

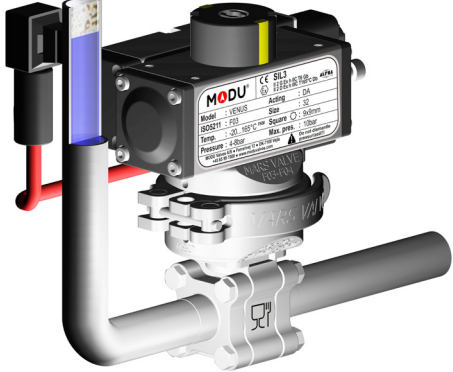


**Programmable
temperature sensor
for optimal discharge
of condensate**

EST

Electronic Steam Trap

- Stainless steel "CF8M"
- Steel "WCB"
- Electronic steam trap control, for condensate discharge on installations up to 9 bar steam
- Large discharge capacity
- 100% drop tight closure for minimal steam waste
- Programmable temperature sensor for optimal discharge of condensate
- Sanitary solution with EU1935 approval (stainless version)
- Robust construction that minimizes the risk of "water hammering" (PN125).



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Connection

Butt weld, ISO1127, SMS3008, EN12627 and Thread (BSPP).

Application

Condensate discharge from eg. heat exchanger, drying plant or sterile steam.

Dimension

DN15-DN25. Other sizes on request.

Pressure class ball valve

DN15-DN25: 125bar / 2000psi

Steam / temperature

Electronic Steam Traps are suitable for steam systems from 1,0 barg (120°) to 9 barg (180°).

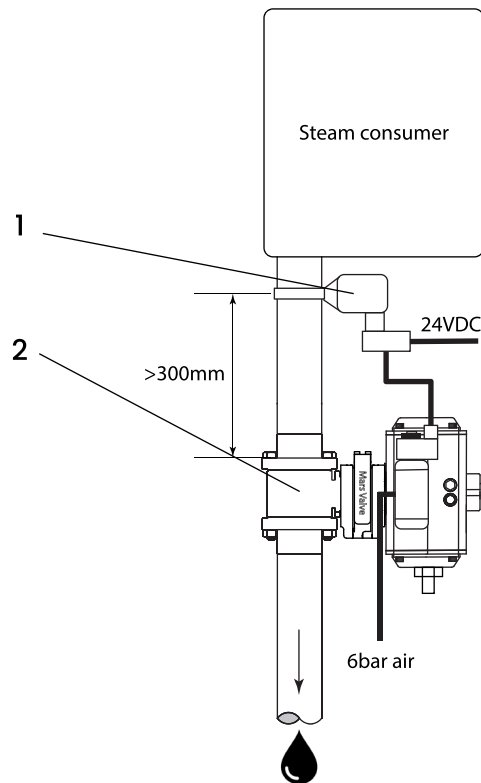
The temperature sensor is programmable and briefly opens the ball valve from a set temperature below the temperature related to the vapor pressure. This ensures that only condensed steam passes through the valve.

Eg.: 4bar steam = 151°C (switch temp. ~140°C).

Parts description, excerpt

Pos Description

- 1 Temperature sensor
- 2 MODU 83, 3-pcs ball valve



Developed for your industry



Additional specification can be requested.

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➤ Improve the quality

We help Engineers to improve the quality of your manufacturing process.

➤ Optimize total cost

We help Purchasing Officers to optimize total cost of production, prevent downtime and safeguard your brand.

➤ Work smarter

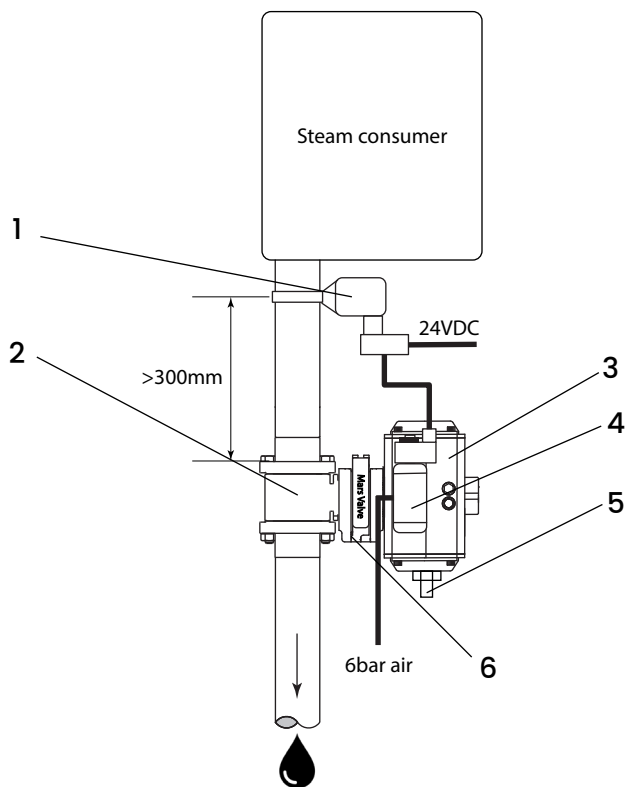
We help Maintenance Crews to work smarter, while preventing time-consuming mistakes.

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Materials

Pos	Description	Material
1	Temperature sensor with controller and switch for solenoid valve	Functions at surface temperatures between -40 to 180°C
2	MODU 83, 3-pcs ball valve and V-port, CPTFE seat	AISI316/CF8M or WCB/CF8M CPTFE seat -40 til 250°C
3	VENUS pneumatic actuator, double acting	Anodized aluminum
4	PHOBUS solenoid valve 24VDC, IP66	Anodized aluminum
5	Adjusting screw for discharge capacity	AISI304
6	Adjusting the V-ball valve	
6	MODU Service Bracket	CF8M/AISI316
	For fast disassembly and service	



Technical specifications temperature sensor

Description	Value
Supply voltage	24VDC +/- 15%
PNP output (2 pcs)	24VDC max 500mA (direct or inverted)
Measuring range	-40 to 180°C (resolution 0,1°C)
Ambient temperature coefficient	< +/- 0,002% (from -30 til 80°C)
Hysteresis	Adjustable with 0,1°C resolution
Temperature sensor	PT100, 1/3 din B < +/- 0,1°C + (temp x 0,0017)
Electric resolution	+/-0,1° according to IEC 751
Calibration	(TP-TA) x -0,003°C (TP = process temp. TA = amb. temp)
Dimension	22x30x38mm
Connection	4-pol M12x1 Pin 1: 24VDC Pin 2: PNP out 1 (max 500mA) Pin 3: 0VDC Pin 4: PNP out 2 (max 500mA)
Diode	3 color (green/red/orange) for stage feedback

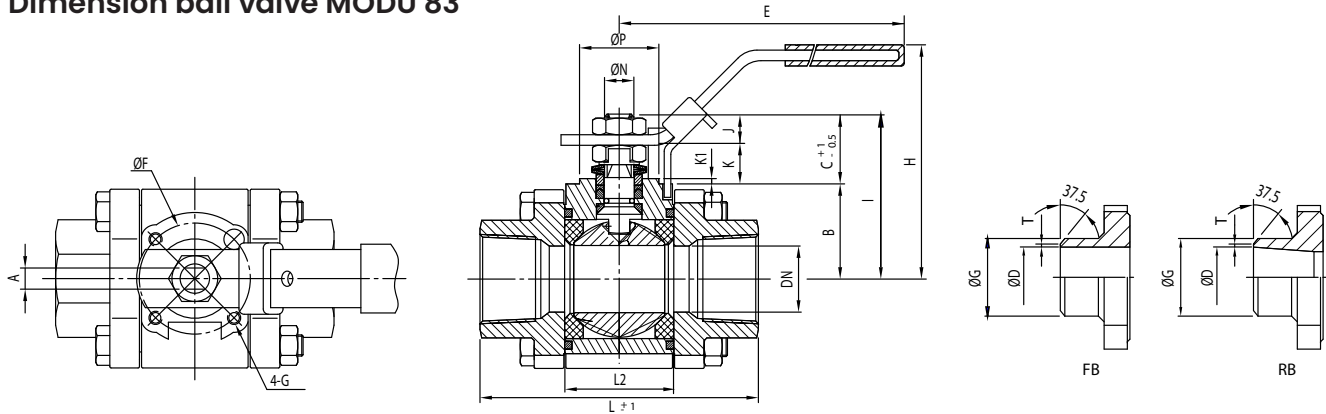
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Series EST

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Dimension ball valve MODU 83



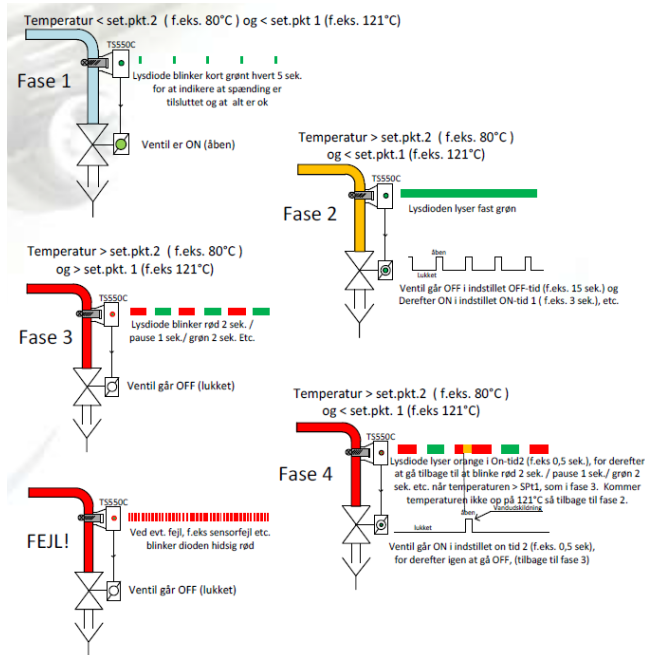
DIM	DN		A		B		C		E		ØF		G		H		I	
	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R
1/2"	15	10	6.5	6.5	29	29.8	16.1	7.4	134	134	36	36	M5	M5	71.5	64.3	45.1	37.2
1"	25	20	8	6.5	36	33	24.6	18.1	170	134	42	36	M5	M5	82.3	76	60.6	51.1

DIM	J		K		K1		L		L2		ØP		ØN		ISO5211	
	F	R	F	R	F	R	F	R	F	R	F	R	F	R	F	R
1/2"	7.3	6.1	8.8	1.3	2	0.5	72.5	64.8	24.5	20.5	25	25	9.5	9.5	F03	F03
1"	11	8.8	13.6	9.3	2	2	105.3	85.4	41.3	31.4	30	25	11.1	9.5	F04	F03

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Phase description temperature switch

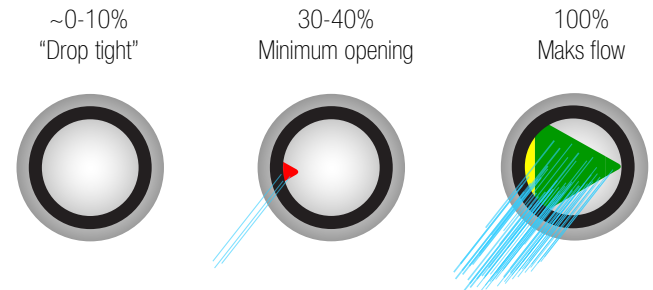
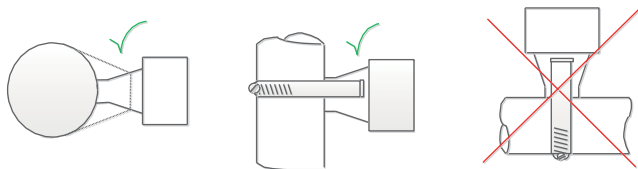


Discharge capacity

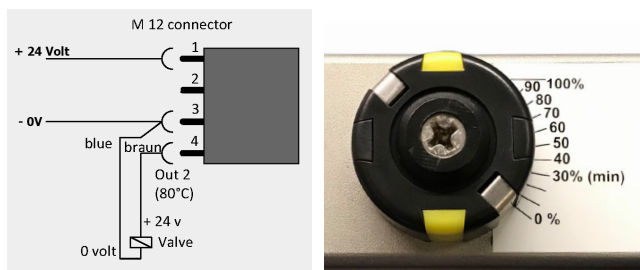
Differential pressure [bar]	Kg/h (condensate) The discharge capacity depends on the opening degree*			
	DN15 30° V-port	DN15 60° V-port	DN25 30° V-port	DN25 60° V-port
1.5	40...364	40...768	283...1859	364...4122
2.0	47...887	47...887	327...2147	420...4760
3.0	57...514	57...1086	400...2629	514...5830
4.0	66...594	66...1254	462...3036	594...6732
5.0	74...664	74...1402	516...3394	664...7526
6.0	81...728	81...1536	566...3718	728...8242
7.0	87...786	87...1659	611...4016	786...8906
8.0	93...840	93...1773	653...4293	840...9521
9.0	99...891	99...1881	693...4554	891...10098

*The opening of the ball valve is between 30% and 100% open

Mounting the temperature switch



Wiring diagram



Adjusting the ball valve capacity

The ball valve is fitted with a V-port for the purpose of adjusting the amount of condensate discharged each time the valve opens. The opening can be adjusted freely between 30% and up to 100% (full open valve). However, it is important that the amount of condensate discharged each time is in proportion at the consumption. The adjusting screw mounted in the pneumatic actuator can be adjusted to reduce or increase the amount of condensate. Too low degree of opening may result in condensate accumulation, whereas too much opening may result in all condensate being discharged and steam passing through the valve.

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