



The NIVA Level Controller KR1 EX is the ideal solution to control liquids in potentially explosive atmospheres classified Cl.1 Div.1, (ATEX Zone 0, 1 or 2) for example in:

- Gas stations
- Sewage works
- Fermentation plants



The NIVA Level Controller KR1 EX was designed especially for use in intrinsically safe electrical circuits in potentially explosive atmospheres. In accordance with license IECEx SEV 13.0002 the Level Controller KR1 EX may be used in hazardous areas as well as in gas groups IIA, IIB and IIC.

The controller is equipped with a change-over contact (SPDT), meaning that depending on the electrical connection, the level controller can be used both to empty and fill a tank. Unlike level controller MS1 EX, type KR1 EX is a wide angle controller, which means that only one controller is required for switching on and off.

Available versions:

Type	Cable	Cable length (approx.)	Order Number
SPDT	TPR/PVC 4G0.75	5m (16ft)	40 000405
SPDT	TPR/PVC 4G0.75	10m (30ft)	40 000410
SPDT	TPR/PVC 4G0.75	20m (65ft)	40 000420
SPDT	TPR/PVC 4G0.75	30m (98ft)	40 000430

Other cable types and lengths are available upon request


Application KR1 EX:

For use in intrinsically safe electrical circuits in zones 0, 1 and 2 (Cl.1 Div.1). IECEx certificate is recognized in many countries including the U.S., Canada, India, China, Australia. For a complete list check the IEC countries website.


Electronic Connection:

Function	Wire			⊕
	blue	black	brown	
Normally Open	insulate	X	X	X
Normally Closed	X	insulate	X	X
Alarm High Level	insulate	X	X	X
Alarm Low Level	X	insulate	X	X

Technical data subject to change

 Ground wire to prevent electrostatic charging

Technical data:

Max. temperature:	80°C (176°F)
Breaking capacity:	1 - 100 mA / 4 V - 40 V*
Switch point:	45°
Capacitance C_i :	0
Inductance L_i :	0
Protective system:	IP 68 / 2 bar
EX Type:	 II 1G Ex ia IIC T6
Cable cross section:	4G0.75 mm ²
Height / diameter:	40 / 100 mm
Housing quality:	PRE-ELEC PP**
Housing Color:	Black
Cable quality:	TPR / PVC
Cable color:	Blue

* Micro-switch with gold-plated contacts made especially for low currents in electronic circuits

** Specially deflective plastic to prevent electrostatic charging when used in Ex-area (in accordance with ATEX 95).

■ EC type examination certificate SEV 06 ATEX 0137

■ IECEx SEV 13.0001