

The gammameter, model RS04-/X, developed and manufactured by **BITT TECHNOLOGY**, 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. Optionally all types of RS04 gammameter are available with rain sensor. 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 (nuclear power plants, storage of fusion able material and truck/train transportation of such materials),
- 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 station

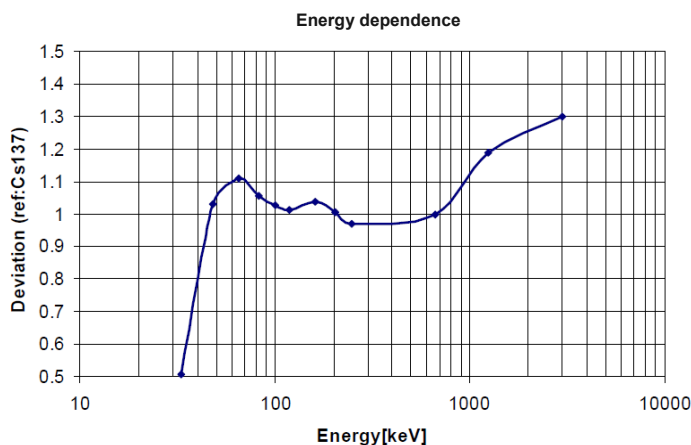
offers measuring in an area where no infrastructure (communication wiring and power supply) is available. The unit is equipped with a solar panel to supply the measuring instruments with power. The integrated accumulator is designed for a station operation time of about 30 days without power production and full power pack capacity. The data can be sent to a centre system via GPRS/UMTS VPN router.



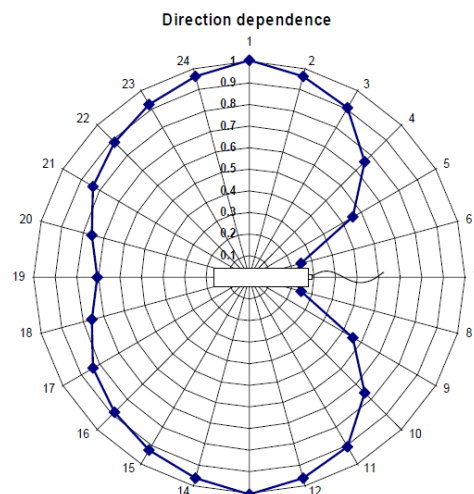
face the invisibility

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 (produced by BITT Technology)	
Microprocessor(s)	Type C8051F022 Silicon Labs, compatible with Intel 8051, ARM9 CPU, 64MB RAM, 8MB Flash (RS04 WEB)	
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
Protokoll 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



Technical modifications are subject to change



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- 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.