



SwemaAir 40 Instructions

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1. Introduction

SwemaAir 40 is a thermoanemometer that measures air velocity and temperature.

Air velocity is measured in m/s or fpm and temperature in °C or °F. SwemaAir 40 is delivered with two easily replaceable AA batteries. Standard, alkaline or regular batteries can be used. A 220V adapter (part no. 763.050) can be used, but doesn't charge the batteries.

2. Technical data

Air velocity: 0,1...12 m/s (12...30 m/s option) at -10...45°C

At 23°C:

±0.04 m/s at 0,10...1,33 m/s

±3% at 1,33...30 m/s

At 10... 30°C:

±0,05 m/s at 0,10...1,00 m/s

±5% at 1,00...30 m/s

Temperature: -20...80°C,

±0,3°C at 23°C, ±1,0°C at -20...80°C

95% coverage probability in non condensing, non moist air, <80%RH, non aggressive gases.

Battery: 2 x 1,5V IEC LR6, AA

Size: 195x93X36mm incl. probe

Weight: 500g

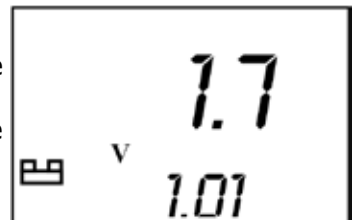
The user should correct the measured values with the correction on the calibration protocol to obtain stated accuracy. Recommended calibration interval is 1 year.

3. Start of instrument

- When starting the instrument (ON/OFF-button), the display shows the battery voltage and the version number of the firmware. After one second it goes to measuring mode.



- If the voltage should drop below 1.8 V, the symbol for low battery is shown. If the voltage should drop below 1.6 V, the instrument can't be turned on.



- When starting the instrument by pressing **UNIT** at the same time as **ON/OFF** the air velocity is displayed with one decimal.
- Press **UNIT** to alternate between the different units. Last unit used will be kept next time the instrument is turned on. Velocity and temperature is shown in **m/s** & **°C** or **fpm** & **°F**.
- If the display flashes, a drift is indicated and the instrument needs to be readjusted regardless of the calibration interval.



4. Data transfer to PC

Connect SwemaAir 40 to a computer by using "PC-cable to SwemaAir" (Part no: 763040). The PC-cable has a RS232 connection so connect it to a free COM-port on the computer. If the computer hasn't a COM-port use a USB-adapter (Part no: 583225).

To transfer data use a terminal software for example "Hyperterminal" or "Teraterm" (Teraterm can be downloaded at www.swema.com).

Set in the terminal software which COM-port the instrument is connected to. Use following settings in the software for the COM-port:

Bits per second: **9600**
 Data bits: **8**
 Parity: **None**
 Stop bits: **1**
 Flow control: **Hardware**

Press **ENTER** on the computer-keyboard and you get a calibration protocol.

Press **Space** and measurement data is printed on the screen:

Air velocity (m/s - 3 decimals, fpm - 1 decimal) and temperature (2 decimals).

5. Alter settings by PC

When SwemaAir 40 is connected to a PC it is possible to change some settings.

Press **%M ENTER ENTER** to enter settings menu:

[P] Point 0

[S] Shut 0

[T] Time constant 0

Press **P** or **p** to change between "," (comma) and "." (point) as indicating decimal (comma = 0) or (point = 1).

This is for PC printouts of measured value. Confirm with **ENTER**.

Press **S** or **s** to change shut off time in minutes. Select 0 to disable auto shut off. Confirm with **ENTER**

Press **T** or **t** to change display time constant. The display is updated every 0,25 seconds (T=0) or 0,5 seconds (T=1) or 2 second (T=2) or 8 seconds (T=3). Confirm with **ENTER**

Exit the menu by pressing **% ENTER**.

