

Labkotec level detectors for monitoring and control of liquids

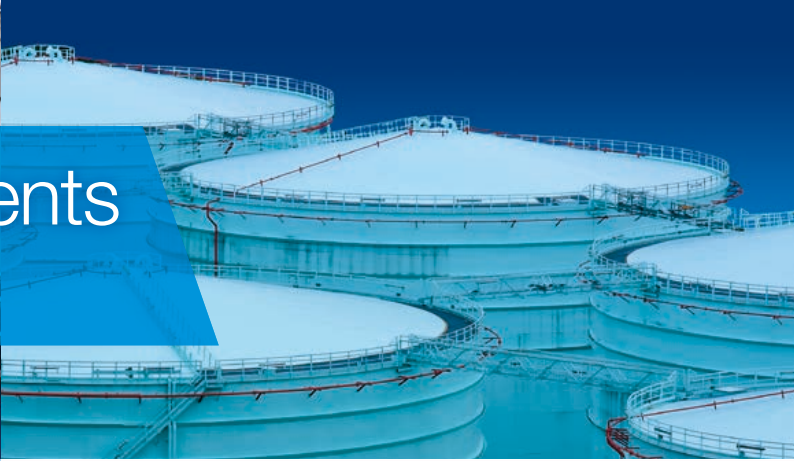
- Level switches
- Leakage monitoring
- Detecting water/oil interface
- Detecting air/water/oil interface
- Dry running prevent
- Remote monitoring



Measures for a better tomorrow

 **Labkotec**
INDUTRADE GROUP

Reliable measurements and alarms

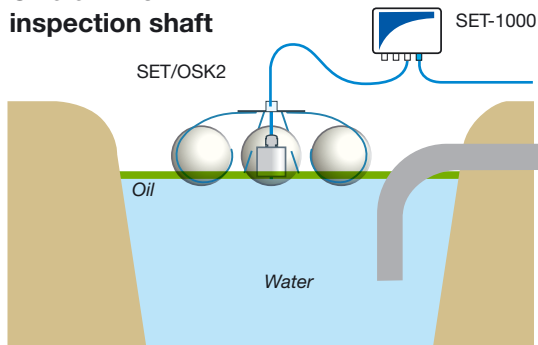


Labkotec level detectors are suitable for a wide variety of applications. When connected to KRK-512, KRK-522, SET-1000 and SET-2000 control units, they can be used for the level monitoring and control of water, oil products,

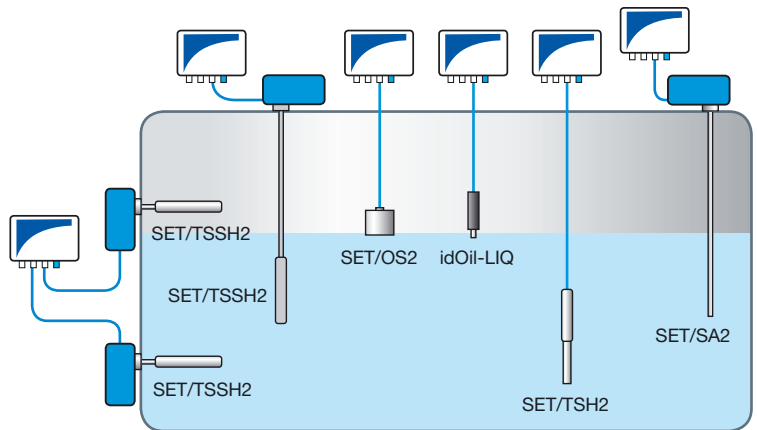
acids, alkalis, detergents, solvents and other liquids. All measurements can be connected to LabkoNet® remote monitoring system, www.labkonet.com.

Applications

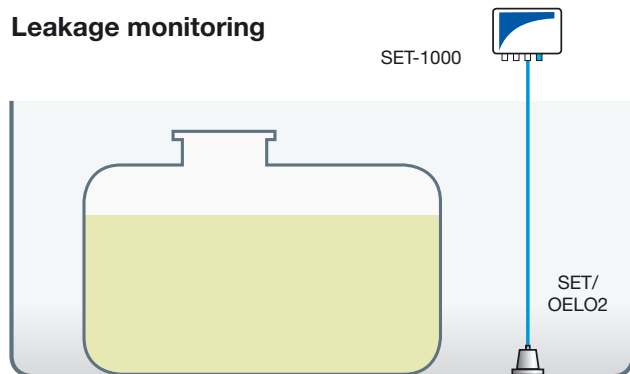
Oil alarm for inspection shaft



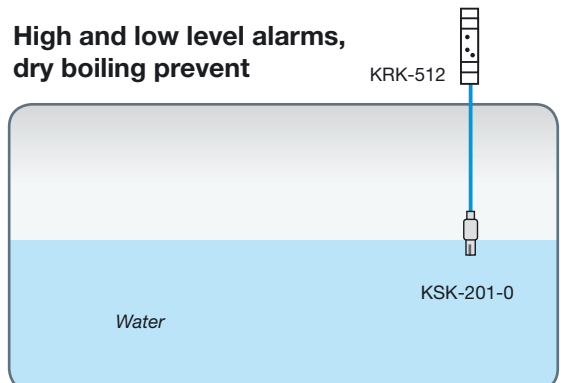
High or low level alarms, pump control



Leakage monitoring



High and low level alarms, dry boiling prevent



Technical data

Control units



	KRK-512	KRK-522	SET-1000	SET-2000
Supply voltage	110/230 V AC, 50 Hz or 24 V DC	110/230 V AC, 50 Hz or 24 V DC	230 V AC, 50 Hz or 12 V DC	230 V AC, 50 Hz or 12 V DC
Sensors	One conductive Labkotec sensor	Two conductive Labkotec sensors	One Labkotec sensor	Two Labkotec sensors
Relay outputs	One potential-free relay output 250 V AC/8 A	Two potential-free relay outputs 250 V AC/8 A	Two potential-free relay outputs 250 V, 5 A, 100 VA	Two potential-free relay outputs 250 V, 5 A, 100 VA
Ambient temperature	-20 °C...+55 °C	-20 °C...+55 °C	-25 °C...+50 °C	-25 °C...+50 °C
Mounting	DIN rail (EN 60715)	DIN rail (EN 60715)		
Enclosure	Wall-mount housing NV05-KV	Wall-mount housing NV05-KV	Wall-mount housing, IP65	Wall-mount housing, IP65
Dimensions	17,6 x 90 x 64 mm (L x H x D)	52 x 90 x 65 mm (L x H x D)	175 x 125 x 75 mm (L x H x D)	175 x 125 x 75 mm (L x H x D)
Ex-classification	–	–	⊕ II (1) G [Ex ia] IIC VTT 04 ATEX 031X	⊕ II (1) G [Ex ia] IIC VTT 04 ATEX 031X

Accessories



Junction box
for one sensor



Junction box
for two sensors



Cable connector for
one and two sensors

Sensors



	SET/TSH2	SET/TSHS2	SET/TSSH2	SET/SA2
Measurement principle	Capacitive	Capacitive	Capacitive	Capacitive
Ambient temperature	-25 °C...+60 °C	-25 °C...+60 °C	-25 °C...+120 °C, (transmitter -20 °C...+60°C)	-25 °C...+60 °C
Cable	5 m, oil proof	5 m, oil proof	–	–
Wetted parts	AISI 316, PTFE	AISI 316, PTFE	AISI 316, PTFE	AISI 316, FEP
IP-classification	IP68	IP68	IP68, (transmitter IP65)	IP68, (transmitter IP655)
Installation	R 3/4" or suspended	R 3/4" or suspended	R 3/4"	R 3/4"
Ex-classification	⊕ II 1 G Ex ia IIB T5 Ga VTT 03 ATEX 024X	⊕ II 1 G Ex ia IIB T5 Ga VTT 03 ATEX 024X	⊕ II 1 G Ex ia IIC T5 Ga VTT 02 ATEX 022X	⊕ II 1 G Ex ia IIC T5 Ga VTT 02 ATEX 022X
Control units	SET-1000, SET-2000	SET-1000, SET-2000	SET-1000, SET-2000	SET-1000, SET-2000



	SET/OS2 SET/OSK2	SET/OELO2	idOil-LIQ	KSK-201-0
Measurement principle	Capacitive	Capacitive	Vibration	Conductive
Ambient temperature	-25 °C...+60 °C	-25 °C...+60 °C	-30 °C...+60 °C	0 °C...+80 °C
Cable	5 m or 15 m, oil proof	5 m, oil proof	5 m or 15 m, oil proof	–
Wetted parts	AISI 316, PVC, (floats PE)	AISI 316, Nylon 12	PVC, aluminium, PA, CR, Viton	AISI 316, ABS
IP-classification	IP68	IP68	IP68	IP68
Installation	Suspended	On the floor or similar	Suspended	Suspended
Ex-classification	⊕ II 1 G Ex ia IIA T5 Ga VTT 03 ATEX 009X	⊕ II 2 G Ex ia IIB T5 Ga VTT 03 ATEX 015X	⊕ II 1 G Ex ia IIB T5 Ga EESF 19 ATEX 002X	–
Control units	SET-1000, SET-2000	SET-1000, SET-2000	SET-1000, SET-2000, idOil	KRK-512, KRK-522

Sensors



SET/TSH2 sensor and SET/TSHS2 sensor

SET/TSH2 is a universal sensor for non-viscous liquids. The most common applications are e.g. water/oil interface detection and high/low level alarm in fuel and chemical tanks. SET/TSHS2 is a special sensor for viscous liquids. The most common applications are e.g. high level or water interface alarm in grease or heavy/crude oil storage tanks. Equipped with a fork type counter electrode instead of a tube counter. Sensor length 345 mm.



SET/TSSH2 sensor and SET/TSSHS2 sensor

Special sensor with adjustable mounting thread for non-viscous liquids having temperatures up to 120 °C. Can be utilized as high or low level detector or for detecting the interface between two liquids. SET/TSSH2 is a universal sensor and SET/TSSHS2 is for non-viscous fluids. Equipped with a fork type counter electrode. Sensor lengths 170 mm, 500 mm, 800 mm and up to 1500 mm.



SET/SA2 sensor

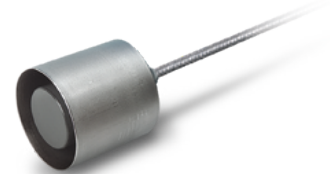


SET/SA2 is a capacitive high level sensor for fluids and foams. Due to its rod-type construction with FEP-coating, SET/SA2 can be utilized in various applications in difficult circumstances, especially in the process and chemical industries. Sensor standard length 300 mm, max. 1500 mm.

SET/OS2



Capacitive sensor for e.g. oil/water interface detection. The transmitter is cast in the sensor. Can be installed in Zone 1/2 hazardous area.



SET/OSK2



Floating sensor, which provides an alarm of at least 15 mm thick oil or hydrocarbon layer on water. The most common applications are inspection shafts and different kind of basins with altering liquid level. Can be installed in Zone 1/2 hazardous area.

idOil-LIQ sensor



Polarity free digital vibration sensor indicates when the liquid level in the oil separator rises excessively e.g. in an outlet blockage situation.



SET/OELO2 sensor



SET/OELO2 is a capacitive sensor which can be utilized for leak detection of oil, fuel, chemical, water, etc. Typical applications include e.g. tank farms, boiler rooms and cellars. Can be utilized for oils, water and other fluids. Can be installed in Zone 1/2 hazardous area.



KSK-201-0 sensor

Conductive sensor for dry boiling prevent. High and low level alarms of clean liquids e.g drilled well.





Protecting the environment

Labkotec is a leading measurement equipment manufacturer, and related services provider for various industrial applications. Founded in 1964, Labkotec has decades of experience in providing innovative measurement solutions for a myriad of applications. Our mission is to provide measurement solutions which enhance our customers' business and help them to protect the environment and people.

Labkotec's comprehensive export product range comprises alarm devices for oil and grease separators, ice detection systems, level measurement equipment for petrol storage and distribution, as well as a wide range of level measurement and detection instruments. We also provide our own unique cloud based measurement data monitoring system LabkoNet®, which offers our customers remote onsite monitoring of measurement and alarm information.

Since most of our products are intended for use in hazardous areas, they are designed and certified in strict accordance with EX-norms. In addition to our export range Labkotec's domestic market includes a wide range of imported level measurement devices, flow measurement equipment, detection technology and analyzers as well as related services. We also provide complete control systems for municipal water supply and sewerage.

Labkotec is ISO 9001:2015 and ISO 14001:2015 quality certified, while our environmental systems are certified by Lloyd's Register Quality Assurance.

Labkotec Oy reserves the rights to alterations without prior notice. Due to policy of continuous improvement in R&D, technical specifications may change. Installation shall always be made as documented in manufacturer's instructions.



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Measures for a better tomorrow



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