



- limit value detection for conductive or non-conductive liquids as well as granulated solids
- 1-rod- or 2-rod-electrodes
- electrodes $\varnothing 4$ mm or $\varnothing 6$ mm
- the switching point is adjustable along the rod with non-conductive media or fully insulated electrodes
- approval for Ex-area zone 0
- approval as overspill prevention according to VbF

Function principle

The converter HR-0125 is supplied with a D.C. current according to DIN 19 234 (NAMUR) by a transformer isolated barrier. The electronic converter detects field changes in it's input circuit caused by rising medium. This field changes are converted into a corresponding current change. If the changes exceed an adjustable limit value, the output current rises discontinuously to > 2.2 mA. The transformer isolated barrier uses this information to switch isolated contacts. The transformer isolated barrier also detects faults of the converter and the leads by checking the current consumption.

Note

Pay attention to the approvals / certifications when applying in hazardous areas or as overfill prevention according to VbF.

Rod electrode, $\varnothing 4$ mm

HR-6 5 5 \square 6 \square /W0125

Number of electrode rods

- 1 electrode rod HR- $\square\square\square$ 1 $\square\square$
- 2 electrode rods HR- $\square\square\square$ 2 $\square\square$

Electrode rod material, PTFE coated

- Stainless steel 316 Ti / 320 S 18 HR- $\square\square\square\square$ 1
- Hastelloy B HR- $\square\square\square\square$ 2
- Hastelloy C HR- $\square\square\square\square$ 4
- Tantalum HR- $\square\square\square\square$ 8
- Full insulation of the rods HR- $\square\square\square\square$ /isol.

Rod electrode, $\varnothing 6$ mm

HR-6 6 5 \square 6 \square /W0125

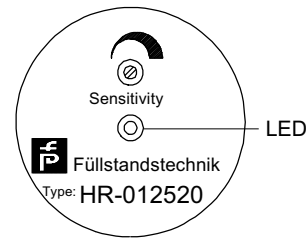
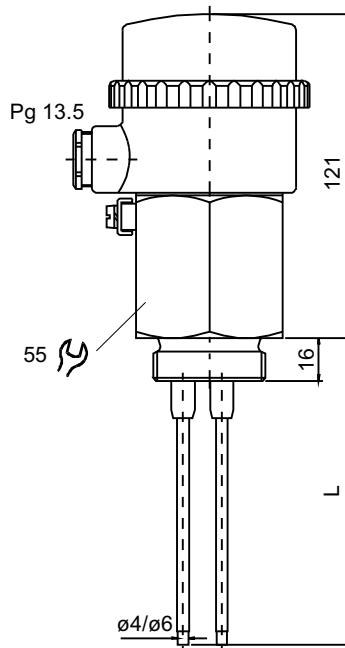
Number of electrode rods

- 1 electrode rod HR- $\square\square\square$ 1 $\square\square$
- 2 electrode rods HR- $\square\square\square$ 2 $\square\square$

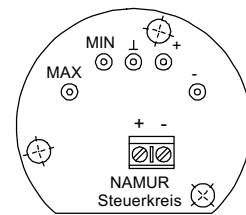
Electrode rod material, PTFE coated

- Stainless steel 316 Ti / 320 S 18 HR- $\square\square\square\square$ 1

Dimensions



Electr. converter HR-012520 build into terminal box



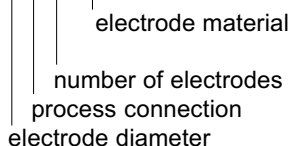
Circuit board in terminal box



Please specify the rod length (L) when ordering. Order a converter HR-012520 or HR-01262 \square separately.

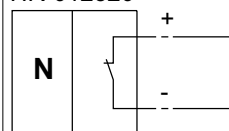
Types

HR-6 \square 5 \square 6 \square / W0125



Connection

HR-012520



Date of issue 26.06.97



Technical data	
Approvals / Certifications	01 / PTB / Ex-88.B.2003
Ignition protection class	EExia II C T6
Measuring voltage	from the converter
Environmental conditions Temperature	-20 °C ... +60 °C (253 K ... 333 K)
Process conditions Temperature Ex-zone 0 / VbF Pressure	-20 °C ... +70 °C (253 K ... 343 K) insert a heat insulation tube with media temperatures 150 °C ≥ t ≥ 60 °C ≤ 30 bar
Housing material Electrode material	PBT see types, PTFE-coated
Electrical connection Electrode - converter converter - transformer isolated barrier	Connection to the converter via plug facility in the terminal box 2 terminals in the terminal box below the converter
Process connection	Thread G1¼A, stainless steel 316 Ti / 320 S 18
Protection class acc. to DIN 40 050	IP 65
Accessories HR-910201 HR-910900 HR-910612 HR-910632 HR-910642	Protective sleeve / grounding tube, G1½A x G1¼, stainless steel Heat insulation tube, (with media temperatures ≥ 60 °C) Spacer, PTFE, for 4 mm rods Spacer with binding post, PTFE, for 4 mm rods Spacer with binding post, PTFE, for 6 mm rods
Technical data Response sensitivity	Electrical converter HR-012520 adjustable via potentiometer (20 turns)
Supply Nominal voltage Ripple Nominal current	according to DIN 19234 (NAMUR) - unswitched < 1 mA switched > 2.2 mA
Measuring voltage max. no-load voltage max. short-circuit Frequency	AC 5 V 1 µA ≈ 100 kHz
Output signal	discontinuous current change according to DIN 19234 (NAMUR), unswitched < 1mA, switched > 2.2 mA
Environmental conditions Temperature	-20 °C ... +70 °C (253K ... 343 K)
Adjustment for non-conductive media	The switching point is fully adjustable along the rod with non-conductive media. The minimum length of the rod inside the medium has to be at least 20%. After inserting the medium to the required level, the sensitivity is adjusted such that the LED has just turned on. Then the potentiometer is turned clockwise another ¼ turn.

A measuring system consists out of:

- a rod electrode HR-6□5□6□ / W0125 with build-in converter HR-012520 and a transformer isolated barrier KHD2-SRÜ-Ex1.W.LB or KHA6-SRÜ-Ex1.W.LB