



Amplified Inductive Sensors Ø 12

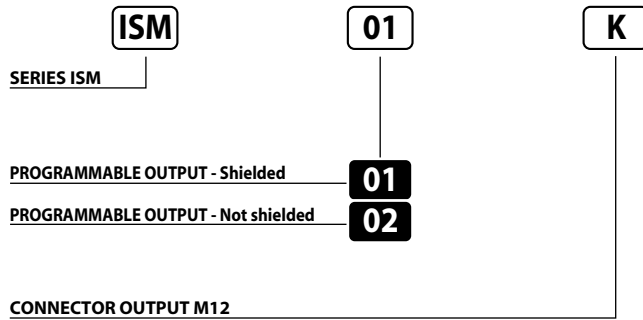
AMPLIFIED INDUCTIVE SENSORS 12÷30 VDC 4 WIRES PROGRAMMABLE OUTPUT

- **Four-wire, amplified sensors**
- **Programmable outputs: NPN/PNP, NO or NC**
- **Cable or M12 quick-connect**
- **Nickel plated brass**
- **12-30 VDC**

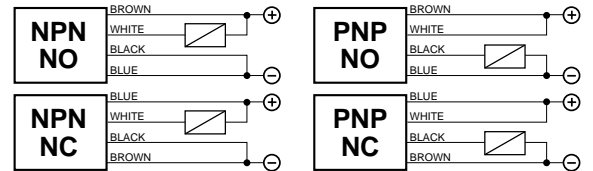
ISM Series



Identification code

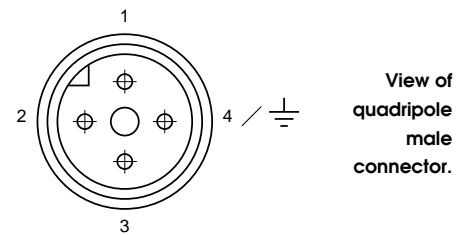


Wiring diagrams



Thanks to the output status which is not paired with the rest of the circuit, the sensors of this kind of availability give enormous advantages, such as the possibility of obtaining the four output configurations (NPN-NO, NPN-NC, PNP-NO, PNP-NC.) on the same model and the possibility of obtaining serial or parallel connections without any practical numerical limit.

Connection with connector M12 (K)



CONTACTS CONFIGURATION

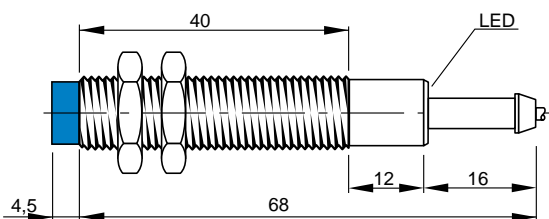
Output	Contacts numbers			
	1	2	3	4
NPN NO	+	NO	-	-
NPN NC	-	NC	+	-
PNP NO	+	+	-	NO
PNP NC	-	+	+	NC

Note: The K plug is compatible with the following connectors VAUDEHA, BINDER, HIRSCHMANN, LUMBERG, AMPHENOL-TUCHEL.

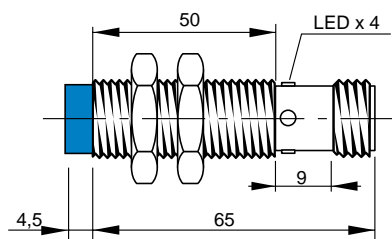
	SHIELDED	NOT SHIELDED
NOMINAL SWITCHING DISTANCE (Sn)	2 mm	4 mm
NOMINAL VOLTAGE	12 ÷ 30 VDC (-15/+10%)	
RESIDUAL RIPPLE	≤ 10%	
HYSTERESIS	< 10%	
OUTPUT	NPN or PNP (may be selected)	
CONTACT	NO or NC (may be selected)	
MAX. CURRENT OUTPUT	200 mA	
ABSORPTION AT 24 VDC	< 1.2 mA	
VOLTAGE DROP (Sensor ON)	< 1,8 V (I = 100 mA)	
OPERATION LED	Yellow	
SWITCHING FREQUENCY	1000 Hz	
START UP DELAY	≤ 50 mS	
REPEATABILITY	≤ 3%	
SHORT CIRCUIT PROTECTION	Present (self-resetting)	
ELECTRIC PROTECTIONS	Against polarity reversal - inductive loads	
TEMPERATURE LIMITS	- 25 ÷ +70 °C	
PROTECTION DEGREE	IP 67	
CABLE LENGTH	2 m	
CABLE SECTION	4 x 0.25 mm ²	
HOUSING MATERIAL	Nickel-plated brass	
WEIGHT - Cable output -	110 g	
WEIGHT - K connector output -	60 g	

Dimensions (mm)

CONFIGURATION WITH CABLE



CONFIGURATION WITH CONNECTOR K



Note: the front part in blue refers to not shielded models.



Amplified Inductive Sensors Ø 12

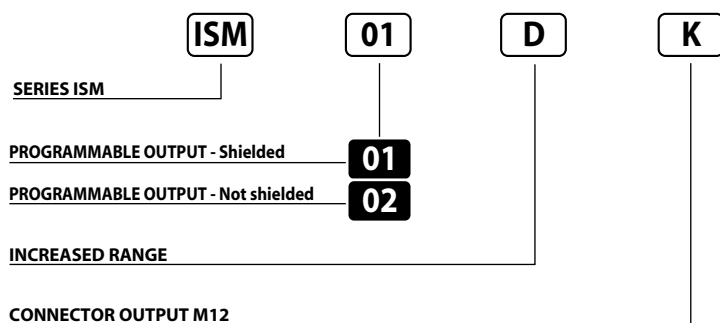
AMPLIFIED INDUCTIVE SENSORS INCREASED RANGE 12÷30 VDC 4 WIRES PROGRAMMABLE OUTPUT

- Four-wire, shielded sensors
- Increased range, shielded, not shielded
- Range, 4 mm to 8 mm
- Programmable outputs: NPN/PNP, NO or NC
- Cable or M12 quick-connect
- Nickel plated brass
- Operation LED
- 200 mA max output

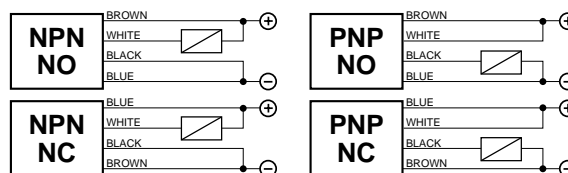
ISM Series



Identification code

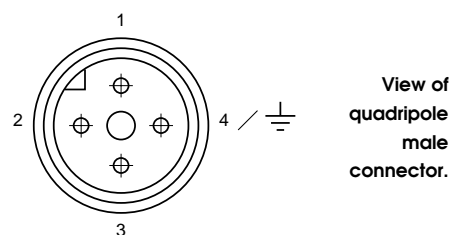


Wiring diagrams



Thanks to the output status which is not paired with the rest of the circuit, the sensors of this kind of availability give enormous advantages, such as the possibility of obtaining the four output configurations (NPN-NO, NPN-NC, PNP-NO, PNP-NC) on the same model and the possibility of obtaining serial or parallel connections without any practical numerical limit.

Connection with connector M12 (K)



CONTACTS CONFIGURATION

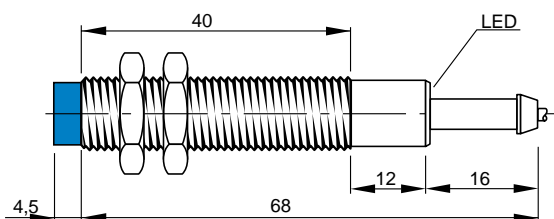
Output	Contacts numbers			
	1	2	3	4
NPN NO	+	NO	-	-
NPN NC	-	NC	+	-
PNP NO	+	+	-	NO
PNP NC	-	+	+	NC

Note: The K plug is compatible with the following connectors VAUDEHA, BINDER, HIRSCHMANN, LUMBERG, AMPHENOL-TUCHEL.

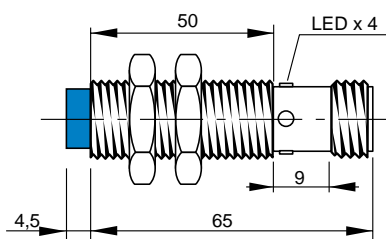
	SHIELDED	NOT SHIELDED
NOMINAL SWITCHING DISTANCE (S _n)	4 mm	8 mm
NOMINAL VOLTAGE	12 ÷ 30 VDC (-15/+10%)	
RESIDUAL RIPPLE	≤ 10%	
HYSTERESIS	< 10%	
OUTPUT	NPN or PNP (may be selected)	
CONTACT	NO or NC (may be selected)	
MAX. CURRENT OUTPUT	200 mA	
ABSORPTION AT 24 VDC	< 1.2 mA	
VOLTAGE DROP (Sensor ON)	< 1,8 V (I = 100 mA)	
OPERATION LED	Yellow	
SWITCHING FREQUENCY	500 Hz	
START UP DELAY	≤ 50 mS	
REPEATABILITY	≤ 3%	
SHORT CIRCUIT PROTECTION	Present (self-resetting)	
ELECTRIC PROTECTIONS	Against polarity reversal - inductive loads	
TEMPERATURE LIMITS	- 25 ÷ +70 °C	
PROTECTION DEGREE	IP 67	
CABLE LENGTH	2 m	
CABLE SECTION	4 x 0.25 mm ²	
HOUSING MATERIAL	Nickel-plated brass	
WEIGHT - Cable output -	110 g	
WEIGHT - K connector output -	60 g	

Dimensions (mm)

CONFIGURATION WITH CABLE



CONFIGURATION WITH CONNECTOR K



Note: the front part in blue refers to not shielded models.