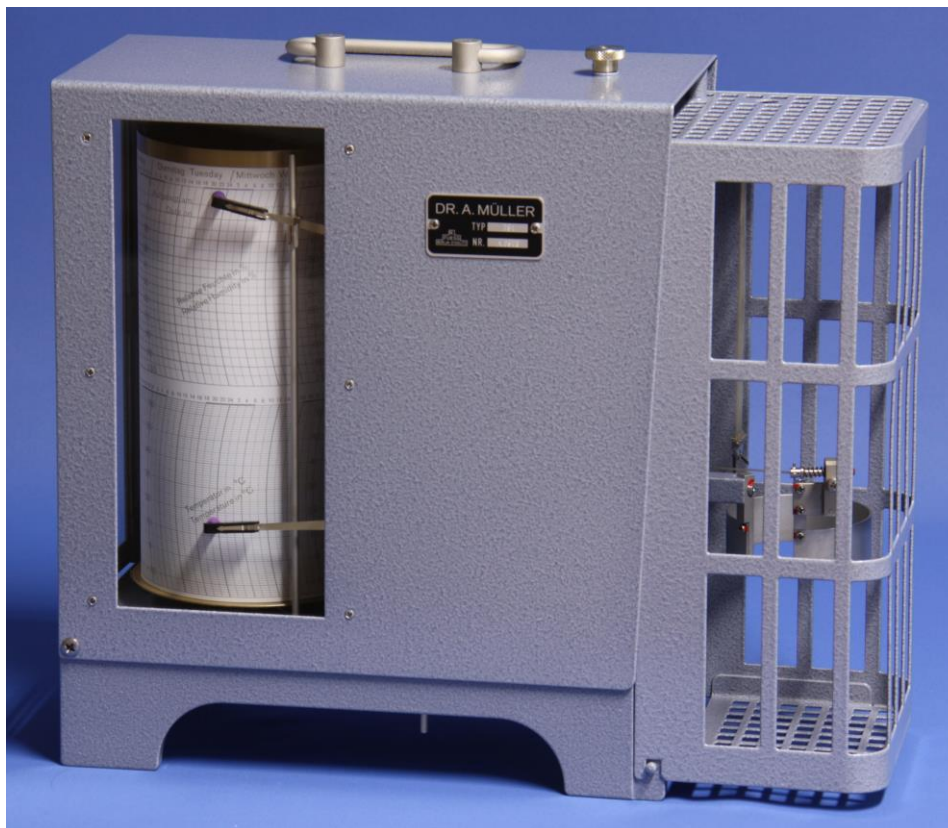


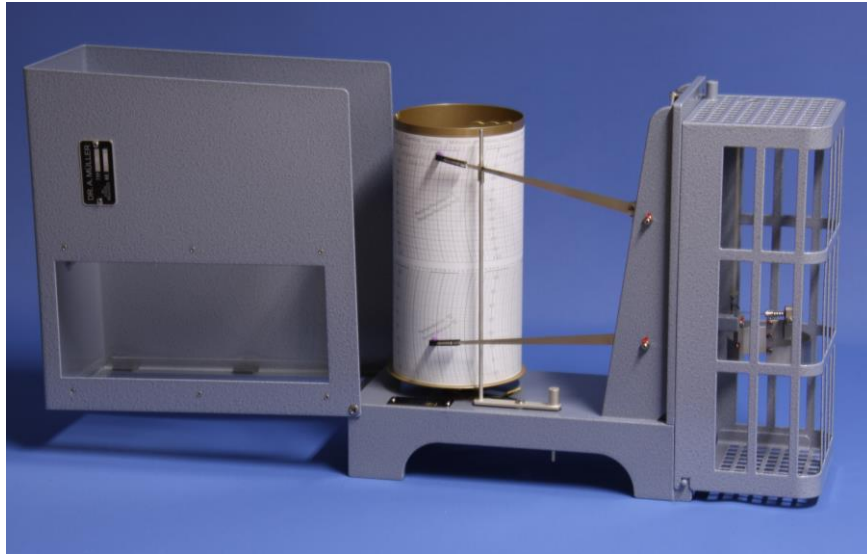
Thermohygrograph 79t



The Thermohygrograph 79t records temperature and relative humidity of the atmosphere on a common chart. These two important climatic factors play a decisive role in the meteorological and climatological investigation, in the storing of raw-materials, victuals and stimulants, in the processing of tobacco, textiles, paper, wood, furthermore in agriculture and horticulture, for the human wellbeing in meeting places, theatres, schools, hospitals, restaurants etc.

In its mechanical design, Thermohygrograph 79t represents a new construction. Of the Fuess types of thermohygrographs, up to now, it differs essentially by the reversion of the humidity graduation, in the case of which the 0%-value, now, lies at the upper rim of diagram. The simplification of the transmission mechanism resulting in this way, in connection with an ameliorated humidity measuring element, has led to an increase in reliability, as well as in fine structure of recording.

The humidity measuring element consists of prepared human hair, the changes in the length of which, depending upon alteration of humidity, are utilised as measuring effect. Several hair-bundles are arranged vertically in harp like fashion outside of the casing in such a way that the ambient air may, freely, wash around them and they react with the least degree of inertia.



The likewise outside arranged measuring element of temperature consists of a ring like bimetal, which stretches or bends itself, in the case of changes in temperature.

The motions of the measuring elements are transmitted to the pen-arms by means of lever systems, the bearing points of which consist of corrosion-resisting material. The pens rest against the chart with an always equal pressure, by the proper weight of the pen-arms, and can be lifted-off, from without. The metal casing is varnished with a weather-resisting, light-grey hammer tone finish. Its upper part is flapped-open to the left for operation and, in closed position, held by a catch-lock.

Against damage, the measuring elements are secured by a protective basket with wide openings that does not hinder the entrance of air. The thermohygrometer is suited for installation, indoors as well as outdoors. The measuring instrument must be mounted in such a way that the air may reach it unhindered, from all sides. In the open, it is to be protected against precipitation and insulation.

Longer utilisation in dry air impairs functioning of the hairs. By bringing it into saturated air occasionally, they get back their original characteristics, however. This regeneration is expediently to be repeated every two to four weeks, in the case of installation in very dry rooms, using the wetting cloth. In the case of installation in a weather-screen, less frequent regeneration will suffice, as the air in the free atmosphere often reaches the dewpoint and, thus, regenerates the hair in a natural kind of way.

For an occasional control, adjustment and regeneration a wetting cloth is supplied additionally. If the protecting cage is covered by same, almost full saturation is reached in the so formed closed room within short time, at which the pen should balance out at 96 %. Its position may be corrected by means of the zero-screw.

Measuring accuracy of bimetal and strand of hairs correspond to highest requirements. The limits of error in the measurement of humidity amount to ± 2.5 % of the extent of the measuring range.

Temperature is recorded with a highest error of about ± 0.2 °C in the case of mean temperatures and of ± 0.5 °C in the case of higher temperatures (above 50 °C).

At temperatures above 65 °C, as well as in acidifiers atmosphere, one should not use the instruments, as the hairs would suffer, in this case.

The period of rotation of the drum may be chosen according to requirements for one day or one week. On demand there are exchange gears available.

Specifications

79t

Thermohygraph

Drum: 93,3 mm diameter x 186 mm height
Height of recording: 80 mm, each, for temperature and humidity
Time of rotation of drum: 1 day or 1 week or reversible from 1 day to 1 week by exchange of gears
Dimensions (mm): 340 width x 130 depth x 290 height
Weight: 4.9 kg

Accessories (no extra charge):

- 1 wetting cloth
- 1 set of charts
- 2 spare-cartridge-pens

Additional and Spare Parts

904d
904w

Spare drum with clock-drive:
for 1-day's rotation
for 1-week's rotation

78wf
78q
1095v

Spare-cartridge-pen
Spare-metall-pen
1 bottle of recording ink (20ml)

BG49 UG19
BG50 T331
BG38 T029
BG38 T028

Spare hair-harp
Spare wetting-cloth
Spare measuring bimetal ring, for measuring-extent 80 °C
Spare measuring bimetal ring, for measuring-extent 55 °C

Recording charts

Sheet-No. as per table

1 Set = 100 sheets for daily rotation (24 hours rotation)
1 Set = 100 sheets for weekly rotation (168 hours rotation)

Charts available

Period of rotation of recording drum	Measuring range		Sheet-No. of chart	Height of Recording for 1 °C (mm)	Paper-feed (mm/h)
	Thermograph	Hydrograph			
1 day	-30 ... +25°C	0 ... 100 %	159t-1	1,45	11,2
	-20 ... +35°C		159t-2		
	-10 ... +45°C		159t-3		
	0 ... +55°C		159t-4		
1 day	-45 ... + 35°C	0 ... 100 %	119t-1	1,0	11,2
	-35 ... + 45°C		119t-2		
	-25 ... + 55°C		119t-3		
	-15 ... + 65°C		119t-4		
	-5 ... + 75°C		119t-5		
1 week	-30 ... + 25°C	0 ... 100 %	115t-1	1,45	1,67
	-20 ... + 35°C		115t-2		
	-10 ... + 45°C		115t-3		
	0 ... + 55°C		115t-4		
1 week	-45 ... + 35°C	0 ... 100 %	116t-1	1,0	1,67
	-35 ... + 45°C		116t-2		
	-25 ... + 55°C		116t-3		
	-15 ... + 65°C		116t-4		
	-5 ... + 75°C		116t-5		

When ordering, please, indicate drum rotation and sheet-No. of chart.

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