Automation und Messtechnik GmbH

automess

Carrying strap (included)

Probe with two GM counting tubes

Handle also serving as the battery compartment

Protective cap

Steel telescope, extendible up to ~4m

External probe of the AmSeL family

Optional accessories:
Probe cover 6112B-142
Unlock key 888.1.1
Computer cable EB84-0226
Case 6605.22

TELETECTOR 6112AD
S/N 159026

Ambient light sensor controls LCD backlight

Orange-coloured LED for visual warnings

LCD with bright white LED backlight

Speaker, emits both pleasant melodies to guide the user and aggressive warning sounds

- ➢ Safety by distance: Stainless steel telescope may be extended continuously up to a total length of approximately 4m.
- ➢ Wide dose rate range from 0.01 µSv/h to 10 Sv/h (or 1 µR/h to 1000 R/h) with automatic range selection and automatic switching between the two counting tubes.
- ➢ Simultaneously measures current, average, and maximum value of dose rate, as well as dose, also with external probes of the AmSeL family.
- ➢ One freely programmable alarm thresholds for both dose and dose rate, programming mode to customize operation to individual requirements.
- ➢ Permanent monitoring of counting tubes and batteries.
- ➢ LCD with analogue and digital indication and automatic backlight, speaker to guide the user and emit warning tones, orange-coloured LED for additional visual warnings.
- ➢ Motion sensor saves energy: automatically dims LCD backlight or even switches Teletector off when not used.
- ➢ Archive containing data of the last 496 Teletector uses.

TELETECTOR® 6112AD

Microprocessor controlled dose rate meter with telescope for measuring photon radiation (gamma and X-radiation)

automess Meets the AmSeL specification (**A**uto**m**ess **Se**rial **L**ink; *Amsel* is the German word for *Blackbird*)

TELETECTOR® is our trademark
(German registration number 303 55 581)

Features

Two GM counting tubes serve as detectors allowing a very wide dose rate range up to 10 Sv/h (1000 R/h). The counting tube probe is mounted at the end of a stainless steel telescope which can be continuously extended up to approximately four meters. This allows measurements at large safety distances and at places difficult to reach. Automatic range selection and automatic counting tube selection is what you expect from a modern instrument.

The Teletector permanently monitors its counting tubes. In normal measuring mode this concerns the currently active tube. When the Teletector is switched off it remains in an energy-saving sleep mode. In sleep mode the Teletector wakes up once per day and silently checks both counting tubes. As long as the Teletector does not report tube failure while in sleep mode, you can be sure that the Teletector has noticed a sign of life from both tubes not more than 24 hours ago.

The Teletector's design emphasizes high versatility without neglecting clearness and ease of operation. The only function which cannot be disabled is the main function, that is measuring dose rate. As implied by the letters »AD« in its name, the Teletector indicates dose rate in analogue and digital form in its LCD. Besides that the Teletector provides a variety of additional functions, such as average and peak value of dose rate, accumulated dose, selectable time constant, fixed and programmable alarm thresholds with visual (LCD and LED) and audible alarm, visual (LED) and audible single pulse detection, recording of measurements, and surveillance of the date of the next regular check. You as the user can decide which of these functions make sense for you, and through the Teletector's programming mode you can enable only those functions you consider useful. Factory setting enables only the most important of these functions. All functions of the programming mode are also available as commands through the serial interface.
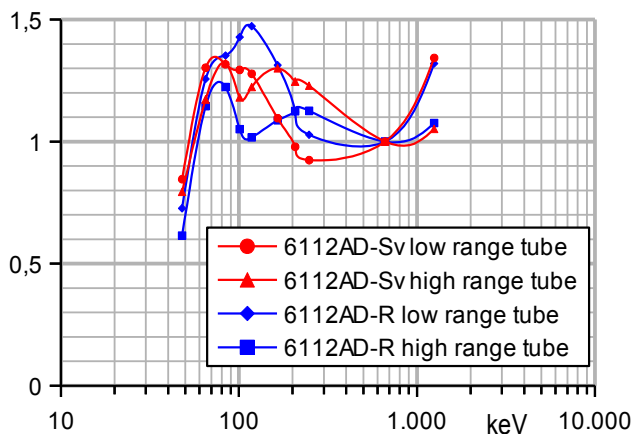
The Teletector's design also emphasizes low energy consumption at still high comfort. A light sensor automatically controls the white LCD backlight according to ambient light conditions. This makes the display easy to read in complete darkness as well as in direct sunlight. A motion sensor tells the Teletector when it is moved. If it isn't moved for a longer period of time, it assumes to have lost the user's attention and therefore reduces backlight intensity to save batteries. If it isn't moved for an even longer period of time, it can switch itself off. And if it is moved thereafter, it can even switch itself on again. It is your decision whether or not the Teletector shall do all this, you just have to enter programming mode to teach the Teletector how to behave.

The connector at the side of the Teletector's housing provides a 5 Volt supply output and a serial interface. External probes of the AmSeL family can be operated at that connector. Alternatively a PC can be connected to exchange data according to AmSeL rules. These rules include reading of current and stored measurements, reading and writing the programmable parameters from and to the Teletector, and some more. We supply free PC software for that purpose. The unlock key controlling access to test and programming functions also plugs into this connector.

Technical Data

Low range detector	Gamma tube LND7121, energy compensated, effective length 40 mm, sensitivity at Cs-137 approx. 5800 pulses per µSv
High range detector	Gamma tube LND716, energy compensated, effective length 7 mm, sensitivity at Cs-137 approx. 100 pulses per µSv
Switching between detectors	Automatically with hysteresis: > 10 mSv/h (1 R/h): up < 3 mSv/h (0.3 R/h): down Manual selection of either detector for radiological check.
Measuring quantities	Model 6112AD-Sv: H*(10) (unit Sv) Model 6112AD-R: J_S (unit R)
Measuring range according to time constant	»slow«: from 1 µSv/h (100 µR/h) »fast«: from 5 µSv/h (0.5 mR/h) in each case up to 9.9 Sv/h (990 R/h)
Energy range Angular range Max. deviation	65 keV to 1.3 MeV ±45° around preferential direction 0° +50%/–25% (permitted: +67%/–29%) referred to Cs-137 in 0° direction
Temperature Humidity Max. deviation	–20°C to +60°C 0 to 95% relative humidity, +15% / –10% (permitted: +18% / –13%) referred to +20°C and 65%
Ambient pressure	60 to 130 kPa (600 to 1300 mbar)
Speaker	Pleasant melodies to guide the user and aggressive warning tone of ~2.1 kHz, > 85 dBA at a 30 cm distance
Power supply	4.0 to 7.0 V Four C cells (LR14, AM2)
Battery life with alkaline batteries	Sleep mode: > 15 years Measuring mode: depending on conditions 500 to 20 000 hours
Protection class	IP 67 according to DIN 40050 *if telescope completely retracted and protective cap applied*
Dimensions	Length 970 mm / 4170 mm (telescope retracted / extended) Width 130mm Height ~90 mm max
Weight	2.7 (3.0) kg without (with) batteries

Energy response normalised to Cs-137

Legend:
- 6112AD-Sv low range tube
- 6112AD-Sv high range tube
- 6112AD-R low range tube
- 6112AD-R high range tube