RECHNER SENSORS

High Lights

Catalogue

2021

Every product from the company Rechner Sensors bears the CE mark according to EU regulation 765/2008.

Devices that are RoHS compliant are devices that comply with the EU Directive 2011/65 / EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment

ATEX is the abbreviation for "ATmosphère EXplosive". ATEX certified devices are certified according to the ATEX product directive 2014/34/EU and the European standards for **explosion protection.**

Devices certified according to IECEx can be used internationally in explosive-endangered areas.

ETL Listed is a **security seal** of approval for the **North American** market. These devices are tested, certified and produced in accordance with UL / CSA safety standards and requirements.

Sensors with this logo are allowed to come into **contact with food** according to the Regulation (EC) No. 1935/2004.

The EHEDG certification is based on **hygienic construction and design,** as well as materials to guarantee the hygienic handling and processing of food and thereby supports the EC **food guidelines**.

IO-Link is the first globally standardized IO technology for communicating with sensors and actuators. IO-Link is the evolutionary further development of the previous, tried and tested connection technology for sensors and actuators.

Rechner Sensors: *Why us?*

QUALITY COMES FIRST!

For 55 years the main focus has been on quality. This is reflected in the high standard and performance of all Rechner sensors and probes, the recognition of employee value and their goals, plus a true commitment to reducing our carbon footprint.

Rechner Sensors promise of quality is your advantage:

COMPANY WITH HIGH QUALITY STANDARDS

Rechner Sensors is an international company and always wants to improve and develop in every area. Certifications help you choose the safest and the highest quality products. Rechner Sensors company certificates and guidelines are e.g. **ISO 9001, Code of Conduct, ISO 26000.**

MADE IN GERMANY

'Made in Germany' is our guarantee of sensors which are durable, reliable and always deliver a long trouble free, in-service life.

100% FINAL TEST

Every single Rechner product is 100% tested before it is sent to you. It is through this total testing regime that Rechner Sensors ensure you only receive top quality products.

IN-HOUSE DEVELOPMENT DEPARTMENT

New solutions, to customer applications are constantly being developed, including bespoke designs. Rechner's goal is to offer the optimal sensor solution, perfected down to the last detail.

100% TRACEABILITY

Rechner Sensors guarantees one hundred percent traceability of your sensors.

LASER MARKING

Permanently legible, chemically and thermally resistant - thanks to the **laser marking**, your sensor can be identified at any time.

#1

Rechner Sensors *is Green*

Wildflower meadow in Lampertheim on Rechner Sensors's property

Fruit trees, vines, fountains and even a wild flower meadow are part of Rechner's home premises.

The support of energy saving, increased efficiency, and the protection of nature, are all values practiced, and truly embraced, within Rechner Sensors's holistic quality policies.

Photovoltaic system from Rechner Sensors

Use the sun when it shines! Rechner's electric car fleet all fill-up with home grown electricity, putting sun in the tank!

Everyone in the team helps ensure that resources are used sparingly. From paper-less work to digital processes. The sensors and level systems that you receive from Rechner Sensors are produced in „our production facility" in Germany in an eco friendly, sustainable manner.

Rechner Sensors: *Your* Partner

Capacitive sensors and level probes from Rechner are the perfect feedback devices for your level control.

Decades of customer focussed, senor design experience, is why Rechner's sensor range is so diverse.

CLASSIC CAPACITIVE SENSORS

The capacitive sensors generate a capacitive field in the area of the active surface. Every medium, i.e. liquid or bulk material with a dielectric constant $\varepsilon_r \geq 1.1$, is recorded. Depending on the model used, the value is output as a switching signal or as an analog signal. The level can be regulated via the connected control system.

- **Binary measurement**
  Normally Open, Normally Closed, Antivalent
- **Analog measurement**
  4...20 mA or 0...10 V
  20...4 mA or 10...0 V

Good to know

Sensors and probes for your areas:

- ATEX Dust EX zone 20, 21 and 22
- ATEX Gas EX Zone 0, 1 and 2
- Food contact
- Hygienic design
- Chemical contact
- High temperature ranges up to 250°C
- Containers with pressure or vacuum

Capacitive sensors and level probes detect all types of products:

- **Liquids**
- **Bulk goods**
- **Pastes**

ATEX APPROVAL *AND* FOOD SUITABILITY?
Of course!

Level control by contact with the media or level measurement through the container wall
- you will find the right product here.

High Performance

Devices from Rechner Sensors, have a longer in-service life, include quadruple electronic protection, which delivers the highest reliability, reducing production stoppages and improving your profitability.

Capacitive Sensors with ATEX-Certification

For level control
in potentially explosive areas:

EX Zone 20, 21 and 22 / dust
Zone 0, 1 and 2 / gas

Your advantage:
Sizes in
ALL variants

M 12 x 1

KA1564
All in One

KA1565
All in One

All in One
= **no** Ex barrier needed!

M 18 x 1

KA1502
All in One

KA1503
All in One

KA1394
NAMUR

KA0084
All in One

M 30 x 1,5

Data Sheets
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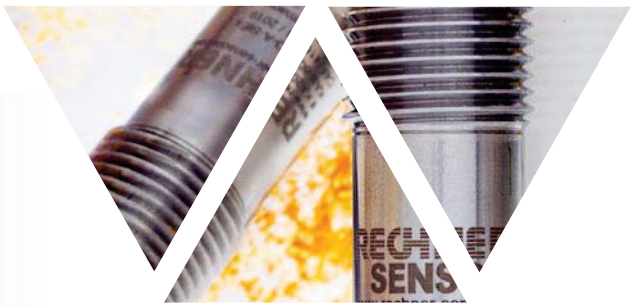
KA1047
All in One

KA1079
All in One

M 32 x 1



KA2000
All in One

KA0264

Dust Ex

G 1/2”
and 1 inch

Application example:
Level control of bulk goods, liquids and pastes

Protect yourself, your employees and your company from any explosion risk – instal Rechner ATEX sensors.

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Leak sensor with holder

RECHNER SENSORS

KA9037

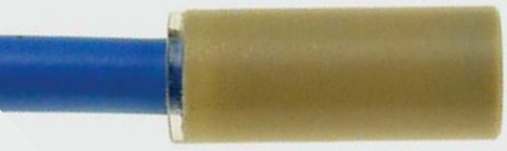
Leakage sensor

Application example:
Leak monitoring, pipeline, storage tank
e.g. explosive liquids,
chemically aggressive liquids

NAMUR

safety first

1,6 cm



IA0344

Ø 6,5 mm

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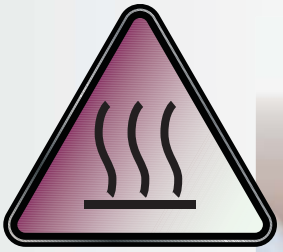
Capacitive Sensors for food contact

RECHNER SENSORS

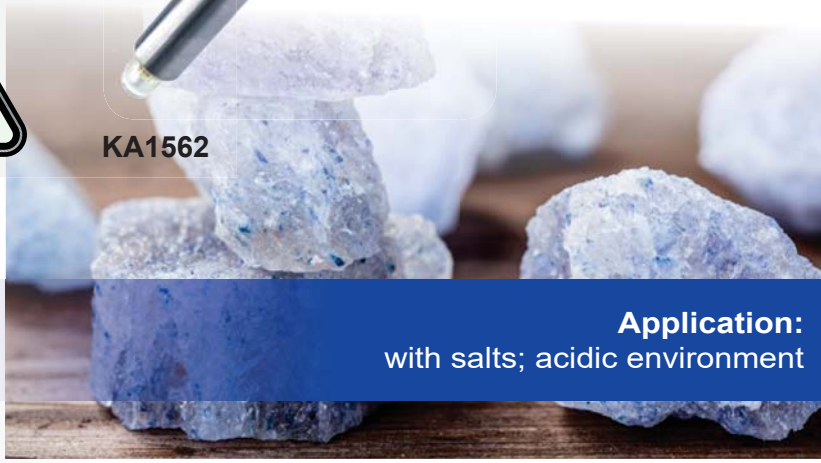
+100°C

KA1644



+120°C

KA1562



Application:
with salts; acidic environment

Food & Pharma

hygenic

KA1244

CERTIFIED EHEDG TYPE EL CLASS I

For Food

For Food

Food + ATEX:
KA1514
NAMUR

Ex

High Performance

= tough physical protection. All norms exceeded
+ highest protection against electrical interference and spikes
+ in-service application resilience
+ longer life, reduced stoppages, higher profits

Date Sheets
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intelligent industrial automation

Capacitive Sensors IO-Link

Use IO-Link
Universal · Smart · Easy

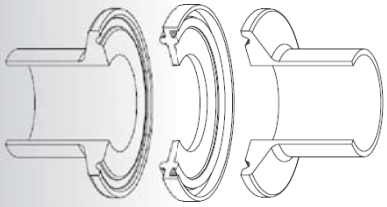
KA1591

Simple and easy set-up IO-Link devices, can acquire and deploy instant data feedback, to allow auto-optimisation of a sensor performance. This enables live, in-cycle, performance enhancements of an industrial process control.

For Food

KA1590

TRI-CLAMP / **TRI-CLOVER**



IO-Link

Higher smarter performance
With IO-Link you can read out more information - more knowledge about your production and at the same time achieve **efficiency** gains and **cost savings**.

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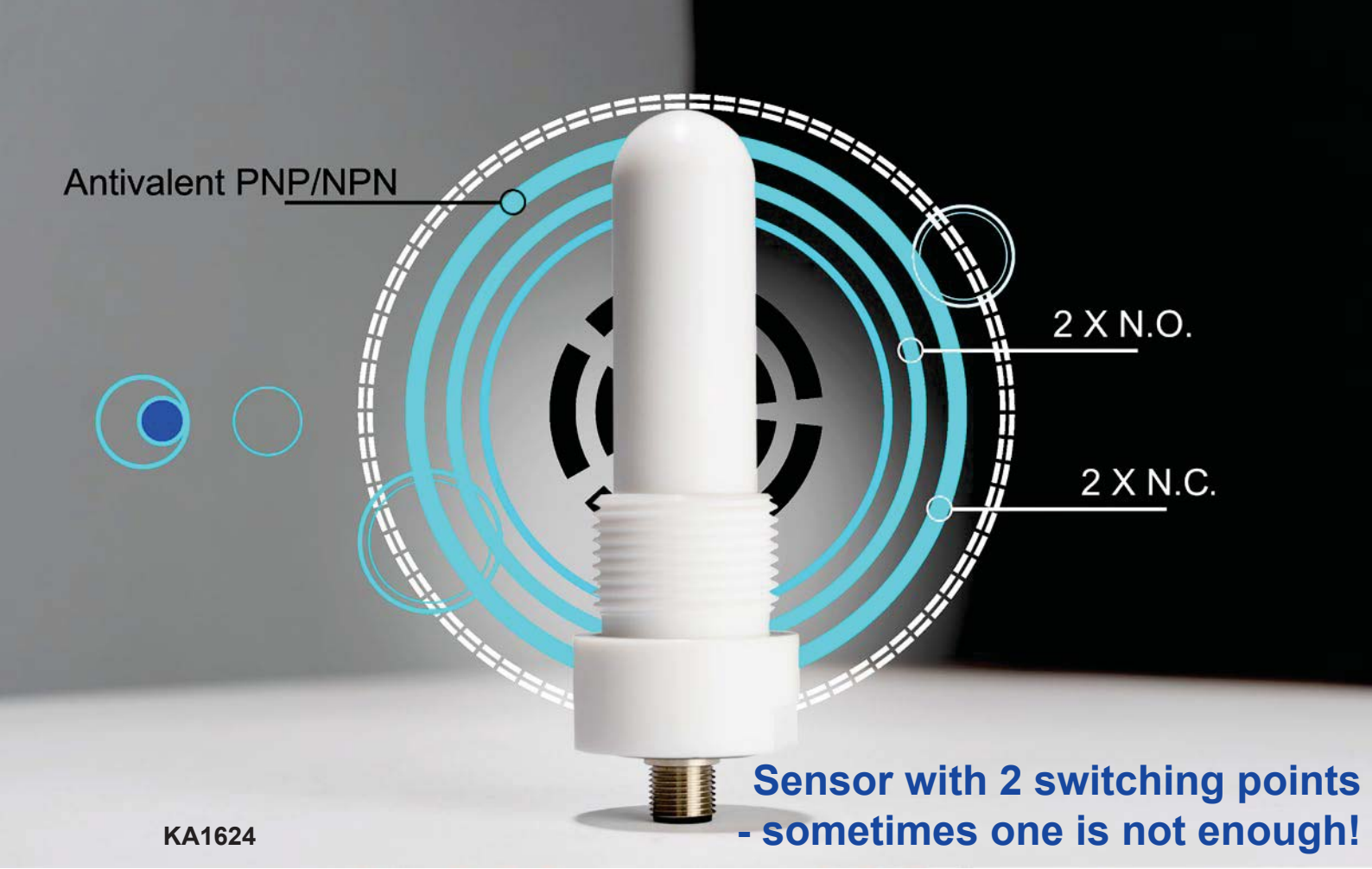

KA1624

Sensor with 2 switching points - sometimes one is not enough!

Capacitive Sensors P3
3 output modes

Detect the fill levels of changing products with one single sensor set-up. Also check ‘container present’ and ‘level detection’ with one sensor device.

Easy to program, optimum sensing adjustment, simple set-up
=
EasyTeach

P3

KA8981

Data Sheets
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Capacitive level measurement systems

Special sensor concept
for small containers

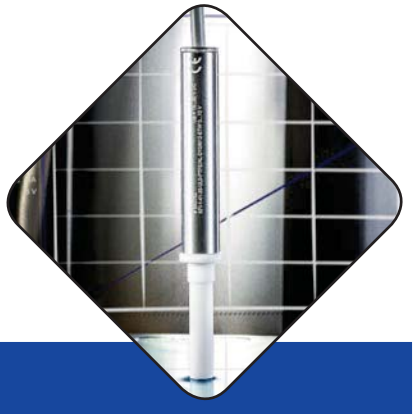
KI0124

KI0125

Application:
Liquids and powders
e.g. for a very precise detection over a small range,
by high sensitivity condition evaluation

KF0455

Your advantage:
Accessibility of the sensor is not important
- it is easily adjusted via the **EasyTeach**
function or external evaluation electronics



All good things come in threes

The capacitive level probes and level measuring systems are based on the patented Rechner Sensors 3-electrode measuring principle.
=
The same reliable level detection for all media! At last a solution that ignores material build-up on probes! Rechner's 3-electrode probe ignores coatings by measuring the entire container!

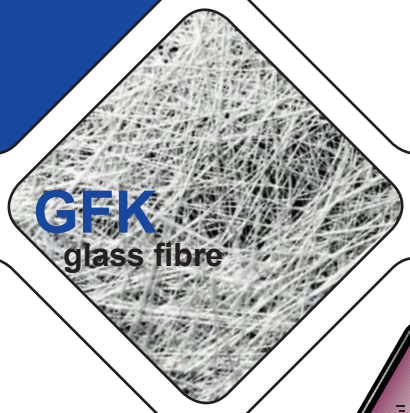
REICHNER SENSORS

Reliable level control

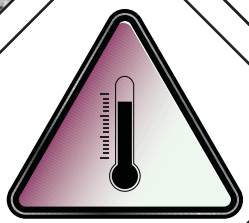
Analogue

Binary

up to 4 switching points on one probe



+250°C
+180°C
+70°C



PTFE

PEEK

KI0167

KF0304

KI0200
KI0157

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PEEK probes

= very tough, robust, chemically resistant, high surface finish
= length freely selectable for applications

RECHNER SENSORS

up to 2 metre

Auto-programming head

30 centimetre short

Insensitive to media adhesion

Output electronics built-in

3 Electrode measuring principle

KI0050

KF0472

KF0644

Easy:
set
without filling

Different products are all reliably measured without readjustment

With CCC approval

With the new CCC certification (China Compulsory Certification) you can install Rechner sensors for machines or systems destined for China.

N00017

Only CCC-certified machines and devices are permitted by law for use in China
- a MUST for hazardous areas.

Rechner Sensors products contain the CCC certification.
e.g. all inductive and capacitive dust Ex sensors.
Certification for all your ZONES.

Dust Ex
Capacitive
G 1/2“

KA1426
All in One

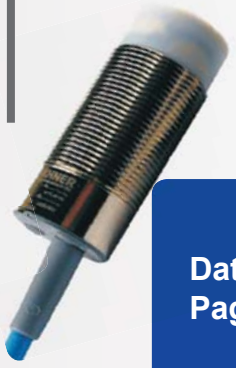
Dust Ex
Inductive

IA0375
All in One

Inductive
PEEK
IP68

IA0166
NAMUR

Capacitive
Analog



KA1325
NAMUR

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Evaluation units
1, 2 or 4 channels

Currently in development:
Evaluator for min / max solution
Your advantage: space-saving

Soon 2 in 1

EasyTeach = very easy to set

XA0064
XA0065

1

In development

XA0066
XA0067

2

FUTURE

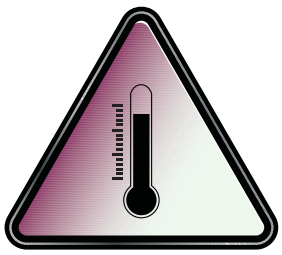
XA0022
XA0026

4

+250 °C

eXtreme Range

EXTREMELY WIDE MEASURING RANGES
In hot and normal ambient temperatures



+482 °F

Application Examples:
Melt containers, hot glue systems

Suitable sensors are e.g :

498004

KX0104

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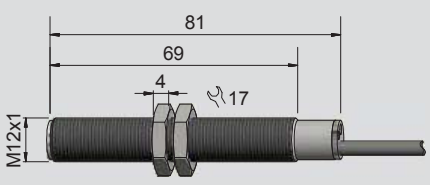
Capacitive Sensors
Series 80 - PNP - StEx - ATEX

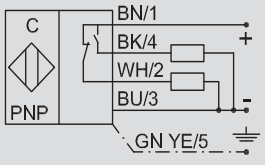
Housing M 12 x 1

- For use in areas with the risk of dust explosion, zone 20
- For use in areas with the risk of gas explosion, zone 1
- Housing material: Stainless steel VA No. 1.4305 / AISI 303
- Sensing distance 0...6 mm adjustable

DMT 01 ATEX E 157	IECEx BVS 07.0015
G Ex mb IIC T4 Gb	Ex mb IIC T4 Gb
2 D Ex ta/tb IIIC T101°C Da/Db	Ex ta/tb IIIC T101°C Da/Db

Technical data	Flush mountable
Operating distance S_n	2 mm
Operating distance min. / max. adjustable	0...6 mm
Electrical version	4-wire DC
Output function	Antivalent
Type PNP current	**KAS-80-A12-A-M12-PTFE/VAb-Z03-1-2G-1/2D**
Type PNP	**KAS-80-A12-A-StEx**
Art.-No.	**KA 1564**
Operating voltage (U_B)	10...30 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
Operating current (I_e)	2 x 0...150 mA
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-20...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	3 m, PVC, 5 x 0.14 mm²
Housing material	Stainless steel VA No. 1.4305 / AISI 303
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PC (FDA 21 CFR 177.1580)
Media optimized	Yes
Accessories (delivered with the sensor)	2 nuts M 12 x 1





* With sealed potentiometer screw

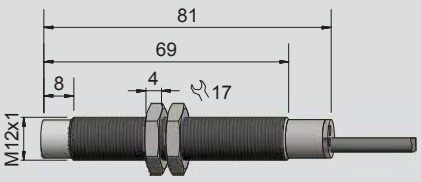
Made in Germany

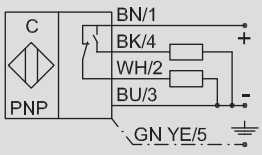
Capacitive Sensors
Series 80 - PNP - StEx - ATEX

Housing M 12 x 1
- For use in areas with the risk of dust explosion, zone 20
- For use in areas with the risk of gas explosion, zone 1
- Housing material: Stainless steel VA No. 1.4305 / AISI 303
- Sensing distance 0,5...10 mm adjustable

DMT 01 ATEX E 157	IECEx BVS 07.0015
Ex II 2 G Ex mb IIC T4 Gb	Ex mb IIC T4 Gb
Ex II 1/2 D Ex ta/tb IIIC T101°C Da/Db	Ex ta/tb IIIC T101°C Da/Db

Technical data	Non-flush mountable
Operating distance S_n	4 mm
Operating distance min. / max. adjustable	0.5...10 mm
Electrical version	4-wire DC
Output function	Antivalent
Type PNP current	**KAS-80-A22-A-M12-PTFE/VAb-Z02-1-2G-1/2D**
Type PNP	**KAS-80-A22-A-StEx**
Art.-No.	**KA 1565**
Operating voltage (U_B)	10...30 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
Operating current (I_e)	2 x 0...150 mA
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-20...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	3 m, PVC, 5 x 0.14 mm²
Housing material	Stainless steel VA No. 1.4305 / AISI 303
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PC (FDA 21 CFR 177.1580)
Media optimized	Yes
Accessories (delivered with the sensor)	2 nuts M 12 x 1





* With sealed potentiometer screw

Made in Germany

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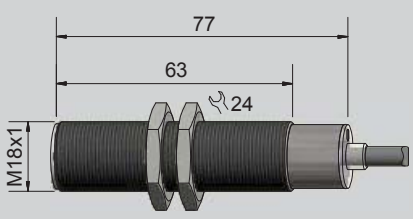
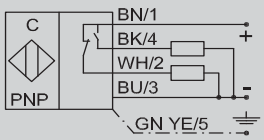
Capacitive Sensors
Series 80 - PNP - StEx - ATEX

Housing M 18 x 1
- For use in areas with the risk of dust explosion, zone 20
- For use in areas with the risk of gas explosion, zone 1
- Housing material: Stainless steel VA No. 1.4305 / AISI 303
- Sensing distance 0.5…10 mm adjustable

DMT 01 ATEX E 157	IECEx BVS 07.0015
Ex II 2 G Ex mb IIC T4 Gb	Ex mb IIC T4 Gb
Ex II 1/2 D Ex ta/tb IIIC T101°C Da/Db	Ex ta/tb IIIC T101°C Da/Db

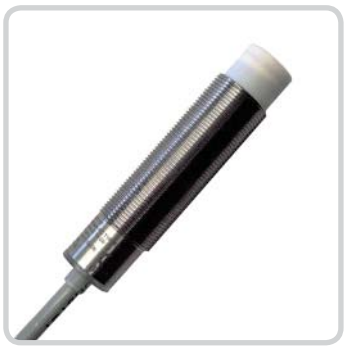
Technical data	Flush mountable
Operating distance S_n	5 mm
Operating distance min. / max. adjustable	0.5...10 mm
Electrical version	4-wire DC
Output function	Antivalent
Type PNP current	**KAS-80-A13-A-M18-PTFE/VAb-Z02-1-HP-2G-1/2D**
Type PNP	**KAS-80-A13-A-StEx**
Art.-No.	**KA 1502**
Operating voltage (U_B)	10...30 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
Operating current (I_e)	2 x 0...150 mA
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-25...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection	3 m, PVC, 5 x 0.14 mm²
Housing material	Stainless steel VA No. 1.4305 / AISI 303
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PC (FDA 21 CFR 177.1580)
Media optimized	Yes
Accessories (delivered with the sensor)	2 nuts M 18 x 1





* With sealed potentiometer screw

Made in Germany

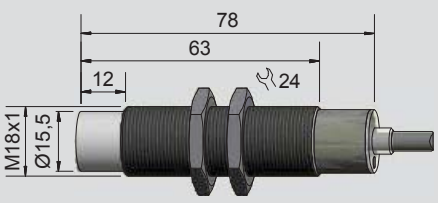


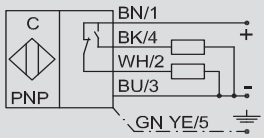
Capacitive Sensors
Series 80 - PNP - StEx - ATEX

Housing M 18 x 1
- For use in areas with the risk of dust explosion, zone 20
- For use in areas with the risk of gas explosion, zone 1
- Housing material: Stainless steel VA No. 1.4305 / AISI 303
- Sensing distance 0,5…15 mm adjustable

DMT 01 ATEX E 157	IECEx BVS 07.0015
Ex II 2 G Ex mb IIC T4 Gb	Ex mb IIC T4 Gb
Ex II 1/2 D Ex ta/tb IIIC T101°C Da/Db	Ex ta/tb IIIC T101°C Da/Db

Technical data	Non-flush mountable
Operating distance S_n	8 mm
Operating distance min. / max. adjustable	0.5...15 mm
Electrical version	4-wire DC
Output function	Antivalent
Type PNP current	**KAS-80-A23-A-M18-PTFE/VAb-Z02-1-HP-2G-1/2D**
Type PNP	**KAS-80-A23-A-StEx**
Art.-No.	**KA 1503**
Operating voltage (U_B)	10...30 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
Operating current (I_e)	2 x 0...150 mA
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	25 Hz
Permitted ambient temperature	-20...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	3 m, PVC, 5 x 0.14 mm²
Housing material	Stainless steel VA No. 1.4305 / AISI 303
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PC (FDA 21 CFR 177.1580)
Media optimized	Yes
Accessories (delivered with the sensor)	2 nuts M 18 x 1





* With sealed potentiometer screw

Made in Germany

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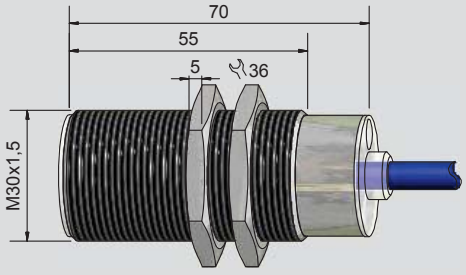
Capacitive Sensors with analogue output
Series 40 - NAMUR EN 60947-5-6 - StEx - ATEX

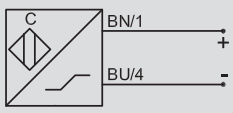
Current output **20...4 mA**

Housing M 30 x 1.5
- For use in areas with the risk of gas explosion, zone 0
- For use in areas with the risk of dust explosion, zone 20
- Housing material: Brass
- Operating range 0...24 mm

DMT 03 ATEX E 048	IECEx BVS 07.0031
Ex II 1G Ex ia IIC T1-T6 Ga	Ex ia IIC T1-T6 Ga
Ex II 1D Ex ia IIIC T101°C Da	Ex ia IIIC T101°C Da

Technical data	Flush mountable
Operating range	0...24 mm
Linear range	2....20 mm
Electrical version	2-wire DC
Output function	Analogue
Type Analogue current	**KAS-40-A14-IL20-M30-PTFE/MS-Z02-1-HP-1G-1D**
Type Analogue	**KAS-40-A14-IL20-StEx**
Art. No.	**KA 1394**
Operating voltage (U_B)	15...35 V DC, U_i = 27 V DC
Power consumption active surface free	≥ 20 mA
Power consumption active surface covered	≤ 4 mA
Load resistor (R_L)	0...500 Ω
Self-inductance (L)	0.2 mH
Self-capacitance (C)	89 nF
Permitted residual ripple max.	5 %
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	0...+70 °C
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-6
Connection cable	2 m, PUR, 2 x 0.75 mm²
Housing material	Brass
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PC (FDA 21 CFR 177.1580)
Accessories (delivered with the sensor)	2 nuts M 30 x 1,5





* With sealed potentiometer screw

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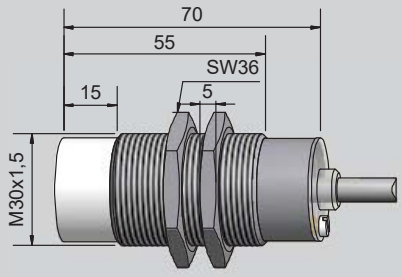
Capacitive Sensors Series 80 - PNP - StEx- ATEX

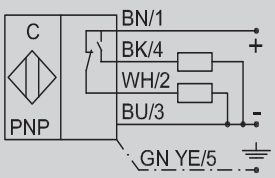
Housing M 30 x 1.5
- For use in areas with the risk of dust explosion, zone 20
- For use in areas with the risk of gas explosion, zone 1
- Sensing distance 3...25 mm adjustable

DMT 01 ATEX E 157	IECEx BVS 07.0015
Ex II 2 G Ex mb IIC T4 Gb	Ex mb IIC T4 Gb
Ex II 1/2 D Ex ta/tb IIIC T101°C Da/Db	Ex ta/tb IIIC T101°C Da/Db

Technical data	Non-flush mountable
Operating distance S_n	15 mm
Operating distance min. / max. adjustable	3...25 mm
Electrical version	4-wire DC
Output function	Antivalent
Type PNP	**KAS-80-A24-A-StEx**
Art.-No.	**KA 0084**
Operating voltage (U_B)	10...30 V DC
Operating current (I_e)	2 x 150 mA
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	5 %
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-20...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	3 m, PVC, 5 x 0.34 mm²
Housing material	VA No. 1.4305
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PA / PPO
Media optimized	Yes
Accessories (is delivered with the unit)	2 pieces nuts M 30

* With sealed potentiometer screw





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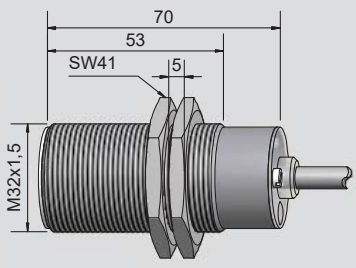
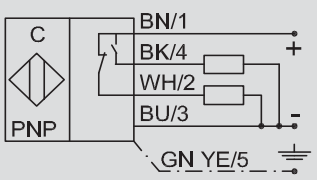
Capacitive Sensors Series 80 - PNP - StEx- ATEX

Housing M 32 x 1.5
- Housing material: Stainless steel VA, No.1.4404 (AISI 316L)
- For use in areas with the risk of dust explosion, zone 20
- For use in areas with the risk of gas explosion, zone 1
- Sensing distance 2...25 mm adjustable

DMT 01 ATEX E 157	IECEx BVS 07.0015
Ex II 2 G Ex mb IIC T4 Gb	Ex mb IIC T4 Gb
Ex II 1/2 D Ex ta/tb IIIC T101°C Da/Db	Ex ta/tb IIIC T101°C Da/Db

Technical data	Flush mountable
Operating distance S_n	15 mm
Operating distance min. / max. adjustable	2...25 mm
Electrical version	4-wire DC
Output function	Antivalent
Type PNP current	**KAS-80-30-A-M32-PTFE/VAc-Z03-1-2G-1/2D**
Type PNP	**KAS-80-30-A-M32-StEx**
Art.-No.	**KA 1047**
Operating voltage (U_B)	10...30 V DC
Operating current (I_e)	2 x 0...150 mA
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	5 %
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-20...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	3 m, PVC, 5 x 0.34 mm²
Housing material	Stainless steel VA No.1.4404 / AISI 316L (FDA conforming)
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PC (FDA 21 CFR 177.1580)
Media optimized	Yes
Accessories (is delivered with the unit)	2 pieces nuts M 32 x 1.5





* With sealed potentiometer screw

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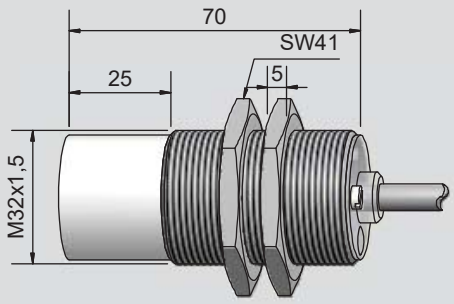
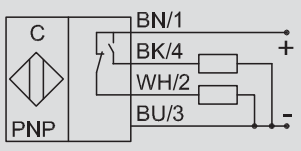
Capacitive Sensors
Series 80 - PNP - StEx- ATEX

Housing M 32 x 1.5
- Housing material: Stainless steel VA No. 1.4305 (AISI 303)
- For use in areas with the risk of dust explosion, zone 20
- For use in areas with the risk of gas explosion, zone 1
- Sensing distance 3...30 mm adjustable

DMT 01 ATEX E 157	IECEx BVS 07.0015
II 2 G Ex mb IIC T4 Gb	Ex mb IIC T4 Gb
II 1/2 D Ex ta/tb IIIC T101°C Da/Db	Ex ta/tb IIIC T101°C Da/Db

Technical data	Non-flush mountable
Operating distance S_n	20 mm
Operating distance min. / max. adjustable	3...30 mm
Electrical version	4-wire DC
Output function	Antivalent
Type PNP	**KAS-80-34-A-M32-StEx**
Art.-No.	**KA 1079**
Operating voltage (U_B)	10...30 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
Operating current (I_e)	2 x 0...150 mA
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-20...+70 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	20 m, PVC, 5 x 0.34 mm²
Housing material	Stainless steel VA No. 1.4305 (AISI 303)
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PC (FDA 21 CFR 177.1580)
Media optimized	Yes
Accessories (is delivered with the unit)	2 nuts M 32 x 1.5





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LevelMaster - Capacitive Sensors- StEx - ATEX

Model G 1/2“
For level control of liquids, bulk material or pastes Ideal for level control in the Food Industry or Pharmaceutical Industry

- For use in areas with the risk of dust explosion, zone 20
- For use in areas with the risk of gas explosion, zone 1
- Housing material: Stainless steel VA No. 1.4305 (AISI 303)
- Welding sockets and Varivent adapter available for EHEDG conform mounting.

DMT 01 ATEX E 157	IECEx BVS 07.0015
Ex II 2 G Ex mb IIC T4 Gb	Ex mb IIC T4 Gb
Ex II 1/2 D Ex ta/tb IIIC T101°C Da/Db	Ex ta/tb IIIC T101°C Da/Db

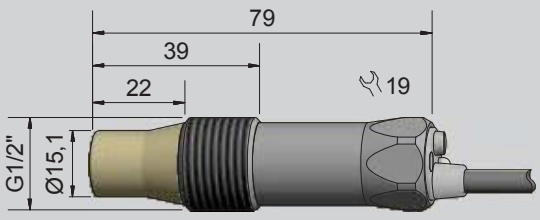
Technical data	Non-flush mountable
Level sensor, in contact with the product	Medium dependent adjustable
Operating distance min. / max. adjustable	0.5...15 mm
Electrical version	4-wire DC
Output function	Antivalent
Type PNP current	**KAS-80-A23-A-G1/2-PEEK/VAb-Z03-1-2G-1/2D**
Type PNP	**KAS-80-A23-A-StEx**
Art.-No.	**KA 2000**
Operating voltage (U_B)	10...30 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
Operating current (I_e)	0...150 mA
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-25...+70 °C / CIP 121 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	3 m, PVC, 5 x 0.14 mm²
Housing material	Stainless steel VA No. 1.4305 / AISI 303
Active surface	PEEK (FDA 21 CFR 177.2415)
Lid	PC (FDA 21 CFR 177.1580)
Media optimized)	Yes
Accessories (not delivered with the sensor): Varivent Adapter art. no. 196395, Welding Socket art. no. 196394	

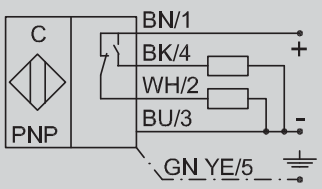
Capacitive Sensors for level control of products with a dielectric constant ε_r from 1,1. Products can be:

- Bulk materials, such as grain, sugar, granulates.
- Liquids, oil, chemicals or pharmaceutical solutions and much more.

Highlights:

- EHEDG conform
- Measurement is independent of the mounting position





* With sealed potentiometer screw

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Capacitive sensors
Series 80 - PNP - StEx - ATEX

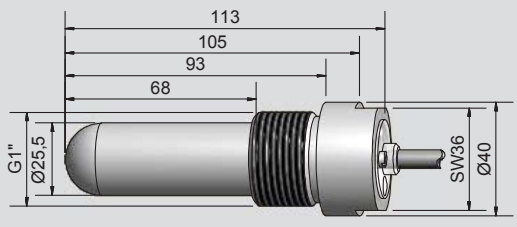
Housing G 1”
- For use in areas with the risk of dust explosion, zone 20
- For use in areas with the risk of gas explosion, zone 1
- Housing material PTFE
- Special version with flange. Sealing can be made with a gasket or PTFE-tape (not supplied with the sensor)

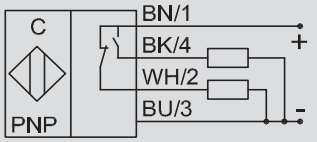
DMT 01 ATEX E 157	IECEx BVS 07.0015
Ex II 2 G Ex mb IIC T4 Gb	Ex mb IIC T4 Gb
Ex II 1/2 D Ex ta/tb IIIC T101°C Da/Db	Ex ta/tb IIIC T101°C Da/Db

Technical data	Non-flush mountable
Level sensor, in contact with the product	Medium dependent adjustable
Operating distance min. / max. adjustable	0...20 mm
Electrical version	4 - wire DC
Output function	Antivalent
Type PNP current	**KAS-80-26/113-A-G1-PTFE-Z02-1-HP-2G-1/2D**
Type PNP	**KAS-80-26-A-K-G1“-PTFE-StEx**
Art.-No.	**KA 0264**
Operating voltage (U_B)	10...30 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
Operating current (I_e)	2 x 0...150 mA
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-25...+90 °C / CIP 121 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	2 m, PVC, 4 x 0.5 mm²
Housing material	PTFE (FDA 21 CFR 177.1550)
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PC (FDA 21 CFR 177.1580)
Media optimized	Yes
Accessories (not delivered with the sensor): For varivent adapter (#196377), triclamp adapter (DN25 / DN32 / DN40 #196356, DN50 #196357), welding socket (#196355)	

Capacitive Sensors S26 with hemis-pherical active surface for level control of products with a dielectric constant ε_r from 1,1. Products can be:

- Bulk material, like plastic granules, powder, cereals, etc.
- Liquids, like water, juice, wine, oil, chemicals or pharmaceutical solutions and much more.
- Pastes in the food, pharmaceutical and cosmetics industry





* With sealed potentiometer screw

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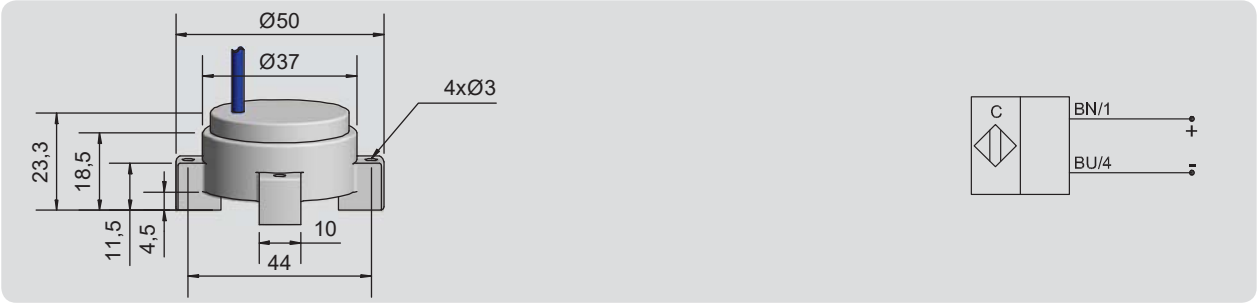
Capacitive Sensors
Series Leak - ATEX

Housing Ø 50 mm
- For use in areas with the risk of gas explosion, zone 0
- Leakage control in clean room / Alarm for containers and pipelines. Mounting in „drip trays“ of plastic, glass or metal
- Housing material: PTFE
- Semiconductor Industry, Chemical Industry

DMT 03 ATEX E 048	IECEx BVS 07.0031
Ex II 1G Ex ia IIC T1-T6 Ga	Ex ia IIC T1-T6 Ga

Technical data	Flush mountable
Operating distance S_n	4.5 mm
Electrical version	2-wire DC
Output function	NAMUR DIN 60947-5-6
Type current	**KAS-40-39/23-N-D50-PTFE-Z02-1-Leak-1G**
Type	**KAS-40-LEAK-D50-PTFE-N**
Art.-No.	**KA 9037**
Operating voltage (U_B)	5 - 15 V DC, U_i = 15 V DC
Output current active surface free	< typ. 1.5 mA
Output current active surface covered	> typ. 2.5 mA
Self-inductance (L)	0.2 mH
Self-capacitance (C)	250 nF
Permitted residual ripple max.	10 %
Permitted ambient temperature	0...+60 °C
LED-display	Red
Degree of protection IEC 529	IP 67*
Connection cable	2 m, FEP, screened, 2 x 0.14 mm
Housing material	PTFE (FDA 21 CFR 177.1550)
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PTFE (FDA 21 CFR 177.1550)



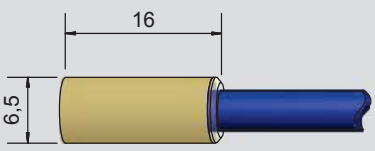
* With sealed potentiometer screw

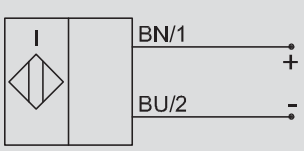
Inductive Sensors
Serie 30 - NAMUR EN 60947-5-6

Housing Ø 6.5 mm
- For use in areas with the risk of gas explosion, zone 0
- For use in areas with the risk of dust explosion, zone 20
- Housing material: PEEK
- Sensing distance Sn = 1.5 mm

DMT 03 ATEX E 048	IECEx BVS 07.0031
II 1G Ex ia IIC T1-T6 Ga	Ex ia IIC T1-T6 Ga
II 1D Ex ia IIIC T101°C Da	Ex ia IIIC T101°C Da

Technical data	Flush mountable
Operating distance S_n	1.5 mm
Electrical version	2-wire DC
Output	NAMUR EN 60947-5-6
Type current	**IAS-30-6.5/16-N-D6.5-PEEK-Z02-0-1G-1D**
Type	**IAS-30-6.5-N-K-PEEK-StEx**
Art.-No.	**IA 0344**
Operating voltage (U_B)	5 - 15 V DC, U_i = 15 V DC
Operating current active surface free	> typ. 2 mA
Operating current active surface covered	< typ. 1.5 mA
Self-inductance (L)	2 mH
Self-capacitance (C)	250 nF
Permitted residual ripple max.	5 %
Frequency of operating cycles max.	500 Hz
Permitted ambient temperature	-20...+70 °C
Degree of protection IEC 60529	IP 67
Connection cable	2 m PVC, 2 x 0.14 mm²
Housing material	PEEK (FDA 21 CFR 177.2415)
Active surface	PEEK (FDA 21 CFR 177.2415)
Lid	PC (FDA 21 CFR 177.1580)





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LevelMaster - Capacitive Sensors

Model G 1/2“
For level control of liquids, bulk material or pastes Ideal for level control in the Food Industry or Pharmaceutical Industry

- Housing material: PEEK
- Adjustment of the sensitivity with ETW- Function (EasyTeach by wire)
- With flange connector M 12 x 1
- Welding sockets and Varivent adapter available for EHEDG conform mounting
- Useable for an ambient temperature up to +100 °C

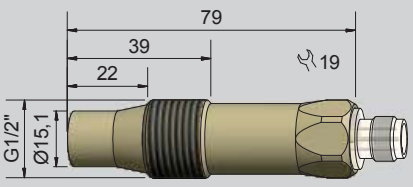
Technical data	Non-flush mountable
Level sensor, in contact with the product	Medium dependent adjustable
Operating distance min. / max. adjustable	1...10 mm
Electrical version	3-pin DC
Output function	Normally open
Type PNP	**KAS-80-A23-S-G1/2-PEEK-100C-Y3-ETW-NL**
Art.-No.	**KA 1644**
Operating voltage (U_B)	12...30 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	5 %
Operating current (I_e)	0...200 mA
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-25...+100 °C / CIP 121 °C
LED-display	Yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67
Norm	EN 60947-5-2
Connection	Flange connector M 12 x 1 (A-coded)
Housing material	PEEK (FDA 21 CFR 177.2415)
Active surface	PEEK (FDA 21 CFR 177.2415)
Accessories (not delivered with the sensor): Varivent Adapter art.No. 196395, Welding Socket art.No. 196394 and matching connectors please see our selection of accessories.	
Matching connectors (not delivered with the sensor)	#193391, #193392

Capacitive Sensors for level control of products with a dielectric constant ε_r from 1,1. Products can be:

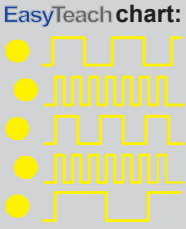
- Bulk materials, such as grain, sugar, granulates.
- Liquids, oil, chemicals or pharmaceutical solutions and much more.

Highlights:

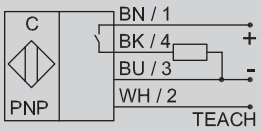
- EHEDG conform
- Measurement is independent of the mounting position



EasyTeach chart:



Adjustment “empty“
Initializing “empty“
Adjustment “full“
Initializing “full“
Test



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Capacitive Sensors - S26
Series 80 - PNP

Type of construction G 1/2“
- Housing material: PEEK

Technical data	Non-flush mountable
Level sensor, in contact with the product	Medium dependent adjustable
Operating distance min. / max. adjustable	0...10 mm
Electrical version	4-wire DC
Output function	Antivalent
Type PNP	**KAS-80-26/105-A-G1/2-PEEK-Z02-1-HP**
Art.-No.	**KA 1244**
Operating voltage (U_B)	10...35 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
Operating current (I_e)	2 x 0...200 mA
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	2 Hz
Permitted ambient temperature	-25...+70 °C / CIP 121 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	2 m, PVC, 4 x 0.34 mm²
Housing material	PEEK (FDA 21 CFR 177.2415)
Active surface	PEEK (FDA 21 CFR 177.2415)
Lid	PA
Media optimized	Yes
Varivent N Adapter EHEDG certified (not delivered with the sensor):	# 196395
Welding Socket EHEDG certified (not delivered with the sensor):	# 196394

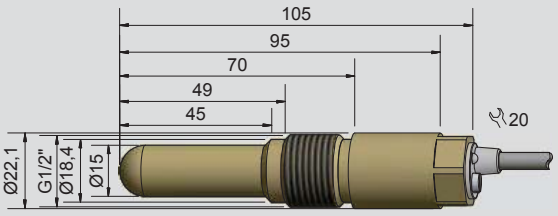
* With sealed potentiometer screw

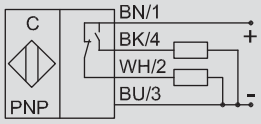
Capacitive Sensors S26 with hemispherical active surface for level control of products with a dielectric constant ε_r from 1,1. Products can be:

- Bulk material, like plastic granules, powder, cereals, etc.
- Liquids, like water, juice, wine, oil, chemicals or pharmaceutical solutions and much more.
- Pastes in the food, pharmaceutical and cosmetics industry

Advantages:

- EHEDG-Certified
- Measurement is independent of the mounting position
- Permitted pressure on the active area: 10 bar





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LevelMaster - Capacitive Sensors - S26

Model G 1/2“
For level control of conductive and/or viscous liquids or pastes, for instance oil, water, ketchup or honey. Ideal for level control in the Food Industry or Pharmaceutical Industry

- Housing material: Stainless steel VA No. 1.4305 (AISI 303)
- Adjustment of the sensitivity with ETW- Function (EasyTeach by wire)
- With flange connector M 12 x 1
- Welding sockets and Varivent adapter available for EHEDG conform mounting

Technical data	Non-flush mountable
Sensitivity	Dielectric constant ε_r > 1.25
Electrical version	3-pin DC
Output function	Normally open
Factory setting	Water
Typ PNP	**KS-801-26/136-S-G1/2-PEEK/VAb-120C-Y3-ETW-HP**
Art. No.	**KA 1562**
Operating voltage (U_B)	12.5...35 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Operating current (I_e)	0...250 mA
No-load current (I_o)	Typ. < 30 mA
Frequency of operating cycles max.	1 Hz
Permitted ambient temperature	0...+70 °C / CIP 121 °C
Permitted product temperature	-10...+120 °C
LED-display	Green / orange
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67, IP 69K
Norm	EN 60947-5-2*
Connection	Connector M 12 x 1
Operating pressure	Max. 10 bar
Housing material	Stainless steel VA No. 1.4305 / AISI 303
Material active surface	PEEK (FDA 21 CFR 177.2415)
Accessories (not delivered with the sensor): Varivent Adapter art.No. 196395, Welding Socket art.No. 196394 and matching connectors please see our selection of accessories.	

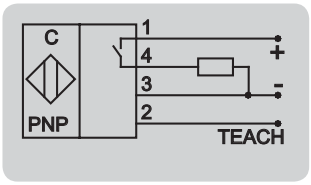
*Where applicable

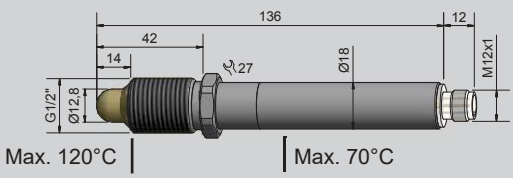
Capacitive Sensors S26 with hemispherical active surface for level control of products with a dielectric constant ε_r from 1,25. Products can be:

- Liquids, like water, juice, wine, oil, chemicals or pharmaceutical solutions and much more.

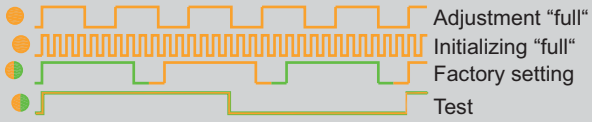
Highlights:

- EHEDG conform
- Measurement is independent of the mounting position
- Permitted pressure on the active area: 10 bar





EasyTeach **chart:** LED / Output function
Orange = A1 Green = A1



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Capacitive Sensors - S26
Series 40 - NAMUR EN 60947-5-6 - StEx - ATEX

Process connection: G 1/2“
- For use in areas with the risk of gas explosion, zone 0
- For use in areas with the risk of dust explosion, zone 20
- Housing material: PEEK

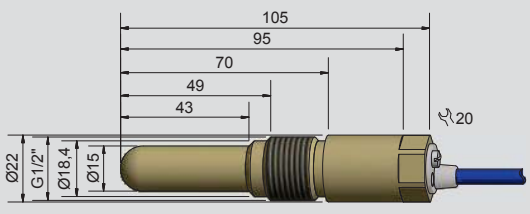
DMT 03 ATEX E 048	IECEx BVS 07.0031
Ex II 1G Ex ia IIC T1-T6 Ga	Ex ia IIC T1-T6 Ga
Ex II 1D Ex ia IIIC T101°C Da	Ex ia IIIC T101°C Da

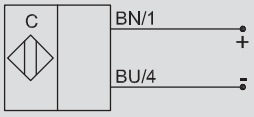
Technical data	Non-flush mountable
Level sensor, in contact with the product	Medium dependent adjustable
Operating distance min. / max. adjustable	0...10 mm
Electrical version	2-wire DC
Output function	NAMUR EN 60947-5-6
Type current	**KAS-40-26/104-N-G1/2-PEEK-Z02-1-HP-1G-1D**
Type	**KAS-40-26-N-K-G1/2”-PEEK-StEx**
Art.-No.	**KA 1514**
Operating voltage (U_B)	5 - 15 V DC, Ui = 15 V DC
Operating current active surface free	< typ 1.5 mA
Operating current active surface covered	> typ. 2.5 mA
Self-inductance (L)	0.2 mH
Self-capacitance (C)	250 nF
Permitted residual ripple max.	5 %
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	-20...+70 °C
LED-display	Yellow
Degree of protection IEC 60529	IP 67*
Connection cable	2 m, PVC, 2 x 0.14 mm²
Housing material	PEEK (FDA 21 CFR 177.2415)
Active surface	PEEK (FDA 21 CFR 177.2415)
Lid	PC (FDA 21 CFR 177.1580)
Media optimized	Yes

Accessory: Varivent Adapter, Welding Socket (Please see our range of accessories, not delivered with the sensor).

Capacitive Sensors S26 with hemispherical active surface for level control of products with a dielectric constant ε_r from 1,1. Products can be:

- Bulk material, like plastic granules, powder, cereals, etc.
- Liquids, like water, juice, wine, oil, chemicals or pharmaceutical solutions and much more.
- Pastes in the food, pharmaceutical and cosmetics industry





* With sealed potentiometer screw

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Capacitive Sensors - S26

Series 80 - PNP - IO-Link

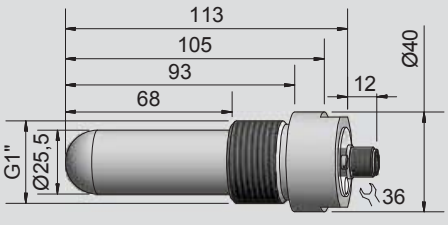
Type of construction G 1”
- Housing material: PTFE
- With flange connector M 12 x 1
- Operating distance adjustable with EasyTeach by Wire
- Optical guidance during the teach process with the aid of a 2-colour LED

Technical data	Non-flush mountable
Level sensor, in contact with the product	Medium dependent adjustable
Operating distance min. / max. adjustable	0...20 mm
Electrical version	4 - pin DC
Output function	Antivalent
Type PNP	**KAS-80-26/113-A-G1-PTFE-100C-IOL-Y10-ETW-HP**
Art.-No.	**KA 1591**
Operating voltage (U_B)	10...35 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
Operating current (I_e)	2 x 0...250 mA
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles, standard	7 Hz
Frequency of operating cycles, adjustable with IO-Link	2...40 Hz
Permitted ambient temperature	-25...+100 °C / CIP 121 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67
Norm	EN 60947-5-2
Connection	Flange connector M 12 x 1 (A-coded)
Housing material	PTFE (FDA 21 CFR 177.1550)
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PC (FDA 21 CFR 177.1580)
Media optimized	Yes
Accessories (not delivered with the sensor): For varivent adapter, triclamp adapter, welding socket and matching connectors please see our selection of accessories.	

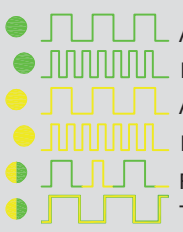
Capacitive Sensors S26 with hemispherical active surface for level control of products with a dielectric constant ε_r from 1,1. Products can be:

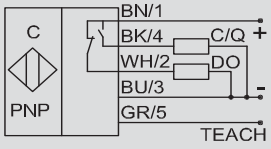
- Bulk material, like plastic granules, powder, cereals, etc.
- Liquids, like water, juice, wine, oil, chemicals or pharmaceutical solutions and much more.
- Pastes in the food, pharmaceutical and cosmetics industry

IO-LINK - INTERFACE
Device ID: 1d/000001h
Vendor ID: 1129d/0469h
Baudrate: COM 3 (230.4 kbaud)
Revision: 1.1
Profiles: Smart Sensor
SIO mode: yes
Port Class: A



EasyTeach chart: LED / Output function
Yellow = A1 Green = A2





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Capacitive Sensors - S26

Series 80 - PNP - IO-Link

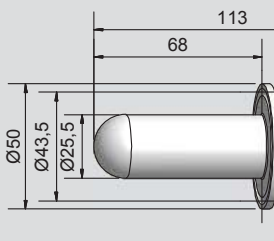
Type of construction Triclamp DN 25
- Housing material: PTFE
- With flange connector M 12 x 1
- Operating distance adjustable with EasyTeach by Wire
- Optical guidance during the teach process with the aid of a 2-colour LED

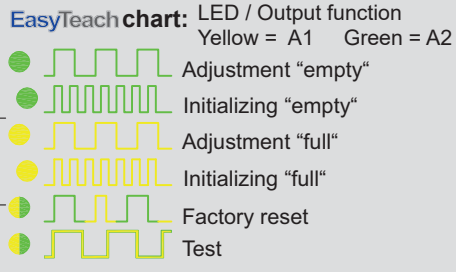
Technical data	Non-flush mountable
Level sensor, in contact with the product	Medium dependent adjustable
Operating distance min. / max. adjustable	0...20 mm
Electrical version	4 - pin DC
Output function	Antivalent
Type PNP	**KAS-80-26/113-A-TRI-PTFE-100C-IOL-Y10-ETW-HP**
Art.-No.	**KA 1590**
Operating voltage (U_B)	10...35 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
Operating current (I_e)	2 x 0...250 mA
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles, standard	7 Hz
Frequency of operating cycles, adjustable with IO-Link	2...40 Hz
Permitted ambient temperature	-25...+100 °C / CIP 121 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67
Norm	EN 60947-5-2
Connection	Flange connector M 12 x 1 (A-coded)
Housing material	PTFE (FDA 21 CFR 177.1550)
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PA / PPO
Media optimized	Yes
Accessories (not delivered with the sensor): For varivent adapter, triclamp adapter, welding socket and matching connectors please see our selection of accessories.	

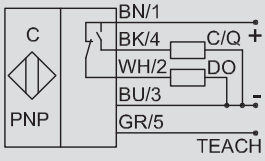
Capacitive Sensors S26 with hemispherical active surface for level control of products with a dielectric constant ε_r from 1,1. Products can be:

- Bulk material, like plastic granules, powder, cereals, etc.
- Liquids, like water, juice, wine, oil, chemicals or pharmaceutical solutions and much more.
- Pastes in the food, pharmaceutical and cosmetics industry

IO-LINK - INTERFACE
Device ID: 1d/000001h
Vendor ID: 1129d/0469h
Baudrate: COM 3 (230.4 kbaud)
Revision: 1.1
Profiles: Smart Sensor
SIO mode: yes
Port Class: A







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Capacitive Sensors - S26
Series 80 - PNP

Type of construction G 1”
- Housing material: PTFE
- With flange connector M 12 x 1
- Output function (Antivalent / 2 x normally open / 2 x normally closed) selectable with EasyTeach by Wire
- Operating distance adjustable with EasyTeach by Wire
- Optical guidance during the teach process with the aid of a 2-colour LED

Technical data	Non-flush mountable
Level sensor, in contact with the product	Medium dependent adjustable
Operating distance min. / max. adjustable	0...20 mm
Electrical version	4 - pin DC
Output function*	Antivalent
Type PNP	**KAS-80-26/113-P3-G1-PTFE-Y10-ETW-E-HP**
Art.-No.	**KA 1624**
Operating voltage (U_B)	10...35 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
Operating current (I_e)	2 x 0...250 mA
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles	25 Hz
Permitted ambient temperature	-25...+70 °C / CIP 121 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67
Norm	EN 60947-5-2
Connection	Flange connector M 12 x 1 (A-coded)
Housing material	PTFE (FDA 21 CFR 177.1550)
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PA / PPO
Media optimized	Yes

Accessories (not delivered with the sensor): For varivent adapter, triclamp adapter, welding socket and matching connectors please see our selection of accessories.

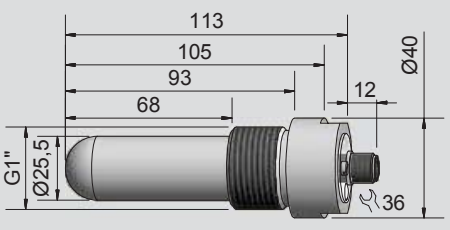
Capacitive Sensors S26 with hemispherical active surface for level control of products with a dielectric constant ε_r from 1,1. Products can be:

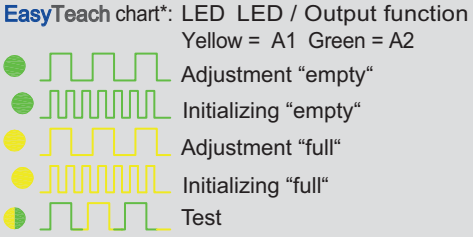
- Bulk material, like plastic granules, powder, cereals, etc.
- Liquids, like water, juice, wine, oil, chemicals or pharmaceutical solutions and much more.
- Pastes in the food, pharmaceutical and cosmetics industry

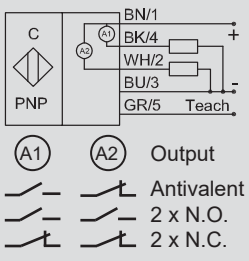
Highlights:

The sensor has three different output modes:
- Antivalent (factory setting)
- 2 x Normally open
- 2 x Normally closed

With the normally closed and normally open versions, two switching points can be set independently of each other.







*Factory setting: Antivalent. Further EasyTeach settings can be found in the operating instructions.

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Capacitive Sensors

Series 80 - PNP EasyMount

Housing 34 x 34 x 5 mm
Capacitive sensor for level control of liquids, very suitable for a measurement through non-metallic container walls.

- Output function (Antivalent / 2 x normally open / 2 x normally closed) selectable with EasyTeach by Magnet (ETM)
- Sensitivity adjustment with ETM
- Housing material: PA
- Easy to mount, by screwing or gluing
- Watertight
- Flat housing - 5 mm

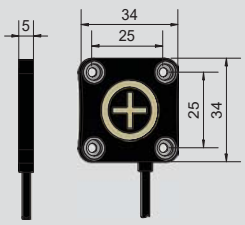
Technical data	Flush mountable
Operating distance S_n	5 mm
Operating distance min. / max. programmable	0...10 mm
Electrical version	4 wire DC
Output function*	Antivalent
Type PNP	**KAS-80-C30EM/5-P3-34x34x5-PA-Z02-ETM-HP**
Art.-No.	**KA 8981**
Operating voltage (U_B)	10...35 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
Operating current (I_e)	0...200 mA
No-load current (I_o)	Typ 15 mA
Frequency of operating cycles max.	100 Hz
Permitted ambient temperature	-25...+70°C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67
Norm	EN 60947-5-2
Connection cable	2 m PVC, 4 x 0.14 mm²
Housing material	PA
Media optimized	Yes

*Factory setting: Antivalent. Further EasyTeach settings can be found in the operating instructions.

Highlights:

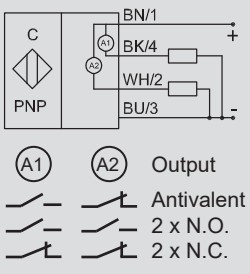
The sensor has three different output modes:
- Antivalent (factory setting)
- 2 x Normally open
- 2 x Normally closed

With the normally closed and normally open versions, two switching points can be set independently of each other.



EasyTeach chart*: LED LED / Output function
Yellow = A1 Green = A2

- Adjustment “Empty“
- Initializing “Empty“
- Adjustment “Full“
- Initializing “Full“
- Test



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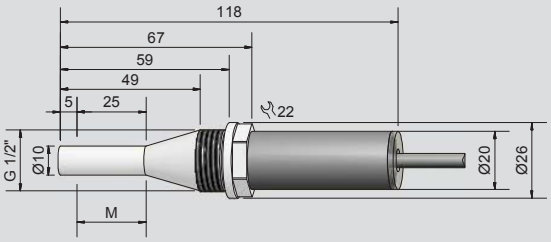
i-LEVEL Capacitive Filling Level Probe

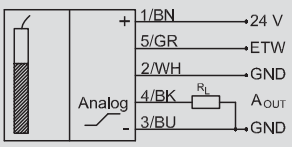
Analogue current output 20...4 mA

- Integrated evaluation electronics
- EasyTeach by Wire
- Current output 20 mA = min. level / 4 mA = max. level
- Housing material: PTFE / Stainless steel VA No. 1.4305 / AISI 303
- Process connection G 1/2"

Technical data	
Active zones [M]	25 mm
Electrical version	5-wire DC
Output function	Analogue
Type	**KFI-1-49-25-PTFE/VAb-D10-G1/2-IL20-ETW-Z02**
Art.-No.	**KI 0124**
Operating voltage (U_B)	15...30 V DC
Permitted residual ripple max.	5 %
Load resistance (R_L)	≤ 200 Ω
Power consumption (outputs no-load)	0,9 W
Analogue output	20...4 mA
Permitted ambient temperature	-25...+70 °C
LED-Display	Green
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67
Norm	EN 60947-5-2*
Connection cable	2 m, PVC, 5 x 0.34 mm²
Housing material	Stainless steel VA No 1.4305 / AISI 303
Active zone	PTFE (FDA 21 CFR 177.1550)
Lid	PC (FDA 21 CFR 177.1580)



EasyTeach chart:
LED green / Adjustment function



*Where applicable

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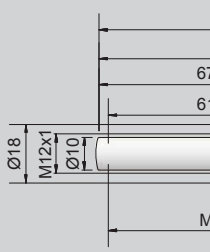
i-LEVEL Capacitive Filling Level Probe - KFI

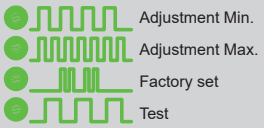
Voltage output analogue 0...10 V

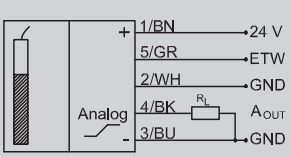
- Integrated evaluation electronics
- Easy Teach by wire
- Voltage output 0 V = min. level / 10 V = max. level
- Housing material: PTFE / Aluminium
- Process connection M 12 x 1

Technical data	
Active zones [M]	61 mm
Electrical version	4-wire DC
Output function	Analogue
Type	**KFI-1-67-61-PTFE/AL-D10-M12-UL0-ETW-Z02**
Art.-No.	**KI 0125**
Operating voltage (U_B)	15...30 V DC
Permitted residual ripple max.	5 %
Load resistance (R_L)	≥ 2 kΩ
Power consumption (outputs no-load)	0,9 W
Analogue output	0...10 V
Permitted ambient temperature	-25...+70 °C
LED-Display	Green
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67
Norm	EN 60947-5-2*
Connection cable	2 m, PVC, 5 x 0.34 mm²
Housing material	Aluminium
Active zone	PTFE (FDA 21 CFR 177.1550)
Lid	PC (FDA 21 CFR 177.1580)



EasyTeach chart:
LED green / Adjustment function





*Where applicable

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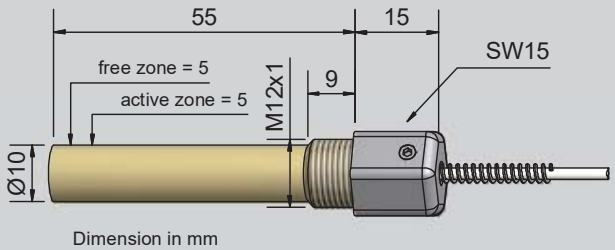
Capacitive Filling Level Probe - KFS
Series:PER LEVEL®
1 Limit value switching point

- For connection to capacitive amplifiers KFA-5-...-Y90
- Housing material: PEEK, Ø 10 mm / M 12 x 1
- Probe length 55 mm

Technical data	
Active zone	5 mm, related to probe tip
Type	**KFS-51-5-55-5-PEEK-D10-M12-X0E-Y95**
Art.-No.	**KF 0455**
Permitted ambient temperature	-50...+250 °C
Degree of protection IEC 60529 (Probe)	IP 67
Connection cable to the evaluation unit KFA-5-...Y90 BE cable	0.3 m FEP, coax-cable with triax-connector 0,5 m silicone
Housing material	PEEK (FDA 21 CFR 177.2415)
Housing material active zone	PEEK (FDA 21 CFR 177.2415)



Dimension in mm

Made in Germany

i-LEVEL Capacitive Filling Level Probe - KFI

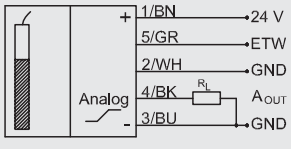
Analogue current output 4...20 mA

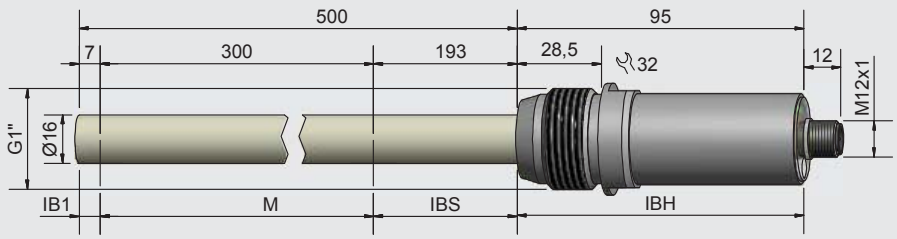
- Integrated evaluation electronics
- Easy Teach by wire
- Housing material: PEEK, Ø 16 mm
- Connection head and process connection stainless steel VA no. 1.4404 / AISI 316L
- Process connection G1”
- With flange connector M 12 x 1 (5-pin Teach function included)

Technical data	
Active zones [M]	300 mm
Electrical version	4 - pin DC
Output function	Analogue
Type	**KFI-1-500-300-PEEK/VAc-D16-G1-IL4-ETW-Y10**
Art.-No.	**KI 0167**
Operating voltage (U_B)	15...30 V DC
Permitted residual ripple max.	5 %
Load resistance (R_L)	≤ 200 Ω
Power consumption (outputs no-load)	0,9 W
Analogue output	4...20 mA
Permitted ambient temperature	-25...+70 °C
LED-Display	Green
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67
Norm	EN 60947-5-2*
Connection	Flange connector M 12 x 1 (A-coded / 5-pin)
Housing material	Stainless steel VA No. 1.4404 / AISI 316L
Active zone	PEEK (FDA 21 CFR 177.2415)
Lid	PC (FDA 21 CFR 177.1580)
For matching connectors please see our selection of accessories.	

EasyTeach chart:
LED green / Adjustment function

- Adjustment Min.
- Adjustment Max.
- Factory set
- Test





Other housing materials for the active zone (probe), like PE, GFK, PVDF or PTFE on request.

*Where applicable

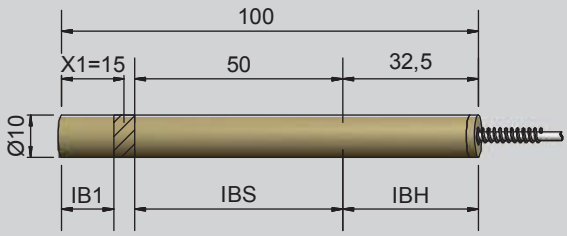
Made in Germany

Y55

PERLEVEL Capacitive Filling Level Probe - KFS
1 Limit value switching point

- For connection to capacitive amplifiers KFA-5-...-Y50
- Housing material: PEEK, Ø 10 mm
- Probe length 100 mm

Technical data	
Active zone	15 mm, related to probe tip
Type	**KFS-51-15-100-15-PEEK-D10-X02-Y55**
Art.-No.	**KF 0304**
Permitted ambient temperature	-70...+250 °C
Degree of protection IEC 60529 (Probe)	IP 67
Norm	EN 60947-5-2
Connection cable to the evaluation unit KFA-5-...Y50	2 m FEP, coax-cable with coax-connector
Housing material	PEEK (FDA 21 CFR 177.2415)
Housing material active zone	PEEK (FDA 21 CFR 177.2415)



Technical data for connectors on request.

i-LEVEL Capacitive Filling Level Probe - KFI

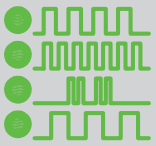
Analogue current output 4...20 mA

- Integrated evaluation electronics
- Easy Teach by wire
- Housing material: PEEK, Ø 16 mm

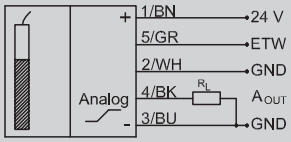
Technical data	
Active zones [M]	820 mm
Electrical version	4 - wire DC
Output function	Analogue
Type	**KFI-1-1000-820-PEEK-D16-TB50-IL4-ETW-Z02**
Art.-No.	**KI 0200**
Operating voltage (U_B)	15...30 V DC
Permitted residual ripple max.	5 %
Load resistance (R_L)	≤ 200 Ω
Power consumption (outputs no-load)	0,9 W
Analogue output	4...20 mA
Permitted ambient temperature	-25...+70 °C
Permitted ambient temperature (for active zone)	-25...+200 °C
LED-Display	Green
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67
Norm	EN 60947-5-2*
Connection cable	2 m, PVC, 5 x 0.34 mm²
Housing material	PEEK (FDA 21 CFR 177.2415)
Active zone	PEEK (FDA 21 CFR 177.2415)
Lid	PC (FDA 21 CFR 177.1580)
Accessories for mounting (not delivered with the probe) please see our selection of accessories.	

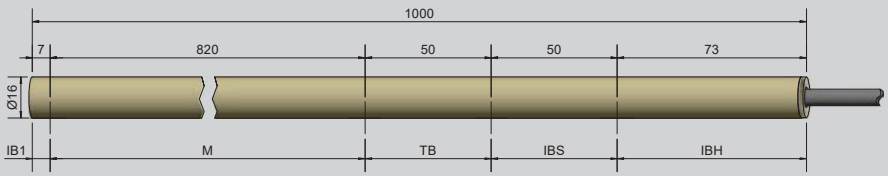
*Where applicable

EasyTeach chart:
LED green / Adjustment function



Adjustment Min.
Adjustment Max.
Factory set
Test





Other housing materials for the active zone (probe), like PE, PTFE, PVDF or PEEK on request.

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i-LEVEL Capacitive Filling Level Probe - KFI

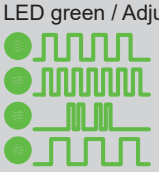
Analogue current output 4...20 mA

- Integrated evaluation electronics
- Easy Teach by wire
- Housing material: PEEK, Ø 16 mm

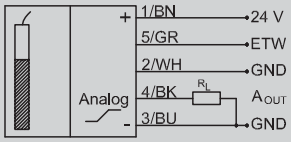
Technical data	
Active zones [M]	320 mm
Electrical version	4 - wire DC
Output function	Analogue
Type	**KFI-1-500-320-PEEK-D16-TB50-IL4-ETW-Z02**
Art.-No.	**KI 0157**
Operating voltage (U_B)	15...30 V DC
Permitted residual ripple max.	5 %
Load resistance (R_L)	≤ 200 Ω
Power consumption (outputs no-load)	0,9 W
Analogue output	4...20 mA
Permitted ambient temperature	-25...+70 °C
Permitted ambient temperature (for active zone)	-25...+200 °C
LED-Display	Green
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67
Norm	EN 60947-5-2*
Connection cable	2 m, PVC, 5 x 0.34 mm²
Housing material	PEEK (FDA 21 CFR 177.2415)
Active zone	PEEK (FDA 21 CFR 177.2415)
Lid	PC (FDA 21 CFR 177.1580)
Accessories for mounting (not delivered with the probe) please see our selection of accessories.	

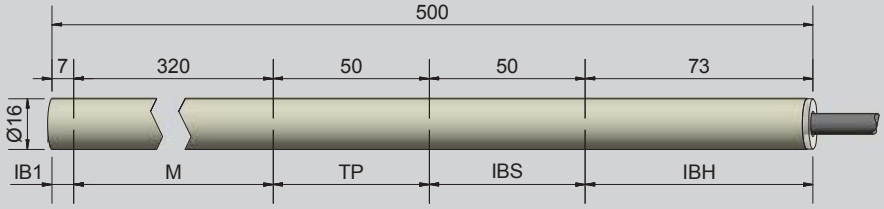
*Where applicable

EasyTeach chart:
LED green / Adjustment function



Adjustment Min.
Adjustment Max.
Factory set
Test





Other housing materials for the active zone (probe), like PE, PTFE, PVDF or PEEK on request.

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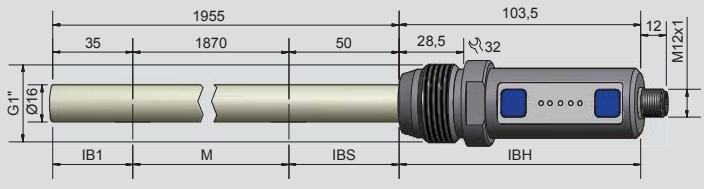
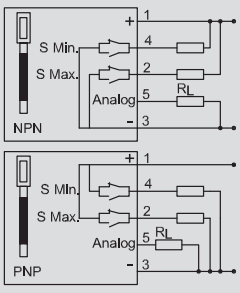
i-LEVEL Capacitive Filling Level Probe - KFI

Analogue current output 4...20 mA
2 programmable limit value switching points

- Integrated evaluation electronics
- Housing material: GFK, Ø 16 mm
- Connection head and process connection stainless steel VA no. 1.4305 / AISI 303
- Process connection G1”
- Multifunction probe: Automatic identification of NPN- / PNP function
- Normally open / normally closed function switchable
- Electronic lock

Technical data	
Active zone [mm]	1870 mm
Electrical version	5 - pin DC
Output function	Analogue, 2 limit value switching points, Normally open / normally closed switchable
Type	**KFI-12-1955-1870-GFK/VAb-D16-G1-IL4-ETF-Y10**
Art.-No.	**KI 0050**
Operating voltage (U_B)	18...30 V DC
Permitted residual max.	5 %
Load resistance (R_L)	≤ 400 Ohm
Output current	100 mA
Power consumption (outputs no-load)	0,8 W
Analogue output	4...20 mA
Switching frequency max.	1 Hz
Permitted ambient temperature	-25...+55 °C
Permitted ambient temperature (for active zone)	-25...+100 °C
Pressure	10 bar
LED-Display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67
Norm	EN 60947-5-2*
Connection	Flange connector M 12 x 1 (A-coded)
Housing material	VA No. 1.4305 / AISI 303 / polyester
Active zone	GFK
For matching connectors please see our selection of accessories.	





Other housing materials for the active zone (probe), like PE, PTFE, PVDF or PEEK on request.

*Where applicable

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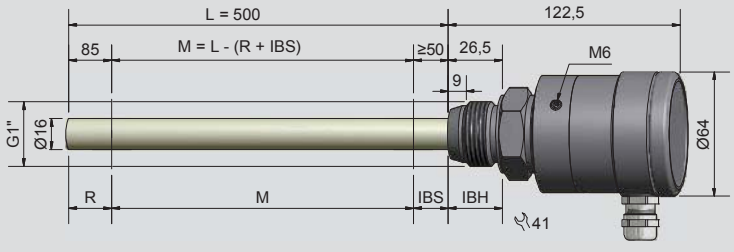
TRUE LEVEL Capacitive Filling Level Probe - KFS

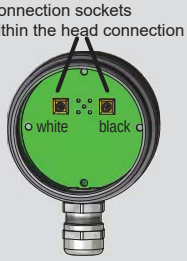
With analogue measuring range

- For connection to the capacitive amplifier KFA-1-...-Y75
- Housing material: GFK, Ø 16 mm
- Connection head and process connection made of stainless steel VA n. 1.4404 / AISI 316L
- Process connection G 1”
- Automatic compensation of changes of the dielectric constant

Technical data	
Active Zone [M]	Type dependent
Type	**KFS-1-85-500-M1-GFK/VAc-D16-G1-X00-Y70**
Art.-No.	**KF 0472**
Permitted ambient temperature	-25...+100 °C
Permitted ambient temperature (for active zone)	-25...+150 °C
Degree of protection IEC 60529 (housing)	IP 67
Degree of protection IEC 60529 (connection cable)	IP 54*
Norm	EN 60947-5-2
Connection to the evaluation unit KFA-1-...-Y75	Sockets within the connection head
Housing material	Stainless steel VA n. 1.4404 / AISI 316L (FDA conform)
Housing material active zone	GFK
Pressure	25 bar
Accessories:	
For evaluation unit KFA-1-...-Y75:	Plug connection Y75 / Y75, 2 m cable length, # 66101201, is not delivered with the probe
For evaluation unit KFA-1-...-Y75:	Plug connection Y75 / Y75, 5 m cable length, # 66101202, is not delivered with the probe
For matching accessories please see our selection of accessories.	



Please determine the total length “L” and the measuring range “M” when ordering.
Other housing materials for the active zone (probe), like PVDF, PEEK or PE on request.



* The degree of protection may be increased by means of special measures at mounting (e. g. injection of silicone mixture).

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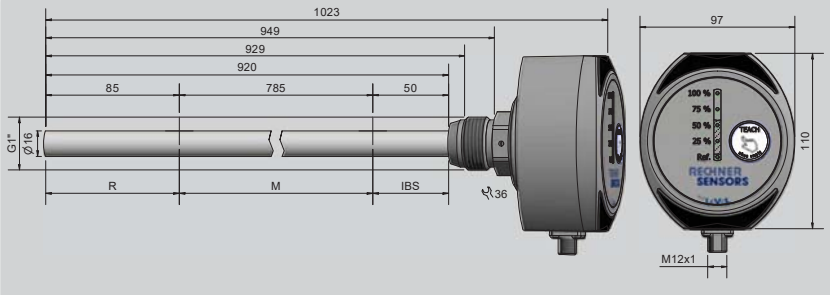
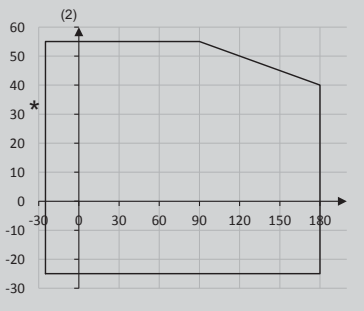
TRUE LEVEL Capacitive filling level probe

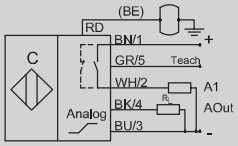
Analogue voltage output 0...10 V / 10...0 V

- Integrated evaluation electronics
- Adjustable with Easy Teach by Membrane foil (ETF) / Easy Teach by wire (ETW)
- Housing material: PTFE, Ø 16 mm
- Connection head / process connection: Aluminium / Stainless steel VA no. 1.4305 (AISI 303)
- Process connection G1”
- Additional output in the reference range (normally open / normally closed switchable)

Technical data	
Active zone [M]	865 mm
Output function	Analogue
Type	**KFX-1-85-920-785-PTFE/VAb/AL-D16-PHG1-UL-ET-Y10**
Art.-No.	**KF 0644**
Operating voltage (U_B)	18...36 V DC
Operating current (I_e)	0...250 mA
Permitted residual ripple max.	25 %
Load resistance (R_L)	≤ 600 Ω
Power consumption (outputs no-load)	3 W
Analogue output	0...10 V / 10...0 V
Permitted ambient temperature	-25...+55 °C
Permitted product temperature	-25...+180 °C*
LED-Display	Green / blue
Protective circuit	Built-in
Degree of protection IEC 60529	IP 65
Norm	EN 60947-5-2**
Connection	Flange connector M 12 x 1 (A-coded) (5-pin)
Connection head / process connection	Aluminium / Stainless steel VA no. 1.4305 (AISI 303)
Housing material (active zone)	PTFE (FDA 21 CFR 177.1550)
Lid	PC (FDA 21 CFR 177.1580)
For matching connectors please see our selection of accessories.	







Other housing materials for the active zone (probe), like GFK or PEEK on request.

(1) Product temperature in °C
(2) Ambient temperature in °C

**Where applicable

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All specifications are subject to change without notice. (22.03.2021)

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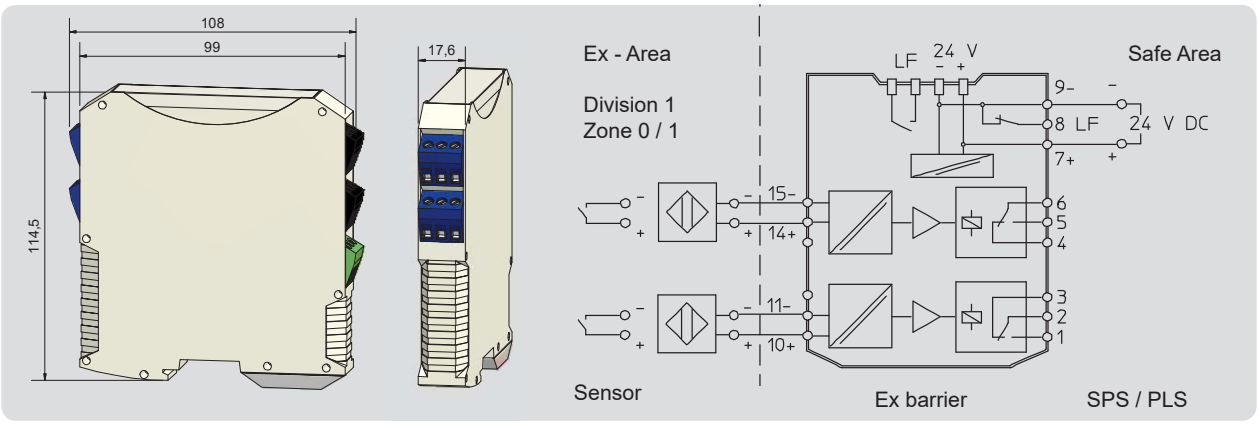
Isolating Switching Amplifier - ATEX
N-132/2-10 24 V DC

- To connect **two NAMUR-Sensors** or potential-free mechanical contacts which are mounted in the zones 0, 1, 2 (Gas) or 20, 21, 22 (dust)
- Compact design - only 17.6 mm width
- Removable screw terminals
- Indication sensor wire-break or shortcircuit via relay contact
- For applications up to SIL 2 according to IEC 61508

BVS 09 ATEX E 087X	IECEx BVS 10.0088X
Ex II (1)G [Ex ia Ga] IIC	[Ex ia Ga] IIC
Ex II (1)D [Ex iaDa] IIIC	[Ex ia Da] IIIC

Technical data	
Operating voltage (U_B)	18...31.2 V DC
Output function	2 x change-over contact potential-free
Contact rating each relay AC max.	250 V AC / 4 A
Contact rating each relay DC max.	250 V DC / 2 A
Type	**N-132/2-10**
Art.-No.	**N 00017**
Output voltage max. (U_o)	9.6 V DC
Output current max. (I_o)	20 mA
Outer inductance max. (L_o)	[Ex ia] IIC 90 mH / IIB 340 mH
Outer capacitance max. (C_o)	[Ex ia] IIC 3.6 µF / IIB 26 µF
Actuating signal	NAMUR EN 60547-5-6
Permitted ambient temperature	-20...+70 °C
Display	Red / yellow and green
Degree of protection IEC 60529	Housing: IP 30 Terminals: IP 20
Norm	EN 60947-5-6
Safety integrity level (IEC 61508)	SIL 2
Connection	Screw terminals



Made in Germany

Capacitive Sensors - S26
Series 80 - PNP

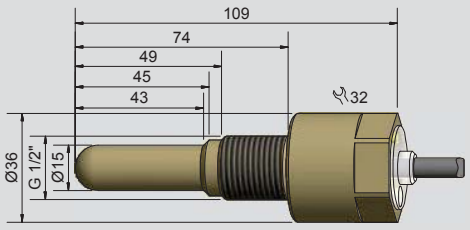
Process connection: G 1/2“
- Housing material: PEEK
- For use in areas with the risk of dust explosion, zone 20
- For use in areas with the risk of gas explosion, zone 1
- SIP / CIP 121 °C
- Special version with flange. Sealing can be made with a gasket or PTFE-tape (not delivered with the sensor)

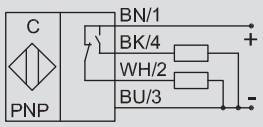
DMT 01 ATEX E 157	IECEx BVS 07.0015
Ex II 2 G Ex mb IIC T4 Gb	Ex mb IIC T4 Gb
Ex II 1/2 D Ex ta/tb IIIC T101°C Da/Db	Ex ta/tb IIIC T101°C Da/Db

Technical data	Non-flush mountable
Level sensor, in contact with the product	Medium dependent adjustable
Operating distance min. / max. adjustable	0...10 mm
Electrical version	4-wire DC
Output function	Antivalent
Type PNP current	**KAS-80-26/109-A-G1/2-PEEK-Z02-1-HP-2G-1/2D**
Type PNP	**KAS-80-26-A-K-G1/2“-PEEK-StEx**
Art.-No.	**KA 1426**
Operating voltage (U_B)	10...30 V DC
Voltage drop max. (U_d)	≤ 2.0 V
Permitted residual ripple max.	10 %
Operating current (I_e)	2 x 0...150 mA
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	2 Hz
Permitted ambient temperature	-25...+70 °C / CIP 121° C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-2
Connection cable	2 m, PVC, 4 x 0.5 mm²
Housing material	PEEK (FDA 21 CFR 177.2415)
Active surface	PEEK (FDA 21 CFR 177.2415)
Lid	PC (FDA 21 CFR 177.1580)
Media optimized	Yes
Accessories (not delivered with the sensor): For varivent adapter, triclamp adapter, welding socket and matching connectors please see our selection of accessories.	

Capacitive Sensors S26 with hemispherical active surface for level control of products with a dielectric constant ε_r from 1,1. Products can be:

- Bulk material, like plastic granules, powder, cereals, etc.
- Liquids, like water, juice, wine, oil, chemicals or pharmaceutical solutions and much more.
- Pastes in the food, pharmaceutical and cosmetics industry





* With sealed potentiometer screw

Made in Germany

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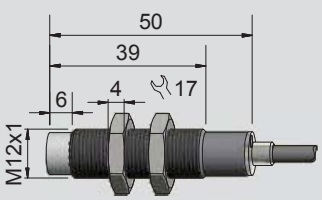
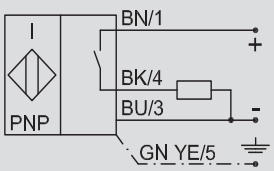
Inductive Sensors
Series 10 - PNP - StEx - ATEX

Housing M 12 x 1
- Housing material: Stainless steel VA No. 1.4305 / AISI 303
- For use in areas with the risk of dust explosion, zone 20
- For use in areas with the risk of gas explosion, zone 1
- Sensing distance Sn 4 mm

DMT 01 ATEX E 157	IECEx BVS 07.0015
Ex II 2 G Ex mb IIC T4 Gb	Ex mb IIC T4 Gb
Ex II 1/2 D Ex ta/tb IIIC T101°C Da/Db	Ex ta/tb IIIC T101°C Da/Db

Technical data	Non-flush mountable
Operating distance S_n	4 mm
Electrical version	3-wire DC
Output function	Normally open
Type PNP current	**IAS-10-A22-S-M12-PTFE/VAb-Z02-0-2G-1/2D**
Type PNP	**IAS-10-A22-S-StEx**
Art.-No.	**IA 0375**
Operating voltage (U_B)	10...30 V DC
Voltage drop max. (U_d)	≤ 2.5 V
Operating current (I_e)	0...150 mA
No-load current (I_o)	Typ. 15 mA
Frequency of operating cycles max.	2 kHz
Permitted ambient temperature	-25...+90 °C
LED-display	Yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 67
Norm	EN 60947-5-2
Connection cable	2 m, PVC, 4 x 0,14 mm²
Housing material	Stainless steel VA No. 1.4305 / AISI 303
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PC (FDA 21 CFR 177.1580)
Accessories (delivered with the sensor)	2 nuts M 12 x 1





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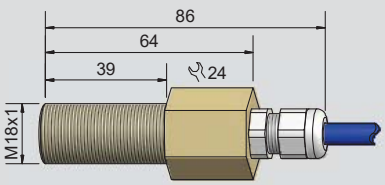
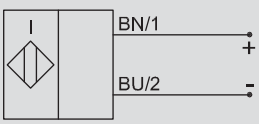
Inductive Sensors
Series 30 NAMUR EN 60947-5-6 - StEx -ATEX

Housing M18 x 1
- For use in areas with the risk of dust explosion, zone 20
- For use in areas with the risk of gas explosion, zone 0
- Housing material: PEEK
- With sealing cover and screwing (IP 68)
- With 10 m cable (Outer jacket PUR flame retardant and halogenfree Core insulation is PVC, flame retardant)

DMT 03 ATEX E 048	IECEx BVS 07.0031
II 1G Ex ia IIC T1-T6 Ga	Ex ia IIC T1-T6 Ga
II 1D Ex ia IIIC T101°C Da	Ex ia IIIC T101°C Da

Technical data	Flush mountable
Operating distance S_n	5 mm
Electrical version	2-pin DC
Output	NAMUR EN 60947-5-6
Type current	**IAS-30-A13-N-M18-PEEK-Z02-0-1G-1D**
Type	**IAS-30-A13-N-K-PEEK-IP68**
Art.-No.	**IA 0166**
Operating voltage (U_B)	5 - 15 V DC, U_i = 15 V DC
Operating current active surface free	> typ. 2 mA
Operating current active surface covered	< typ. 1.5 mA
Self-inductance (L)	2 mH
Self-capacitance (C)	250 nF
Permitted residual ripple max.	5 %
Frequency of operating cycles max.	500 Hz
Permitted ambient temperature	-25...+70 °C
Degree of protection IEC 60529	IP 68 / 10 bar
Connection cable	10 m, PUR, blue 2 x 0,75 mm² (6.4 mm ± 0.2)
Housing material	PEEK (FDA 21 CFR 177. 2415)
Active surface	PEEK (FDA 21 CFR 177. 2415)
Lid	PEEK (FDA 21 CFR 177. 2415)
Accessories (delivered with the sensor)	2 nuts M 18 x 1





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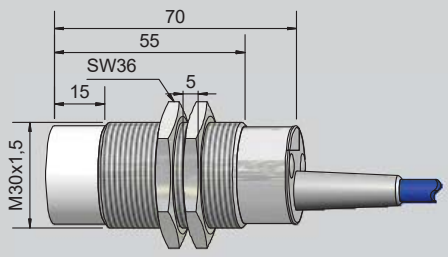
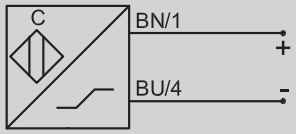
Capacitive Sensors with analogue output
Series 40 - NAMUR EN 60947-5-6

Housing M 30 x 1.5
- For use in areas with the risk of gas explosion, zone 0
- Housing material: Brass
- Operating range 0...24 mm
- Output current 4...20 mA

DMT 03 ATEX E 048	IECEx BVS 07.0031
Ex II 1G Ex ia IIC T1-T6 Ga	Ex ia IIC T1-T6 Ga

Technical data	Non-flush mountable
Operating range	0...24 mm
Linear range	0...19 mm
Electrical version	2-wire DC
Output function	Analogue
Type Analogue current	**KAS-40-A24-IL4-M30-PTFE/MS-Z02-1-HP-1G**
Type Analogue	**KAS-40-A24-IL4**
Art. No.	**KA 1325**
Operating voltage (U_B)	15...35 V DC, U_i = 27 V DC
Power consumption active surface free	≤ 4 mA
Power consumption active surface covered	≥ 20 mA
Load resistor	R_L 0...500 Ohm
Self-inductance (L)	0.2 mH
Self-capacitance (C)	89 nF
Permitted residual ripple max.	5 %
Frequency of operating cycles max.	50 Hz
Permitted ambient temperature	0...+70 °C
Degree of protection IEC 60529	IP 67*
Norm	EN 60947-5-6
Connection cable	2 m, PUR, 2 x 0.75 mm²
Housing material	Brass
Active surface	PTFE (FDA 21 CFR 177.1550)
Lid	PA / PPO
Accessories (is delivered with the sensor)	2 pieces nuts M 30 x 1.5





* With sealed potentiometer screw

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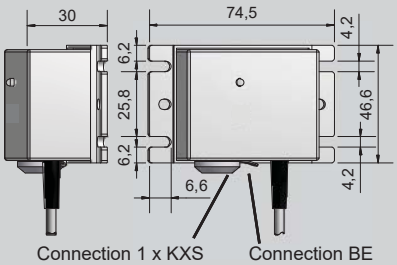
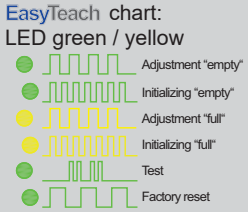
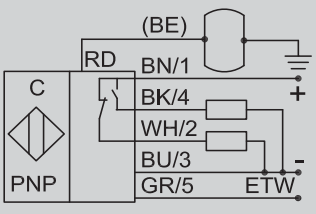
Capacitive evaluation units
Series KXA-eXtreme

Housing 46,6 x 74,5 x 30 mm
- KXA-... for connection to capacitive sensors KXS-...-M18/... to -M32/...
- Adjustable with EasyTeach by Wire / EasyTeach by Magnet (ETM)

Technical data	
Electrical version	4-wire DC
Output function	Antivalent
Type PNP	**KXA-5-1-B-P-A-ET-Z02-Y90**
Art.-No.	**XA 0064**
Operating voltage (U_B)	18...36 V DC
Voltage drop max. (U_d)	< 2.5 V
Permitted residual ripple max.	25 %
Operating current (I_e)	2 x 0...200 mA
No-load current (I_o)	Typ. 50 mA
Frequency of operating cycles max.	50 Hz
Switching hysteresis	≤ 20%
Repeat accuracy	≤ 1%
Permitted ambient temperature	-25...+55 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 65
Norm	EN 60947-5-2
Connection cable	2 m, PVC, 5 x 0.14 mm²
Housing material	PA
Accessories (delivered with the unit)	Teach magnet







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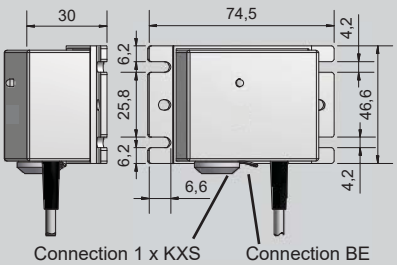
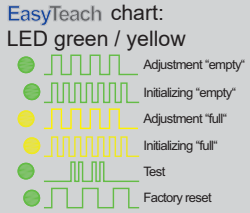
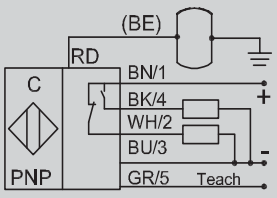
Capacitive evaluation units
Series KXA-eXtreme

Housing 46,6 x 74,5 x 30 mm
- KXA-...-MINI for connection to capacitive sensors KXS-...-M5/... to -M16/...
- Adjustable with EasyTeach by Wire / EasyTeach by Magnet (ETM)

Technical data	
Electrical version	4-wire DC
Output function	Antivalent
Type PNP	**KXA-5-1MINI-B-P-A-ET-Z02-Y90**
Art.-No.	**XA 0065**
Operating voltage (U_B)	18...36 V DC
Voltage drop max. (U_d)	< 2.5 V
Permitted residual ripple max.	25 %
Operating current (I_e)	2 x 0...200 mA
No-load current (I_o)	Typ. 50 mA
Frequency of operating cycles max.	50 Hz
Switching hysteresis	≤ 20%
Repeat accuracy	≤ 1%
Permitted ambient temperature	-25...+55 °C
LED-display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 54*
Norm	EN 60947-5-2
Connection cable	2 m, PVC, 5 x 0.14 mm²
Housing material	PA
Accessories (delivered with the unit)	Teach magnet







*In mated condition

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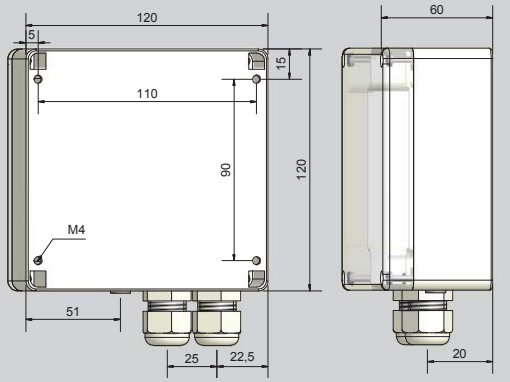
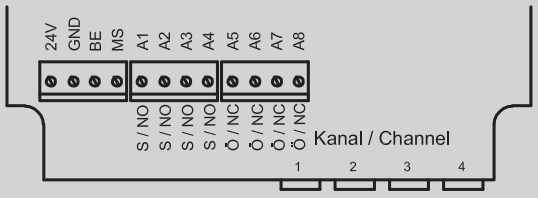
Capacitive Evaluator
Series KXA-eXtreme

Housing 120 x 120 x 60 mm
- KXA-... for connection of 4 capacitive Sensors KXS-...-M18/... to -M32/...
- Extension by further switching points possible (master / slave function)

Technical data	
Output function	4 x Antivalent
Type PNP	**KXA-5-4-XXL-P-A-1-KL-Y90**
Art.-No.	**XA 0022**
Operating voltage (U_B)	18...36 V DC
Operating current max. (I_e)	0...250 mA each output
Permitted residual ripple max.	25 %
No-load current (I_o)	Typ. 120 mA
Permitted ambient temperature	-25...+55 °C
LED - display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 54
Norm	EN 60947-5-2
Connection	Screw terminals and triax socket
Housing material	ABS





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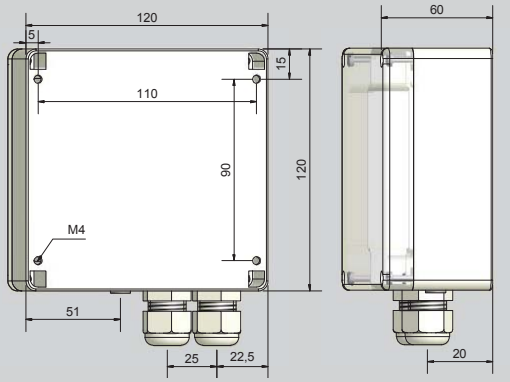
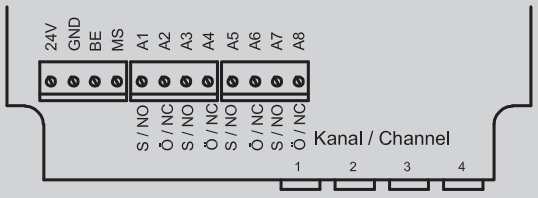
Capacitive Evaluator
Series KXA-eXtreme

Housing 120 x 120 x 60 mm
- KXA-...MINI for connection of 4 capacitive Sensors KXS-...-M5/... to -M16/...
- Extension by further switching points possible (master / slave function)

Technical data	
Output function	4 x Antivalent
Type PNP	**KXA-5-4MINI-XXL-P-A-1-KL-Y90**
Art.-No.	**XA 0026**
Operating voltage (U_B)	18...36 V DC
Operating current max. (I_e)	0...250 mA each output
Permitted residual ripple max.	25 %
No-load current (I_o)	Typ. 120 mA
Permitted ambient temperature	-25...+55 °C
LED - display	Green / yellow
Protective circuit	Built-in
Degree of protection IEC 60529	IP 54
Norm	EN 60947-5-2
Connection	Screw terminals and triax socket
Housing material	ABS





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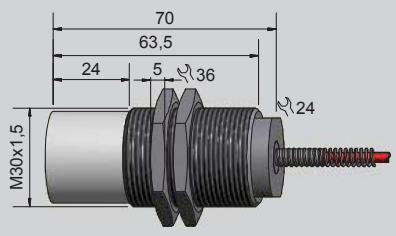
Y95

Capacitive sensors
Series KXS-eXtreme

Housing M 30 x 1.5
- Housing material: Stainless steel VA no. 1.4305 / AISI 303
- For connection to capacitive evaluation units KXA-...
- Extreme large sensing distance
- Up to 250° C ambient temperature

Technical data	Non-flush mountable
Operating distance S_n	60 mm
Operating distance min / max adjustable	5...100 mm
Type	**KXS-250-M30/70-X-M30-PTFE/VAb-250C-X02/Y95**
Art.-No.	**498 004**
Permitted ambient temperature	-50...+250 °C
Enclosure rating IEC 60529*	IP 67
Norm	EN 60947-5-2
Connection cable for connection to capacitive evaluation units KXA-... with plug-in connector	2 m FEP, Triax
Housing material	Stainless steel VA no. 1.4305 / AISI 303
Active surface	PTFE (FDA 21 CFR 177.1550)
Accessories (delivered with the sensor)	2 nuts M 30 x 1,5



*Enclosure rating IEC 60529 for connector on request.

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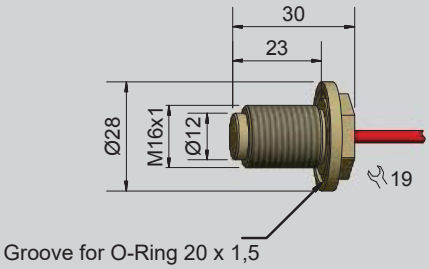
Y95

Capacitive sensors
Series KXS-eXtreme

Housing M 16 x 1
- Housing material: PEEK
- For connection to capacitive evaluation units KXA-...-MINI-...-...
- Extreme large sensing distance
- Up to 250° C ambient temperature

Technical data	Flush mountable
Operating distance S_n	15 mm
Operating distance min / max adjustable	1...25 mm
Type	**KXS-250-M16/30-X-M16-PEEK-250C-X02/Y95**
Art.-No.	**KX 0104**
Permitted ambient temperature	-50...+250 °C
Enclosure rating IEC 60529*	IP 67
Norm	EN 60947-5-2
Connection cable for connection to capacitive evaluation units KXA-... with plug-in connector	2 m FEP, Triax
Housing material	PEEK (FDA 21 CFR 177.2415)
Active surface	PEEK (FDA 21 CFR 177.2415)



Groove for O-Ring 20 x 1,5

*Enclosure rating IEC 60529 for connector on request.

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