Dynamic disturbance recorder

Event-driven recording of all measured and calculated quantities, such as frequency, unbalance, positive phase-sequence system, negative phase-sequence system and zero phase-sequence system, active power, reactive power and apparent power, harmonics, etc. The recording is ideal for detecting and assessing slow processes, such as power swings, or for generator monitoring.

Uninterrupted data recording with continuous recorder

Continuous and comprehensive recording of selectable measurement data over adjustable intervals. These long-term recordings provide comprehensive information on the whole power system, expose slow and fast changes, show switch-on peaks and reveal potential for energy savings.

Power quality analysis

Comprehensive power quality analysis to DIN EN 50160 or individually definable quality criteria. Characteristic values are captured and calculated to IEC 61000-4-30 class A, IEC 61000-4-7 and IEC 61000-4-15. Because quality reports can be created automatically as PDF files as well, it is easy to provide proof of quality whenever required, even without specialist knowledge.

TECHNICAL DATA

Operation	Touch screen on device, web server, operating software
Operating voltage	Type 1: 90...365 VDC and 85...265 VAC; 47...63 Hz Type 2: 9...18 VDC Type 3: 18...36 VDC Type 4: 36...72 VDC
Measurement data memory	32 GB flash
Interfaces	2 x RS232, 1 x RS485 2 x USB-A, 1 x USB-B 1 x 10 / 100 Mbit Ethernet (RJ45) Optional: 1 x 10 / 100 Mbit optical Ethernet (ST II) 1 x 10 / 100 Mbit Ethernet (RJ45)
Protokolle	TCP/IP, Modbus TCP, IEC 60870-5-103, GSM, GPRS Optional: IEC 61850, IEEE C37.118 (PMU)
Time synchronization	GPS, DCF77, SNTP, IRIG-B, seconds pulse, Interlink interface
Analog inputs	Quantity: 8...32, sampling rate 200 kHz, resolution 16 bit
Voltage measurement	300 VAC / ±424 VDC, overload: 1000 VAC sustained
Current measurement via CT inputs	10 AAC, 40 AAC, 200 AAC Overload: 500 AAC for 1 second in all measuring ranges
Low-level signal inputs for connecting external sensors (current clamps, shunts, measuring transducers)	700 mVAC/±1000 mVDC 200 mVAC/±282 mVDC ±20 mA
Binary inputs	0...128, adjustable response threshold
Binary outputs	6 relays and 2 electronic switching outputs
Housing	19" housing for rack mounting, 84 HP/3 U 483 mm x 132.5 mm x 263 mm
Standards for measurement and analysis	IEC 61000-4-30 class A IEC 61000-4-7 harmonics and interharmonics IEC 61000-4-15 flicker EN 50160, IEEE 519, IEEE 1159 IEEE C37.118

Technical specifications subject to change without prior notice | 201810 | © KoCoS Messtechnik AG

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[ENG]

SHERLOG CRX ■

Multi-functional measuring system for professional power system and event analysis

SHERLOG CRX is a multi-functional measurement and analysis system for comprehensively monitoring and assessing equipment in electricity supply systems. It combines the following functions in one device:

- High-resolution fault recorder for transient processes with sampling rates up to 30 kHz
- Dynamic disturbance recorder
- Continuous data recorder
- Event recorder
- Power quality analyser to IEC 61000-4-30 class A
- Fault locator
- Network stability monitor
- Sequence of events recorder

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SHERLOG CRX ▪

Made-to-measure, compact and flexible

Because of the modularly scalable device concept, SHERLOG CRX can be equipped to suit individual requirements and can easily be adapted or extended should these requirements change.

Examples of applications

- Digital fault recorder with a high sampling frequency for detailed analysis of transient faults
- Generator monitoring in power plants
- Recording and identification of power swings
- Power quality analysis to EN 50160, for example
- Load and frequency recording
- Analysis of power consumption
- Assessment of the capacity utilisation and stability of supply systems
- Capture of influences resulting from a constantly fluctuating generator and load structure
- Monitoring of individually agreed connection conditions for compliance with limit values
- Documentation system for commissioning and service tests
- Chronological event recording and logging of binary status signals
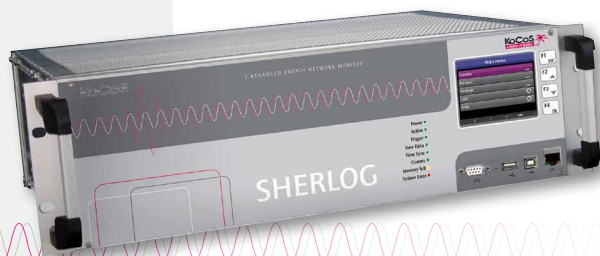
Safe to operate even under extreme conditions

Because SHERLOG fault recorders contain no parts which are subject to wear and tear, such as hard disk memories, fans or UPSs, they are 100% maintenance-free and extremely safe to operate.

Another feature which ensures trouble-free operation even under extreme conditions is their excellent immunity to electromagnetic interference. What is more, all interfaces and all analog and binary inputs and outputs are galvanically isolated. Not only does this guarantee safe functioning, it also makes for a safe working environment.

SHERLOG operating software

SHERLOG CRX is operated and configured with the ergonomic and easy-to-understand software for Windows® operating systems. Furthermore, fully automated operation, complete with fault analysis, reporting and message management is possible with the aid of the SHERLOG operating software.

IEC 61850 || Modbus || Web-Server || FTP-Server

IEC 61850 and Modbus can be used for integration in substation control and protection and for the exchange of data with other systems. Fault records can also be retrieved directly from SHERLOG CRX via web or FTP server.

RECORDING FUNCTIONS

Fast fault recording for power system faults

When limit value violations occur, all analog and binary signals are recorded with a configurable sampling rate of 100 Hz to 30 kHz.

The fault recording duration can either be set to a fixed length or can be controlled by the actual duration of the event. These recordings make it possible to carry out comprehensive and detailed analyses of power system faults, including determination of fault location.

PQ event recording

Detailed recording of all PQ events and classification to UNIPEDE, ITIC, for example.