

BA 007E/FV2S-II/01.18

Valid starting from  
Software Version 1.1

# Flowview<sup>®</sup> 2S-II Display and Power Supply Unit for Ultrasonic Flowmeters Flowmax<sup>®</sup>

Operating Manual



## General safety instructions

Please always observe the following safety instructions!

Please pay attention to the safety instructions with the following pictograms and signal words in these operating instructions:



**IMPORTANT!**

IMPORTANT! indicates situations or cases which, if not avoided, could result in damage or failure of the Flowview 2S-II equipment.



**WARNING!**

WARNING! indicates general hazardous situations or cases which, if not avoided, could result in serious injury or death.

**NOTICE!**

NOTICE! is used to lead users to helpful information not related to personal injury.

### Intended use

- The Display and Power Supply Unit Flowview 2S-II may only be used for Flowmax flowmeters.
- The Display and Power Supply Unit Flowview 2S-II is built operationally safe in accordance with the latest state of the art technologized developments and industry standard EN 61010 regulations (corresponds to VDE 0411 "Safety specifications for electrical measurement, control and laboratory devices").
- The manufacturer is not liable for any injury, damage or harm due to inappropriate or unintended use or modifications of the unit. Conversions and/or changes to the unit may only be made, if they are expressly performed in accordance with the operating instructions in this operating manual.

### Personnel for installation, commissioning and operation

- **Assembly, electrical installation, commissioning and maintenance of the unit must be carried out by qualified, trained personnel. The qualified personnel must have read and understood the operating instructions in this operating manual and must follow the operating instructions in this manual.**
- **The installer has to ensure that the unit is correctly connected according to the electrical connection diagrams in this operating manual.**
- **Serious injury or death from electric shock may occur if wiring, installation, disassembly or remove of wires is performed while electrical power is energized.**



**WARNING!**

### Technological progress

The manufacturer reserves the right to revise, alter, or modify the unit to the most current technology without special prior notice. Further information about the latest updates and potential additions to these operating instructions are available from the manufacturer.

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## 1. Areas of application

The Display and Power Supply Unit Flowview 2S-II is used in

- Beverage dispensing
- Process safety

It is characterized by the following performance features:

- Use in the field or control room
- Power supply for up to 2 Flowmax flowmeters
- Display of up to 2 Flowmax flowmeters
- Operation by key switch
- Counting mode
- Cleaning mode
- Reset mode

The measurement device consists of one display and power supply unit Flowview 2S-II and up to two ultrasonic Flowmax flowmeters.

## 2. Technical specifications

### 2.1 Housing

Material	ABS
Colour	Light grey, similar to RAL 7035
Connections	1 main plug for 230 VAC power supply, cable length 1,5 m, 2 round connectors, 5-pins
Dimensions incl. connections	H: 100mm; W: 80mm; D: 57mm
Ambient temperature	-10...+60°C
Protection class	IP 65
Cover seal	Silicone
Weight	250 g

#### *Display and Keyboard*

Display	2 * 16-characters, LCD, illuminated
Film keyboard	4 keys with pressure point
Key switch	to switch between Cleaning and Reset mode

#### *Electronics*

Auxiliary power	230 VAC, 5 W
Miniature fuse	2 A, time delay
Ambient temperature	-10....+60°C
Connections	2 * Flowmax

The display and power supply unit Flowview 2S-II meets the requirements according to EN 61000-6-2:2005, EN61000-6-4:2007: EN61010-1:2001 and has the CE-label.

### 3. Assembly and installation

#### 3.1 Installation instructions

The principle requirement for faultless functionality is correct installation of the ultrasonic flowmeter Flowmax. Instructions for installation can be found in the operating manual of the Flowmax.

#### 3.2 Assembly of the Flowview 2S-II

Flowview 2S-II can be screwed directly to a wall.

#### 3.3 Electrical Connection

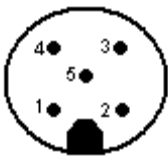
There is no need to open the Flowview 2S-II housing for the electrical start-up.

##### Power Supply Connection

Insert the main plug connected to the Flowview 2S-II into a 230VAC socket.

##### Connection of flowmeter to Flowview 2S-II

##### 5-pin socket pin code on Flowview 2S-II:



Pin	Function	Description
1	Pulse counting	Digital input I1, npn-transistor normally closed
2	24 VDC	Power supply: 18...30 VDC
3	Empty pipe alarm	Digital input I2, npn-transistor normally open
4	Not used	
5	GND	Ground: 0 V

- a) Connection of Flowmax 30S  
The plug moulded onto the Flowmax 30S is to be used for connection. It is to be screwed to the respective socket on the Flowview 2S-II.
- b) Connection of other Flowmax (42i, 44i or 400i)  
For the connection of another device, the pin assignment of the sockets of the Flowview 2S-II must be observed.

#### 3.4 Data security

The backup of the counting stations takes place every 10 minutes. After a power failure, the existing counter readings are read out and continue to be counted.

**NOTICE!**

#### 3.5 Empty pipe alarm

If a connected Flowmax flowmeter detects an empty pipe, the signal in the display is indicated by an "E!" at the right end of the line. The display shows

L1= 12345,6L E!

L2= 12345,6L E!

The empty pipe message disappears automatically when the meter is filled again.

If no measuring device is connected, the empty message is also displayed on the respective channel.

**NOTICE!**

## 4. Operation

### 4.1 Flow counting

Once the power supply is turned on the measuring channels connected to the Flowview 2S-II are displayed in form of

*(number of channel, quantities in litres effectively flown, unit in litres)*

L1= 12345,6L

L2= 12345,6L

### 4.2 Counter reset

To reset one or both counters to zero, press the "START / STOP" key. The display shows

RESET MENU L1/L2  
SELECT CHANNEL

With the "Λ" buttons for L2 and "V" for L1, the relevant counter can be selected to reset to zero. The display shows

RESET MENU            or            RESET MENU  
L1    L2

After confirmation with „OK“ appears:

RESET MENU L1            or            RESET MENU L2  
PLEASE ENTER PW                    PLEASE ENTER PW

When "OK", "INVALID PASSWORD" appears and you return to the counting mode.

Pressing „Λ“ will display: PASSWORD: XXX

The password is **014**

Press and hold the "Λ" button to increase the counter speed. "V" can be counted down again. When reaching 014, confirm with "OK". It appears

RESET L1  
Confirmed

The jump to the counter display is then automatically made. To set the second counter also to zero, the process must be repeated with the corresponding channel number.

In the reset mode, the counters continue counting when something flows in the line.

### 4.3 Cleaning

During the cleaning phase, the flow measurement of the connected measuring devices Flowmax can be suspended. To do this, set the key switch to the "clean" position. The display will show alternately

NO COUNT MODE

and    Turn key  
for counting

The counters are frozen. Always both counters are set in the cleaning mode. To return to the counting mode, set the key switch back to the "Count" position.



**IMPORTANT!**



**IMPORTANT!**



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