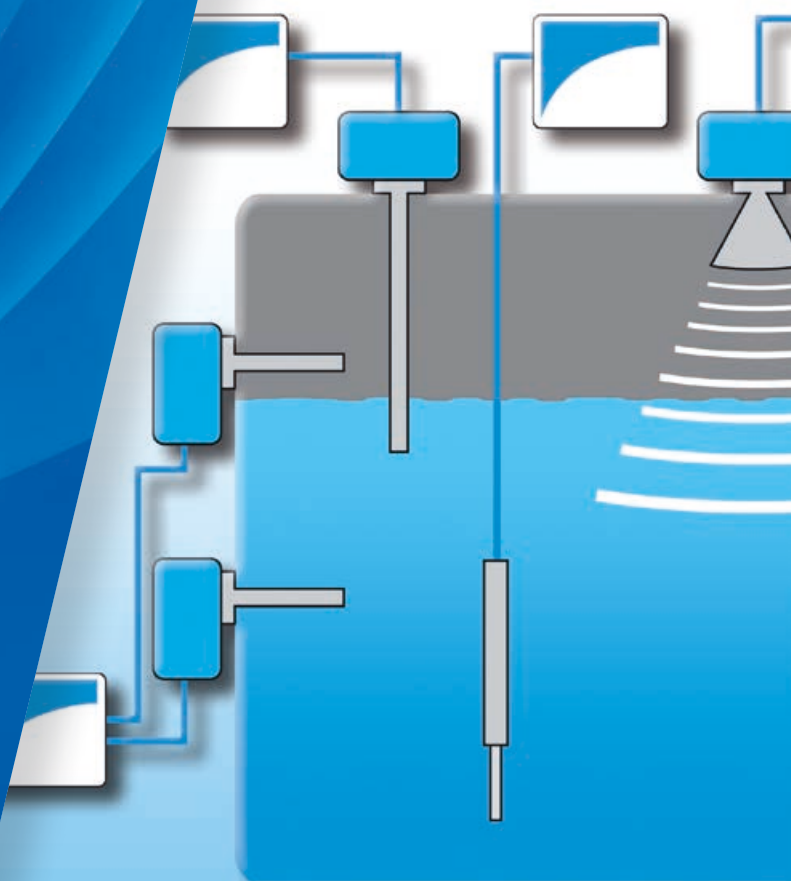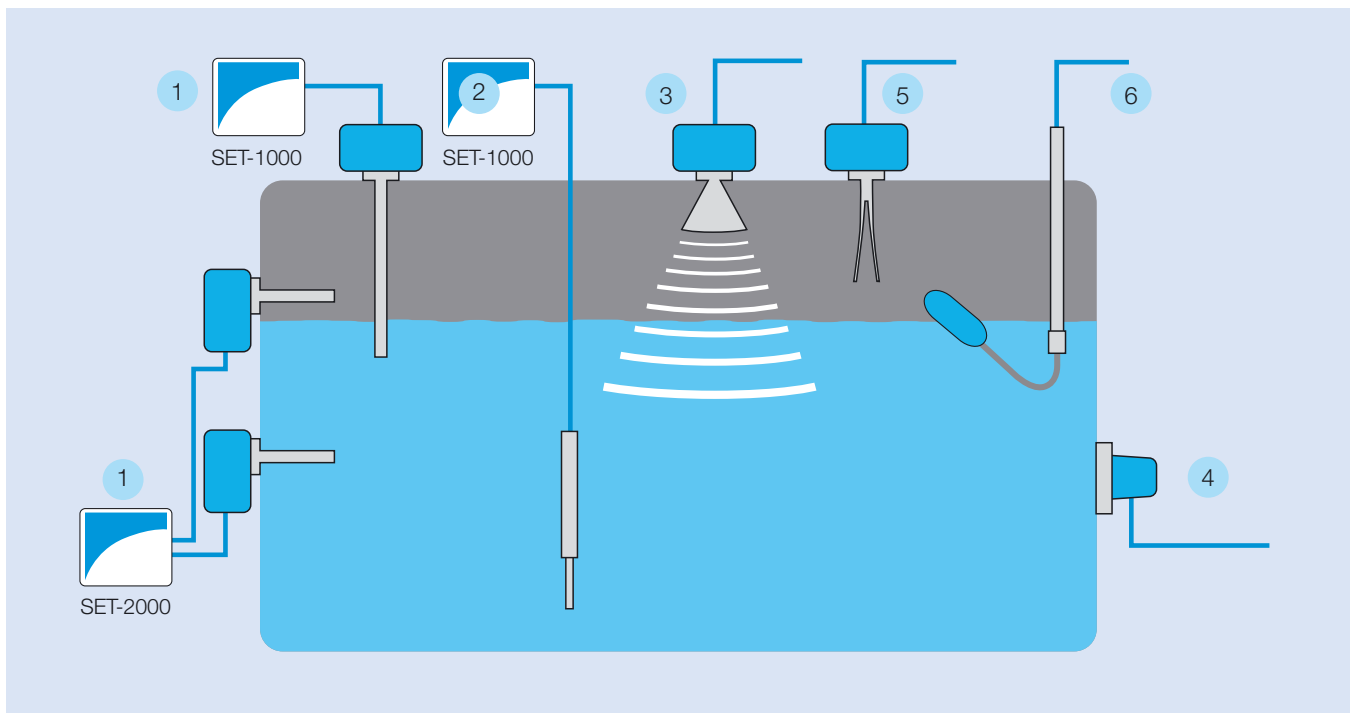# Applications guide

Applications for Labkotec level switches and measurements

**Measure your success**

**Labkotec**
INDUTRADE GROUP

Level switches for liquids

1   Capacitive level switch, control units SET-1000 or SET-2000

2   Capacitive level switch, cable wire sensor. Control units SET-1000 or SET-2000

3   Ultra level switch

4   Non-invasive level switch

5   Vibration sensor

6   Float level switch

Level switches for solid dry materials

1   Ultra level switch

2   Vibration level switch

3   Rotary paddle switch

4   Capacitive level switch
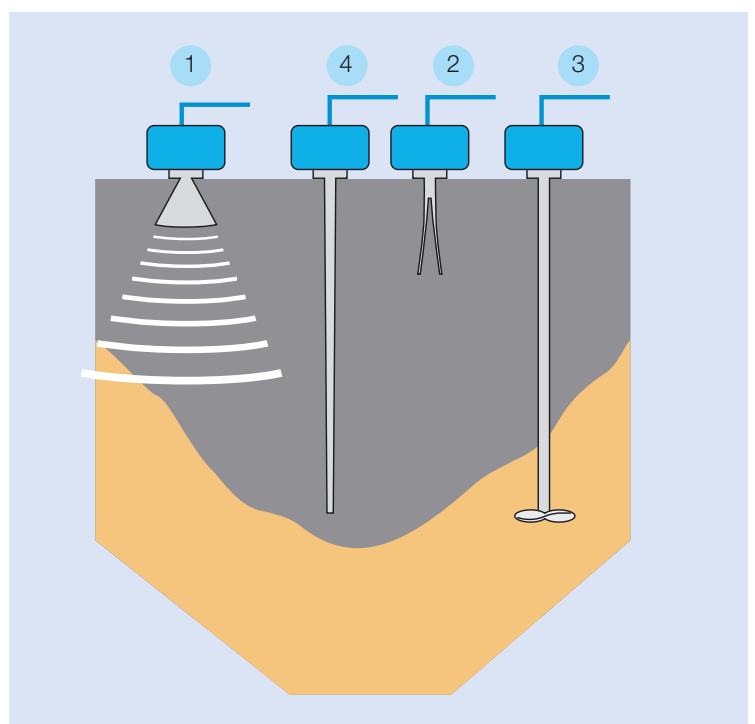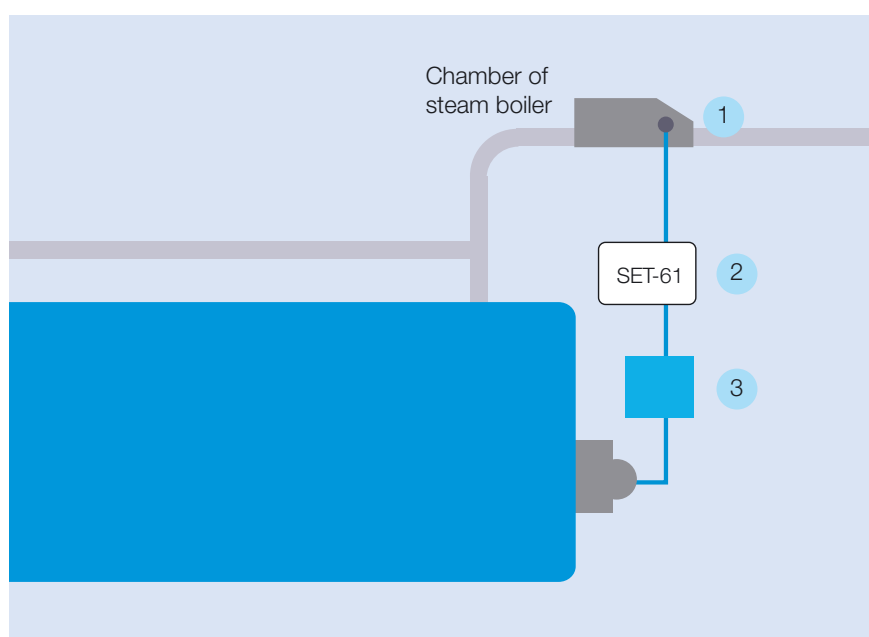
Conductive level control for water
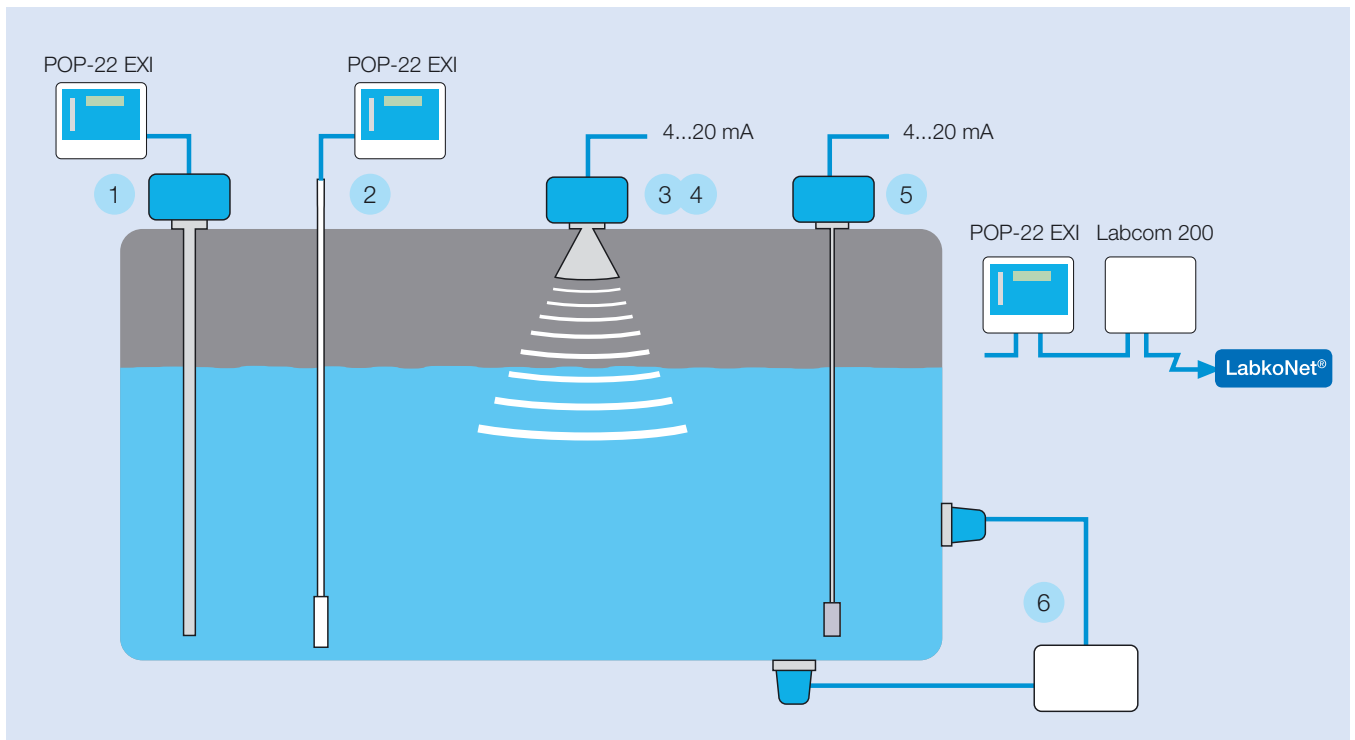

KRK-512

2

Lokaset 20

4

KKH

3

KRK-512

1
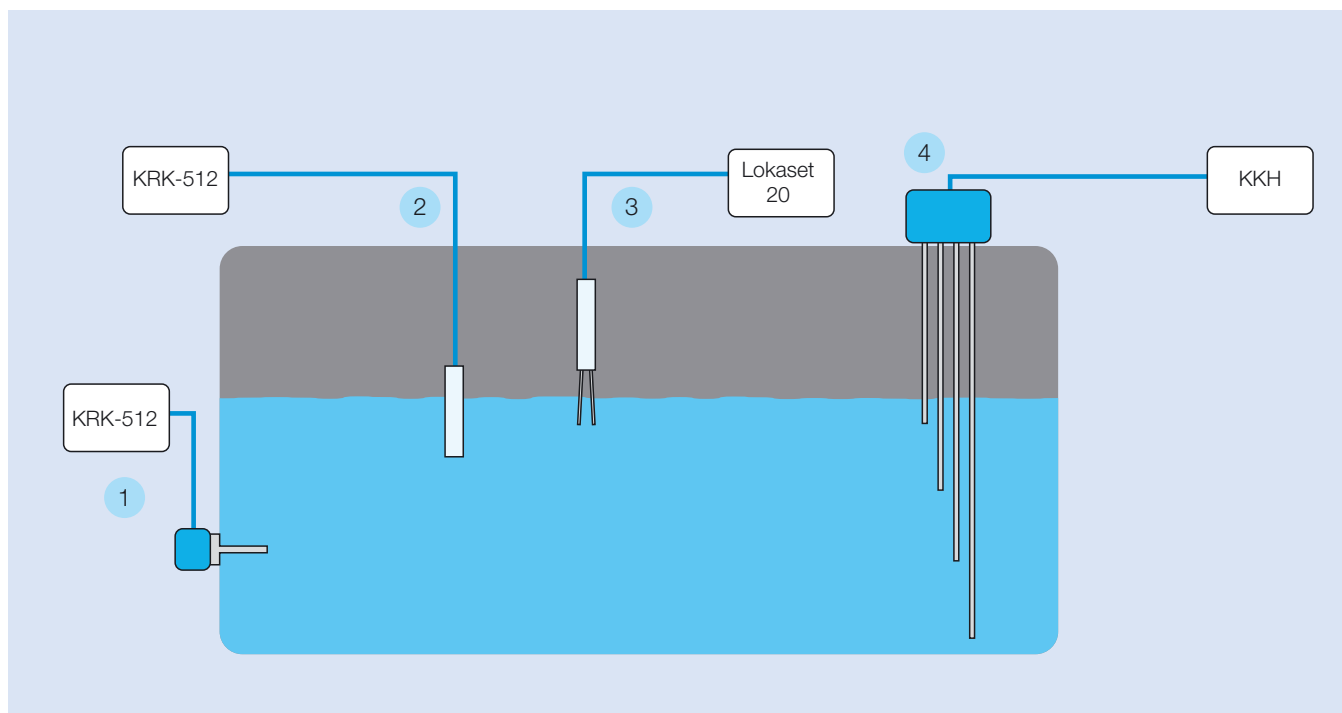
1   SET/J1 sensor, control unit e.g. KRK-512

2   SET/K sensor, control unit e.g. KRK-512

3   SET/LV sensor and alarm device Lokaset 20

4   KKH conductive level switch

Dry boiling prevent


Chamber of steam boiler

1

SET-61

2

3

1   SET/J1 sensor

2   SET-61 control unit

3   Automation of oil burner

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INDUTRADE GROUP

Level measurement for liquids

POP-22 EXI

POP-22 EXI

4...20 mA

4...20 mA

POP-22 EXI   Labcom 200

LabkoNet®
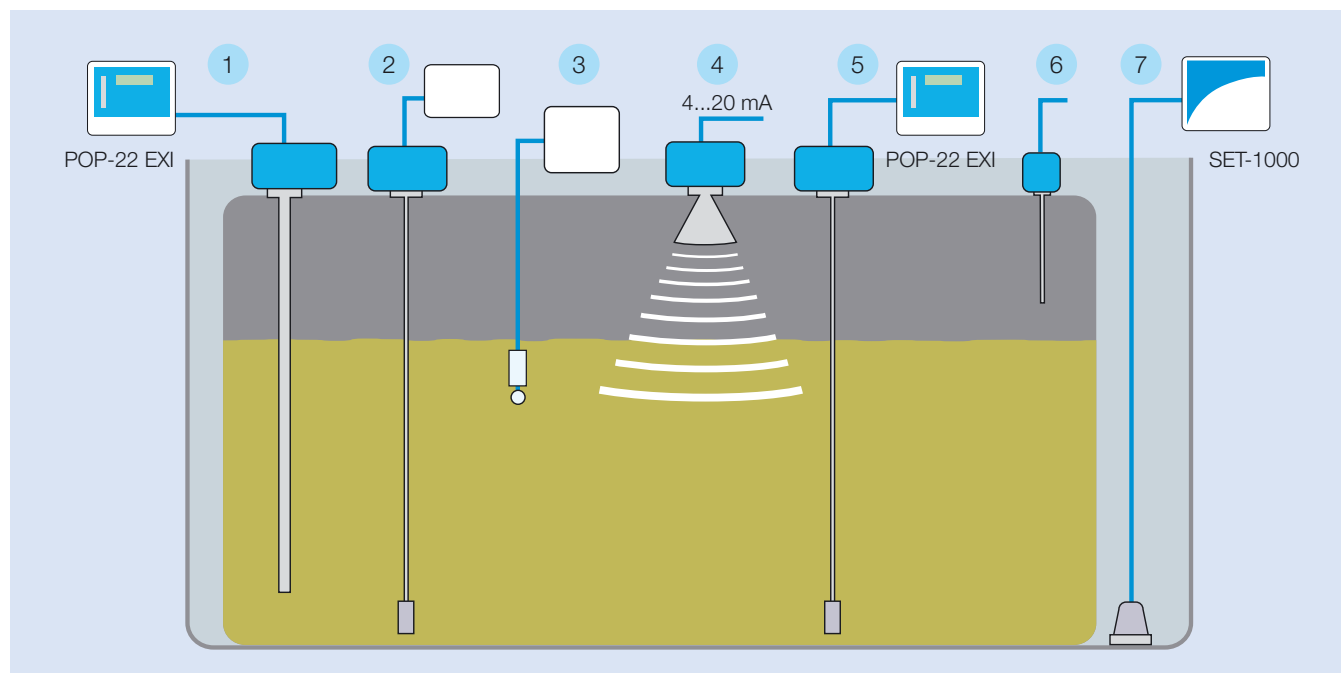
1   Capacitive sensor, control unit POP-22 EXI

2   Pressure sensor, control unit POP-22 EXI

3, 4   Ultrasonic or radar

5   Guided microwave transmitter

6   Non-invasive tank level

Level measurement for dry solid materials

POP-22 EXI

4...20 mA   4...20 mA   4...20 mA
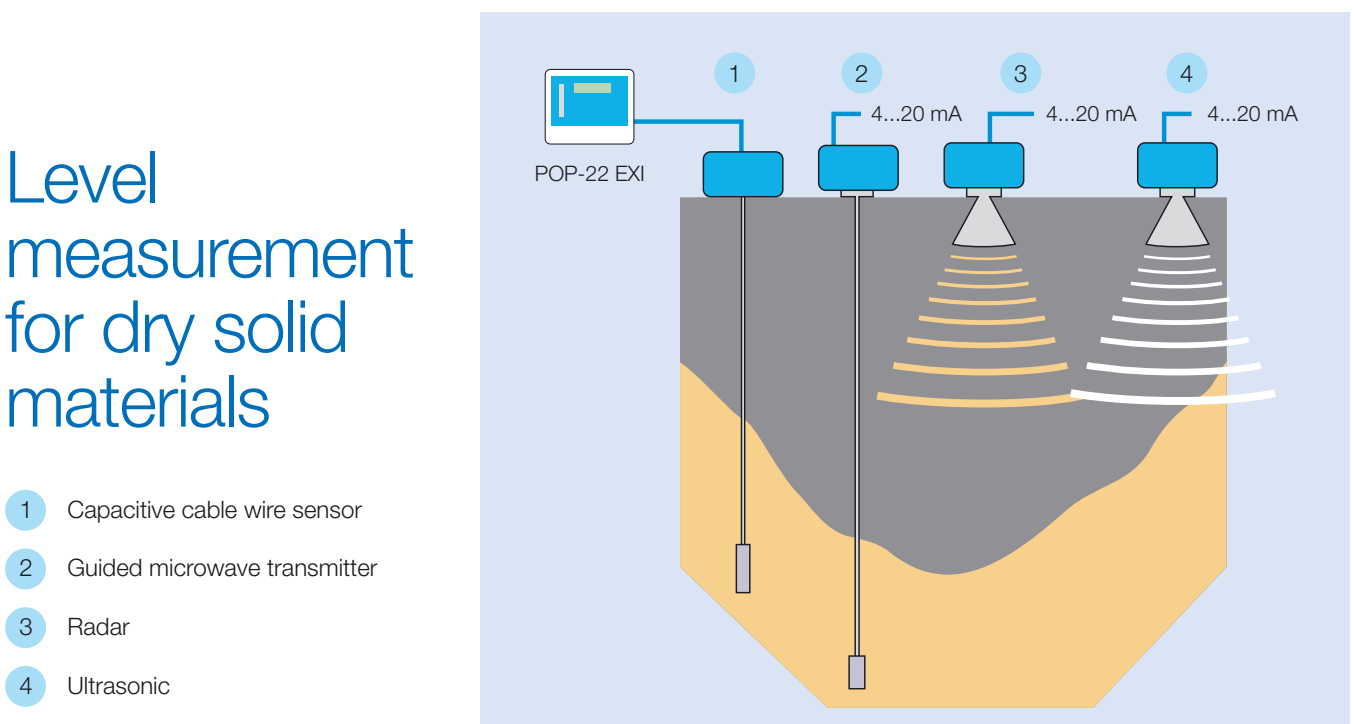
1   Capacitive cable wire sensor

2   Guided microwave transmitter

3   Radar

4   Ultrasonic

Oil, petrol or chemical tank level measurements and alarms


POP-22 EXI   4...20 mA   POP-22 EXI   SET-1000

1. Level measurement, capacitive tube sensors, control unit POP-22 EXI

2. Level measurement, pressure sensor, control unit DTA-10 (no ex-certificate available)

3. Level switch, MiniSET/MaxiSET

4. Ultrasonic devices

5. Pressure sensor, Ex-barrier
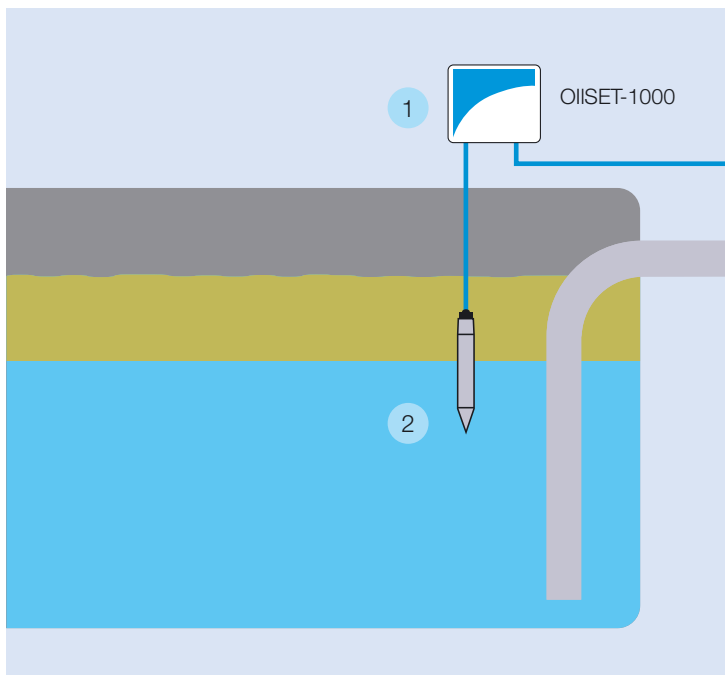
6. Overfilling protectors

7. Leakage alarm devices

Leakage of oil, water or chemicals

SET/OELO2 is a special sensor for leakage alarm in oil burner rooms, in basins under oil tanks.

1. SET control units

2. SET/OELO2 sensor

SET control unit

CE ⟨Ex⟩

Labkotec
INDUTRADE GROUP
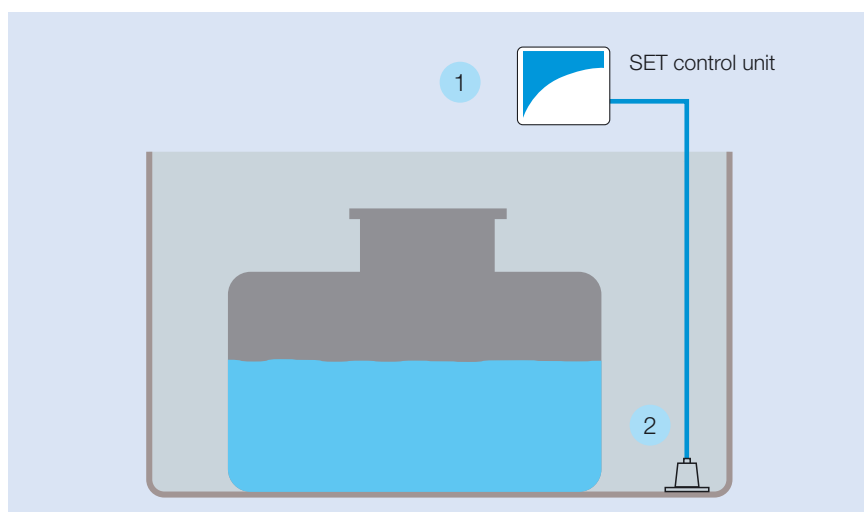
# OilSET-1000 alarm device for oil separator

1   OIlSET-1000

2

The OilSET-1000 level alarm instrument is specially designed for oil separators and grease traps.
It indicates when it is time to empty the oil separator and thus prevents harmful hydrocarbon emissions to the sewer system.

1   SET/DM3AL sensor

2   OilSET-1000 control unit

CE   Ex

SandSET-1000 sludge alarm device for oil and sand separator

Oil alarm for inspection shaft

2   SandSET-1000

1

Sludge
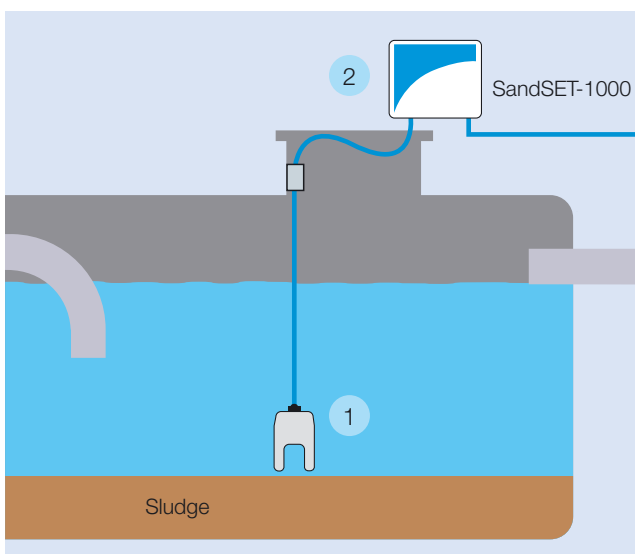
1   SET/S2 sensor

2   SandSET-1000 control unit

CE   Ex

2   SET-1000
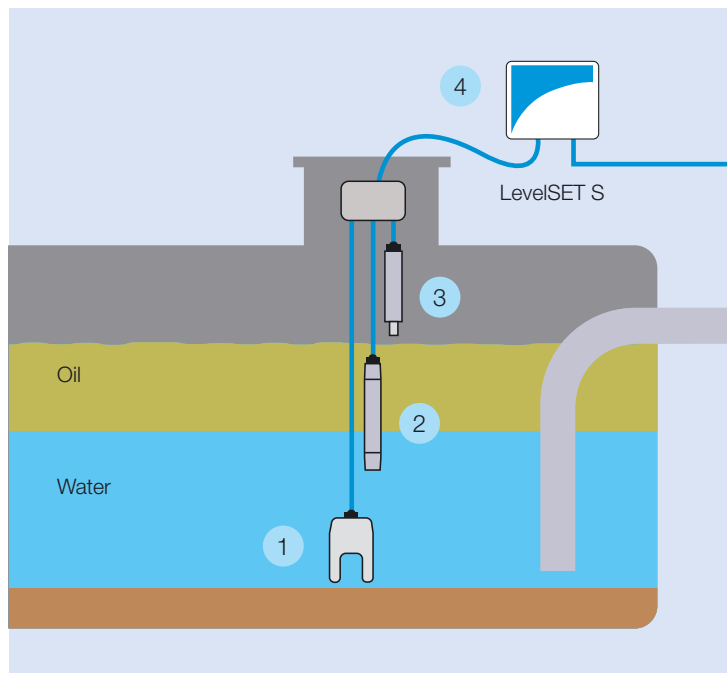
1

Oil

Water
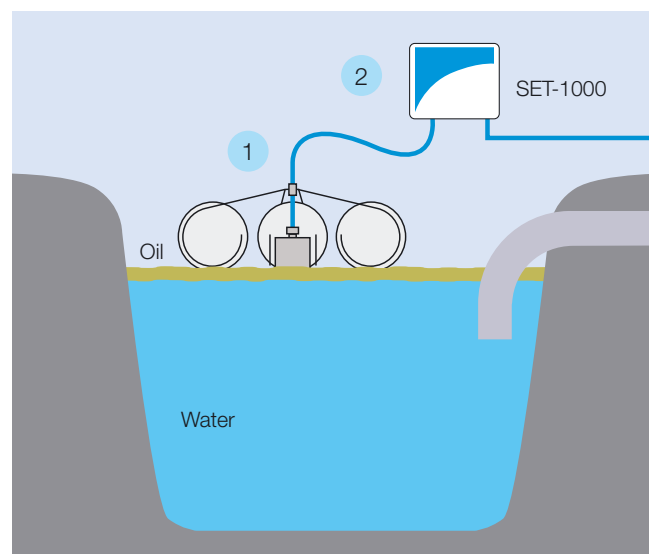
1   SET/OSK2 sensor

2   SET-1000 control unit

CE   Ex

Oil and grease alarm device

The LevelSET S can be equipped with max. three sensors, one indicates the oil layer, the second indicates blockage detection. i.e. high level in case of sewer blockage or closure of the closing device and the third detects sludge.

Alarm conditions can be transmitted to mobile phones or computer systems via the integrated GSM modem or internal relays can be connected to remote beacons and audible alarms. An inbuilt LED and buzzer indicate the respective alarm condition locally.

1   SET/S2 sensor

2   SET/DM3DL sensor

3   SET/V sensor

4   LevelSET S control unit

Alarm device for septic tank
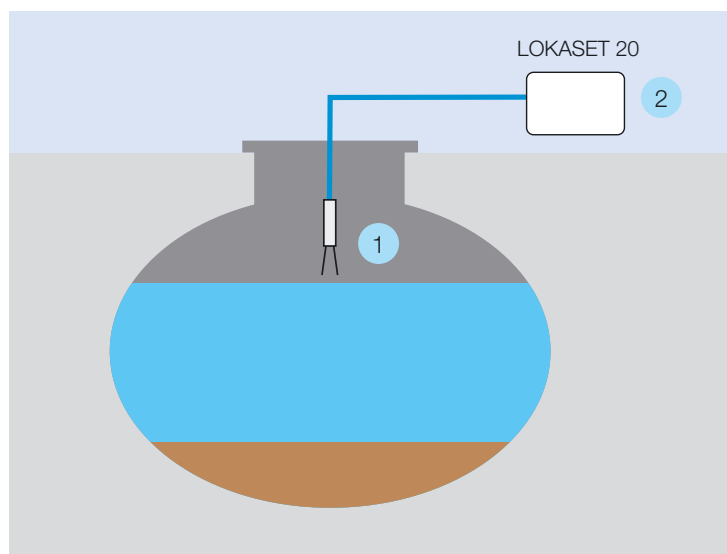
LOKASET 20 control unit is equipped with visual and acoustic signal alarms. The alarm can easily be forwarded with relay output to real estate automation systems or to LabkoNet® alarm monitoring system. More information **www.labkonet.com**

The LOKASET 20 is a conductivity-operated limit switch. When using the SET/LV sensor, the sensor and its cable are provided with fault monitoring detection, indicating any breakage in the sensor circuit.

1   SET/LV sensor

2   LOKASET 20 control unit

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INDUTRADE GROUP

Flow measurement in pipe

Partially filled pipes

1   Velocity sensor

2   Level measurement
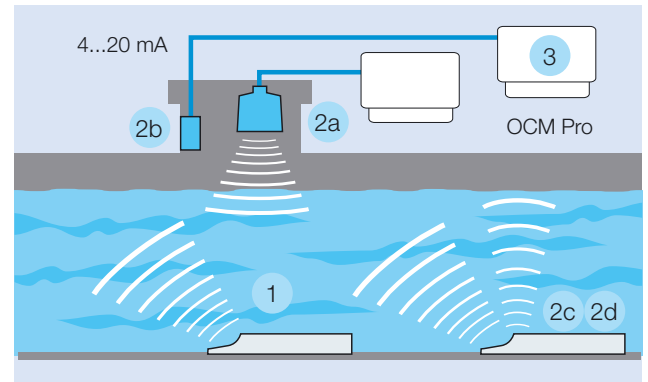
3   OCM Pro control unit

Full pipes

4   NFP control unit

5   Pipe sensor

6   Clamp-on transit time device

7   Sensors

Partially filled pipes

1   Velocity sensor

2a   External level measurement

2b   External ultrasonic 4...20 mA

2c   Velocity level sensor

2d   Velocity level pressure

3   OCM Pro control unit

Flow measurement in open channels

V-flume, venture or overflow weir
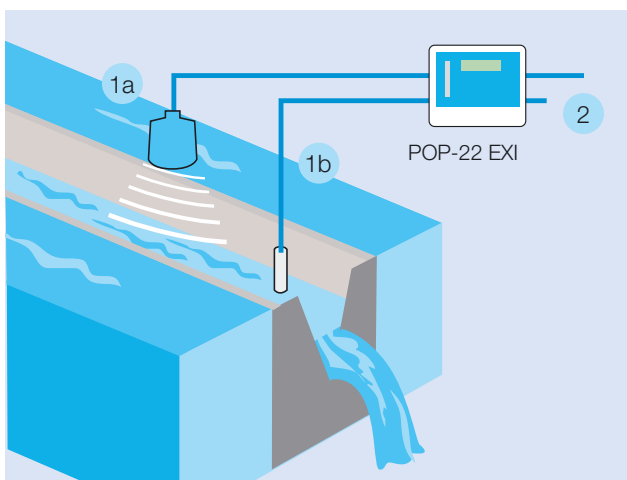
1a   Ultrasonic

1b   Pressure sensor

2   POP-22 EXI control unit

OCM Pro/OCM F

1   OMC Pro/OCM F control unit

2a   Level measurement device

2b   Ultrasonic, 4... 20 mA

3   Sensors 1-3 pcs

Water supply network and water tower

Level measurement in tank

1 Capacitive MET, ultrasonic or pressure sensor

2 POP-22 EXI control unit

3 Flow measurement

4 LabkoWin remote control and automation system

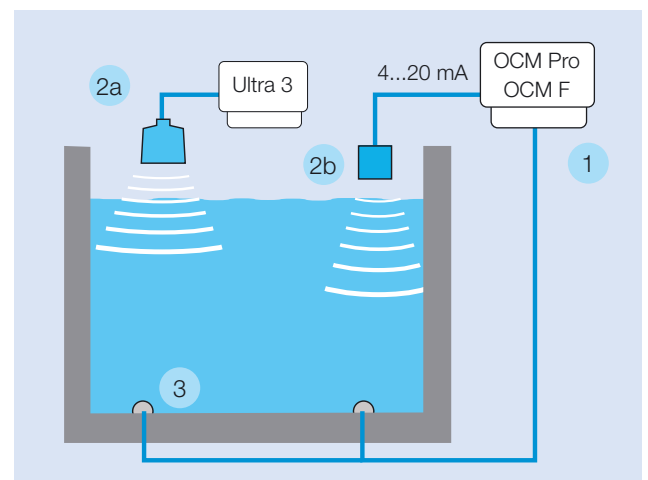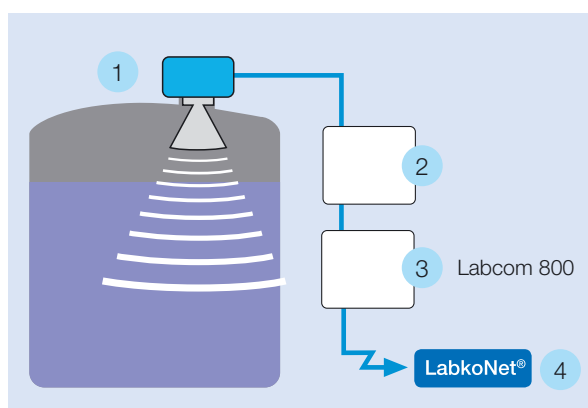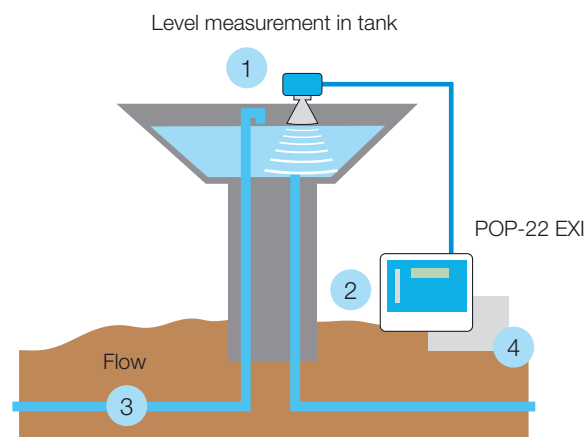POP-22 EXI

Flow

Level measurement and control of chemical tanks

Labcom 800

LabkoNet®

1 Ultrasonic or radar

2 Control unit

3 Labcom 800 communication unit

4 LabkoNet® control and alarm system

Level control of waste water pumping station

The POP-22 EXI is a versatile level controller to monitor levels, control pumps and valves. It can be connected to the LabkoNet system.

POP-22 EXI

LabkoNet®

1 Ultrasonic or pressure sensor

2 POP-22 EXI control unit

3 Labcom 800 communication unit

4 LabkoNet® control and alarm system
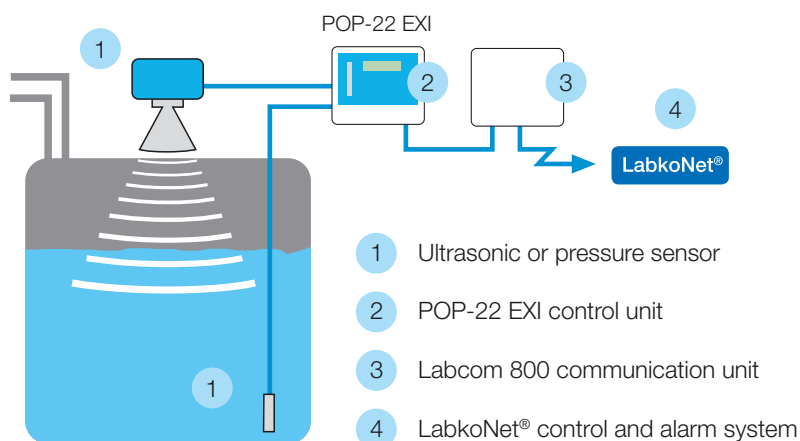
Measurements for waste water treatment plant

In addition to pH, Redox, conductivity, turbidity, oxygen and chlorine analyzers, we supply online equipment for TOC, COD and ammonia content.

Flow/Level   Conductivity   pH O_2 Chlorine Turbidity   Oil

LabkoNet®

Labkotec
INDUTRADE GROUP
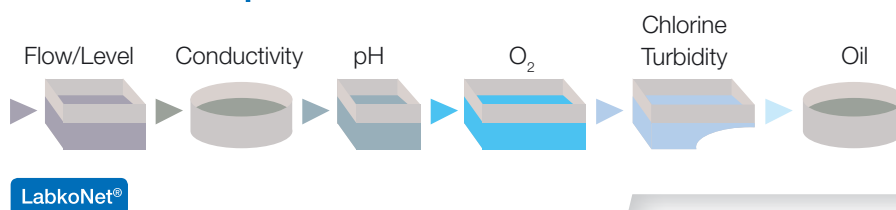
Petrol station and fuel terminal equipment

Measurements in low or cylindrical tanks

CE ⟨Ex⟩

1	Labko 3000 level sensor
2	Labko 3000 LPG level sensor
3	LabkoMax level sensor
4	YTE 101-3 over filling ptotector
5	SET-1000 control unit and TSH2 level switch
6	Labko DL 330 leak detector
7	LPS-1 power supply and interface unit
8	MPS-4 level interface
9	MD-1 interface unit
10	Trident fuel tank monitoring system
11	POS/BOS
12	Labcom 800 communication unit
13	LabkoNet® remote monitoring system
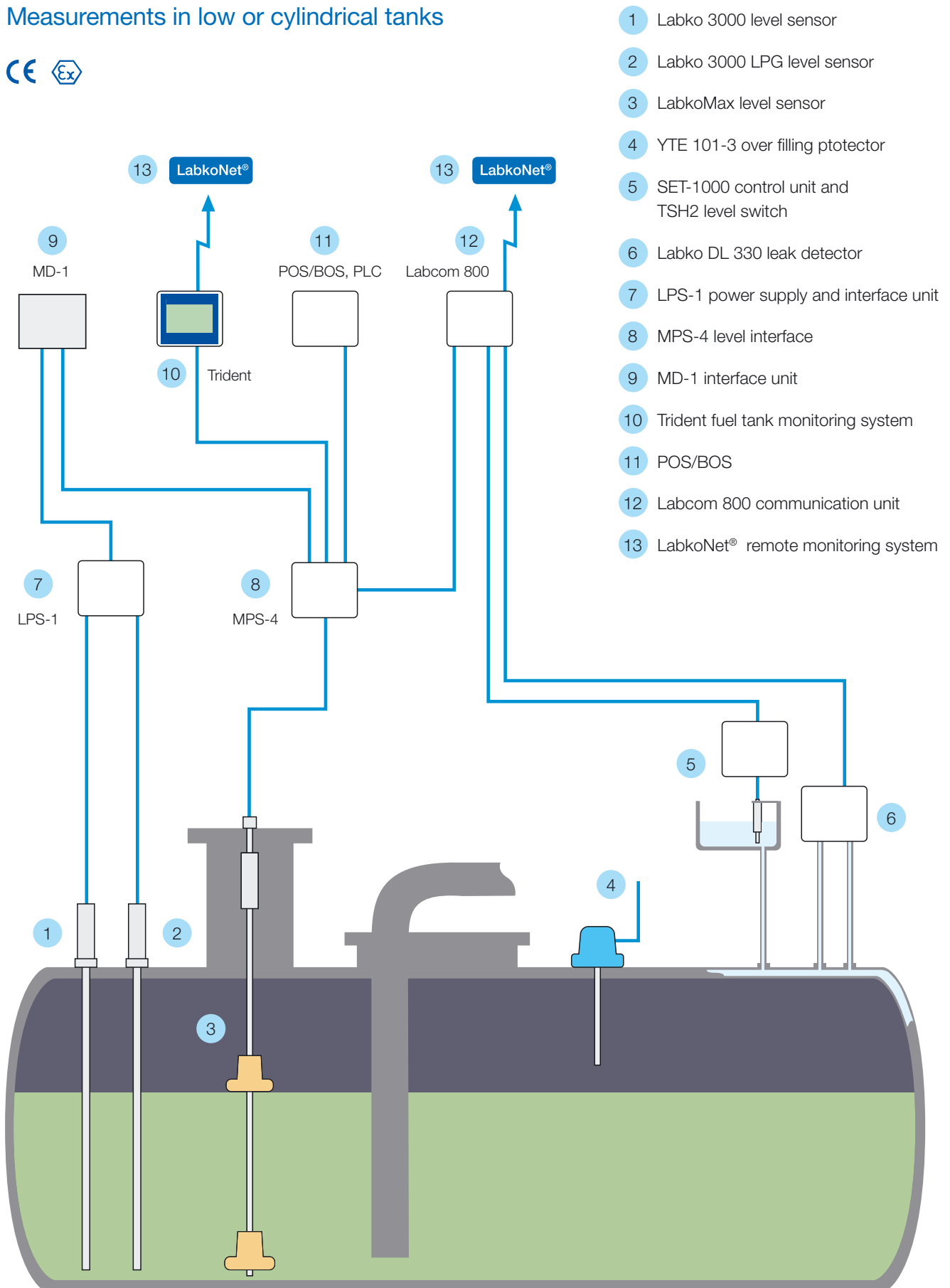
Petrol station and fuel terminal equipment

Measurements in high tanks

Labcom 800

4

LabkoNet® 5

Trident

6

MPS-4

LabkoNet® 5

7

POS/BOS, PLC

8

2

3

1

1	WBS 3000 water bottom system
2	LabkoMax sensor for 0-5 m
3	LabkoFlex sensor for 5-21 m tanks
4	Labkom 800 communication unit
5	LabkoNet® remote monitoring system
6	MPS-4 level interface
7	Trident fuel tank monitoring system
8	POS/BOS, PLC

Labkotec
INDUTRADE GROUP
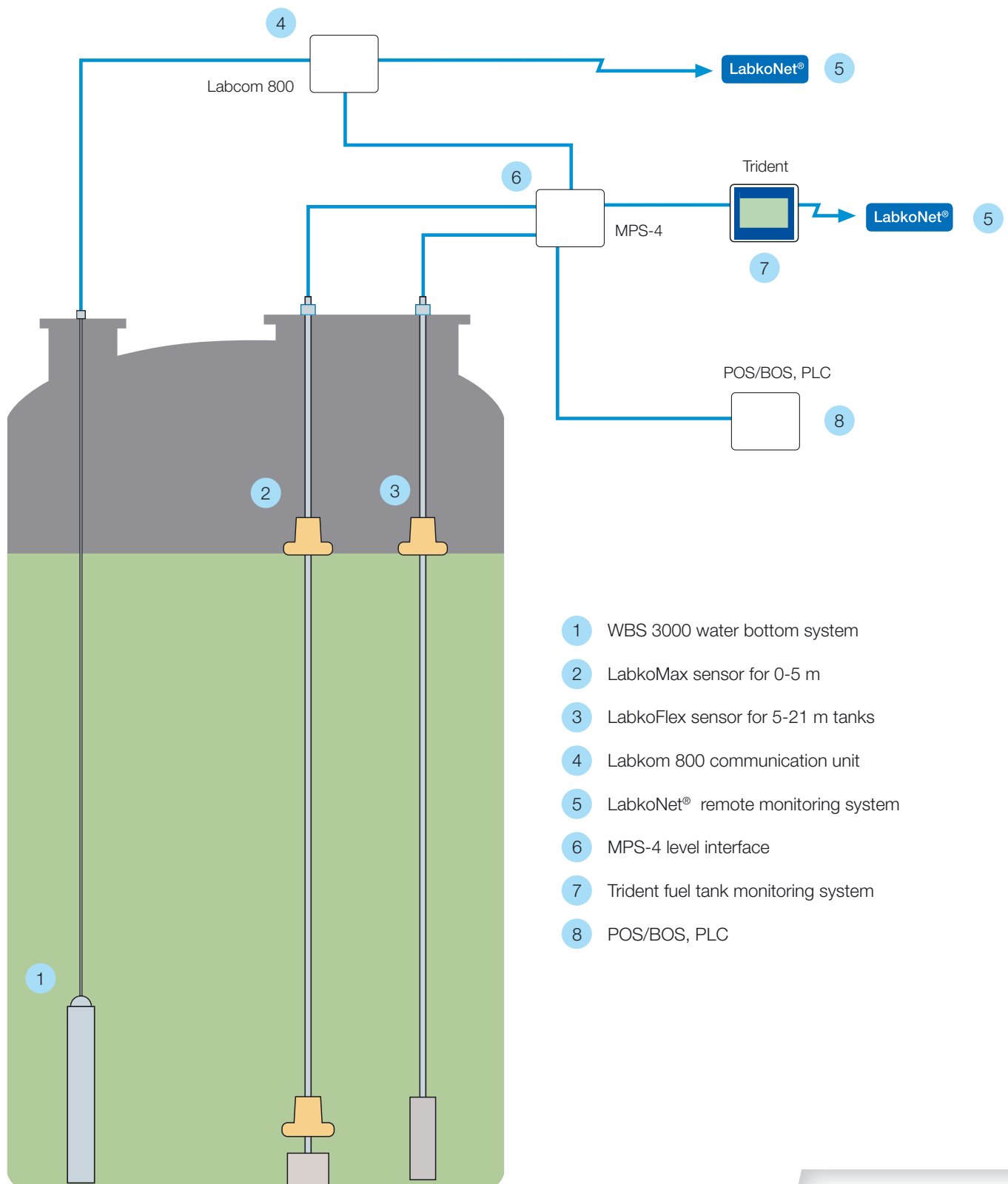
Measure your success with Labkotec

Labkotec Oy is a leading Finnish manufacturer and supplier of electronic level gauges, flow detection devices and alarms, automation and detector technology, and web-based data transmission solutions.

We have 50 years of experience of the industry, and have pioneered several new solutions. Our diverse and comprehensive expertise enables us to supply solutions tailored to each customer's needs.

Our ISO 9001:2008 and ISO 14001:2004 compliant quality and environmental systems are certified by Lloyd's Register Quality Assurance. As regards to safety, we comply with the ATEX and ISPS standards.

Labkotec Oy is a member of the international Indutrade Group.

Our electronic level gauges and leak detection and flow measurement technologies cover a comprehensive range of applications. Our communication units and data transmission systems relay readings in real time, independently of permanent electrical or cable networks.

Our automation and detector technology is widely used in access control systems in industrial installations, in storage silos and ports, as well as at snow dumping and landfill sites. Our TransControl system is based on RFID identification technology and fulfils the requirements of the International Ship and Port Security Facility (ISPS) code.

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