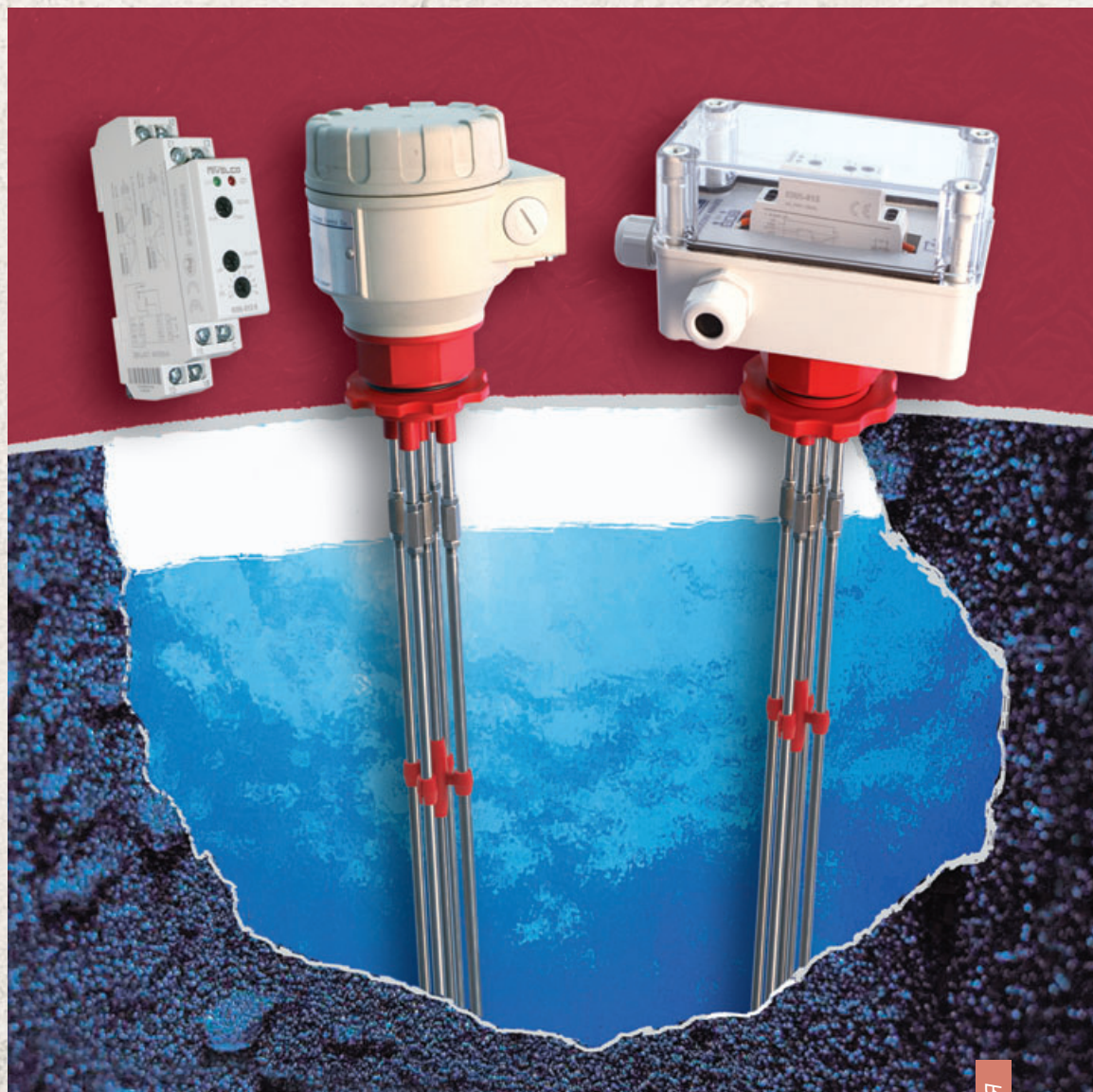




RusAutomation

# NIVOCONT

КОНДУКТИВНЫЙ СИГНАЛИЗАТОР УРОВНЯ



СИГНАЛИЗАТОР УРОВНЯ

ВСЕГДА НА ВЫСШЕМ УРОВНЕ

СИГНАЛИЗАТОР УРОВНЯ

**GENERAL DESCRIPTION**

NIVOCONT K level switches, based on the conductivity principle, can be applied to liquids with conductivity higher than 10 µS/cm. For detecting the level, probes are immersed into the tank. These probes (and the tank wall if conductive) serve as contacts of an electric circuit. Probes can be of single or multiple rod versions. A maximum of 4 probe rods can fit in the multiple probe socket with an additional reference probe if tank wall is not conductive. The probe length should be in accordance with the level to be detected. When the liquid level reaches the probe, it will create a short-circuit and the output relay will be activated. The device senses the conductivity difference between the probes and the reference probe. The KLP separators should be used at every 0.5 m to provide suitable distance between the probes.

**MAIN FEATURES**

Level switches	
KRK-512	KRK-622
<ul style="list-style-type: none"> <li>Level switching</li> <li>Filling-emptying control</li> <li>Selectable NO/NC relay function</li> <li>Adjustable sensitivity</li> <li>Adjustable delay ON and delay OFF time</li> <li>Delay time indication</li> <li>AC/DC versions</li> </ul>	<ul style="list-style-type: none"> <li>The following functions can be selected:                             <ul style="list-style-type: none"> <li>Monitoring of 2 independent levels in 2 tanks</li> <li>Monitoring of 2 independent levels in 1 tanks</li> <li>Pumping from one tank to another</li> </ul> </li> <li>DIP switch selection on the front panel (8 functions)</li> <li>Adjustable probe sensitivity (for each probe separately)</li> <li>Adjustable relay switching delay (for each probe separately)</li> <li>AC/DC versions</li> </ul>

Compact level switches
KKH-2□2
<ul style="list-style-type: none"> <li>Probe and relay in one unit</li> <li>1 or 2 incorporated KRK-512 electronics</li> <li>1 or 2 independent relay outputs for pump control or differential level switching</li> <li>Selectable NO/NC relay function</li> <li>Adjustable sensitivity</li> <li>Adjustable delay ON and delay OFF time</li> <li>Delay time indication</li> <li>AC/DC versions</li> </ul>

**VERSIONS**

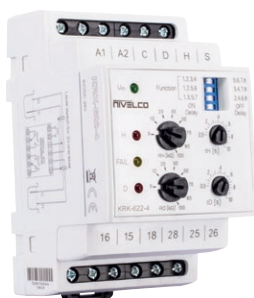
Level switch and probe
<ul style="list-style-type: none"> <li>DIN rail mounted 1 or 2 channel switching unit</li> <li>Probe set with aluminium or plastic housing featuring 1½" BSP process connection</li> <li>Probe-rods up to 3 m</li> </ul>
Compact level switch
<ul style="list-style-type: none"> <li>1 or 2 channel switching unit in plastic housing with 1½" BSP process connection</li> <li>Probe-rods up to 3 m</li> </ul>

**APPLICATIONS**

- For conductive liquids with min. 10 µS/cm conductivity
- For emptying / filling control or level switch tasks
- Fail-safe indication and pump control
- Water inrush indicator



KRK-512-5



KRK-622-□



KSH-3□□



KSH-2□□



KKH-2□□-5

TECHNICAL DATA

Probes	Single Probe			Multi Probe						Submersible	
				Aluminium housing			Plastic housing				
	KSP-201	KSS-201	KSN-201	KSH-202	KSH-203	KSH-204	KSH-301	KSH-302	KSH-303		KSH-304
Number of probes	1			2+s*	3+s*	4+s*	1+s*	2+s*	3+s*	4+s*	1
Process connection	3/8" BSP			1/2" BSP						Cable mountable	
Probe socket material	PP	Carbon steel	1.4571	1.4571			PP			-	
Housing	-			Aluminium cast			PBT			ABS	
Probe material	1.4571									1.4401	
Insulation of socket	PP	PFA			PP			-			
Medium temperature	Max. +80 °C	Max. +200 °C			Max. +80 °C			-			
Pressure max	Max. 0.3 MPa (3 bar)	Max. 1.6 MPa (16 bar)			Max. 0.3 MPa (3 bar)			-			
Electrical connection	With rubber cap			M20x1.5 cable gland, cable diameter: 6 – 12mm						Pg7 <sup>(1)</sup>	
Ingress protection	IP20			IP65			IP67			IP68	
Mass (without probe)	0.1 kg			0.4 kg			0.2 kg			0.05 kg	

s\* = reference probe <sup>(1)</sup> Cable: Ø4 – 7 mm

LEVEL SWITCHES

Type	KRK-512-5	KRK-622-□	
Power supply (U <sub>n</sub> )	24 – 240 V AC/DC (AC 50 – 60 Hz)	110 V AC, 230 V AC	24 V AC/DC
	-15% ... +10%		
Power consumption	Max. 2 VA / W	2.5 W / 5 VA	1.4 W / 2 VA
Ambient temperature	-20 °C ... +55 °C		
Probe voltage	Max. 3.5 V AC		
Probe current	Max. 0.1 mA AC	Max. 1 mA AC	
Sensitivity	Adjustable: 5 kohm – 100 kohm		
Cable capacitance	100 nF (100 kohm sens.) 800 nF (5 kohm sens.)		
Fixed on-delay (t <sub>f</sub> )	1.5 sec	-	
On and off-delay	0.5 – 10 sec		
Relay output	1x SPDT 250 V 8 A, AC1 24 V DC 8 A	2x SPDT 250 V 16 A, AC1 24 V DC 16 A	
Electrical connection	Terminal block, max. 2.5 mm <sup>2</sup>		
Electrical protection	Class II		Class III
Mechanical connection	EN 60715 rail		
Ingress protection	IP20		
Mass	72 g	248 g	147 g

COMPACT LEVEL SWITCHES

Type	KKH-212-5	KKH-222-5
Power supply (U <sub>n</sub> )	24 – 240 V AC/DC (AC 50 – 60 Hz)	
	-15% ... +10%	
Power consumption	Max. 2 VA / W	Max. 4 VA / W
Ambient temperature	-20 °C ... +50 °C	
Medium temperature	Max. +80 °C	
Medium pressure	1 bar	
Number of probe	2+s*	4+s*
Probe voltage	Max. 3.5 V AC	
Probe current	Max. 0.1 mA	
Sensitivity	Adjustable: 5 kohm – 100 kohm	
Fixed on-delay	1.5 sec	
On and off-delay	0.5 – 10 sec	
Relay output	1x SPDT 250 V 8 A AC1 / DC 24 V 8 A	2x SPDT 250 V 8 A, AC1 / DC 24 V 8 A
Electrical connection	Cable gland: 2x M20x1.5 Ø6 – 12 mm cables, Terminal block, max. 2.5 mm <sup>2</sup>	
Electrical protection	Class II	
Process connection	1/2" BSP	
Material of probe socket	PP	
Housing material	Polycarbonate	
Ingress protection	IP67	
Mass	660 g (without probe)	800 g (without probe)

s\*=reference probe



KSK-201-0  
Single probe socket



KSK-201-0  
Submersible probe



KLN-200-0  
Probe



KLP-201-0 Separator for  
KSH-300 and KKH-200



KLP-204-0  
Separator for KSH-200

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