VF NUCLEAR

NUCLEAR POWER PLANTS | WASTE MANAGEMENT | CALIBRATION LABORATORIES | RESEARCH CENTRES | INDUSTRY & MANUFACTURING | NUCLEAR MEDICINE

MDG-04, MDG-08e

SMART DOSE RATE METERS

KEY FEATURES

- A wide dose rate measurement range from background levels up to 100 Gy/h (Sv/h)
- Automatic detection of GM tubes failure (without using a radioactive check source)
- Two adjustable alarm levels
- Archive of values for at least 180 days
- Suitable for outdoor use
- Temperature measurement inside the detector
- Status LED
- Compliant with IEC 60532, IEC 60846-1

PURPOSE

MDG-04 detectors are designed for the measurement of air kerma rates, especially in plant area and process measurements.

MDG-08e detectors are designed for dose rate measurement, especially in area and environmental monitoring.

As standard, the detectors are equipped with two GM tubes. Some models are also equipped with one additional check GM tube. Each monitor's internal processor control unit converts the GM detectors signals to the actual and average measurement values, archives the average values and ensures automatic fault detection.

In selected versions with a third check GM tube, the control unit also provides an advanced automatic GM tubes fault detection.

All detector elements are sealed in a weatherproof cylindrical metal case.

MDG detectors are available with two types of interfaces:

- Ethernet, with PoE type power supply
- Serial RS-485, with relay outputs

RELATED PRODUCTS

ASU-50	Alarm Slave Unit
RDU-02	Radiation Display Unit (up to 4 channels)
RDU-22	Radiation Display Unit (up to 16 channels)
RMS	Radiation Monitoring System

OPTIONAL ACCESSORIES

50-A-0016732	Wall mounted holder for MDG with Ethernet
50-A-0014906	Wall mounted holder for MDG with RS-485

MDG detector with a wall mounted holder

MDG-04, MDG-08e

SMART DOSE RATE METERS

MDG-04 SPECIFICATIONS

Quantity	Air kerma rate
Detector	G-M tube
Advanced automatic detector fault detection Models with Ethernet - K1743-04 - K1743-05 Models with RS-485 - K1743-01 - K1743-03	 Yes No Yes No
Measurement range	from 1E-7 to 1E2 Gy/h
Energy response range	from 40 keV to 8 MeV
Temperature measurement inside the detector	from -40 to +85 °C
Dimensions (Ø × V) - K1743-01, K1743-04 (three GM tubes) - K1743-03, K1743-05 (two GM tubes)	 68 × 325 mm 68 × 250 mm
Weight	approx. 0.9 kg
IP	66
Power supply Models with Ethernet Models with RS-485	 PoE +48 V (IEEE 802.3af) 12/24 V DC
Temperature range	from -40 to +70 °C
Humidity range	max. 100 % non-condensing
Communication interface	Ethernet, RS-485
Compliance	IEC 60532
Classification according to EN 61226	C

MDG-08e SPECIFICATIONS

Quantity	Dose equivalent rate
Detector	G-M tube
Advanced automatic detector fault detection Models with Ethernet - K1746-04 - K1746-05 Models with RS-485 - K1746-01 - K1746-02	 Yes No Yes No
Measurement range	from 1E-8 to 1E2 Sv/h
Energy response range	from 40 keV to 8 MeV
Temperature measurement inside the detector	from -40 to +85 °C
Dimensions (Ø × V) - K1746-01, K1746-04 (three GM tubes) - K1746-02, K1746-05 (two GM tubes)	 68 × 557 mm 65 × 483 mm
Weight	approx. 1.2 kg
IP	66
Power supply Models with Ethernet Models with RS-485	 PoE +48 V (IEEE 802.3af) 12/24 V DC
Temperature range	from -40 to +70 °C
Humidity range	max. 100 % non-condensing
Communication interface	Ethernet, RS-485
Compliance	IEC 60532, IEC 60846-1
Classification according to EN 61226	C

RDU-22 Radiation Display Unit

Ethernet and RS-485 interfaces

VF NUCLEAR

VF, a.s. Czech Republic

T:+420 516 428 611

E: sales@vfnuclear.com

www.vfnuclear.com

VF1811080147 / 08 / 2023-06-08

Specifications subject to change without prior written notice.