

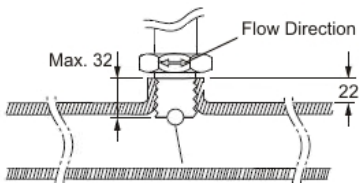
PADDLE FLOW SWITCH

PSF50

OPERATION MANUAL

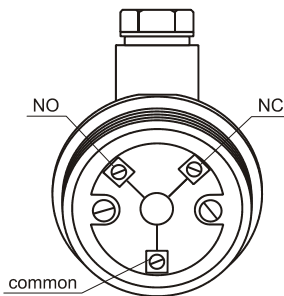


Please read this Operation Manual before mounting and operating!
Save the Manual for future references!



Important notes:

- ◆ *The switch is to be installed on horizontal pipes only!*
- ◆ *Installation on 1" NPT plastic pipe is NOT recommended!*
- ◆ *Use a proper sealant (we recommend Teflon® tape) and always check for leaks prior to system start-up!*
- ◆ *Never use the housing to thread the unit! Always use only an appropriately sized wrench!*
- ◆ *Never over-tighten the unit!*



Mounting

- ◆ Apply tape seal to the process connection thread and mount the unit on a T-pipe as shown on the left.
- ◆ After installation, make sure the paddle is parallel to the cutting face of the pipe and the flow direction mark is parallel to the pipe and to the ground.

Cable selection

- ◆ Use only one flexible cable with 2 or 3 multi-core wires depending on contacts used.
- ◆ To ensure IP65 protection class, use cable with outer diameter 5.5...6.5 mm. Other cable diameters require changing cable gland rubber sealing.

Wiring

- ◆ Open the protection head.
- ◆ Unscrew the cable gland and remove the protection seal.
- ◆ Run the cable through the cable gland nut, rubber seal, and head entry.
- ◆ Wire the changeover contact leads via the respective ceramic base terminals as shown on the left figure.
- ◆ Screw the cable gland nut to fix the cable well.
- ◆ Close the head.



Important notes:

- ◆ *Strictly observe the relay contact ratings given in 'Specifications'.*
- ◆ *Ensure the protection head cable gland is securely sealed.*

Pipe diameter	1"		1 1/4"		1 1/2"		2"		2 1/2"		3"	
	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF	ON	OFF
Paddle length	1"	20	16	33	25	18	35	47	35	27	58	
	1 1/4"			25	18	35	47	58	47	89	78	
	1 1/2"				54	39	89	62	124	97		
	2"						70	47	93	66	128	105
	2 1/2"								78	50	105	85
3"										85	62	

Set-point adjustment

- ◆ Cut off the paddle at the proper size mark (or wherever desired), but leave no less than 1".
- ◆ Adjust the flow set-point range using the information in the table on the left.



Important note:

Process temperature changes do affect set point, especially when specific gravity also changes!

Operating



Important notes:

- ◆ *Strictly observe the operating pressure and temperature ranges given in 'Specifications'! Take abrupt pressure and temperature changes into consideration too.*
- ◆ *The flow switch is designed for shock and vibration resistance. However, shock and vibration should be as minimized as possible.*
- ◆ *Excessive fluid contamination might inhibit paddle operation, and thus occasional cleaning would be necessary.*

Medium Type	low-contaminated liquid
Flow Range	15...130 l/min
Pipe Diameter	1"...3"
Output	reed NO/NC contact
Contact Ratings	max. 2A/230VAC/50W
Set-point Tolerance	± 25%
Repeatability	± 5%
Process Temperature	<input type="checkbox"/> -30...140 °C, <input type="checkbox"/> -30...100 °C
CIP Temperature	max. 150 °C
Process Pressure	up to 25 bar
Pressure Drop	max. 0.2 bar
Ambient Temperature	-40...85 °C
Process Connection	<input type="checkbox"/> G1", <input type="checkbox"/> 1" NPT
Protection Head	aluminum; <input type="checkbox"/> IP65, <input type="checkbox"/> IP68 ATEX Ex 'd'
Wetted Parts	304 stainless steel (1.4301)

Warranty and Support

.....
serial number

.....
manufacturing date

QC check mark(passed)
(stamp)

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Warranty

COMECO warrants this product to be free from defects in materials and workmanship for 6 months. If your unit is found to be defective within that time, we will promptly repair or replace it. This warranty does not cover accidental damage, wear or tear, or consequential or incidental loss. This warranty does not cover any defects caused by wrong transportation, storage, installation, or operating (see '**Specifications**').

Technical support

In the unlikely event that you encounter a problem with your COMECO device, please call your local dealer or contact directly our support team.