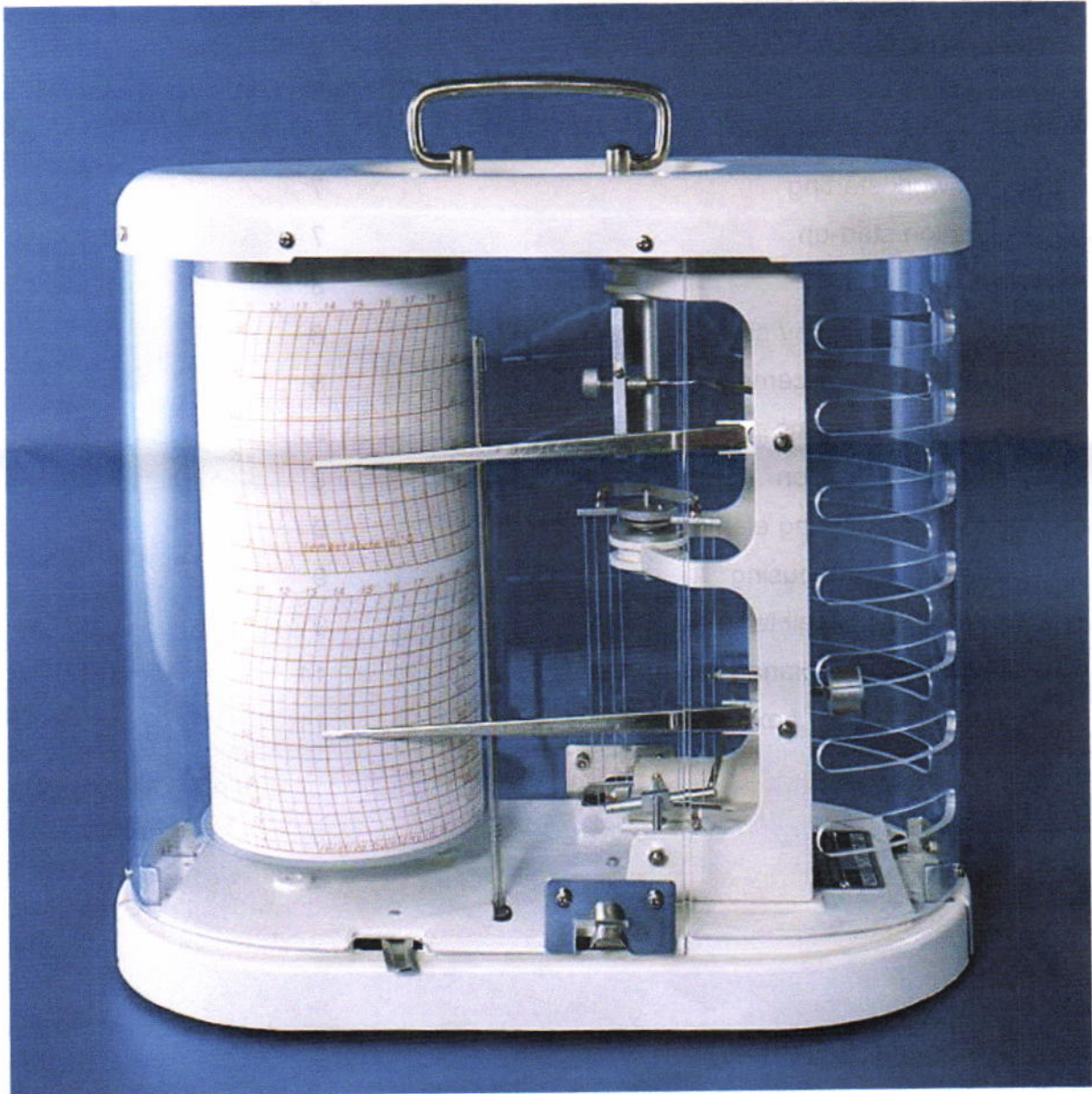


**Hygrographs 325 / 325Q / 326Q
Thermohygrographs 425 / 425S / 425QS / 426Q
Thermographs 525 / 525S / 525QS**



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1. General

This manual contains all important information about the function, start-up and maintenance of the thermal/hygrographs. Before start-up you should see it completely. The use of the thermo/hygrograph must be exclusively with consideration of the instruction, technical data and operating conditions specified in this guidance. Disturbances cannot be excluded at neglect of instructions, inappropriate treatment and not intended use.

2. Function / technical data

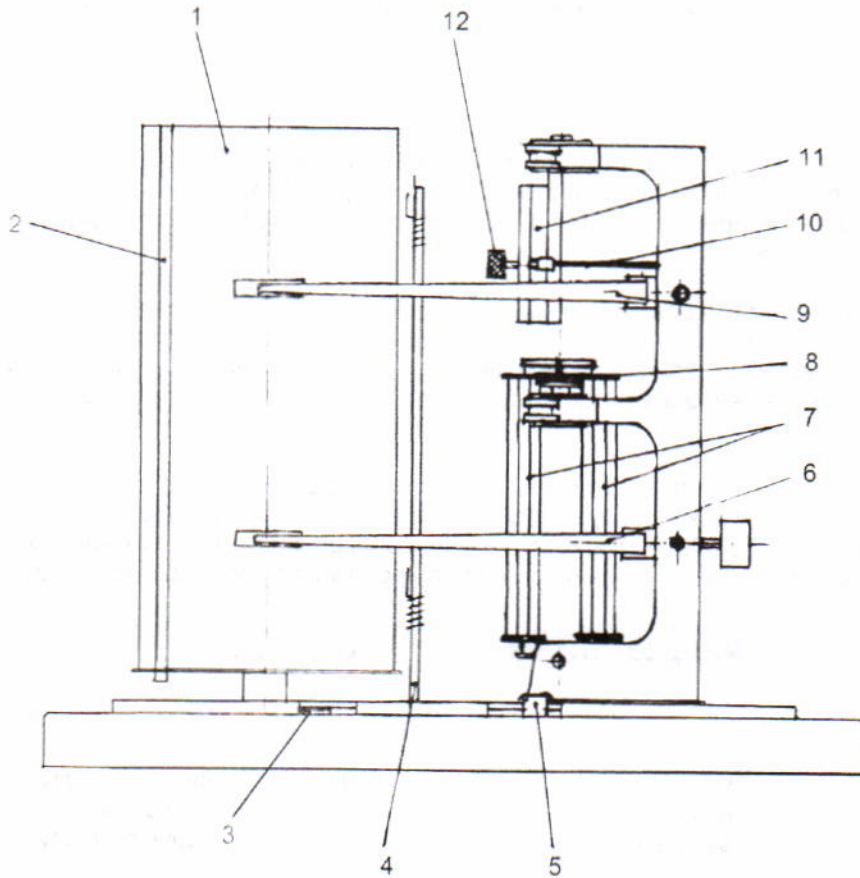
Thermo/hygrographs serve long period registration of air temperature and relative humidity. The measuring element of the thermograph is an u-shaped bimetal with high specific bending, which reacts with short inertia time to changes of temperature. In the hygrograph's part is used the humidity-dependent length variation of hair or synthetic fibres.

The parts of the instrument movements consist of brass and are matte. All axles are made in stone, whereby the instruments have a minimal resting friction. The measuring elements are within the housing and therefore protected from mechanical damages. Despite it, the measuring elements are sufficiently ventilated. The used materials and all surfaces processing lend a very good corrosion resistance of the instruments.

The thermo/hygrographs are equipped with a mechanical or quartz clockwork, the recording drum revolution cycle can be easy set from week to daily or monthly cycle (monthly cycle for quartz clockwork only), with corresponding time 25.6h/176h/783h. The recorders are supplied completely with write fibres as well as chart paper for one year period. Optionally items can be equipped with a safety lockable housing.

Typ	Clockwork	Measuring element	Measuring range
Hygrographs			
325	mechanic 1d - 7d	hair	0 to 100% relative humidity
325Q	electronic 1d - 7d - 31d	hair	0 to 100% relative humidity
326Q	electronic 1d - 7d - 31d	synthetic fibre	0 to 100% relative humidity
Thermohygrographs			
425	mechanic 1d - 7d	Bimetal / hair	-35 to +45°C / 0 to 100% r.h.
425S	mechanic 1d - 7d	Bimetal / hair	-15 to +65°C / 0 to 100% r.h.
425QS	electronic 1d - 7d - 31d	Bimetal / hair	-15 to +65°C / 0 to 100% r.h.
426Q	electronic 1d - 7d - 31d	Bimetal / synthetic fibre	- 5 to +55°C / 0 to 100% r.h.
Thermographs			
525	mechanic 1d - 7d	Bimetal	-35 to +45°C
525S	mechanic 1d - 7d	Bimetal	-15 to +65°C
525QS	electronic 1d - 7d - 31d	Bimetal	-15 to +65°C

Mechanical construction



- (1) drum
- (2) chart paper clamp
- (3) release lever
- (4) disengaging link
- (5) lock fastener
- (6) write arm hygrograph
- (7) hair / fibre harps
- (8) null-point correction hygrograph
- (9) write arm thermograph
- (10) band with needle
- (11) bimetal
- (12) null-point correction thermograph

Technical data

measuring element	temperature
- bimetal	-35... +45°C; ±0,5 K
- bimetal	-15... +65°C; ±0,5 K
- bimetal	- 5... +55°C; ±0,5 K

measuring element	air humidity
- hair	0... 100%; ± 3% at 20... 100% r.h.
- synthetic fibre	0... 100%; ± 3% at 20... 100% r.h.

Clockwork

- Mechanic drum clockwork	acc. to DIN 58658
revolution cycle	day 25,6 h week 176 h
autonomic operation	1 week

- **Electronic Quartz clockwork**

revolution cycle	day 25,6 h week 176 h month 783 h
autonomic operation	12 months (used the battery type Mignon (AA) 1,5 V (R6))

Recording drum

- drum material: plastic
- chart paper holder material: brass nickel plates
- diameter 93,3 mm
- high 93 mm (thermographs, hygrographs)
- high 186 mm (thermohygrographs)
- write range 80 mm for each measuring element
- chart paper resolution 1°C und 5% rel. humidity

Werkstoffe

- transmission system -brass matte-chromium-plates, axles in chrome-plated steel
- movement stand -aluminium white varnished
- base plate -aluminium white varnished
- housing cover part -chrome-plated steel X5CrNi1810, corrosion resistant, white varnished
- Lateral surface -plastic transparent, scratch-proof

Housing dimensions

- thermographs und hygrographs length 290 x broad 145 x height of 190 mm
- thermohygrographs length 290 x broad 145 x height of 260 mm

Accessories:

- 60 sheets of week chart paper
- 2 pieces of write fibre (thermograph, hygrograph)
- 4 pieces of write fibre (thermohygrographs)
- Battery Mignon (AA) 1,5 V (R6) (for electronic Quartz clockwork)

- optionally: carrying case ES*55 (thermographs, hygrographs)
carrying case DS455 (thermohygrographs)
- optionally: lockable housing by installation of a safety lock