

# Cylindrical SI30

## INDUCTIVE SENSORS M30 x 1.5

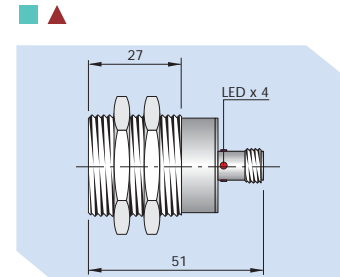
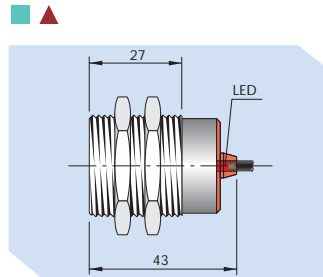


CYLINDRICAL SHORT HOUSING S SERIES  
3/4 WIRES D.C.  
CONFORMING TO EN 50044  
VERSION-C

- STANDARD SWITCHING DISTANCE
- ★ EXTENDED SWITCHING DISTANCE
- ▲ EMBEDDABLE (FLUSH MOUNTING)
- NOT EMBEDDABLE (NON FLUSH MOUNTING)

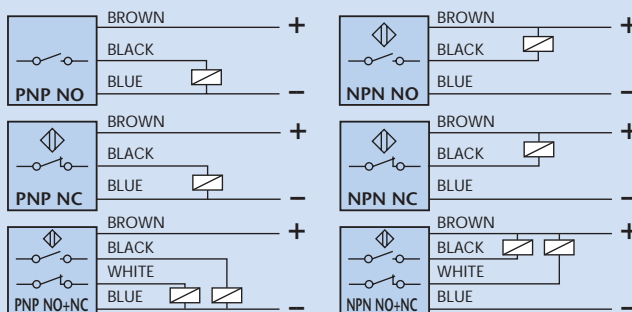
### TECHNICAL CHARACTERISTICS

Dimensions mm



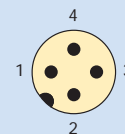
AMPLIFIED 3 WIRES D.C.	NPN	NO	SI30 - C10 NPN NO S	SI30 - C10 NPN NO H S
		NC	SI30 - C10 NPN NC S	SI30 - C10 NPN NC H S
	PNP	NO	SI30 - C10 PNP NO S	SI30 - C10 PNP NO H S
		NC	SI30 - C10 PNP NC S	SI30 - C10 PNP NC H S
AMPLIFIED 4 WIRES D.C. ANTIPHASE	NPN	NO+NC		
	PNP	NO+NC		
Switching distance (Sn)	mm	10	10	
Continuous voltage (residual ripple ≤10%)	V		10 ÷ 30	
Hysteresis (%Sn)	mm		< 10%	
Switching frequency	Hz		300	
Repeatability	% of Sn		≤ 3	
Max output current	mA		200	
Absorption at 24Vdc	mA		< 15	
Voltage drop (sensor ON)	V		< 1.8	
Short circuit protection			Incorporated	
Led			Incorporated	
Temperature limits	°C		- 25 ÷ + 70	
IP rating	IP	67		Depending on connector
Housing			Nickelled brass	
Cable PVC	2m	3 x 0.35 mm <sup>2</sup>		
Connector plug				H

### WIRING DIAGRAMS



N.B.: Upon request cable for sensors with different lengths  
3.5 - 5 - 7.5 - 10 metres is available.

### CONNECTION WITH H PLUG FOR THE CONNECTORS SEE PAGE 85



#### VIEW OF MALE CONNECTOR H

##### 3 WIRES

- 1 = Brown / +
- 3 = Blue / -
- 4 = Black / output NPN-PNP / NO
- 2 = Black / output NPN-PNP / NC

##### 4 WIRES

- 1 = Brown / +
- 3 = Blue / -
- 4 = Black / output NPN-PNP / NO
- 2 = White / output NPN-PNP / NC

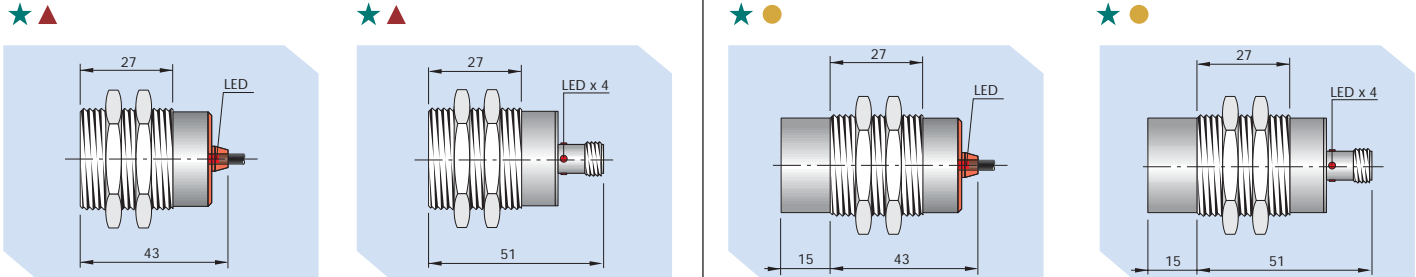
On the 4 wires version with plug H the connector types 14 - 15 must be ordered with 4 wires.

# Cylindrical SI30

## INDUCTIVE SENSORS M30 x 1.5



CYLINDRICAL SHORT HOUSING S SERIES  
 3/4 WIRES D.C.  
 CONFORMING TO EN 50044  
 VERSION-C



SI30 - DC15 NPN NO S	SI30 - DC15 NPN NO H S		
SI30 - DC15 NPN NC S	SI30 - DC15 NPN NC H S		
SI30 - DC15 PNP NO S	SI30 - DC15 PNP NO H S		
SI30 - DC15 PNP NC S	SI30 - DC15 PNP NC H S		
SI30 - DC15 NPN NO + NC S	SI30 - DC15 NPN NO + NC H S	SI30 - DCE20 NPN NO + NC S	SI30 - DCE20 NPN NO + NC H S
SI30 - DC15 PNP NO + NC S	SI30 - DC15 PNP NO + NC H S	SI30 - DCE20 PNP NO + NC S	SI30 - DCE20 PNP NO + NC H S
15	15	20	20

10 ÷ 30

< 10%

300

200

≤ 3

200

< 15

< 1.8

Incorporated

Incorporated

- 25 ÷ + 70

67

Depending on connector

67

Depending on connector

Nickelled brass

3 x 0.35 mm<sup>2</sup> - 4 x 0.25 mm<sup>2</sup>

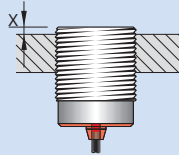
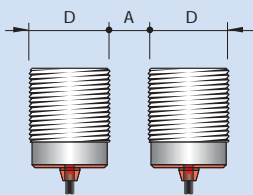
4 X 0.25 mm<sup>2</sup>

H

H

### INSTRUCTIONS FOR CORRECT INSTALLATION

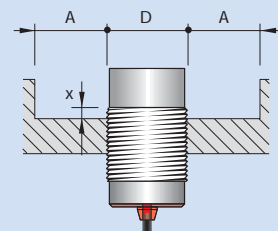
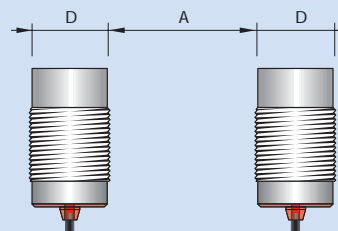
#### EMBEDDABLE



Side by side mounting  
 SI30-C10 A ≥ D/2  
 SI30-DC15 A ≥ D

Flush mounting  
 SI30-C10 X ≥ 0  
 SI30-DC15 X ≥ 4mm

#### NOT EMBEDDABLE



Side by side mounting  
 SI30-DCE20 A ≥ 3D

Non flush mounting  
 SI30-DCE20 A ≥ 2D X ≥ 10mm

# Cylindrical SI30

## INDUCTIVE SENSORS M30 x 1.5



CYLINDRICAL LONG HOUSING

3/4 WIRES D.C.

CONFORMING TO EN 50008 - EN 50044

VERSION-C

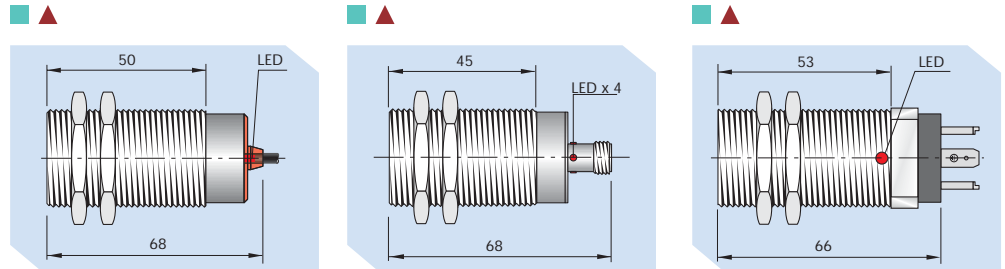
■ STANDARD SWITCHING DISTANCE

▲ EMBEDDABLE (FLUSH MOUNTING)

● NOT EMBEDDABLE (NON FLUSH MOUNTING)

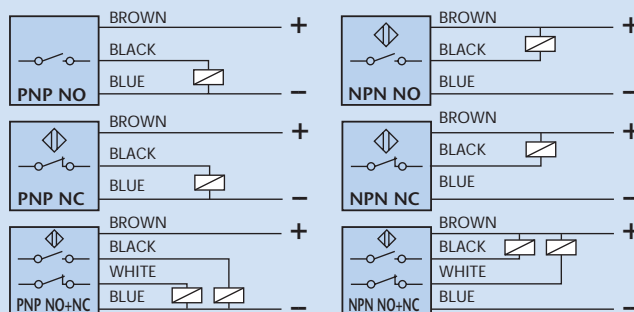
### TECHNICAL CHARACTERISTICS

Dimensions mm



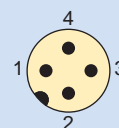
AMPLIFIED 3 WIRES D.C.	NPN	NO	SI30 - C10 NPN NO	SI30 - C10 NPN NO H	SI30 - C10 NPN NO K
		NC	SI30 - C10 NPN NC	SI30 - C10 NPN NC H	SI30 - C10 NPN NC K
	PNP	NO	SI30 - C10 PNP NO	SI30 - C10 PNP NO H	SI30 - C10 PNP NO K
		NC	SI30 - C10 PNP NC	SI30 - C10 PNP NC H	SI30 - C10 PNP NC K
AMPLIFIED 4 WIRES D.C. ANTIPHASE	NPN	NO+NC	SI30 - C10 NPN NO + NC	SI30 - C10 NPN NO + NC H	SI30 - C10 NPN NO + NC K
	PNP	NO+NC	SI30 - C10 PNP NO + NC	SI30 - C10 PNP NO + NC H	SI30 - C10 PNP NO + NC K
Switching distance (Sn)	mm		10	10	10
Continuous voltage (residual ripple ≤10%)	V			10 ÷ 30	
Hysteresis (%Sn)	mm			< 10%	
Switching frequency	Hz			300	
Repeatability	% of Sn			≤ 3	
Max output current	mA			200	
Absorption at 24Vdc	mA			< 15	
Voltage drop (sensor ON)	V			< 1.8	
Short circuit protection				Incorporated	
Led				Incorporated	
Temperature limits	°C			- 25 ÷ + 70	
IP rating	IP		67	Depending on connector	65
Housing				Nickelled brass	
Cable PVC	2m		3 x 0.35 mm <sup>2</sup> - 4 x 0.25 mm <sup>2</sup>		
Connector plug				H	K (type 12)

### WIRING DIAGRAMS



N.B.: Upon request cable for sensors with different lengths  
3.5 - 5 - 7.5 - 10 metres is available.

### CONNECTION WITH H - K PLUGS FOR THE CONNECTORS SEE PAGE 85



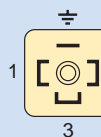
#### VIEW OF MALE CONNECTOR H

3 WIRES

- 1 = Brown / +
- 3 = Blue / -
- 4 = Black / output NPN-PNP / NO
- 2 = Black / output NPN-PNP / NC

4 WIRES

- 1 = Brown / +
- 3 = Blue / -
- 4 = Black / output NPN-PNP / NO
- 2 = White / output NPN-PNP / NC



#### VIEW OF MALE CONNECTOR K

3 WIRES

- 1 = Blue / -
- 2 = Brown / +
- 4/⚡ = Black / output NPN-PNP / NO-NC

4 WIRES

- 1 = Blue / -
- 2 = Brown / +
- 4/⚡ = Black / output NPN-PNP / NO
- 3 = White / output NPN-PNP / NC

On the 3 wires version with plug K the connector K is supplied with 3 poles.  
On the 4 wires version with plug H the connector types 14 - 15 must be ordered with 4 wires.

# Cylindrical SI30

## INDUCTIVE SENSORS M30 x 1.5

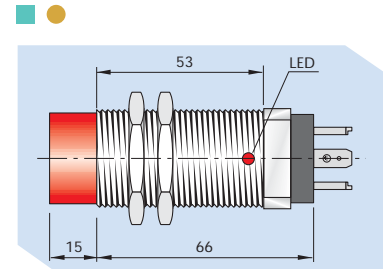
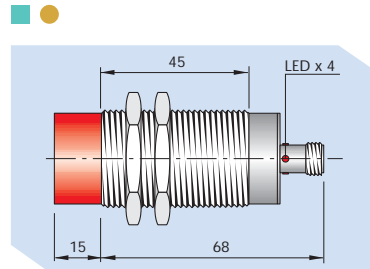
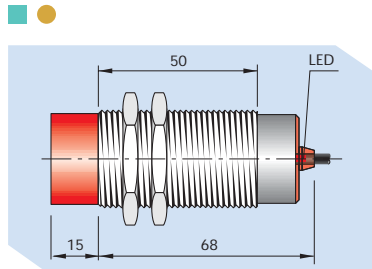


CYLINDRICAL LONG HOUSING

3/4 WIRES D.C.

CONFORMING TO EN 50008 - EN 50044

VERSION-C



SI30 - CE15 NPN NO

SI30 - CE15 NPN NC

SI30 - CE15 PNP NO

SI30 - CE15 PNP NC

SI30 - CE15 NPN NO + NC

SI30 - CE15 PNP NO + NC

15

SI30 - CE15 NPN NO H

SI30 - CE15 NPN NC H

SI30 - CE15 PNP NO H

SI30 - CE15 PNP NC H

SI30 - CE15 NPN NO + NC H

SI30 - CE15 PNP NO + NC H

15

SI30 - CE15 NPN NO K

SI30 - CE15 NPN NC K

SI30 - CE15 PNP NO K

SI30 - CE15 PNP NC K

SI30 - CE15 NPN NO + NC K

SI30 - CE15 PNP NO + NC K

15

10 ÷ 30

< 10%

300

≤ 3

200

< 15

< 1.8

Incorporated

Incorporated

- 25 ÷ + 70

67

Depending on connector

65

Nickelled brass

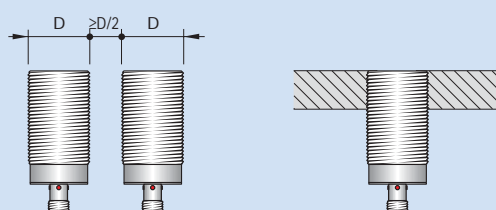
3 x 0.35 mm<sup>2</sup> - 4 x 0.25 mm<sup>2</sup>

H

K (type 12)

### INSTRUCTIONS FOR CORRECT INSTALLATION

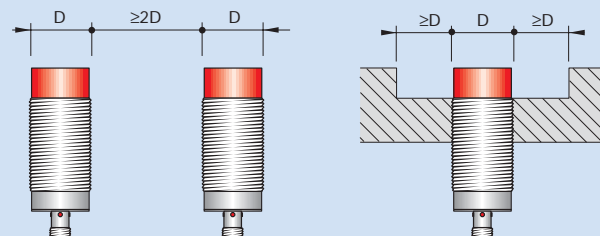
#### EMBEDDABLE



Side by side mounting

Flush mounting

#### NOT EMBEDDABLE



Side by side mounting

Non flush mounting

# Cylindrical SI30

## INDUCTIVE SENSORS M30 x 1.5



CYLINDRICAL LONG HOUSING

2 WIRES D.C.

CONFORMING TO EN 50040 - EN 50044

VERSION -B

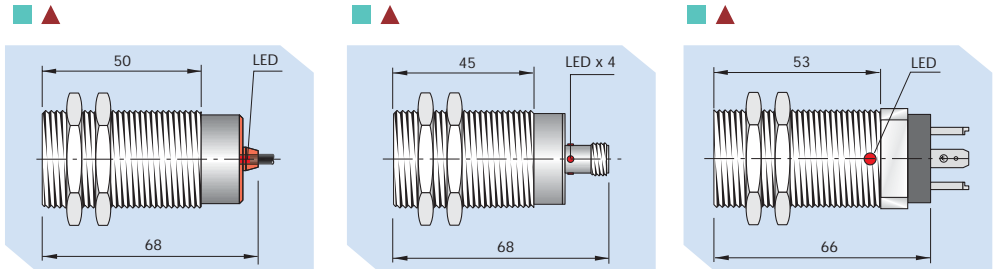
■ STANDARD SWITCHING DISTANCE

▲ EMBEDDABLE (FLUSH MOUNTING)

● NOT EMBEDDABLE (NON FLUSH MOUNTING)

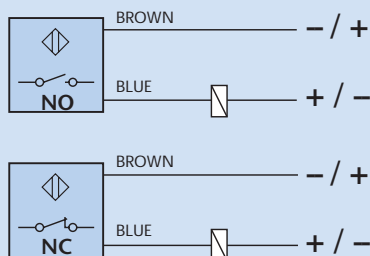
### TECHNICAL CHARACTERISTICS

Dimensions mm



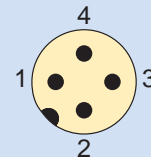
		NO		
		SI30 - B10 NO	SI30 - B10 NO H	SI30 - B10 NO K
AMPLIFIED				
2 WIRES D.C.				
		NC		
		SI30 - B10 NC	SI30 - B10 NC H	SI30 - B10 NC K
Switching distance (Sn)	mm	10	10	10
Continuous voltage (residual ripple ≤10%)	V	10 ÷ 55		
Hysteresis (%Sn)	mm	< 10%		
Switching frequency	Hz	300		
Repeatability	% of Sn	≤ 3		
Max output current	mA	100		
Min. output current	mA	1.5		
Residual current	mA	< 0.6		
Voltage drop (sensor ON)	V	< 6.5		
Short circuit protection		Incorporated		
Led		Incorporated		
Temperature limits	°C	- 25 ÷ + 70		
IP rating	IP	67	Depending on connector	65
Housing		Nickelled brass		
Cable PVC	2m	2 x 0.50 mm <sup>2</sup>		
Connector plug			H	K (type 12)

### WIRING DIAGRAMS (2 WIRES NON POLARIZED)



N.B.: Upon request cable for sensors with different lengths  
3.5 - 5 - 7.5 - 10 metres is available.

### CONNECTION WITH H - K PLUGS FOR THE CONNECTORS SEE PAGE 85

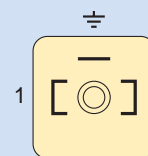


VIEW OF MALE CONNECTOR H

3 / 4 = Function NO (Black-blue)\*

1 / 2 = Function NC (White-brown)\*  
(Non polarized)

\* The wire colour are referred to the connector with cable only.



VIEW OF MALE CONNECTOR K

1 / 2 = Function NO

1 / 2 = Function NC

(Non polarized)

# Cylindrical SI30

## INDUCTIVE SENSORS M30 x 1.5

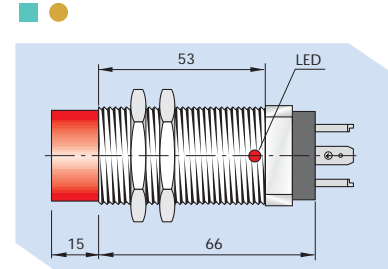
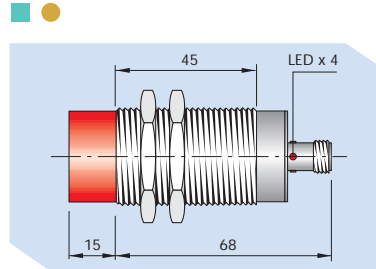
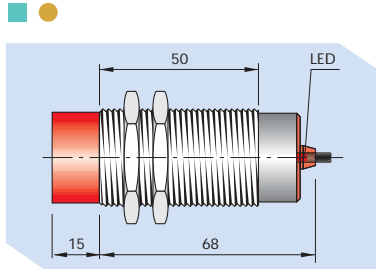


CYLINDRICAL LONG HOUSING

2 WIRES D.C.

CONFORMING TO EN 50040 - EN 50044

VERSION -B



SI30 - BE15 NO

SI30 - BE15 NO H

SI30 - BE15 NO K

SI30 - BE15 NC

SI30 - BE15 NC H

SI30 - BE15 NC K

15

15

15

10 ÷ 55

< 10%

300

≤ 3

100

1.5

< 0.6

< 6.5

Incorporated

Incorporated

- 25 ÷ + 70

67

Depending on connector

65

Nickelled brass

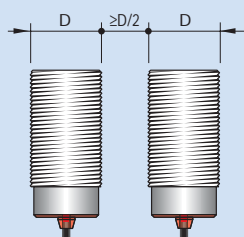
2 x 0.50 mm<sup>2</sup>

H

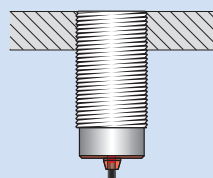
K (type 12)

### INSTRUCTIONS FOR CORRECT INSTALLATION

#### EMBEDDABLE

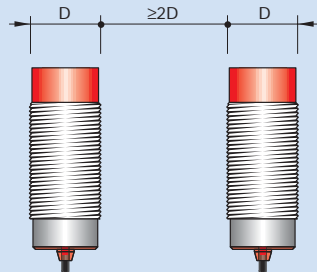


Side by side mounting

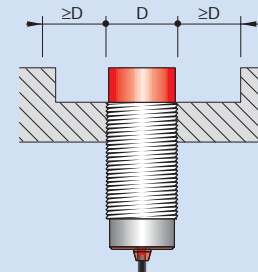


Flush mounting

#### NOT EMBEDDABLE



Side by side mounting



Non flush mounting

# Cylindrical SI30

## INDUCTIVE SENSORS M30 x 1.5



CYLINDRICAL LONG HOUSING

2 WIRES A.C.

CONFORMING TO EN 50036 - EN 50044

VERSION-A

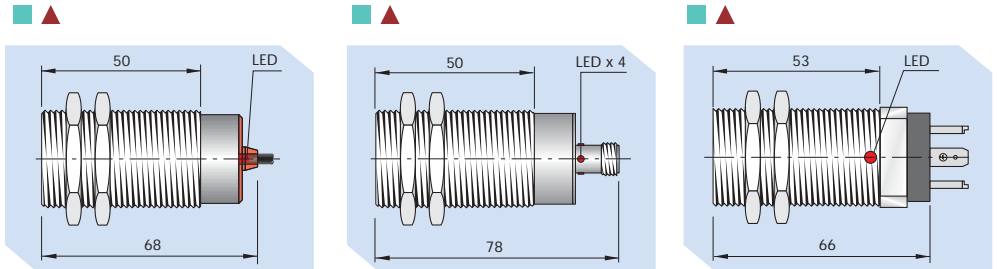
■ STANDARD SWITCHING DISTANCE

▲ EMBEDDABLE (FLUSH MOUNTING)

● NOT EMBEDDABLE (NON FLUSH MOUNTING)

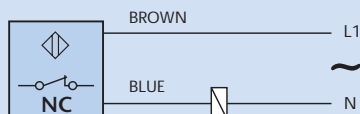
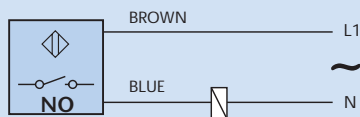
### TECHNICAL CHARACTERISTICS

Dimensions mm



	NO	SI30 - A10 NO	SI30 - A10 NO H	SI30 - A10 NO K
		NC	SI30 - A10 NC H	SI30 - A10 NC K
AMPLIFIED				
2 WIRES A.C.				
Switching distance (Sn)	mm	10	10	10
Alternating voltage 50÷ 60 Hz	V	20 ÷ 250		
Hysteresis (%Sn)	mm	< 10%		
Switching frequency	Hz	12		
Repeatability	% of Sn	≤ 3		
Max output current	mA	300		
Min. output current	mA	5		
Max. peak current for 20ms	A	1.5		
Residual current	mA	< 1		
Voltage drop (sensor on)	V	< 6		
Led		Incorporated		
Temperature limits	°C	- 25 ÷ + 70		
IP rating	IP	67	Depending on connector	65
Housing		Nickelled brass		
Cable PVC	2m	2 x 0.50 mm <sup>2</sup>		
Connector plug			H	K (type 12)

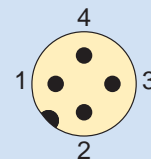
### WIRING DIAGRAMS



N.B.: Upon request cable for sensors with different lengths  
3.5 - 5 - 7.5 - 10 metres is available.

### CONNECTION WITH H - K PLUGS

FOR THE CONNECTORS SEE PAGE 85

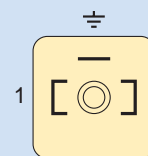


VIEW OF MALE CONNECTOR H

3 / 4 = Function NO (Black-blue)\*

1 / 2 = Function NC (White-brown)\*

\* The wire colour are referred to the connector with cable only.



VIEW OF MALE CONNECTOR K

1 / 2 = Function NO

1 / 2 = Function NC

# Cylindrical SI30

## INDUCTIVE SENSORS M30 x 1.5

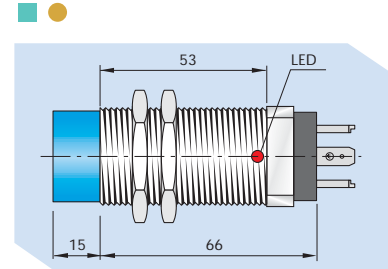
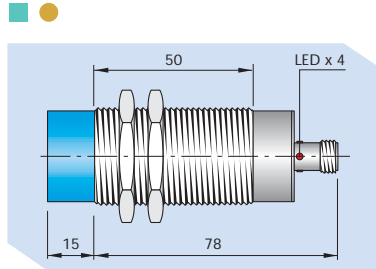
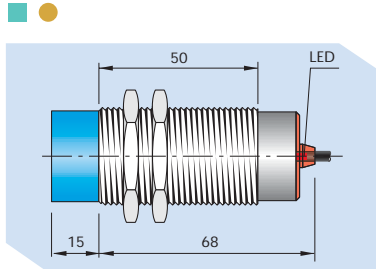


CYLINDRICAL LONG HOUSING

2 WIRES A.C.

CONFORMING TO EN 50036 - EN 50044

VERSION-A



SI30 - AE15 NO

SI30 - AE15 NO H

SI30 - AE15 NO K

SI30 - AE15 NC

SI30 - AE15 NC H

SI30 - AE15 NC K

15

15

15

20 ÷ 250

< 10%

12

≤ 3

300

5

1.5

< 1

< 6

Incorporated

- 25 ÷ + 70

67

Depending on connector

65

Nickelled brass

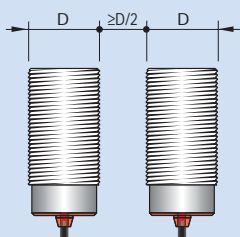
2 x 0.50 mm<sup>2</sup>

H

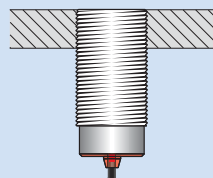
K (type 12)

### INSTRUCTIONS FOR CORRECT INSTALLATION

#### EMBEDDABLE

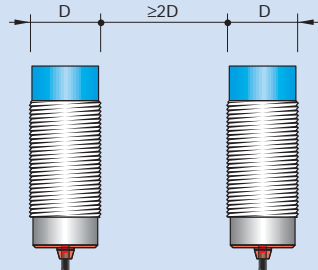


Side by side mounting

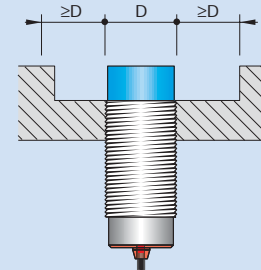


Flush mounting

#### NOT EMBEDDABLE



Side by side mounting



Non flush mounting