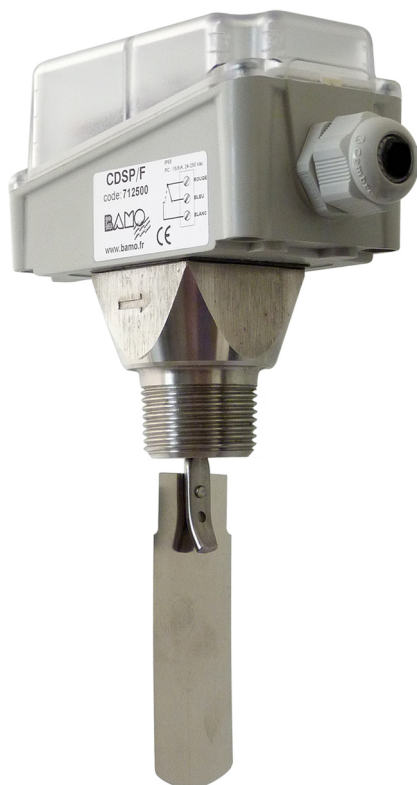


# Adjustable paddle flow controller CDSP 25



- For clear liquids
- On-line mounting; ND 25 to ND 200
- Stainless steel or brass versions
- Up to 11 bar: brass; Up to 30 bar: AISI 316
- Adjustable trigger point
- Liquid temperature: -40 ... +120 °C
- Ambient temperature: Max. 85 °C
- Potential free contact: 24 ... 250 V AC; 15 (8) A

## APPLICATIONS

Flow-rate control for piping systems where a minimal flow rate is necessary, maximum safety (chillers, coolers, lubrication, pump protection, etc.)

## DESCRIPTION

The CDSP 25 operates with a combination of a paddle and a diaphragm. The flow pushes the paddle, which actuates a switch. It is easy to change the length of the paddle to adapt the controller to a flow range for a specific diameter. The trigger point as well is adjustable. The electrical part is encapsulated and is thus isolated from the liquid. Models CDSP 25 - FI or FL are designed for the low flow-rates (table, next page).

### Mounting:

CDSP 25 operates in all positions. The flow direction is engraved on the body. CDSP's fitting is NPT 1" male thread. It comes with 4 paddles to use according the pipe diameter. When mounting on vertical piping, the mass of the paddle must be compensated by acting on an internal adjusting screw. When mounting upside down, the liquid may not contain impurities that could concentrate around the protection of the axis. Upstream and downstream straight distances must be equal to 5 times the inner diameter of the pipe.

### Adjustment:

The number of paddle is related to the diameter of the pipe; Adjustment by adding a paddle on the first one, and so on. The controller is set at the factory at the minimum flow rate; the trigger point is increased by adjusting screw, clockwise.

## CODE NUMBERS AND REFERENCES

Code	Reference	Description
712 400	CDSP 25 - I	Paddle flow controller - Fitting: AISI 316 L
712 410	CDSP 25 - L	Paddle flow controller - Fitting: Brass
712 500	CDSP 25 - FI	Low flow-rate, paddle flow controller - Fitting: AISI 316 L
712 510	CDSP 25 - FL	Low flow-rate, paddle flow controller - Fitting: Brass

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Adjustable paddle flow  
controller  
**CDSP 25**

10-12-2019

D-712.01-EN-AB

**DEB**

712-01 /1

## TECHNICAL FEATURES

Fitting	NPT 1"
Liquid temperature	-40 ... +120 °C
Ambient temperature	Max. 85 °C
Pressure limits	Brass: 11 bar / AISI 316: 30 bar
Switch	Changeover
Rated	24 ... 250 V AC; 15 A (8 A on inductive load)

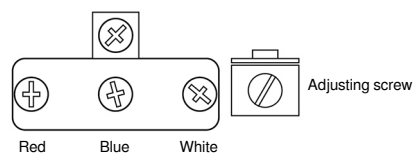
### Materials

Fittings	Brass or AISI 316 L
Housing	ABS (IP 65 protection)
Paddles	AISI 316 L (for all models)

### Connections

Red	Common
White	N.O. without flow
Blue	N.C. without flow

### Screw connectors



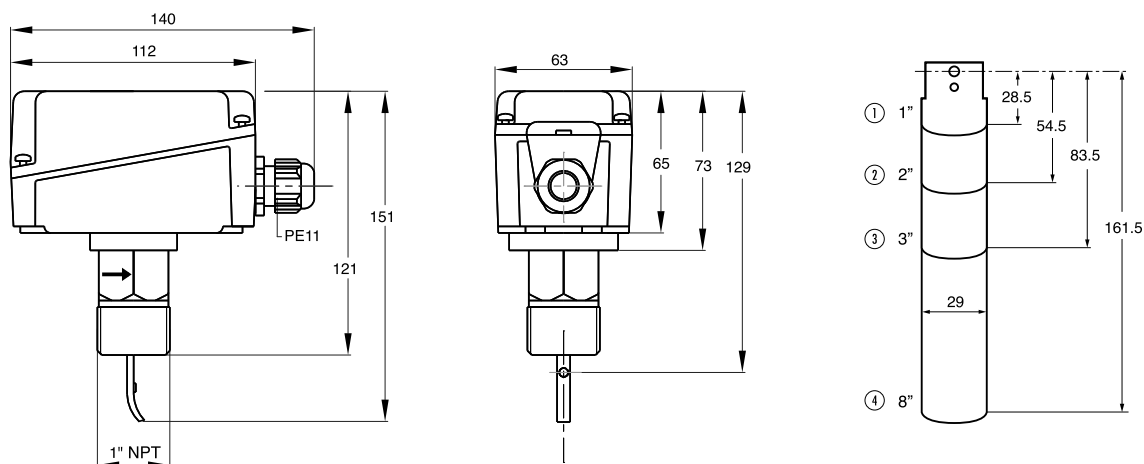
EC Conformity: The instrument meets the legal requirements of the current European Directives

## SETTING RANGES

Piping	Paddle numbers	ND	Ranges: CDSP 25 I or L [ m <sup>3</sup> /h ] (water)		Ranges: CDSP 25 FI or FL [ m <sup>3</sup> /h ] (water)	
			Deactivation	Activation	Deactivation	Activation
1"	1	25	0.6 ... 2	1 ... 2.1	0.2 ... 1	0.6 ... 1.1
1 1/4"	1	32	0.8 ... 2.8	1.3 ... 3	0.25 ... 1.4	0.9 ... 1.6
1 1/2"	1	40	1.1 ... 3.7	1.7 ... 4	0.5 ... 1.6	1.2 ... 2.2
2"	1+2	50	2.2 ... 5.7	3.1 ... 6.1	0.9 ... 3.6	2.3 ... 4.1
2 1/2"	1+2	65	2.7 ... 6.5	4.0 ... 7.0	1.2 ... 4.9	3.1 ... 5.5
3"	1+2+3	80	4.3 ... 10.7	6.2 ... 11.4	2.1 ... 7.4	4.9 ... 8.2
4"	1+2+3	100	11.4 ... 27.7	14.7 ... 29.0	4.9 ... 17.1	11.3 ... 19.1
4" Z	1+2+3+4	100	6.1 ... 17.3	8.0 ... 18.4	3.3 ... 11.6	7.7 ... 13.0
5"	1+2+3	125	22.9 ... 53.3	28.4 ... 55.6	9.7 ... 34.0	22.4 ... 37.9
5" Z	1+2+3+4	125	9.3 ... 25.2	12.9 ... 26.8	5.0 ... 17.5	11.5 ... 19.6
6"	1+2+3	150	35.9 ... 81.7	43.1 ... 85.1	13.6 ... 47.6	31.5 ... 53.2
6" Z	1+2+3+4	150	12.3 ... 30.6	16.8 ... 32.7	6.1 ... 21.4	14.1 ... 23.9
8"	1+2+3	200	72.6 ... 165.7	85.1 ... 172.5	25.7 ... 90.1	59.6 ... 100.7
8" Z	1+2+3+4	200	38.6 ... 90.8	46.5 ... 94.2	21.7 ... 55.3	36.5 ... 61.8

Values in italics next to piping Ø 4", 5", 6" and 8" with suffix Z, are for use with 8" paddle and indicate the minimum flow rates accepted. Below 8" pipe diameter, the paddle must be cut in order not to come into contact with the bottom of the pipe.

## DIMENSIONS



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Adjustable paddle flow  
 controller  
**CDSP 25**

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