

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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