

# GLÖTZL Baumeßtechnik

## FIELD MEASURING STATION

Type: FA . . .

Art. No.: 53.10

- Datalogger FAB 1/3
- Radio datalogger FAF 1/3

Three-channel collector of measured data for time-programmed measurement with battery voltage for 3 up to 6 months.

The datalogger FAB 1/3 has been developed for reception of measured values in application ranges where measuring points have permanently to be recorded.

### Main application ranges

- ◆ Measurements in impassable areas
- ◆ Flooding areas
- ◆ Mountainous regions during winter season
- ◆ Open-cast mining areas
- ◆ Changing measuring points without possible cable installation
- ◆ Pumping tests

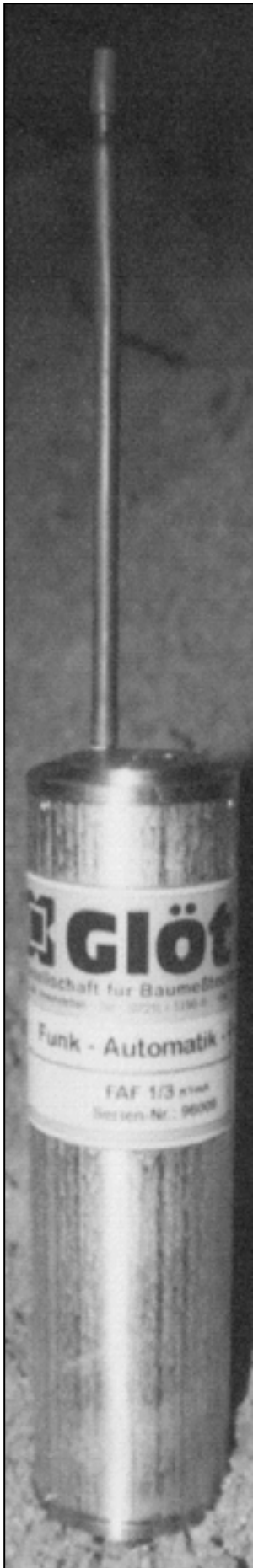
The instrument is constructed as independent unit and can be installed free-accessible on level tubes, in shafts, under seal caps or in borings.

The transfer of measuring values is done by a standard notebook or palmtop in commercially approved version.

For data recording standard software for PC and special software are available.

For an application in areas being only difficultly accessible and for permanent availability of measured values, the measuring data collectors can be equipped with remote control.

The reception of radio-transferred data is done at accessible point by a data collector, type MCC and is there available for reading out of data. Further possibilities are radio units for elongation of range of transmission, modem operation with private line, telephone modem or wireless telephone.



# Datalogger FAB 1/3 and radio datalogger FAF 1/3



## Technical data

Housing	Stainless steel, dia 70 mm, length approx. 250 mm
Supply	Bar accu 3 x 1.2 V/2.6 Ah
Operating time FAF	3–6 months acc. to meas. interval
Operating time FAB	>12 months
Sensor connection	1 x internal battery voltage 3 pcs. external sensors Optional 4 further sensors
Sensor supply	±10 V DC/1 mA
Meas. value resol.	16 Bit
Meas. range	±2.5 V or ±250 mV
Meas. interval	1 minute up to 99 hours
Meas. value memory	16.000 data sets standard (FAB) 500 data sets for radio operation (FAF)

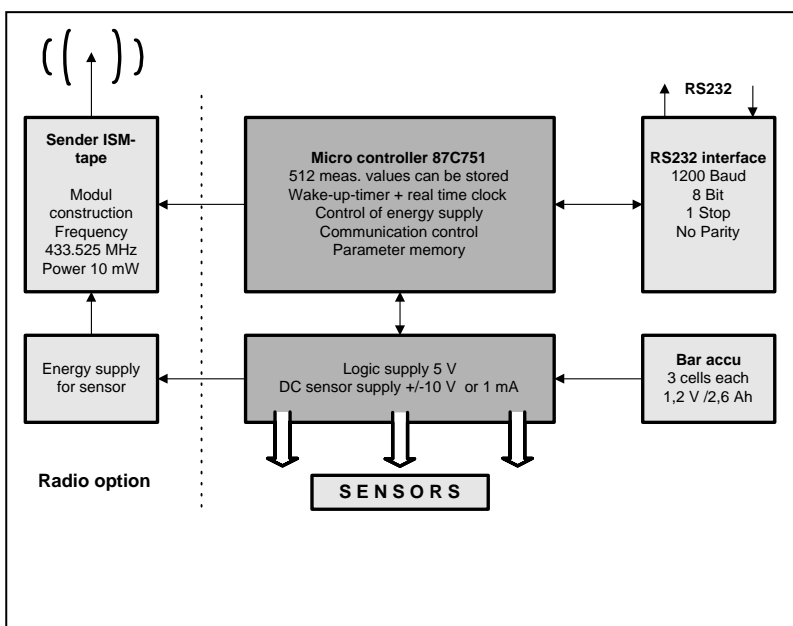
## Option

Sender	433 MHz-ISM tape
Capacity	10 mW
Transmission range	1 – 1.5 km

Figure:

Inner part of data collector with electronic parts, accus and sender with antenna

## Construction/block schematic diagram of datalogger and radio datalogger



The datalogger is operating in adjustable time intervals from 1 minute up to 99 hours. The measuring frequency is also determining the operating time of the accus from approx. 3 up to 6 months.

Programming and data reading are done with commercially approved notebook or palmtop computer. Several radio datalogger are activated in a time-displaced measuring rhythm.

The quantity of measurements before sending by radio are determined and also the activity of each measuring channel. Thus, several measurements can be transferred in collected form.

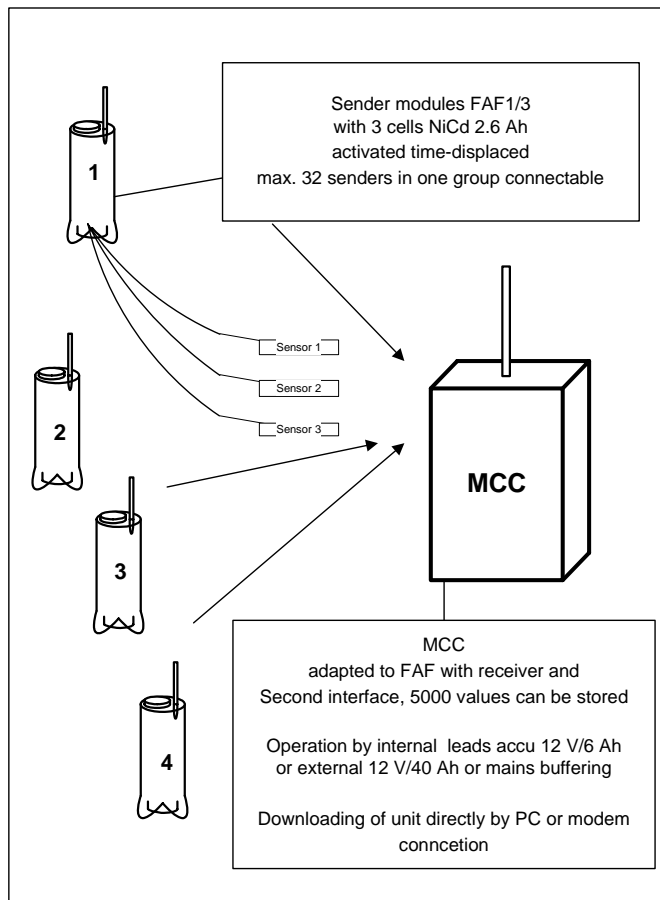
## Measuring sensors

Connection of sensors is done at data collector with a watertight plug connector. The measuring cable is high-tensile with double shell PEHD and pressure compensation tubing for compensation of barometric pressure fluctuations.

### Technical data

Water gauge	Measuring ranges 0–1 m, 5 m, 10 m, 20 m and 50 m, accuracy 0.1% f.s.
Temperature sensors	-20 up to +70 °C, resolution 0.05 °C
Conductivity	Measuring ranges according to clients' specification
PH probes	0–14 pH, accuracy 1° f.s.

## Construction of radio datalogger with receiver MCC



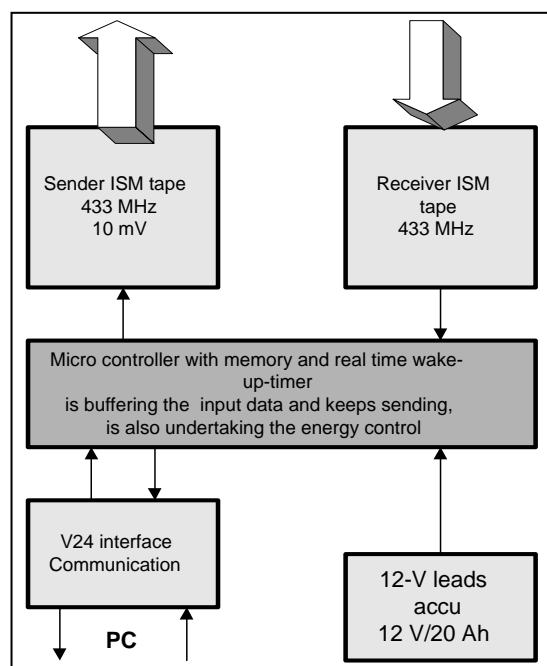
Radio datalogger can be constructed in groups with 32 senders maximum.

In the radio reception unit MCC the transferred measured values are stored and then available for downloading.

Remote control can be done by direct line via modem, telephone modem or wireless telephone.

Power supply is effected by installed accus, mains buffering supply or – independent on mains – with solar panel buffering.

## Digipeater for elongation of transmission range

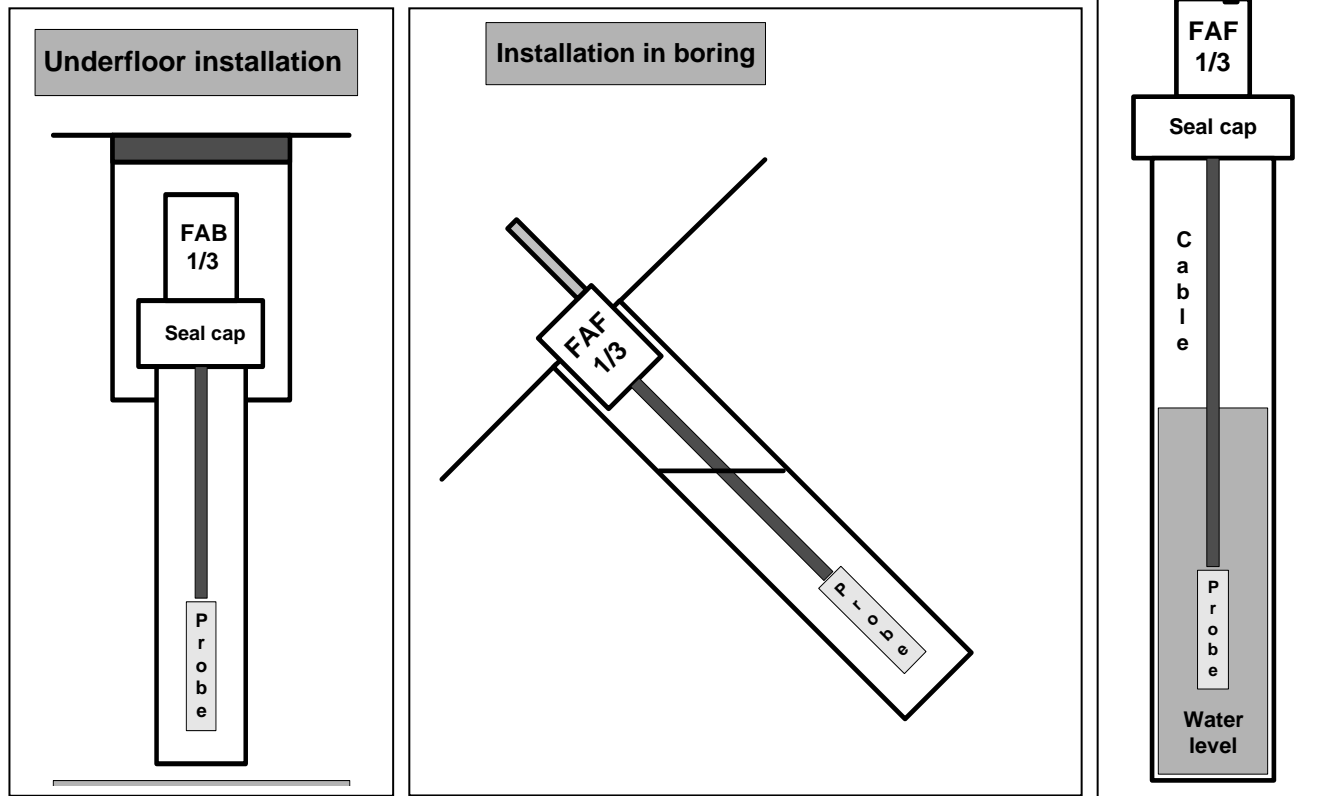


For elongation of transmission of a consisting radio distance or deflection of radio distance, a sender-receiver unit (digipeater) is used.

When receiving a data transmission by the digipeater, this is checked for errors and sent to the receiver unit MCC for further processing.

The distance is limited to 1-1.5 km, dependent on area conditions.

# Installation and structural possibilities of datalogger FAB 1/3 and radio datalogger FAF 1/3



## Instrument designations and part numbers

- 53.10.01 Data collector, **type FAB 1/3 K1mA**, for 3 measuring channels (16000 data sets)
- 53.10.11 Data collector radio system, **type FAF 1/3 K1mA**, for 3 measuring channels (500 data sets), radio system for automatic transfer to the field measuring station MCC
- 53.10.21 Field measuring station, **type MCC**, for battery and radio operation

### Accessories

- 53.10.00.01 Spare accu 3 x 1.2 V/2,6 Ah
- 53.10.00.02 Charger for automatic charge of accus (datalogger), connection 230 V AC
- 53.10.00.11 Battery module for field measuring station MCC with radio operation
- 53.10.00.12 Radio module for field measuring station MCC
- 53.10.00.21 Sensor cable for data collector
- 53.10.00.31 Pressure sensor
- 53.10.00.32 Pressure sensor, combined with conductivity sensor