

DCA-13-MR-002  
Derailment/Hazardous Materials Release  
Paulsboro, NJ  
November 30, 2012

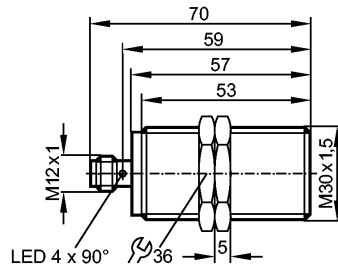
## ATTACHMENT 16

### Inductive Sensors Schematic

**IIS206**

IIKC015BASKG/M/US-104-DRS/2LED

Inductive sensors



Made in Germany



**Product characteristics**

Inductive sensor
Metal thread M30 x 1.5
Quick disconnect
Operation as 3-wire or 2-wire possible
Increased sensing range
Optical setting aid (2 LED)
gold-plated contacts
Sensing range 15 mm; [f] flush mountable

**Electrical data**

Electrical design	3-wire DC PNP; 2-wire DC PNP/NPN
Operating voltage [V]	10...36 DC
Current consumption [mA]	< 10 (24 V)
Protection class	II
Reverse polarity protection	yes

**Outputs**

Output function	normally open
Voltage drop [V]	< 2.5
Minimum load current [mA]	2 *)
Leakage current [mA]	< 0.5 *)
Current rating [mA]	100
Short-circuit protection	Yes (non-latching)
Overload protection	yes
Switching frequency [Hz]	100

**Monitoring range**

Sensing range [mm]	15
Real sensing range (Sr) [mm]	15 ± 10 %
Operating distance [mm]	0...12.1

**Accuracy / deviations**

Correction factors	mild steel = 1 / stainless steel approx. 0.7 / brass approx. 0.5 / aluminium approx. 0.4 / copper approx. 0.3
Hysteresis [% of Sr]	3...15
Switch-point drift [% of Sr]	-10...10

**Environment**

Ambient temperature [°C]	-25...70
Protection	IP 67

**Tests / approvals**

## IIS206

IIKC015BASKG/M/US-104-DRS/2LED

Inductive sensors

EMC	EN 61000-4-2 ESD:	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated:	10 V/m (80...1000 MHz)
	EN 61000-4-4 Burst:	2 kV
	EN 61000-4-6 HF conducted:	10 V (0.15...80 MHz)
	EN 55011:	class B
MTTF	[Years]	1475

### Mechanical data

Mounting	flush mountable
Housing materials	brass white bronze coated; active face: PBT
Weight	[kg] 0.142

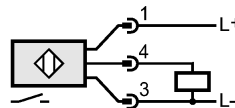
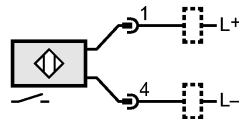
### Displays / operating elements

Output status indication	LED	yellow (4 x 90°)
Setting aid	LED	red

### Electrical connection

Connection	M12 connector; gold-plated contacts
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### Wiring



### Accessories

Accessories (included)	2 lock nuts
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### Remarks

Remarks	suitable for PLC type 1 according to IEC 61131-2 *) only in 2-wire operation
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Pack quantity	[piece] 1
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