

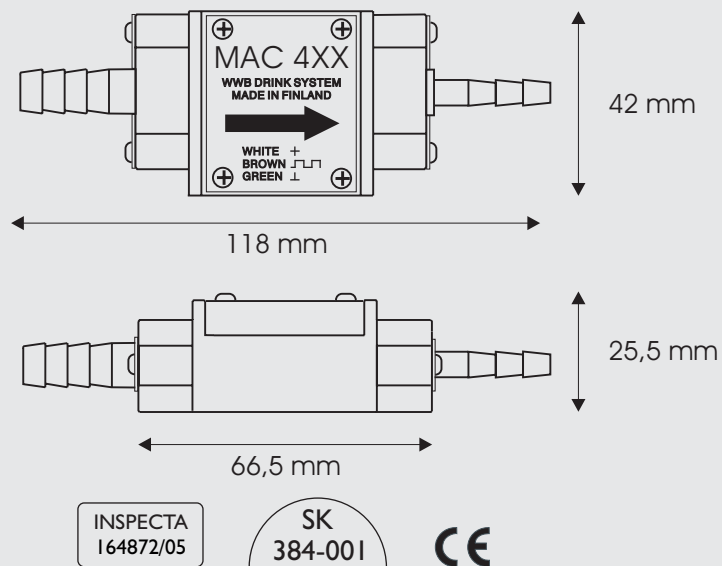
General information:

The Mac 400 Series Injection moulded flow meters for beer, cider, spirits, wine and liqueur are made from plastic approved for food stuffs. The simple construction of the meter ensures high reliability and long life. The flow meters are easy to mount due to their small size. The tube fittings are interchangeable to suite different tube sizes. The construction is watertight and can be opened for cleaning when needed. WWB Drink System has since 1985 produced dispensing equipment for breweries and restaurants, and the third

Technical data:

- MAC 415 (spirits): approved measuring range: 1-8 cl, 25 pulses/cl,
- MAC 425 (liqueur and soft drinks) approved measuring range: 2-8cl, 15 pulses/cl
- MAC 435 (beer, cider and wine) approved measuring range: 0,2-1 L, 950 pulses/L
- MAC 450 (beer and cider): approved measuring range: 0,2-1 L, 590 pulses/L
- Supply voltage: 4.5 - 28 V DC
- Standard connection cable length: 1.5m
- Tube fittings: 5.5mm, 6mm, 8mm, 10mm, 16mm, other types on special request

Dimensions:

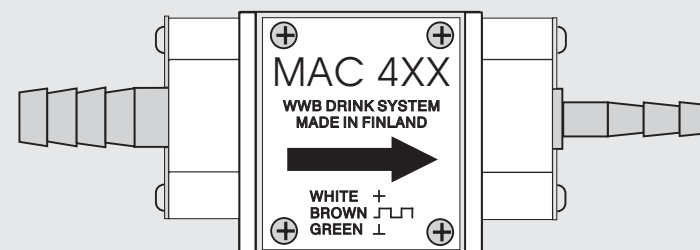


Manufacturer:

WWB DRINK SYSTEM OY Phone: +358-6-322 3074
Sepänkyläntie 212 Fax: +358-6-322 3076
65610 MUSTASAARI E-mail: info@wwbdrinksystem.fi
FINLAND www.wwbdrinksystem.fi

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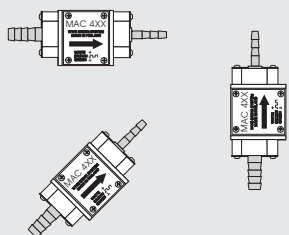
MAC 400-SERIES FLOW METERS USER'S MANUAL



WWB *Drink* system

SK
384-001

Installation:

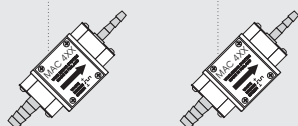


To install a MAC 400-series flow meter in a dispensing system connect the beer line tubes to the tube fittings and tighten the tubes with tube clamps. Connect the flow meter connection cable to a control device. The flow meter can be mounted horizontally, vertically or diagonally as long as the correct flow direction is maintained.

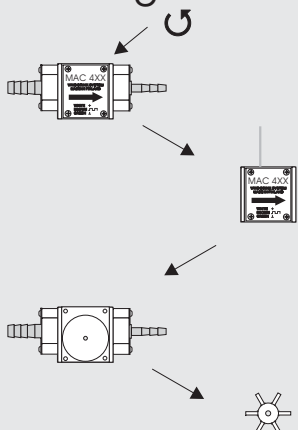
Operating Instructions:



To operate the flow meter, install it according to the installation directions above. As the fluid passes through the flow meter it creates pulses which are detected by a control unit (dispenser). Set up the dispenser and calibrate the right measure by determining the amount of pulses that is required for the chosen measure (See the user's manual for the dispenser). When the chosen measure is calibrated and the dispenser is set up, the flow meter is ready for use and can be used to measure the flow of the fluids in question.



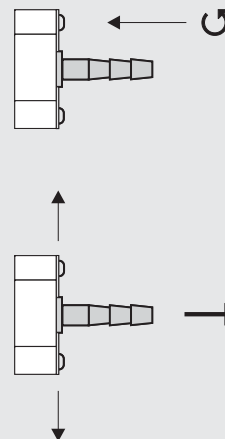
Cleaning Procedure:



The MAC 400-series flow meters can be opened for manual cleaning of the turbine and the turbine chamber. Before opening the flow meter disconnect the connection cable from the control device. To open the flow meter, unscrew the four screws on the front side of the meter. Remove the front panel with the model number and flow direction symbol. Gently remove the lid containing the hall effect position sensor and the connection cable. Please notice the gasket between the lid and the turbine chamber. The turbine can now be removed, so that the turbine and the turbine chamber can manually be cleaned.

NOTE: Please use a TORX 10-type screwdriver to open the flow meter.

Cleaning Procedure, continued:

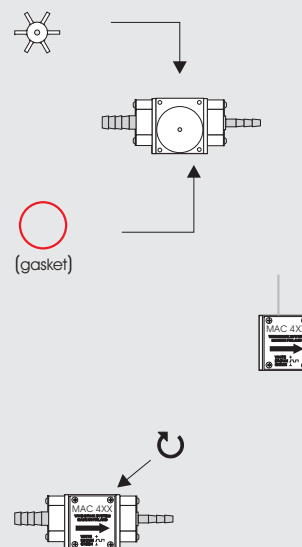


In case there is a need to remove the tube fittings, loosen the four screws at the in- and outlet of the flow meter. Slide the washers aside and pull the tube fittings out from the flow meter, notice the gaskets on the bottom of the tube fitting casing.

When cleaning the flow meter only use water and allowed detergents as the flow meter will be used for foodstuffs. The flow meter can also be cleaned without removal from the beer line. Use water and detergent for the procedure stated by the brewery. When cleaning the beer line without removing the flow meter notice that no foreign objects, like a cleaning "ball", are allowed.

The manufacturer recommends chemical cleaning of the flow meter, according to stated procedures.

Assembly of the Flow Meter:



When assembling the flow meter notice the flow direction (IN/OUT) marks next to the tube fitting washer screws. Make sure that the gaskets on the bottom of the tube fitting casings are in place. Push the tube fittings into the flow meter. Slide the tube fitting washers over the tube fitting and tighten the four screws. Put the turbine in place so that the centre of the turbine, marked with four dots, is toward the lid of the flow meter. Place the gasket in the round incision on top of the turbine chamber. Place the lid and the front panel over the turbine chamber, ensuring that the gasket is in place. If the lid is put the wrong way it simply will not fit. Tighten the four screws on the front panel and connect the flow meter to the control device.