

MSU

MEASURING AND SIGNALLING UNIT



The MSU is designed to display measured values from different probes and detectors. The system is compatible with a wide range of scintillation and GM probes. The MSU displays information from the connected probe, instantaneous dose rate, value of dose rate for set measuring interval, current date, time, and alarm levels for upper and lower alarm thresholds. The system can be supplied with a optical and acoustic alarm tower.

Benefits

- Connection of a large number of probes to the same display
- Status and alarm LED indicators
- Acoustic alarm
- Simple and easy to use control keyboard
- Possibility of data reading from the master system (server) using the Modbus or NUVIA protocol

Key Figures

50 nSv/h - 10 Sv/h
 ↳ *Maximum measuring range*

Up to 94 dB at 1 m
 ↳ *Acoustic alarm*

2 user defined alarm thresholds
 ↳ *Alarm levels*

Product Description

Internal detectors

Overall specifications

- 40 keV to 3 MeV (gamma and X radiation only)
- Calibration radionuclide: Cs-137
- Relative error: 15 %
- Temperature range (operation): -25 °C to +55 °C
- Pressure: 86 kPa to 106 kPa

LND* 71210 GM tube

- Total H*(10) measuring range: 50 nSv/h to 20 mSv/h

LND* 71210 + LND* 7149 GM tubes

- Total H*(10) measuring range: 50 nSv/h to 2 Sv/h

LND* 71210 + LND* 71632 GM tubes

- Total H*(10) measuring range: 50 nSv/h to 10 Sv/h

External probes

NuDET EGM probes

- Overall specifications are identical with internal detectors
- EGM 01: Meas range $\dot{H}^*(10)$: 50 nSv/h to 20 mSv/h
- EGM 02: Meas range $\dot{H}^*(10)$: 50 nSv/h to 2 Sv/h
- EGM 03: Meas range $\dot{H}^*(10)$: 10 nSv/h to 2 Sv/h
- EGM 04: Meas range $\dot{H}^*(10)$: 10 nSv/h to 10 Sv/h
- EGM 05: Meas range $\dot{H}^*(10)$: 50 nSv/h to 10 Sv/h

NuDET ENA series probes

- Spectrometric probes based on NaI(Tl) scintillation detector
- 2"x2" or 3"x3" NaI(Tl) crystals with PMT (PMT varies application)
- NuNa MCB 3 multichannel analyzer with up to 4096 measurement channels
- Typical resolution: better than 7.5 % at 662 keV
- Waterproof or chemically resistant version available

Other options

- Temperature sensor
- RTC Real Time Clock
- MicroSD card slot
- Customizable software for data processing and archiving
- Interconnection with higher level Radiation Monitoring Systems

Product Applications

To display or review the current status or configuration change of radiation monitoring and dosimetry systems in the local area.

Product Specifications

Dimensions	160 × 130 × 70 mm (W x H x D) including connectors, height of signal tower 70 mm
Ingress protection	IP65
Operation temperature	from -25 °C to +55 °C
Connectors	RJ45 LAN (Ethernet), Input WEIPU* SP21/M12pin (power supply, RS-485 slave, DI), Output WEIPU* SP21/F12pin (RS-485/RS-232)
Power supply	12/24 VDC ±25 %, 8 W max.
Interfaces	Ethernet RJ 45, RS-485/RS-232 (HW configurable) master, internal USB for service purposes
Inputs	5 × digital inputs galvanic separated with shared potential, input voltage for the log 1 in the range of 10-30 VDC, 5 mA max.
Outputs	5 × NO digital output full galvanic isolation (relay) with shared potential, 1 A/ 24 VDC max., 1 × NO digital output full galvanic isolation (relay)



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