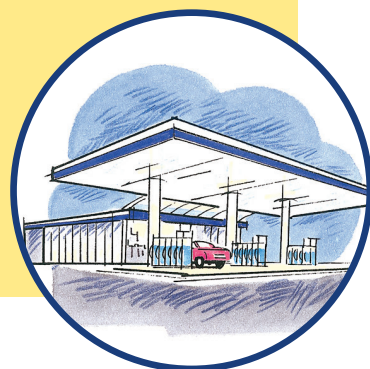


SEPARIX

The alarm system for separators

1
5



SEPARIX

The alarm system for oil and light fluid separators

Oil and light fluids present a huge danger potential for ground and waste water. The alarm system SEPARIX is the ideal sensor technology to alert the operator of separators to these dangers in good time.

Application

The separator alarm system SEPARIX is suitable for all kinds of light fluids, especially for petrol, mineral oil components as well as oil of vegetable and animal origin. SEPARIX-C, the separation layer sensor for detecting layer thicknesses, and the high-level sensor SEPARIX-T ensure an optimal monitoring and safeguarding of all separators. By means of the conversion SEPARIX-Control C the alarm is acoustically and visually indicated.

SEPARIX-Control,
Separating layer sensor SEPARIX-CH,
High-level probe SEPARIX-T and
Separating layer sensor SEPARIX-CL



Advantages of FAFNIR's Technology

- Suitable for all oil and light fluid separators
- ATEX approval for zone 0
- Modular system with separation layer sensor and high-level sensor
- Functional check of internal and external alarm by push-button
- No mechanically moving parts
- Compact and robust design
- Easy installation

Function

SEPARIX-C H and SEPARIX-C L

A cylindrical capacitor is situated in the measuring range of the separation layer sensor. The capacity C of this capacitor is altered by the relative dielectric constant ϵ_r of the medium, which encloses the sensor. Since the dielectric constant ϵ_r varies strongly between water and the layer to be measured in the separator, the separating layer can be measured unambiguously.

All oils and light fluids which form a separating layer in the separator can be measured. Light fluids have a lower density than water and are not or only slightly soluble and not saponifiable such as benzines, Diesel, heating oils, filter oils (white oils) as well as other oils of mineral origin. Water emulsions cannot be detected.

SEPARIX-T H and SEPARIX-T L

On the threshold point of the high-level sensor is an encapsulated PTC-resistor. The PTC-resistor is a variable resistance whose resistance value increases according to the rising temperature. Since liquids have a better thermal conductance than air or gas the PTC-resistor heats up more strongly in an air or gas space. When it is immersed into liquid the PTC-resistor cools down. The changing resistance value is then evaluated by SEPARIX-Control. The correct functioning of the high-level sensor is permanently monitored with a scanner function.

System Design SEPARIX-Control

SEPARIX-Control C

- Conversion for connecting a capacitive separating layer sensor

SEPARIX-Control T

- Conversion for connecting a calorimetric high-level sensor

SEPARIX-Control CT

- Conversion for connecting a calorimetric high-level sensor and a capacitive separating layer sensor

SEPARIX-Sensor

SEPARIX-C H

- Capacitive separating layer sensor from PE with stainless steel protection for especially aggressive media for application in zone O

SEPARIX-C L

- Capacitive layer thickness sensor from PE for application in zone O

SEPARIX-T H

- Calorimetric high-level sensor from stainless steel for especially aggressive media for application in zone O

SEPARIX-T L

- Calorimetric high-level sensor for application in zone O

Installation Instructions

The transducer SEPARIX-Control C must be installed outside the explosion-endangered area. The separating layer sensors SEPARIX-C H and SEPARIX-C L as well as the high-level sensors SEPARIX-T H and SEPARIX-T L are constructed for application in light fluid separators. They are not suitable for use in heavily flowing liquids (e.g. in pipelines or agitators).

Technical Data

Separating layer sensor SEPARIX-C:

Operating data:

- Ambient temperature:
-20 °C ... +60 °C
(for use in ex-zone);
-20 °C ... +70 °C
- Medium temperature:
0 °C ... +60 °C (for use in ex-zone)
0 °C ... +70 °C
- Housing protection type: IP 68

Materials of

media connected parts:

- SEPARIX-C H: stainless steel;
SEPARIX-C L: brass
- PE-HD (polyethylene of high density)

Dimensions:

- Diameter: 28 mm
- Length:
SEPARIX-C H: 725 mm;
SEPARIX-C L: 195 mm
- Cable length: 4.5 m
(extendable to 250 m)
- Further data: see drawing

Explosion protection:

- ATEX zone 0

High-Level Probe SEPARIX-T:

Operating Data:

- Product temperature:
-25 °C ... +50 °C
- Ambient temperature:
-25 °C ... +70 °C
- Threshold switch-on delay: <2 sec
- Housing protection type: IP 68

Materials:

- media connected parts SEPARIX-T H:
stainless steel
- media connected parts SEPARIX-T L:
brass, stainless steel, spring steel
zinc-coated, viton, ultradur

Dimensions:

- Tube diameter:
SEPARIX-T H stainless steel 24 x 1;
SEPARIX-T L brass 24 x 2
- Probe lengths: 180 mm
- Further data: see drawing

Conversions SEPARIX-Control ... :

Operating data:

- Auxiliary energy: 230 V; 50 Hz
- Power consumption: 8 VA
- Ambient temperature:
0 °C ... +40 °C
- Housing protection type: IP 67

Output:

- Relay: change-over contact, floating
- Load:
AC: $\leq 250\text{ V}$, $\leq 5\text{ A}$, $\leq 500\text{ VA}$;
DC: $\leq 30\text{ V}$, $\leq 5\text{ A}$, $\leq 150\text{ W}$

Input:

- SEPARIX-C H / SEPARIX-C L
- SEPARIX-T H / SEPARIX-T L

Dimensions:

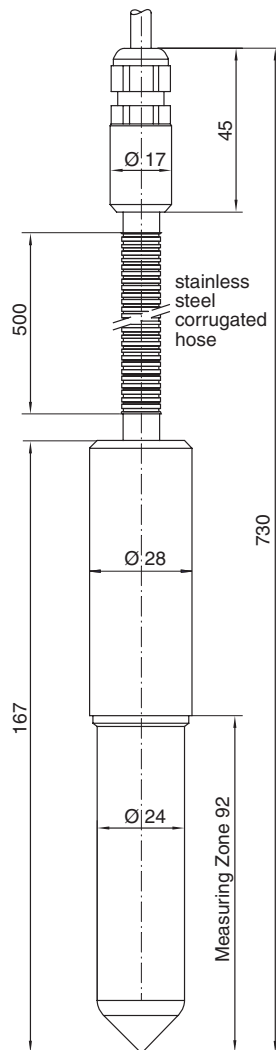
- 180 mm x 155 mm x 60 mm

Explosion protection:

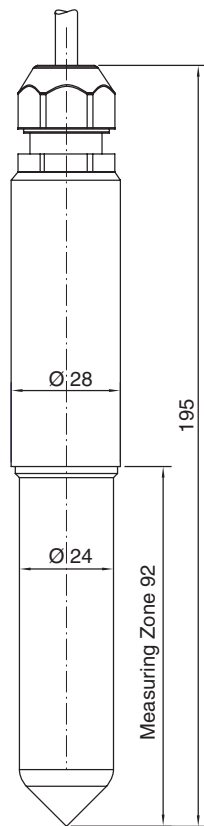
- sensor input intrinsically safe ATEX

Separating layer sensor

SEPARIX-C H

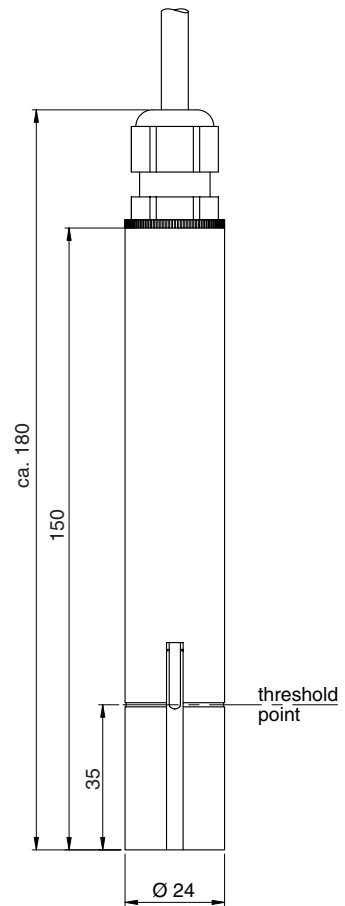


SEPARIX-C L



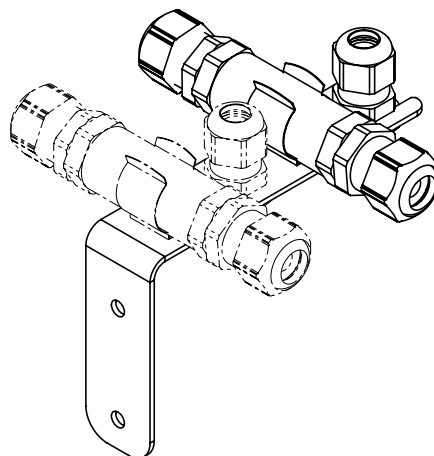
High-Level Probe

SEPARIX-T



Dimensions in mm

SEPARIX Installation-Kit



Purchase Order Codes

Please state the following order number in your purchase order.

SEPARIX

SEPARIX Set C L

1 unit SEPARIX-Control C
1 unit SEPARIX-C L

conversion for connecting SEPARIX-C
capacitive layer thickness sensor made of PE

Order number

33100

1

SEPARIX Set C H

1 unit SEPARIX-Control C
1 unit SEPARIX-C H

conversion for connecting SEPARIX-C
capacitive layer thickness sensor made of PE with stainless steel protection for especially aggressive media

Order number

33100

2

SEPARIX Set T L

1 unit SEPARIX-Control T
1 unit SEPARIX-T L

conversion for connecting SEPARIX-T
calorimetric high-level sensor

Order number

33100

3

SEPARIX Set T H

1 unit SEPARIX-Control T
1 unit SEPARIX-T H

conversion for connecting SEPARIX-T
calorimetric stainless steel high-level sensor for especially aggressive media

Order number

33100

4

SEPARIX Set CT L

1 unit SEPARIX-Control CT
1 unit SEPARIX-C L
1 unit SEPARIX-T L

conversion for connecting SEPARIX-C and SEPARIX-T
capacitive layer thickness sensor
calorimetric high-level sensor

Order number

33100

5

SEPARIX Set CT H

1 unit SEPARIX-Control CT
1 unit SEPARIX-C H
1 unit SEPARIX-T H

conversion for connecting SEPARIX-C and SEPARIX-T
capacitive layer thickness sensor made of PE with stainless steel protection for especially aggressive media
calorimetric high-level sensor made of stainless steel for especially aggressive media

Order number

33100

6

Single Parts

SEPARIX-Control C

Conversion for connecting SEPARIX-C

331010

SEPARIX-Control T

Conversion for connecting SEPARIX-T

331013

SEPARIX-Control CT

Conversion for connecting SEPARIX-T

331014

SEPARIX-C L

Capacitive layer thickness sensor made of PE

331011

SEPARIX-C H

Capacitive layer thickness sensor made of PE with stainless steel protection for especially aggressive media

331012

SEPARIX-T L

Calorimetric high-level sensor

331015

SEPARIX-T H

Calorimetric high-level sensor made of stainless steel for especially aggressive media

331016

Accessories

Installation-Kit

to install SEPARIX-Sensors in the separator

331017

For further information contact us on telephone +49/40/39 82 07-0

Current information under: www.fafnir.com

