Paddle flow controller CDP



CDP 10, 15, 20, 25, 32, 40, 50



USER MANUAL



Paddle flow controller CDP

24-03-2022 M-710.01-EN-AA

DEB

710-01/1

SAFETY INSTRUCTIONS

- Installation, commissioning and maintenance must be carried out by qualified technicians,
- The operation of the device must be in accordance with and strictly limited to the applications, as mentioned further on and on data-sheet.
- Ensure compatibility of the liquid with the chemical resistance of the controller's materials at operating pressure and temperature.
- Only connect the device to the voltage specified in the technical features and label.
- Disconnect all power sources from the device during interventions or maintenance tasks.
- The installation and use of the devices must be done without any magnetic induction field.
- Use non-magnetic couplings (brass, stainless steel or plastic).
- The device must be kept away from all metallic parts, or located at a minimum distance of 10 cm.
- The liquid in contact with the device must be at a temperatures below 110 °C.

APPLICATIONS

Detection of a too low or too high flow of liquid in a pipe; The liquid must be free of magnetic particles.

DESCRIPTION

The CDP operates a switch outside the liquid: The flow drives the paddle. A magnet on top of paddle actuates a Reed contact, located outside the liquid. The reverse movement of the paddle is generated by a leaf-spring.

The use of a relay ES 2001 (data-sheet 250-02) will protect the Reed contact and allows a remote loop signal with greater breaking capacity on a change-over relay output (500 VA/ 250 V AC/ 5A; 1 A/ 125 V DC/ 40 W).

MOUNTING

The CDP 10, 15, 25, 32,40 and 50 are mounted directly in-line.

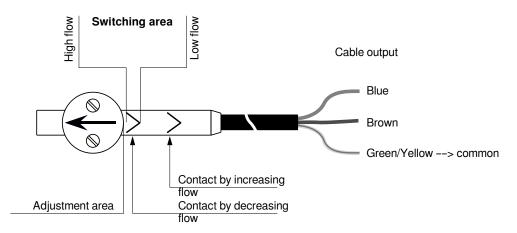
- Remove the two yellow protective caps
- Mount the device according to the flow direction indicated by the red arrow, by screwing it with its two threaded connections

The CDP 52 is mounted onto the pipe by its coupling BSP ½" (Corresponding female coupling must be already on the pipe).

Mount the device on a horizontal pipe, in accordance with the flow direction indicated by the red arrow.

NOTE: The CDP can be mounted on a vertical pipe with ascending fluid, but the threshold values will be increased. The maximum slope affordable of the pipe with downward flow is limited to 40%.

ELECTRICAL CONNECTION - ADJUSTMENT



The adjustment of the trigger point is not located between the 2 arrows, but inside the "Switching area".

The threshold value is adjusted using the black arrow drawn on the contact body. By unscrewing the top cover of the body, the contact slide for adjustment.

- The arrow closest to the connection cable is used for the increasing trigger point adjustment (switching when the flow rate increases and passes above the desired threshold).
- The other arrow is used for the decreasing contact adjustment (switching when the flow rate decreases and fall down the desired trigger

In both cases, the arrowhead is used for smaller flows, the back of the arrow is used for larger flows.



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710-01/2

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TECHNICAL FEATURES

Body AISI 316 Ti

Brass

Seal FPM on AISI version NBR on brass version

Temperature limit Liquid: 110 °C

Ambient temperature 50 °C Pressure limit 25 bar

Fittings ND 10 to 50: Tee with BSP-F

CDP-52: Coupling BSP-M 1/2" for pipe's female coupling

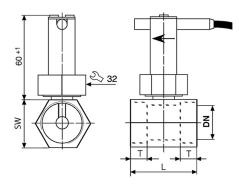
Contact output N.O. or N.C. according the arrow position Switching power 230 V / 1.5 A / 80 W / 90 VA max
Output Cable PVC; 3-wire; 1 mm²; 1.5 m long

Trigger point adjustment ±15 % of values from the table for horizontal pipe

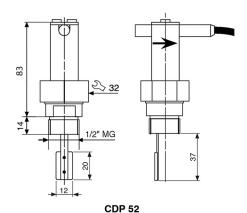
Protection IP65

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

DIMENSIONS



CDP 10 / 15 / 20 / 25 / 32 / 40 / 50



	ND 10	ND 15	ND 20	ND 25	ND 32	ND 40	ND 50	
T [mm]	11			15				
Brass version:								
L [mm]				50				
SW [mm]	30			37	46	52	70	
Stainless steel versio	n:							
L [mm]	50			62	64	70	110	
SW [mm]		30		-				



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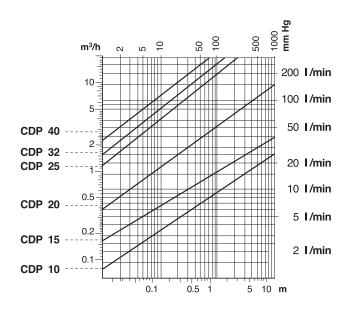
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710-01/3

CODE NUMBERS - REFERENCES - SWITCHING RANGES

					Switching ra	Maximum flow				
Code	Reference	ND	Fitting	Body	Closing [I/min]	Opening [I/min]	[l/min]			
710 100	CDP-10 L 3/8"	10	3/8"		2.7 4.5	1.7 3.5	40			
710 115	CDP-15 L ½"	15	1/2"		4.5 6.6	3.0 5.5	45			
710 120	CDP-20 L 3/4"	20	3/4"		8.5 12.0	6.5 11.0	80			
710 125	CDP-25 L 1"	25	1"	Droop	13.0 20.0	11.0 19.0	130			
710 132	CDP-32 L 1 1/4"	32	1 1/4"	Brass	17.0 26.0	15.0 25.0	160			
710 140	CDP-40 L 1 1/2"	40	1 ½"		28.0 45.0	27.0 43.0	300			
710 150	CDP-50 L 2"	50	2"		45.0 58.0	43.0 56.0	500			
710 152	CDP-52 L ½"	> 50	1/2"		44.0 65.0	40.0 60.0				
710 200	CDP-10 I 3/8"	10	3/8"		2.7 4.5	1.7 3.5	40			
710 215	CDP-15 I ½"	15	1/2"		4.5 6.6	3.0 5.5	45			
710 220	CDP-20 I 3/4"	20	3/4"		8.5 12.0	6.5 11.0	80			
710 225	CDP-25 I 1"	25	1"	AISI	13.0 20.0	11.0 19.0	130			
710 232	CDP-32 I 1 1/4"	32	1 1/4"	AlSi	17.0 26.0	15.0 25.0	160			
710 240	CDP-40 I 1 ½"	40	1 ½"		28.0 45.0	27.0 43.0	300			
710 250	CDP-50 I 2"	50	2"		45.0 58.0	43.0 56.0	500			
710 252	CDP-52 I ½"	> 50	1/2"		44.0 65.0	40.0 60.0				
Spare part:										
710 370	CDP-370 Replacement switch for CDP series; Output cable 1.5 m long									

PRESSURE DROP





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