

# GRAETZ Probes

## for dose rate meters of the X5C series

### Product features

- PTB-approved gamma probes for the measurand  $\dot{H}^*(10)$  (ambient dose equivalent rate) and pulse probes for extending the measuring range of the basic unit
- For measurements at „hard-to-get-to“ places
- Telescope Probe DE for measurements from a safe distance at high dose rates (see separate documentation)
- Automatic probe identification by the basic unit
- Connectable to the basic unit either directly or by using a probe cable up to a max. length of 100 m (standard length: 1.25 m)
- Basic unit automatically displays the detectable kind of radiation of the connected probe

### PTB-approved gamma probes

- The basic unit automatically takes over the probe specific calibration factor
- Underwater measurements up to a depth of 30 m by using the optional pressurized water protective case
- Temperature range: -30°C up to +60°C
- Measuring size:  $\dot{H}^*(10)$



Fig.: X5C plus

Type	Energy range	Measuring range	PTB-Approval <sup>1)</sup>	Dimensions Weight
18509 CE	55 keV – 1.3 MeV	50 µSv/h – 1 Sv/h	23.71/05.01	length 126 mm, Ø 40 mm, 115 g
18529 CE	70 keV – 3 MeV	0.5 mSv/h – 10 Sv/h	23.71/05.02	length 126 mm, Ø 40 mm, 110 g
18545 CE	40 keV – 1.3 MeV	150 nSv/h – 200 µSv/h	23.71/05.03	length 360 mm, Ø 25/40 mm, 350 g
18550 CE	40 keV – 1.3 MeV	10 µSv/h – 20 mSv/h	23.71/05.04	length 126 mm, Ø 40 mm, 130 g

<sup>1)</sup> PTB-approved measuring range for measurements specifically demanded by German regulations

### Pulse probes (also connectable to GammaTwin S)

- Probes for the detection of  $\alpha$ -,  $\beta$ - and  $\gamma$ -contaminations
- High sensitive scintillation probe for the detection of  $\beta$ -/ $\gamma$ -radiation
- Glass immersion counter tube for measurements in liquids
- Indication range on the basic unit 0 – 20 kcps
- Difference between gamma and pulse probes: basic unit effects a pulse rate measurement instead of dose rate measurement and a summation of triggered counts instead of dose measurement
- Instead of the four dose and dose rate alarm thresholds, a pulse respectively a pulse rate alarm threshold can be set at the basic unit

Type	Type of radiation	Detector	Background <sup>2)</sup> (counts/min)	Temperature range	Dimensions Weight
18526 D	$\alpha$ , $\beta$ , $\gamma$	GM tube; effective surface 6,1 cm <sup>2</sup>	25	-30°C up to +60°C	length 126 mm, Ø 40 mm, 150 g
Immersion counter tube	$\beta$ , $\gamma$	GM tube; effective length 150 mm	27	-30°C up to +60°C	length 290 mm, Ø 50 mm, 240 g (with beaker 275 g)
ABG170	$\alpha$ , $\beta$ , $\gamma$	plastic scintillator; effective surface 170 cm <sup>2</sup>	900 – 1800	-10°C up to +55°C	390x125x75 mm with handle 790 g
NaI-Scintillation Probe 2002	$\beta$ , $\gamma$	NaI(Tl) scintillator; effective volume 70x70x13 mm	approx. 8100	-20°C up to +50°C <sup>3)</sup>	80x85x35 mm with 200 mm handle, 530 g

<sup>2)</sup> at ambient radiation

<sup>3)</sup> max. temperature change 10°C/h

