NAUSICAA IC-T, ICP-T

ION-CHAMBER-BASED GAMMA MONITORING UNITS



Highest sensitivity available on the market

Extremely high reliability

Extremely stable response

- Pressurized ion chamber detector
- Measurement range: 10 nSv/h ÷ 10 Sv/h or 10 nSv/h ÷ 100 mSv/h
- Energy range: 30 keV ÷ 10 MeV
- Data and status display
- Data communication to host PC: ETH or RS

NAUSICAA is an ion-chamber-based gamma radiation monitoring unit, available in two versions:

- **IC-T** for environmental measurements (9 decades electrometer)
- **IC-T-PF** for pulsed field measurements (7 decades electrometer)

Both versions include an ion chamber detector, an electrometer and a CPU-based acquisition and control unit.
The display visualises the dose rate value and status messages, while a built-in buzzer and coloured LEDs provide additional status indications.
The alarm thresholds, the operational parameters and the measurement data are saved in the internal memory. The user can set the parameters through the external keyboard or 5700 sMON software (if provided).
The standard **NAUSICAA** configuration, suitable for indoor use, is composed by a 3U 63HP table box housing the electronics modules, and the ion chamber directly installed on top of it. Wall mounting accessory and trolley kit are also available, as well as an IP54 enclosure.
It is possible to connect one or more units to a host PC (running 5700 sMON software) through Ethernet or serial communication.
The **ICP-T** detector is identical to NAUSICAA, but it does not include the CPU, being connected to and managed by a SATURN ratemeter.
The **DISCOVERY IC-T** unit is a special version of NAUSICAA, assembled in a IP65 housing, designed to operate outdoor; data can be transmitted through a wireless connection or downloaded through a dedicated utility.

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All specifications are subject to change without notice

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TECHNICAL SPECIFICATIONS

- Temperature range: -25 ÷ +50 °C
- Weight: 21 kg (NAUSICAA IC-T); 16 kg (ICP-T)
- Dimensions (WxDxH):
  - 365 x 390 x 600 mm (NAUSICAA IC-T)
  - 256 x 327 x 600 mm (ICP-T)

Measurement features

- Measurement range:
  - 10 nSv/h ÷ 10 Sv/h (standard version)
  - 10 nSv/h ÷ 100 mSv/h (-PF pulsed field version)
- Energy range: 30 keV ÷ 10 MeV
- Accuracy: ± 5% at environmental background radiation levels

Acquisition and control unit

- See SATURN characteristics

Detection unit

- Filling gas: Argon 8 atm + Xenon 2 atm, 10 l total volume
- Sensitivity: approx. $2x10^{-8}$A/R/h

Power supply and processing electronics

- Two alternative electrometers with automatic scale change
  - Environmental measurements (9 decades)
  - Pulsed fields – for use around particle accelerators (7 decades, -PF version)



ICP-T detector

ORDER GUIDE

	Options	Accessories	
NAUSICAA IC-T	-PF	Trolley kit Wall mounting kit IP54 enclosure	Traceable calibration E-N-KEY (NAUSICAA IC-T) ALU (NAUSICAA IC-T) Warranty extension
ICP-T		GPS Photovoltaic panel	
DISCOVERY IC-T			

OPTIONS

- Electrometer for pulsed fields (-PF version)

ACCESSORIES AVAILABLE UPON REQUEST

- Traceable calibration (1 dose rate point, Cs-137)
- E-N-KEY external keyboard (NAUSICAA IC-T)
- ALU alarm unit for status signalling (NAUSICAA IC-T)
- Trolley kit: bare/unwired trolley for wheeled transport
- Wall mounting kit
- IP54 enclosure (NAUSICAA IC-T and ICP-T)
- GPS locator (DISCOVERY IC-T)
- Photovoltaic panel power supply system (DISCOVERY IC-T)
- Warranty extension from 12 months to 24 months

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Operative HQ: Via Sacro Monte 3/12 - 21052 Busto Arsizio, Varese – Italy
+39 0331 620533 - info@elsenuclear.com