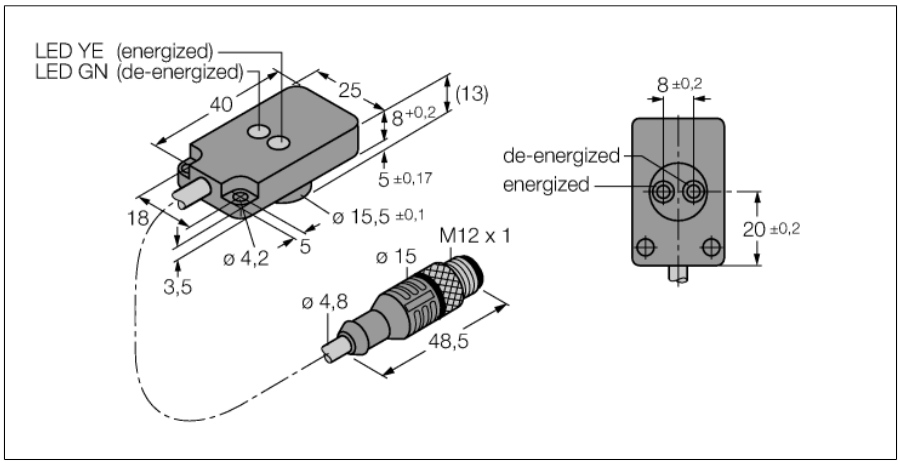
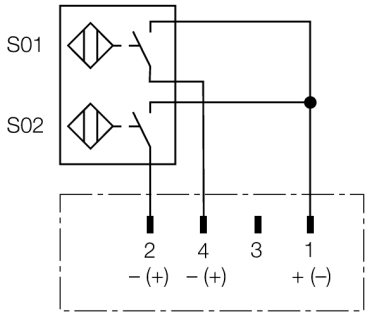
Inductive sensor (radial)
power clamp monitor
NI1,5-KS13R-2AD4X2-0,2-RS4.4T



- **Compact power clamp monitoring KSR13A with two sensors and LEDs**
- **Active face, radial**
- **Plastic, PBT-GF20-V0, black**
- **Mounting holes with metal sleeves**
- **Cable: Irradiation crosslinked PUR**
- **Resistant to DC and AC fields (weld resistant)**
- **Acc. to standard EN 60947-5-2**
- **Acc. to standard EN 61000-4-3**
- **Acc. to E03.75.020.N (7.2.6.1 CEM)**
- **4-wire DC, 10…65 VDC**
- **2 x NO contact**
- **Male M12 x 1**

Type code	NI1,5-KS13R-2AD4X2-0,2-RS4.4T
Ident no.	4430116
Rated operating distance Sn	1.5 mm
Mounting condition	non-flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 2 % of full scale
Temperature drift	10 %
Hysteresis	1…15 %
Ambient temperature	-25…+70 °C
Operating voltage	10…65VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 100 mA
Residual current	≤ 0.6 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I_e	≤ 5 V
Output function	3-wire, NO contact, 2-wire
Smallest operating current I_m	≤ 3 mA
	for each sensor
Switching frequency	0.25 kHz
Design	monitoring kit for clamping technology, KS13
Dimensions	40 x 25 x 13 mm
Housing material	metal, PBT
Material active area	Plastic, PBT
Connection	male, M12 x 1
Cable quality	4.8 mm, orange, D12YSL11X-OB, PUR, 0.2 m
Cable cross section	4 x 0.34 mm²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED green / yellow

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

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