

Datasheet SmartEAR® + iP

PRESSURE

TEMP

POSEYEDON® ready! ✓



SmartEAR® + iP

The SmartEAR® + iP provides continuous pressure and temperature monitoring. The ability to continuously track pressure allows for an immediate response to irregularities and protects against the potential risks of pressure fluctuations that could affect system performance.

Mechanic

| | |
|-----------------------|---|
| IP classification | IP68 (3m/120h certified; 10 m/24h optional on demand) |
| Operating temperature | -20°C ... +70°C |
| Storage temperature | -20°C ... +70°C |
| Status | Blue LED |
| Deployment | Via Smartphone App SmartEAR®-GO! |

Electronic

| | |
|------------------|--|
| Processor | 32 bit |
| Theft protection | Movement sensor |
| On / Off | Magnetic switch |
| Data storage | 8 MB internal ring memory FiFo-Principal (Measurement data of last 7 days stored in logger memory) |

Power management

| | |
|------------------------------|--|
| Power supply | Lithium Battery 3.6 V / 13 Ah |
| Battery lifetime | Up to 7 years on standard measurement profile |
| Battery exchange | In field possible. No affect on IP68. |
| Measurement profile | |
| Standard measurement profile | Permanent 1/min pressure- and Temperature, Upload every 6 h. |
| Customizable profiles | Freely configurable measurement and upload times |

Communication

| | |
|---------------------------|------------------------------|
| Long range communication | NB-IoT & LTE-M (Combi-Modem) |
| Short range communication | Bluetooth Low Energy |
| Transmission protocol | MQTT |

Note:

Data transmission is carried out via NB-IoT and LTE-M (CAT-M1), requiring sufficient IoT network coverage at the installation site. The network coverage for NB-IoT and LTE-M can be checked with any mobile network provider. Alternatively, our TechSupport is also available to assist you. The battery life can be reduced by up to 50% in installations with permanent temperatures of 40°C or higher, as well as in very poor signal reception conditions.

SebaKMT® - Ein Mitglied der Megger Gruppe

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Housing

| | |
|--------------------------------|------------------------------|
| Height | 123 mm |
| Diameter | 69 mm (79 mm max.) |
| Weight | 435 g |
| Material | Edelstahl A4, PPH und PPS |
| Mounting possibilities | GeKa, Storz, thread fittings |
| Theft protection possibilities | Steel wire rope |

Sensor

| | |
|--|--|
| Internal pressure- and temperature measurement | 0 - 16 bar, +/- 0,9% MSP (0,4% MSP @ 20°C) -20°C ... +80°C, +/- 2°C |
| Process connection: | G 1/2" outer thread, stainless steel V4A |

Certification

| | |
|-----------------------------|--------------------------|
| Drinking water certificate: | DVGW (EU), NSF (USA/CAN) |
| Encryption: | AES 128 |

Smartphone App

| | |
|----------------|---|
| SmartEAR®-GO!: | Android and IOS |
| Functionality: | FW-Update, Function-/Signal strength test, Create sites, Read and Program, Deployment routine, Battery status, Read Logfiles, Realtime measurement, Supports pressure and temperature data, Supports SmartEAR®+ device recognition. |

Typical applications:

Pressure measurement / Pressure monitoring permanent oder temporarily,
Deployment in underground hydrants (if space is sufficient), Service casts, Man holes, Pump stations, Water Tanks or Reservoirs, Trunk-Mains, ...

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Standard scope of delivery:

| | |
|---|-------------|
| SmartEAR®+ iP, Pressure logger, without SIM-Karte | 1015767 |
| SmartEAR®+ iP, Pressure logger, Telekom EU | 1015767-001 |
| SmartEAR®+ iP, Pressure logger, Telekom N-AM / S-AM / ASIA / AFRI | 1015767-005 |
| SmartEAR®+ iP, Pressure logger, Vodafone EU / AUS / JP | 1015767-210 |
| SmartEAR®+ iP, Pressure logger, Vodafone USA / CAN | 1015767-220 |

Optional Accessories and Spare Parts:

| | |
|--|-----------|
| Transport box complete, SmartEAR | 2014649 |
| Stubby antenna LTE NB-IoT SMA-M 698-960 MHz | 90035958 |
| Antenna extension SMA 0,5 m | 2015410 |
| Antenna extension SMA 1,0 m | 2015409 |
| Antenna extension SMA 4,0 m | 2016832 |
| SAFT Lithium cell 3.6 V / 13 Ah, LSH-20 Size D | 820007318 |
| External antenna, angled | 90043013 |

Specialities summary:

- Pressure- and Water temperature measurement in parallel
- Realtime measurement on site via smartphone app
- SIM-card with 5-year-POSEYEDON® package
- IP68 with certification
- App for Android and IOS
- Battery lifetime 7 years on standard profile
- Measurement profiles free configurable

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