



Tele-STTC: Wide Range Gamma Telescopic Probe

Features

- Telescopic pole with H*(10) ambient gamma dose equivalent rate measurement probe
- Gamma dose rate measurement up to 10 Sv/h (1000 rem/h)
- Energy-compensated Geiger Mueller detector
- Remote measurement up to 3.3 m (10.9 ft)
- Compact size when folded: 955 mm (3.13 ft)
- Extremely lightweight and rugged: 1.450 kg (3.19 lb)
- Integrated cable
- Calibrated via a personal computer (PC) which enables the direct generation of electronic format calibration data. Eliminates the need for paper and transcription errors
- Data logging capability directly in the probe with up to 1000 measurements stored

Description

The compact size, exceptionally light weight, and easy-to-deploy mechanism of the Tele-STTC make this probe an ideal tool for measurement of areas that are difficult to access or require remote measurement high exposure areas.



Tele-STTC supports ALARA principles by allowing the operator to obtain measurements both quickly and at increased distances, due to its maneuverability.

Tele-STTC requires minimal space when packed 95.5 cm (3.13 ft) and the pole can be extended up to 3.3 m (10.9 ft) with secured 1/4 turn rings for each extension segment. The unit is so lightweight that even when unfolded, it doesn't need to be offset, and the pole and meter can be used together even for short range measurements. The meter remains at the user's eye level even when the pole is opened.

A shoulder strap can be used to secure Tele-STTC when used in the open position or simply to keep it attached while being carried.

The unit consists of a detector integrated on a telescopic carbon fiber-based pole on which a meter is attached by a connecting clip. The meter is removable and can therefore be used independently. Tele-STTC can be used with the Radiagem™ or Colibri® personal survey meters, which are not included.

The detector integrated into the Tele-STTC is designed for gamma dose equivalent rate measurement. The Tele-STTC extends the measurement range up to 10 Sv/h (1000 rem) and the distance from the radiation source when used with the Radiagem or Colibri.

The detector is integrated within a compact and robust metal case which includes the Geiger Mueller detector, the high-voltage power supply and the pulse shaping circuits. It uses the time-to-count algorithm from CANBERRA, hence enabling a unique range of measurement with only one Geiger Mueller detector. By using only one detector, the Tele-STTC offers a better angular response than any other probe with an equivalent measurement range and comes in a smaller form factor. Additionally, the multiple detector switching effect present with other instruments is not an issue for the Tele-STTC.

The Tele-STTC is a CANBERRA SMART Probe (CSP™). It includes all key components of hardware circuitry (high-voltage power supply, amplifier, discriminator, etc.) Also, the intelligence associated with controlling those components is located in the probe – that is control and storage of key parameters, settings, calibrations, probe ID, alarm settings (10 values for each unit to display with default setting), etc. Thus the probe is a fully-integrated subsystem taking and transmitting the measurement to the instrument, which is used for display.

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With high-voltage and digitization of the data occurring in the probe rather than the instrument, measurement quality is no longer “meter-cable-probe” combination dependent. Thus, enabling flexibility in use with any compatible meter base. The serial CSP protocol enables the probe to be used with either a meter or a PC.

Calibration and QA measurements can be performed directly with the probe, without using an instrument, by connecting the probe to a computer with CANBERRA Smart Probe Software (CSPS™), allowing instruments to remain deployed in the field.

Once calibrated, Tele-STTC is ready to be used as a ‘plug and play’ probe to start a QA measurement in R/h, R, Sv/h, Sv depending on the connected meter.

The Tele-STTC is able to store up to 1000 data points from a data-logging procedure handled via the host instrument. These data are: index, date/time, measurement value, selected unit and counting time.

The Tele-STTC probe's firmware can be upgraded via CSPS, with the USB – PC cable and a PC. Two meter brackets are provided with the Tele-STTC to allow the attachment of the Radiagem or the Colibri. When ordering, specify the model (-R or -C) for your preferred bracket configuration. The other bracket will be included and can be changed using simple tools. This enables the easy use of both meters. The Tele-STTC is provided with a storage case.



Specifications

NUCLEAR

- DISPLAY UNITS – Sv/h, Sv or rem, rem/h depending on survey meter connected.
- $H^*(10)$ ambient gamma dose equivalent rate according to CIPR60.
- EMITTERS – Gamma.
- DETECTOR – Energy Compensated Geiger Mueller.
- SENSITIVITY – 0.74 c/s for $\mu\text{Sv/h}$ (^{137}Cs).

- MEASUREMENT RANGE – 0.1 $\mu\text{sv/h}$ to 10 Sv/h (10 $\mu\text{rem/h}$ to 1000 rem/h).
- IEC APPROVED MEASUREMENT RANGE – 0.7 $\mu\text{Sv/h}$ to 10 Sv/h (70 $\mu\text{rem/h}$ to 1000 rem/h).
- IEC ENERGY RANGE – Gamma 36 keV to 1.5 MeV.
- BACKGROUND – Ambient <0.1 $\mu\text{Gy/h}$ (10 $\mu\text{R/h}$) – 0.10 c/s.
- MAXIMUM INTEGRATED DOSE – Approximately 500 Sv.

ERGONOMIC

- DISPLAY – Provided by survey meter or PC.
- ALARM SETPOINTS – 10 values for each unit to display. Saved in probe memory. They can be changed with CSPS and a PC.

ELECTRICAL

- POWER – Supplied by survey meter (low voltage only).
- CONSUMPTION – 9 mA to 40 mA depending on dose rate.

MECHANICAL

- PROBE HOUSING – Aluminium.
- POLE – Carbon Fiber and stainless steel (meter stand).
- STORAGE – Storage case for Tele-STTC is included
- DIMENSIONS:
 - Closed Pole – 955 mm (3.13 ft).
 - Opened Pole – 3335 mm (10.9 ft).
- WEIGHT – 1.450 kg (3.19 lb) without meter.

ENVIRONMENT

- TEMPERATURE – -10 °C to +50 °C (+14 °F to +122 °F).
- RELATIVE HUMIDITY – 40% to 95% at +35 °C.
- CLEANING – Housing easy to decontaminate.
- INGRESS PROTECTION – IP54.

NORM

- CEM – Conforms.
- CE – Meets CE requirements.
- IEC – Conforms to IEC 60846.

ORDERING REFERENCES

- TELE-STTC-R (for Radiagem) – EM83024.
- TELE-STTC-C (for Colibri) – EM87698.
- CSP-PC Cable – EM78466.
- CSPS (calibration software):
 - CSPS-E (English SI units) – EM80643.
 - CSPS-R (English US units) – EM80642.
 - CSPS-F (French SI units) – EM78468.

Note: Radiagem and Colibri are not included with TELE-STTC and should be ordered separately.



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