

# Water Vapor 5/a-P

Order No. 67 28 531

## Application Range

|  |                            |
|--|----------------------------|
| Use in Aerotest 5000, SimultanTest CO <sub>2</sub> |                            |
| Standard Measuring Range:                          | 5 to 200 mg/m <sup>3</sup> |
| Test Volume:                                       | 50 L                       |
| Flow Rate:   | 2 L / min                  |
| Time for Measurement:                              | approx. 25 min             |
| Standard Deviation:                                | ± 15 to 20 %               |
| Color Change:                                      | yellow → reddish-brown     |

## Ambient Operating Conditions

|              |  |
|--------------|--|
| Temperature: | 0 to 40 °C   |
| Pressure:    | The tube may only be used for depressurized compressed air |

## Reaction Principle

$\text{H}_2\text{O} + \text{SeO}_2 + \text{H}_2\text{SO}_4 \rightarrow \text{reddish-brown reaction product}$

## Cross Sensitivity

Alcohols and unsaturated hydrocarbons of high concentrations may cause a diffused discoloration of the indicating layer.

## Extension of the measuring range

The following evaluation applies for other volumes:

|             |    |    |    |     |     |     |     |     |                                    |
|-------------|----|----|----|-----|-----|-----|-----|-----|------------------------------------|
| reading:    | 5  | 10 | 30 | 50  | 70  | 100 | 150 | 200 | mg H <sub>2</sub> O/m <sup>3</sup> |
| 25 L vol.:  | 10 | 20 | 70 | 110 | 160 | 220 | 340 | 450 | mg H <sub>2</sub> O/m <sup>3</sup> |
| 100 L vol.: | 2  | 4  | 12 | 20  | 28  | 40  | 60  | 80  | mg H <sub>2</sub> O/m <sup>3</sup> |

i.e. given a test volume of 25 L the scale reading of 50 mg H<sub>2</sub>O/m<sup>3</sup> corresponds to a measured value of 110 mg H<sub>2</sub>O/m<sup>3</sup>

|                              |                       |
|------------------------------|-----------------------|
| Relative Standard Deviation: | ± 25 to 30 % ( 25 L ) |
|                              | ± 20 to 25 % (100 L)  |

