between the ball and the actuator, making incorrect installation impossible.



Enclosed Stem Top

With the enclosed stem top, you avoid challenges with insulation – it seals completely during insulation.

Traceability and Production Log

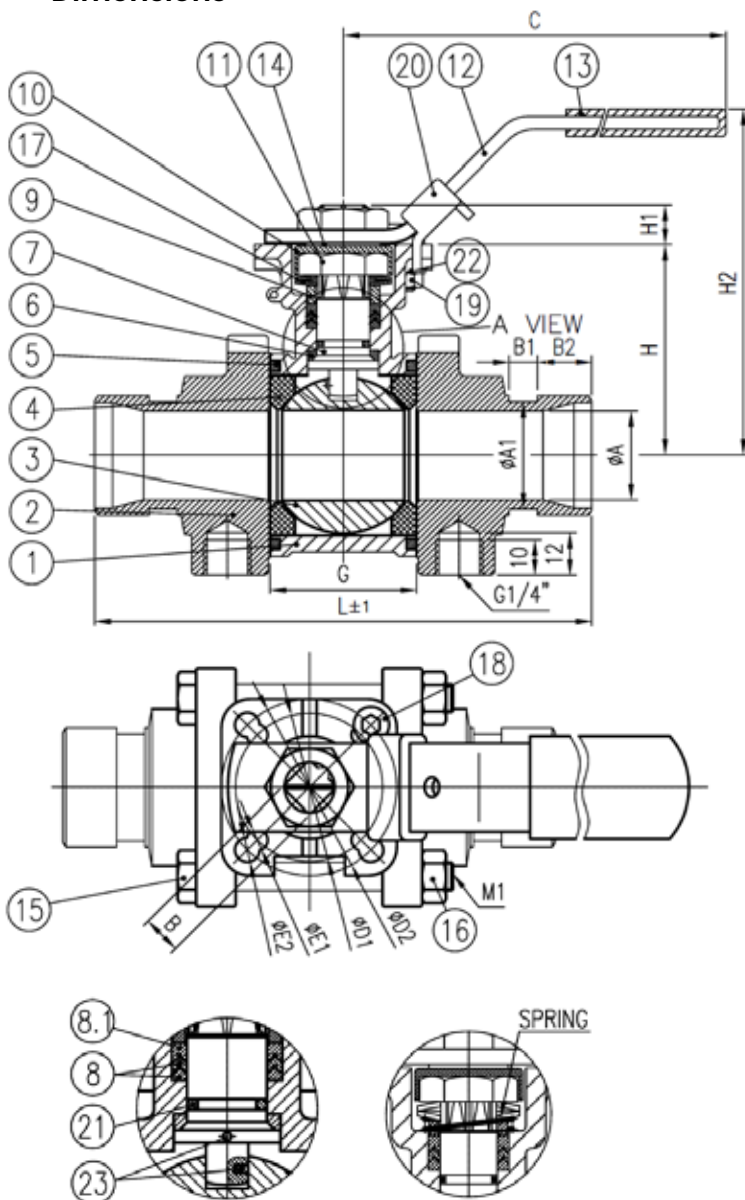
MODU ONE® products offer full traceability on all wetted parts. Certificates may be accessed by scanning the QR code and typing the serial number.



A10

MODU ONE® • 3-Piece Ball Valve • DN8-DN50

Dimensions



Parts description

Pos	Description	Material
1	Body	Stainless Steel 1.4408
2	Connection	Stainless Steel 1.4408/1.4409
3	Ball	Stainless Steel 1.4408/SS316
4	Seat	CTFE (25%C 75%PTFE)
5	Joint gasket	PTFE - TFM1600
6	Pyramid segment	CTFE (25%C 75%PTFE)
7	Stem	Stainless Steel AISI316
8	Stem seal V-ring	MG1241 (5%C 20%R 75%PTFE)
8.1	Stem seal top ring	RTFE (25% Glass 75%PTFE)
9	Gland	Stainless Steel AISI316
10	Lock saddle	Stainless Steel AISI316
11	Nut	Stainless Steel AISI316
12	Handle	Stainless Steel AISI316
13	Sleeve	Vinyl
14	Washer	Stainless Steel AISI316
15	Bolt	Stainless Steel AISI316
16	Nut	Stainless Steel AISI316
17	Belleville washer	Stainless Steel AISI301
18	Stop bolt	Stainless Steel AISI316
19	Nut	Stainless Steel AISI316
20	Locking device	Stainless Steel AISI316
21	O-ring	FPM
22	Spring	Stainless Steel AISI316
23	Antistatic device	Stainless Steel AISI316

Seat replacement kit

Consisting of pos*: 4 + 5

Complete gasket kit

Consisting of pos*: 4 + 5 + 6 + 8 + 8.1 + 21

SIZE	ØA	ØA1	B	B1	B2	C	ØD1	ØD2	ØE1	ØE2	F	G	H	H1	H2	L	M1	ISO5211
1/4"	11.5	-	9	-	-	139	-	42	-	6	38.2	24.5	42.6	7.6	77	105	M6	FO4
3/8"	12.6	-	9	-	-	139	-	42	-	6	38.2	24.5	42.6	7.6	77	105	M6	F04
1/2"	15	-	9	-	-	139	-	42	-	6	38.2	24.5	42.6	7.6	77	105	M6	F04
3/4"	20	23.8	9	8	15.3	139	-	42	-	6	44.3	31.4	46.85	8.6	82	125	M8	F04
1"	25	30.2	11	8	15.3	165	42	50	6	7	50	41.3	59.3	10.4	98.5	140	M8	F04/F05
1-1/4"	32	39	11	8	15.3	165	42	50	6	7	57.2	48.4	62.6	10.4	102	150	M10	F04/F05
1-1/2"	38	45.1	14	8	15.3	215	-	70	-	9	66.6	56.3	79	13.4	128	160	M10	F05/F07
2"	50	57.2	14	8	15.3	215	-	70	-	9	114	71.4	87.7	13.4	137	180	M12	F05/F07

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MODU ONE® • 3-Piece Ball Valve • DN65–DN100

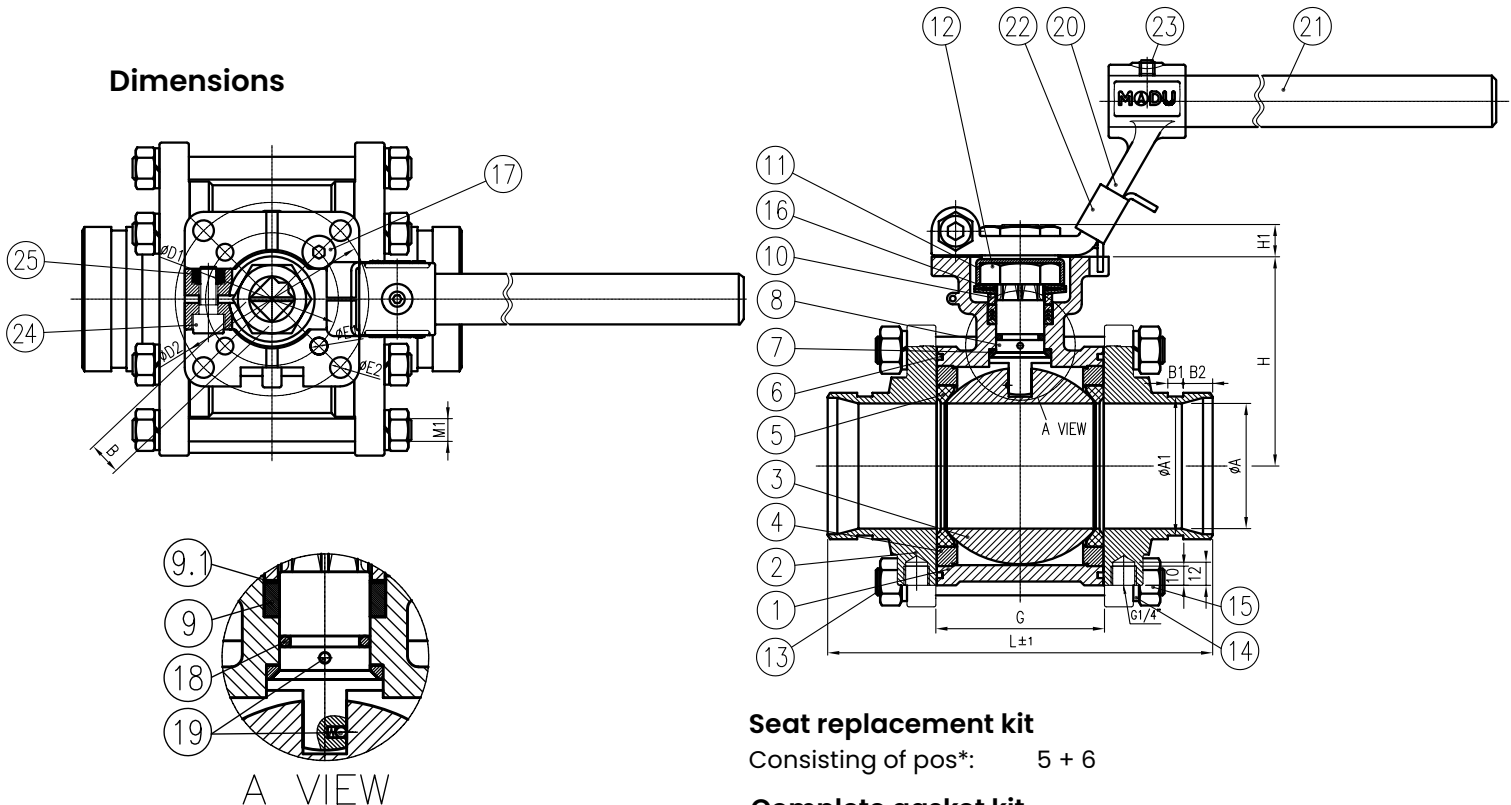
Parts description

Pos Description Material

- 1 Body 1.4408
- 2 Connection 1.4408/1.4409
- 3 Ball 1.4408
- 4 Seat retainer ring 1.4408
- 5 Seat CTFE
- 6 Joint gasket PTFE / TFM1600
- 7 Pyramid segment CTFE
- 8 Stem SS316
- 9 Stem V-ring CTFE
- 9.1 Stem seal top ring CTFE (25%C 75 PTFE)
- 10 Gland Stainless steel AISI316
- 11 Locking cap 1.4408
- 12 Nut Stainless Steel AISI316

- 13 Bolt Stainless Steel AISI316
- 14 Washer Stainless Steel AISI316
- 15 Bolt Stainless Steel AISI316
- 16 Belleville washer SS301
- 17 Stop bolt SS316
- 18 O-ring Viton
- 19 Antistatic device Stainless Steel AISI316
- 20 Handle - A CF8M
- 21 Handle - B SS316
- 22 Locking device SS316
- 23 Socket bolt Stainless Steel AISI316
- 24 Bolt SS316
- 25 Nut SS316

Dimensions



Seat replacement kit

Consisting of pos*: 5 + 6

Complete gasket kit

Consisting of pos*: 5 + 6 + 7 + 9 + 9.1 + 18

SIZE	ØA	ØA1	B	B1	B2	ØD1	ØD2	ØE1	ØE2	ØF	G	H	H1	L	M1	ISO5211
2-1/2"	65	72.3	17	8	15.3	70	102	10	12	139	86.6	108.7	16.8	200	M14	F07/F10
3"	76	85	17	8	15.3	70	102	10	12	160	99	117.7	17.8	230	M16	F07/F10
4"	100	110.1	17	9.5	15.3	70	102	10	12	193	127	133.7	16.8	260	M16	F07/F10

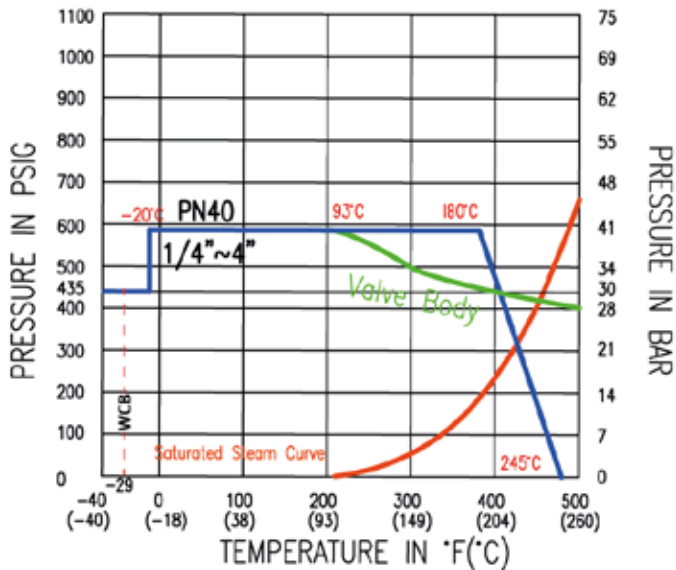
Connections

	Threaded connection REDUCED BORE - All dimensions in [mm]											
	DN	08	10	15	20	25	32	40	50	65	80	100
	BORE	-	-	10	15	20	25	32	38	50	65	76
	BSPP	-	-	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
	L	-	-	105	125	140	150	160	180	200	230	260
	Threaded connection FULL BORE - All dimensions in [mm]											
	DN	08	10	15	20	25	32	40	50	65	80	100
	BORE	10	10	15	20	25	32	38	50	65	76	100
	BSPP	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
	L	105	105	105	125	140	150	160	180	200	230	260
	Threaded connection FULL BORE - All dimensions in [mm]											
	DN	08	10	15	20	25	32	40	50	65	80	100
	BORE	-	-	10	15	20	25	32	38	50	65	76
	D	-	-	21.3	26.9	33.7	42.4	48.3	60.3	76.1	88.9	114.3
	S	-	-	1.6	2.0	2.0	2.0	2.6	2.6	2.6	2.6	2.6
	ISO1127 Butt weld + GROOVE REDUCED BORE - All dimensions in [mm]											
	DN	08	10	15	20	25	32	40	50	65	80	100
	BORE	10	10	15	20	25	32	38	50	65	76	100
	D	13.5	17.5	21.3	26.9	33.7	42.4	48.3	60.3	76.1	88.9	114.3
	S	1.6	1.6	1.6	2.0	2.0	2.0	2.6	2.6	2.6	2.6	2.6
	SMS 3008 Butt weld REDUCED BORE - All dimensions in [mm]											
	DN	08	10	15	20	25	32	40	50	65	80	100
	BORE	-	-	10	15	20	25	32	38	50	65	76
	D	-	-	18.0	22.0	25.0	32.0	38.0	51.0	63.5	76.1	101.6
	S	-	-	1.0	1.0	1.2	1.2	1.2	2.6	1.6	1.6	2.0
	SMS 3008 Butt weld FULL BORE - All dimensions in [mm]											
	DN	08	10	15	20	25	32	40	50	65	80	100
	BORE	10	10	15	20	25	32	38	50	65	76	100
	D	10.0	12.0	18.0	22.0	25.0	32.0	38.0	51.0	63.5	76.1	101.6
	S	1.0	1.0	1.0	1.0	1.2	1.2	1.2	2.6	1.6	1.6	2.0

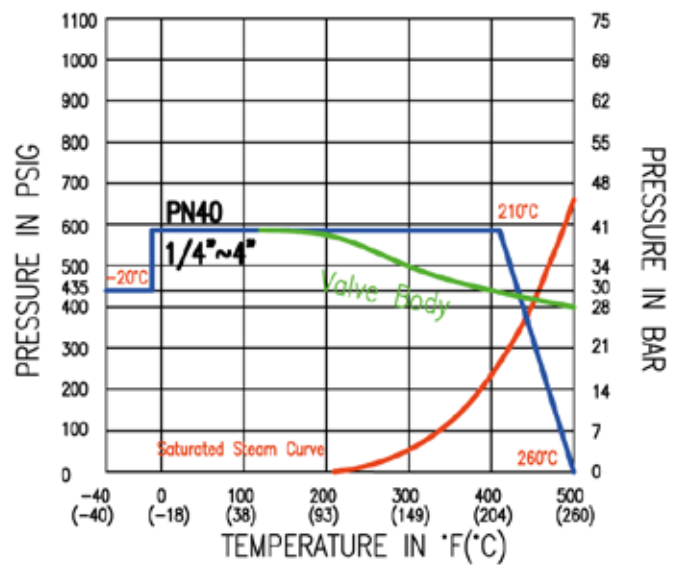
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MODU ONE® • 3-Piece Ball Valve

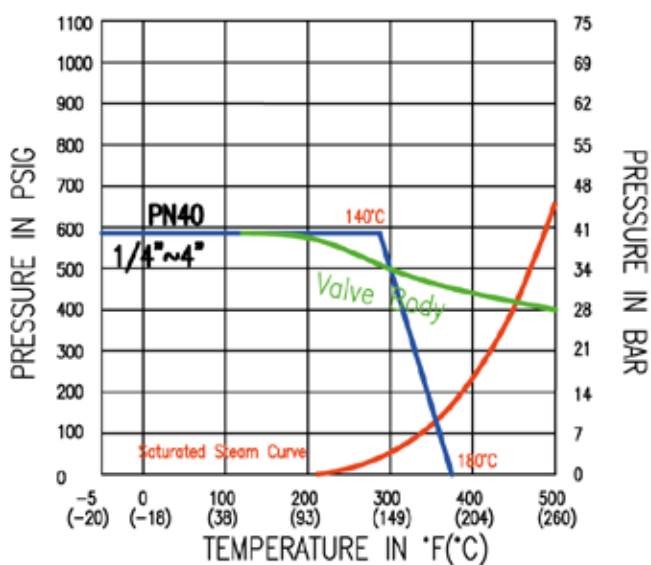
Temperature vs. Pressure illustration for CTFE Seat Rings



Temperature vs. Pressure illustration for PEEK Seat Rings



Temperature vs. Pressure illustration for PTFE/RTFE Seat Rings



A10 - weight for complete FB Valve and End Caps ISO 1127

Size	Complete [kgs]	Only End Caps [kgs]	Only Center Part [kgs]
DN08	0.7	-	-
DN10	0.8	-	-
DN15	0.7	0.3	0.4
DN20	1.2	0.6	0.6
DN25	1.7	0.8	0.9
DN32	2.4	1.1	1.3
DN40	3.6	1.5	2.1
DN50	5.8	2.2	3.6
DN65	10.1	3.3	6.8
DN80	14.2	4.7	9.5
DN100	22	6.6	15.4

Item number configurator

MODU ONE® • A10 • 3-Piece Ball Valve

Product Material		Pipe size Diameter		Valve bore Diameter		Connection Standard bore		Seat Material		Trim Material		Ball Type		Operation															
A10-	Body & ball: 1.4408	008-	DN08	008	DN8	A	Welded ISO 1127 (1.4409) incl. groove	A	CTFE	A	Stem: AISI316, Body gasket: FKM1600, O-Ring: FKM	A	Standard ball	A	Handle, 1.4408 cast with clamping function and spring lock														
																010-	DN10	010	DN10	B	Threaded BSPP (1.4408)	B	PTFE	B	Stem: AISI316, Body gasket: TFM1600, O-Ring: EPDM	B	Standard ball with vent	B	Non-rising stem
		020-	DN20	020	DN20	D	Threaded NPT (1.4408)	D	30° V-port	D	Position handle with scale																		
												025-	DN25	025	DN25	E	60° V-port	E	Handle, 1.4408 with vinyl and spring lock										
		032-	DN32	032	DN32	F	90° V-port	F																					
									040-	DN40	040	DN40																	
		050-	DN50	050	DN50																								
						065-	DN65	065	DN65																				
		080-	DN80	080	DN80																								
						100-	DN100	100	DN100																				
		X-								X	Center part (no connection)																		

Example of item number:

A10-015-015ABAAB

Options

If additional options, please feel free to contact MODU Valves.

Breakaway Torque

MODU ONE A10					
25% Carbon					
Size		[Nm]	[In-Lbs]	MAST [Nm]	MAST [In-Lbs]
DN08	¼"	7	62	33	292
DN10	3/8"				
DN15	1/2"				
DN20	3/4"	9	80	60	531
DN25	1"	10	89		
DN32	1 1/4"	12	106		
DN40	1 1/2"	18	160	125	1106
DN50	2"	25	222		
DN65	2 1/2"	45	399	223	1974
DN80	3"	57	505		
DN100	4"	75	665		

Actuator sizing

Media factor	Multiply by
Clean, particle free, non-lubricating (water, alcohol, etc.)	1.00
Clean, particle free, lubricating (oil, hydraulic fluid, etc.)	0.80
Slurries or heavily corroded, solvents and contaminated systems	2.00
Gas or saturated steam, clean and wet	1.00
Gas or superheated steam, clean and dry	1.30
Gas, dirty unfiltered e.g. natural gas, chlorine	1.50

Service factor	Multiply by
Simple on / off operations	1.00
Regulating / Throttling	1.20
Positioner Control	1.50
Once per day operations	1.20
Once every two days or a "Plant Critical" operation	1.50

Torque determination:

Basic torque x Media factor x Service factor = Sizing torque

Accessories

MODU ONE® • 3-Piece Ball Valve

Manometer

Item number	Size	Description
UA-6	-	Manometer type YSM Ø2,5", SS304, Bottom mounted, BSP, SS316
UA-7	-	Manometer type YSM Ø2,5", SS304, Mounted center back, BSP, SS316



Thermometer

Item number	Size	Description
UA-3	Ø63 mm	Thermometer for MODU ONE. -40°/+100°C. Sensor: Ø6 x 63 mm downward in stainless steel design.
UA-4	Ø63 mm	Thermometer for MODU ONE. 0°-250°C. Sensor: Ø6 x 63 mm downward in stainless steel design.



Thermowell

Item number	Size	Description
UA-1	24 mm	1/4" BSPT, fitting for MODU ONE DN15-40F, AISI316L
UA-2	45 mm	1/4" BSPT, fitting for MODU ONE DN50-100F, AISI316L



Temperature transmitter

Item number	Size	Description
UA-12	1/4"	-20°..120°C, G1/4" thread, 4-20mA output



Stem locking cap

Item number	Size	Description
UA-5A	-	MODU - Stem Locking Cap 9x9
UA-5B	-	MODU - Stem Locking Cap 11x11
UA-5C	-	MODU - Stem Locking Cap 14x14
UA-5D	-	MODU - Stem Locking Cap 17x17



Needle valve

Item number	Size	Description
08MV6200800H	1/4"	High quality industrial needle valve. Threaded connection BSPP. Acid proof stainless steel SS316



Need more information?

Contact MODU Valves for further inquiries or questions and hear about your options with MODU ONE®.