

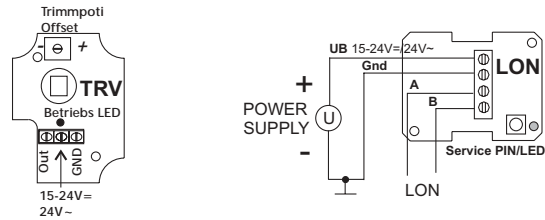
Air quality sensors  
LW04... LK...

**CYLON**

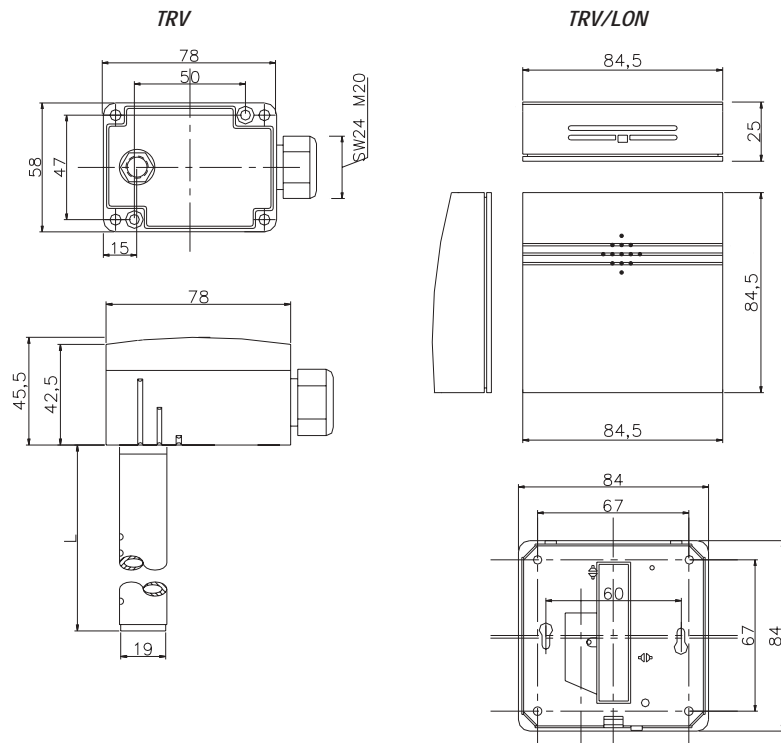
**Optional Accessories**

- (D+S) 1 set (each 2 pcs.) raw plugs and screws
- (MF19-PA) Mounting flange for model LK

**Terminal Connection Plan**



**Dimensions (mm)**



**CYLON**

19100... 19200...



LW04



LK

Air quality sensors  
LW04... LK...



**Application**

Sensor for detection of air quality in rooms and air ducts. The sensor consists of a transducer with VOC sensor, based on a heated stannic oxide-semiconductor. Designed for locking on control and display systems. (VOC=volatile organic compounds, a so-called mixed gas):

**Types Available**

Model	Type	Method of measurement (output)
LW04	TRV	active, 0...10V
	LON	active, FTT10A
LK	TRV	active, 0...10V

**Norms and Standards**

<b>Product safety:</b>	EN60730-1 Automatic electr. control devices for domestic use and similar applications
<b>EMV:</b>	EN50082-1 Interference resistance EN50081-2 Emitted interference
<b>CE-Conformity:</b>	89/336/EWG Electromagnetic compatibility

**Technical Data**

**Type TRV:**

**Measuring element:** VOC Sensor  
(VOC = volatile organic compounds = mixed gas)

**Operating voltage:** 15-24V=/24V-

**Power consumption:** max. 50mA/24V=

**Load:** min. 5kOhm

**Clamps:** 3-pole (three-wire)  
Terminal screw max 1,5mm<sup>2</sup>

**Housing:** LW04: ABS, colour white similar to RAL9010  
LK: (78mm) Polyamide, colour white

**Sensor bushing:** only LK:PVC, colour black

**Mounting length L:** only LK: 130mm/260mm/390mm

**Tmax<sup>1)</sup>:** <50°C

**Protection:** IP20

**Cable entry:** LK: single entry, M20 for wire conductor with max. D=8mm

**Type LON:**

**Measuring element:** VOC Sensor  
(VOC = volatile organic compounds = mixed gas)

**Operating voltage:** 15-24V=/24V-

**Power consumption:** max. 70mA/24V=

**Clamps:** 4-pole (four wire)  
Terminal screw max 1,5mm<sup>2</sup>

**Housing:** ABS, colour white similar to RAL9010

**Tmax<sup>1)</sup>:** <50°C

**Protection:** IP20

<sup>1)</sup> Maximum permissible ambient temperature humidity (without dew permeation) <80%r.F.

**Mounting Advice**

Model LKx can either be mounted to the air duct by means of a mounting flange or by screws.  
**Attention:** It is absolutely necessary to install the Type LKx (Duct Sensors) in this way that the air inlet is opposite to the flow direction in the duct. For model LW04, mounting on standard ISO boxes is possible. Tightening material is not included in delivery range.

**Advice For Set-Up Of Sensor:**

The sensor cannot distinguish pleasant from unpleasant smells. The final adjustment whether air quality is satisfactory or not must be made by the persons living or working in the room. Moreover, various air compositions are occurring in different rooms.

That is to say, the setpoint for the desired air quality is adjusted provisional upon production. Optimisation must be done by the users of the rooms, according to their personal feeling.

The individual adaption of the output signal is made via a trimm potentiometer on the sensor board. By means of the potentiometer, the offset of the output signal is increased or lowered.

**Installation procedure:**

1. Connect sensor and switch operating voltage on.
2. Ensure good air conditions close to the sensor. Remark duct sensor: Please place the sensor with opened cover in clean room air.
3. The output signal has to be verified after an operating time of approx. 30 minutes. The voltage level should lie in the range 1-3V. Please correct a too high/ too low voltage level by means of the trimming potentiometer on the circuit board: the potentiometer should be turned to the left until the red LED is almost extinguished. Now, the output signal amounts to approx. 0,7V. As far as the scale of the potentiometer is concerned, one scale mark corresponds to one voltage level of approx. 3V.
4. The sensor is ready for operation - The operating voltage of the output signal increases upon air quality changes for the worse.

**Please also note the general remarks in our INFORMATION SHEET THK.**

