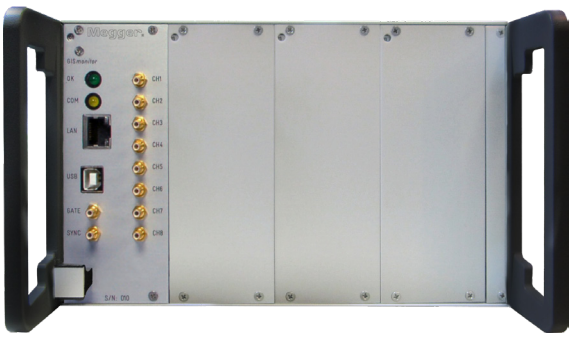
GIS*monitor* Portable
Portable PD monitoring on GIS

- **UHF partial discharge (PD) measurements without interrupting assets in operation**
- **Parallel real-time PD measurement on up to 40 channels**
- **Sensitivity verification and high voltage (HV) test dedicated features to simplify on-site activities**
- **Reliable identification of insulation imperfections and their severity**
- **Robust case made of a high performance plastic compound or aluminium desktop enclosure**

DESCRIPTION

The GIS*monitor* is a portable instrument for the temporary monitoring of partial discharge activity on gas-insulated switchgears (GIS) caused by hopping particles, floating potentials, cracks in insulators or spacers, or other degradation in the insulation system. The instrument offers parallel real-time PD acquisition on up to 40 channels. UHF signals can be detected and digitised within microseconds. To eliminate disturbance signals from the measurement, the instrument can be connected to a disturbance antenna that provides a gating signal. This allows the instrument to calculate a separation of PD events from external disturbances in real time and provides an effective PD detection.

The GIS*monitor* is designed to suit all common UHF sensors for GIS PD monitoring. This includes embedded and external retrofit UHF sensors. A special input protection unit (IPU2) blocks strong transients (VFT). The frequency converter unit FCU2 demodulates UHF signals into a lower frequency band for easy submission over longer distances.



Example of a desktop enclosure

YOUR BENEFITS

- PD monitoring on demand, thanks to a portable and lightweight instrument
- Prevention of asset breakdowns and system failures by early identification of insulation defects
- Quick operational readiness due to easy userfriendly set-up, ideal for spot testing

FEATURES AND OPTIONS

- Two different housing models for indoor or outdoor use
  - Shock resistant and watertight outdoor case
  - Lightweight aluminium desktop enclosure
- External or internal synchronisation
- Analogue gating for suppression of disturbance signals
- Remote controlled via personal computer and specialised control software
- Optional built-in monitoring server for unattended and autonomous monitoring
- Future extensibility by retrofitting additional measurement channels
- Output for the connection of a paper recorder or similar instrument
- Built-in speaker for the audible indication of detected PD signals
- Four possible ways of synchronising the instrument

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ACCESSORIES

Megger offers accessories to adapt the GIS*monitor* Portable to your specific measurement situation, for example:

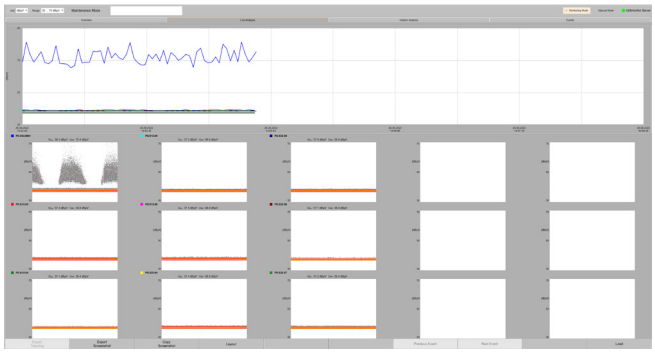
- Frequency converter units
- Input protection units
- Retrofit UHF sensors for flanges
- Retrofit UHF sensors for inspection windows
- Adapters for electrodes embedded in the GIS
- Disturbance antennas
- DAkkS certified impulse generators
- Robust transportation case

For more details, as well as ordering information on our accessories, please refer to our accessories catalogue.

GISmonitor desktop model with accessories

SOFTWARE

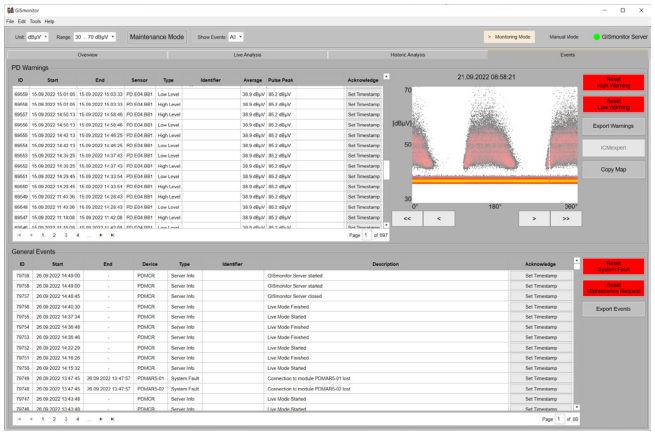
The instrument can be connected to a PC or laptop via a USB port or a LAN interface for data evaluation and in-depth diagnosis with the GIS*monitor* Portable software.



Software panel for live analysis and historical analysis of PD data

The monitoring mode of this service software provides an easy way to view, compare, and analyse the acquired data. A manual mode allows live and parallel readings of up to 24 partial discharge sensors of a GIS.

The GIS*monitor* is also ideal for PD related activities before the energisation of a GIS: the software allows dedicated sensitivity and HV test modes to simplify on-site operations and avoid sensible time losses.



Panel with PD warnings and general event list

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SPECIFICATIONS

Acquisition unit

Half 19-inch desktop model for 8 and 16 channels

Mains supply:	100–265 V AC, 50–60 Hz (automatic)
Line fuse:	2 A time-lag
Power requirements:	Max. 75 W
Signal input (PD):	8 or 16 BNC connectors, 50 Ohm‖50 pF
Synchronisation:	1 or 2 BNC connectors, 100 V RMS, 20–350 Hz into 10 MOhm‖200 pF
Interfaces:	USB (Type-B), Ethernet (RJ45)
Operation temperature:	0–40 °C (non-condensing)
Gate input:	1 or 2 BNC connectors‖50 Ohm
Enclosure:	Aluminium desktop enclosure

8-channel version can be extended up to 16 channels.

2/3 19-inch desktop model for 8, 16, and 24 channels

Mains supply:	100–265 V AC, 50–60 Hz (automatic)
Line fuse:	2 A time-lag
Power requirements:	Max. 75 W
Signal input (PD):	8,16, or 24 BNC connectors, 50 Ohm‖50 pF
Synchronisation:	1, 2, or 3 BNC connectors, 100 V RMS, 20–350 Hz into 10 MOhm‖200 pF
Interfaces:	USB (Type-B), Ethernet (RJ45)
Operation temperature:	0–40 °C (non-condensing)
Gate input:	1, 2, or 3 BNC connectors‖50 Ohm
Enclosure:	Aluminium desktop enclosure

8- and 16-channel versions can be extended up to 24 channels.

Eight-channel Explorer model

Mains supply:	100–265 V AC, 50–60 Hz (automatic)
Line fuse:	1.6 A time-lag
Power requirements:	Max. 35 W
Signal input (PD):	8 BNC connectors, 50 Ohm‖50 pF
Synchronisation:	1 BNC connector 100 V RMS, 20–350 Hz into 10 MOhm‖200 pF
Interfaces:	USB (Type-B), Ethernet (RJ45)
Operation temperature:	0–40 °C (non-condensing)
Gate input:	1 BNC connector‖50 Ohm
Enclosure:	Explorer case made of high performance plastic compound

Explorer model (extendable) for 8, 16, 24, 32, and 40 channels

Mains supply:	85–265 V AC, 50–60 Hz (automatic)
Line fuse:	3.15 A time-lag
Power requirements:	Max. 130 W
Signal input (PD):	16, 24, 32,or 40 BNC connectors, 50 Ohm‖50 pF
Synchronisation:	1 BNC connector, 100 V RMS, 20–350 Hz into 10 MOhm‖200 pF
Interfaces:	USB (Type-B), Ethernet (RJ45)
Operation temperature:	0–40 °C (non-condensing)
Gate input:	1, 2, or 3 BNC connectors‖50 Ohm
Enclosure:	Explorer case made of high performance plastic compound

8-, 16-, 24- and 32-channel versions can be extended up to 40 channels.

Housing

Desktop enclosure half 19-inch

Material:	Coated cast aluminium
Overall size:	236 x 132 x 296 mm³ (W x H x D, excl. BNC connectors)
Weight:	Approx. 4 kg (depending on the number of channels)

Desktop enclosure 2/3 19-inch

Material:	Coated cast aluminium
Overall size:	325 x 132 x 296 mm³ (W x H x D, excl. BNC connectors)
Weight:	Approx. 5.5 kg (depending on the number of channels)

Eight-channel outdoor case

Material:	Hardened polypropylene
Overall size:	305 x 144 x 270 mm³ (W x H x D, closed) 305 x 360 x 270 mm³ (W x H x D, open)
Weight:	Approx. 3.2 kg

Outdoor case with up to 40 channels

Material:	Hardened polypropylene
Overall size:	670 x 510 x 372 mm³ (W x H x D, closed)
Weight:	Approx. 23 kg (depending on the numbers of channels)

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ISO 9001, ISO 14001,
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