

# RECHNER SENSORS

Next Level *Together* 2

# LEVEL MASTER XS

Extra Smart

# Agenda LevelMaster XS

- LevelMaster XS digital
- New variants
- New LevelMaster with analogue output
- Sensor variants
- Application examples
- Markets and USP

# LEVEL MASTER XS G1/2"



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## Strengths

For conductive and/or sticky + viscous media

EasyTeach by Wire

Visual LED step guide during the teach process

No extra teach module required unlike some of our competitors

Temperature compensation by micro controller

2-coloured LED

Excellent EMC characteristics

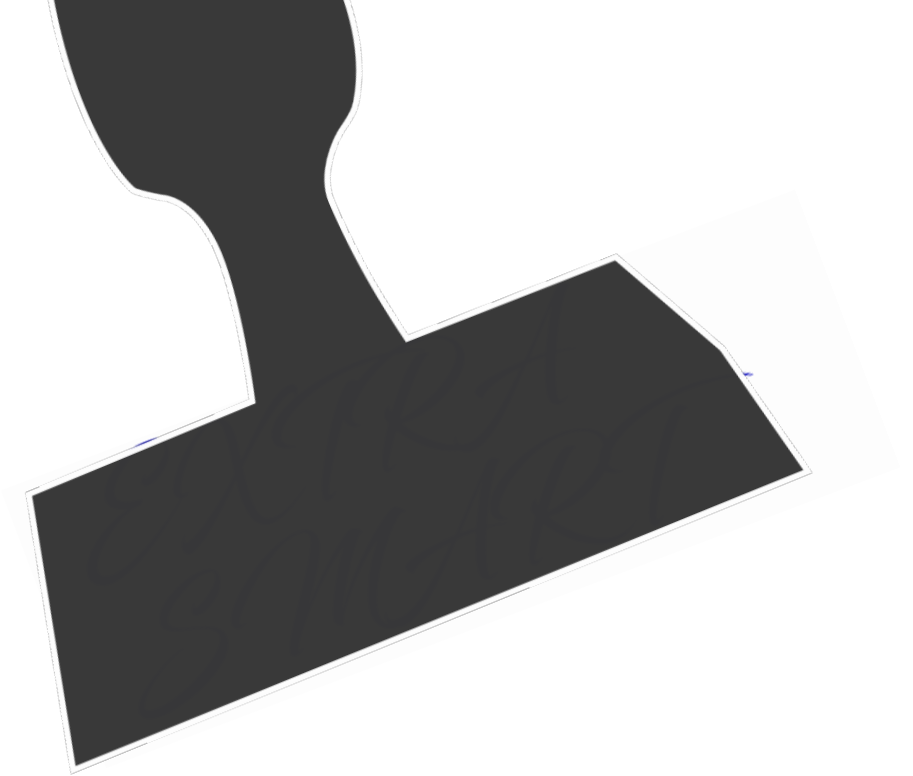
Standard M12 flange plug (4-pole, + - A and Teach)

Stainless Steel case VA material No. 1.4404 (Food + Pharma grade)

Hygienic design

Compact construction

Adapter for hygienic process connection



Strengths	Benefits to users
For conductive and/or sticky & viscous media	Long term in-service reliability even with difficult sensing media
EasyTeach by Wire	Simple and accurate setting without requirement to set tolerance
Visual LED step guide during the teach process	Customer can easily view the status during the teaching process
No extra Teach module needed unlike some of our competitors	Easy to set-up and reduced user costs
Temperature compensation by micro controller	Precise repeatable measurements
2-coloured LED	<ul style="list-style-type: none"> <li>• Power connection indication</li> <li>• Display of teach process status</li> <li>• Display of output switching state</li> </ul>
Excellent EMC characteristics	High EMC protections for measuring accuracy
Standard M12 flange plug (4-pole, + - A and Teach)	Uses standard connector
Stainless Steel case VA material No. 1.4404	Sensor material can be in contact with food
Hygienic design	For use in applications in the Food and Pharmaceutical Industry
Compact construction	Small space requirement for installation
Adapter for hygienic process connection	Welding socket and variable process adapters available for easy integration



# LevelMaster KS-801-...

**New Variants**

## Sensor Variants - KS-801-26/86-S-G1-PEEK/VAb-Y3-ETW-HP

Article No. KA1471



- Output Normally open (normally closed and analogue output on request)
- Housing design with G1" Process connection
- Housing designed according to the EHEDG directives [European Hygienic, Engineering & Design Group]
- Process pressure maximum 10 bar
- Degree of protection IP69K / IP67

## Further housing designs –

**KS-801-26/86-S-PFG1/2-PEEK/VAb-Y3-ETW-HP, Art.-No. KA1470**

**Mounting tube 300 mm in length, Art.-No. 196354 MT-300-G1/2-M30-VAb**



Fig. 1  
Sensor without  
mounting tube



Fig. 2  
Sensor with  
mounted tube

- Output normally open (NO) (NC or analogue on request)
- Housing design modified for tube mounting
- Technical specifications and electronics are unchanged.
- Process pressure 10 bar
- Degree of protection IP69K / IP67

## Further housing designs – KS-801 ...



Abb. 1  
Sensor without  
tube



Abb. 2  
Sensor with  
mounted tube

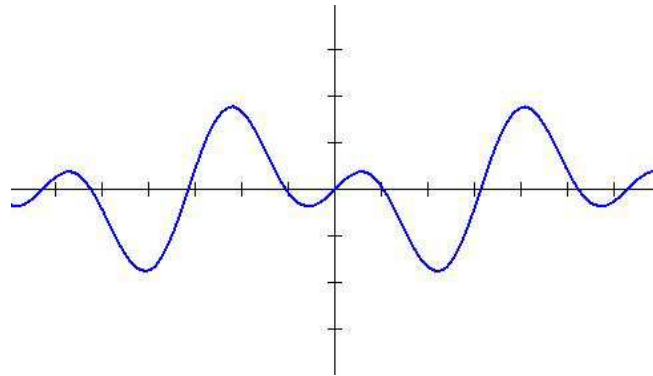
- **APPLICATIONS**
- **Level control of conductive and/or sticky & viscous media**
- Binary output NO (NC or analogue output on request)
- **Housing design for tube mounting.** This means that the sensor housing is designed in such a way, that a tube can be mounted on the G½" thread of the sensor. Using this tube the sensor can reach deeper into the container. In this case the tube has an outer M30 thread, so that the customer can change the measuring position over the mounting depth.
- Other tube lengths or tube designs are available on request.

## Further housing designs – KS-801 ...



# LevelMaster with Analogue Output

*New*



## Sensor Variants

**KS-801-26/133-IL20-G1/2-PEEK/VAb-Y3-ETW-HP**  
**Article No. KA1475**



- Analogue output 20...4 mA or 4...20 mA
- Housing designed according to the EHEDG directives
- Measuring range max. 40 mm
- Process pressure max. 10 bar
- Connection: M12 x 1 connector
- Degree of protection IP69K / IP67

## Applications

**KS-801-26/133-IL20-G1/2-PEEK/VAb-Y3-ETW-HP**  
**Article No. KA1475**



## APPLICATIONS

Analogue level measurement of conductive and/or sticky & viscous media in small containers, for instance

- waterbased inks
- pharmaceutical products
- liquid food



## Sensor Variants - KS-801-26/86-IL20-G1/2-PEEK/VAb-Y3-ETW-HP

### Article No. KA1472



- Analogue output 20...4 mA or 4...20 mA
- Based on the standard body
- Housing designed according to the EHEDG directives
- Process pressure 10 bar
- Degree of protection IP69K / IP67

# Applications - KS-801-26/86-IL20-G1/2-PEEK/VAb-Y3-ETW-HP, Article No. Nr. KA1472

## APPLICATIONS



- Analogue level control of conductive liquids over a small area
  - in the horizontal mounted position approximately 13mm range
  - in a vertical mounted position approximately 11mm range
- Level control of conductive liquids plus detection of contamination which at the same time can signal that cleaning action is required or for indication of changes in the dielectric constant (DC) of the product to be detected, for quality insurance.
- Level control of different liquid applications where regular product changes would require readjustment of the sensor. The analogue value for each media should be determined and stored in a PLC. Value X = product A, Value Y = Product B, Value Z = Product C ... and so on.....

# Applications - KS-801-26/86-IL20-G1/2-PEEK/VAb-Y3-ETW-HP, Article No. Nr. KA1472

Left to Right

Rape Seed Oil 20.0 mA

Soapy Water 5.2 mA

Plain Water 7.3 mA

Mayonnaise 4.9 mA

Ketchup 4.0 mA



## List of new variants

Article No.	Type Code	Prozess Connection	Output
KA1475	KS-801-26/133-IL20-G1/2-PEEK/VAb-Y3-ETW-HP	G1/2"	Analogue 20...4 mA
KA1474	KS-801-26/133-IL4-G1/2-PEEK/VAb-Y3-ETW-HP	G1/2"	Analogue 4...20 mA
KA1472	KS-801-26/86-IL20-G1/2-PEEK/VAb-Y3-ETW-HP	G1/2"	Analogue 20..4 mA
KA1473	KS-801-26/86-IL4-G1/2-PEEK/VAb-Y3-ETW-HP	G1/2"	Analogue 4...20 mA
KA1469	KS-801-26/86-Ö-G1/2-PEEK/VAb-Y3-ETW-HP	G1/2"	Normally closed (NC)
KA 1437	KS-801-26/86-S-G1/2-PEEK/VAb-Y3-ETW-HP	G1/2"	Normally open (NO)
KA1471	KS-801-26/86-S-G1-PEEK/VAb-Y3-ETW-HP	G1"	Normally open (NO)
KA1470	KS-801-26/86-S-PFG1/2-PEEK/VAb-Y3-ETW-HP	Sensor G1/2", Process connection dependent on mounting tube	Normally open (NO)

# USP against Competition

## Huge advantages of the RECHNER LevelMaster

- ✓ Easy adjustment by means of EasyTeach by Wire
- ✓ No additional Teach-Interface or Teach-tool required
- ✓ Remote adjustment thanks to EasyTeach by Wire. Thus easy adjustment with application where the sensor is installed at the top of high containers or at mounting positions with difficult access.
- ✓ From now on analogue measurement possible!



*Unique!*

# LEVEL MASTER XS

## Market sectors for **LevelMaster**

- Food and Beverage Industry
- Pharmaceutical Industry
- Cosmetic Industry
- Oil lubricating systems
- Chemical Industry – suitable for acids and alkalis
- Printing Industry – ink levels

# LEVEL MASTER XS

RECHNER Sensors brings the right solution for every application

Classic proximity switch or **LevelMaster** ... you choose!

	Model	Art.-Nr.	Bulk Material	Liquids	Conductive and/or Sticky Liquids	Pastes	Conductive and/or Sticky Pastes
Classic	KAS-80-26-A-K-G1/2"-PEEK	KA1244	Yes	Yes	Conditional	Yes	Conditional
	KAS-80-G1/2"-A-K-PTFE-Y3-G-NL	KA0624	Yes	Yes	Conditional	Yes	Conditional
	KAS-80-26/113-A-G1-PTFE-Z02-1-HP	813100	Yes	Yes	Conditional	Yes	Conditional
LevelMaster	KS-800-26-A-G1/2"-PEEK/VA-Y5-ET	KA1126	No	Yes	Yes	Yes	Yes
	KS-801-26-S-M-G1/2-PEEK/VA-Y3-ETW	KA1437	No	Yes	Yes	Yes	Yes
	KS-801-26/86-S-G1-PEEK/VAb-Y3-ETW-HP	KA1471	No	Yes	Yes	Yes	Yes



**Many thanks for  
your kind  
attention**

Your

*Rechner Team*

**Rechner Industrie Elektronik GmbH**