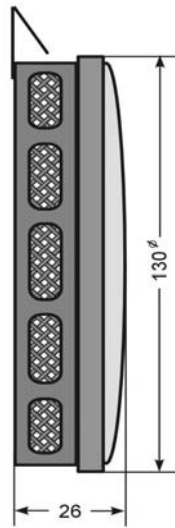


Case:	Diam. 130 stainless steel 1.4301	
Bezel:	Stainless steel 1.4301	
Dial:	Aluminium, white varnished lettering and graduation black with dewpoint scale	
Pointer:	Aluminium, black adjustable	
Window:	Plastic, raised	
Measuring systems:	1 x bimetal for temperature 1 x rel. humidity	
Measuring range:	Air:	-10...+40°C
	Rel. humidity:	20...100%
	Saturation moisture:	4...50 gr./m ³
	Dewpoint temperature:	-8...+26°C
Accuracy class:	Temperature	± 1°C
	Humidity	± 2.5%
Mounting method:	With lifting lug	
Miscellanea:	Fig. 35-K With scale for indoor climate	
Diam.	Article number:	
130 Fig. 35-Ta	1530001	
130 Fig. 35-K	1530002	





The thermo-hygrometer contains a precision humidity meter and a bimetal measuring system. Here the temperature, the relative humidity, the saturation moisture and the dewpoint can be read off directly following the curves from the point of intersection of the surface temperature pointer and the relative surface humidity pointer.

Its field contains a series of possibilities as controlling the temperature, the rel. humidity and the dewpoint temperature in climatic chambers, storage rooms, living rooms, sheds, barns, in all industrial factories like the textile and clothing sector, in paper, powder and canning-factories, in the wood working industry and tobacco processing.

For the quality of such products it is very important to comply to special grades of humidity and temperature during production, storage and drying. Corrosive materials have to be protected against rust and oxidation. By all means it must be avoided that the temperature cools down to the dewpoint.

Hereafter we give an explanation of the mentioned moisture values:

Saturation moisture = maximum absorbable humidity at the responsible temperature in gr./m³

Absolute humidity = substantial humidity in gr./m³

Relative humidity = $\frac{\text{absolute humidity}}{\text{saturation moisture}} \times 100 = \% \text{ rel. humidity}$

Dewpoint = temperature, at which the water vapour included in the air just would condensate in °C

Saturation deficit: = saturation moisture minus absolute humidity

The dewpoint temperature can be read off directly in °C by following the curves from the point of intersection of the pointers. Now you are able to calculate the saturation moisture deficit.

E.G. air temperature 20.5°C, saturation moisture = 18 gr./m³, rel. humidity 70% = 14°C dewpoint can be read off at the intersection of the pointers.

At an air temperature of 14°C the saturation moisture is = 12 gr./m³. Deficit = 18 - 12 = 6 gr./m³. So in this case the air is able to absorb further 6 gr. water / m³.

Masses and dimensions are conform to current company standard. Changes to improve our gauges will be made without preannouncement.