

Model RS04

Gamma Probe

The Gamma probe, model **RS04-IX** is designed for measuring radioactivity of the gamma radiation. It is calibrated in "ambient dose equivalent" units [$H^*(10)$] and its measuring range comprises 9 decades (from 10 nSv/h up to 10 Sv/h). This wide measuring range permits detecting minor changes in the ambient natural radioactivity as well as measuring high dosage rates. The RS04-/WEB can be directly connected to an Ethernet network and is supplied by power over Ethernet (PoE).

MAIN APPLICATIONS

This robust and unique detector lends itself to an extensive range of possible utilizations:

- sensor in monitoring network for early warning system covering a wide area,
- measuring unit in scientific institutions and development centres,
- supervision unit at borders, airports, railway stations and in aircrafts, etc.,
- control unit in municipal sector mainly for the instant check of accidental radiation, generated by nuclear industry measuring unit in private sector, especially for owners of fallout shelters.

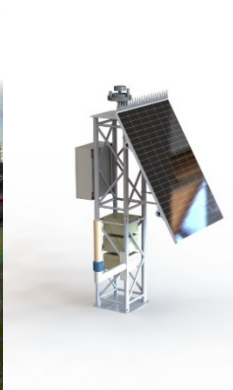
Software features RS04-/WEB:



- Running Linux (2.6.x).
- Every Browser can act as a client.
- The acquired data is stored in a simple SQL database and/or files on a SD / microSD card
- Configuration of the station through the web page.
- Login over Telnet and SSH is supported
- sending of data via FTP to a server (data push); the probe itself is running a FTP server (data pull)

Autonomously measuring stations

offers measuring in an area where no infrastructure is available. The unit is equipped with a solar panel to supply the measuring instruments with power.



Mobile use

Together with our GAMMO tool set you can use our RS04 for mobile application.



Type	RS04H/___	RS04L/___
Measuring range	10 nSv/h ÷ 10 Sv/h	10 nSv/h ÷ 15 mSv/h
Energy range (±30%, ref. Cs-137)	[H*(10)] ≤ 30 mSv/h: 40 keV ÷ 3 MeV [H*(10)] > 30 mSv/h: 100 keV ÷ 3MeV	40 keV ÷ 3 MeV
Detector	Proportional counter, Type NPGD 02 with energy compensation	
Temperature range	-30°C ÷ +70°C	
Temperature dependence	less than ±5%	
Measuring uncertainty	[H*(10)] ≤ 1 Sv/h: ±10% [H*(10)] > 1 Sv/h: ±15%	
Output	RS-232 or RS-485 or RS-422 or WEB	



Type	RS04_/232(485; 422)	RS04_/WEB
Protocol version ¹	BSN, BSS, OS€, OS@	http, ftp, ssh, telnet
Real time clock	Yes	
Real time data	Yes	
Data storage memory	Yes	Up to 4 GB on a SD / microSD card)
Additional software	Bittsens, Vcomtest, Bittwin, AMAR, Procomm, Terminalprogram, RS-Datalogger with Modem, BOREAS BCU	Bitt Scada, IP to COM port redirector, Bittsens SL (when using in direct dada mode), web browsers (IE, Firefox, Safari, etc.), FTP clients, SSH clients, TELNET clients
Power consumption ²	0,7 - 1W	1,6 - 1,8W
Dimensions	Ø76 mm x 500 mm (534 mm with rain sensor)	
Mass	ca. 2,5 kg	
Max. cable length between detector and evaluating unit	RS232...500m RS485,422...1200m (with ext. power supply ³)	20m

With our USB Converter offers the possibility to connect the RS03 / RS04 Gamma detector to every commercial PC with USB interface it serves both as interface converter from USB to RS232/485/422 and as power supply (12 V) for the detector, is fully compatible with USB 1.1 and USB 2.0 standard and perfectly suitable for the operation of a detector.

¹ BSN Bittsens protocol, it answers on all request, report is generated automatically.

BSS Selectiv Bittsens protocol, it answers only on the request from the addressed and 999 addresses, none report is generated automatically.

² Power consumption on working point (higher on startup).

³ Max. 100m when using the same cable also for power supply.