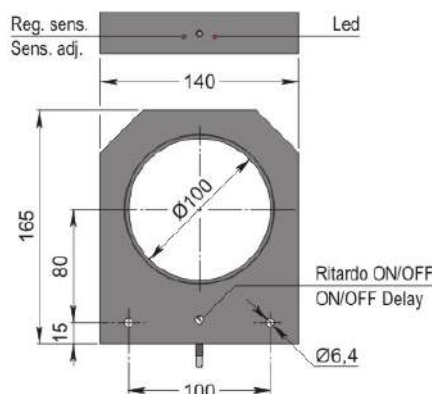


Part number: **SIA000134** Model: **SIA100-CE NPN NO+NC R**



Dimension in mm

1. TECHNICAL CHARACTERISTICS



Electrical data

Power supply type:		Direct current
Working voltage:	[V]	10 ÷ 30
Current consumption:	[mA]	< 15 mA @ 24Vdc
Protection class:		III
Reverse polarity protection:		Presente

Outputs

Electrical design:		NPN
Function:		NO+NC
Delay ON de-energization:	[ms]	100 (when inserted)
Max voltage drop:	[V]	< 1.8
Max output current:	[mA]	200
Max switching frequency:	[Hz]	See instructions for installation
Short circuit protection:		Present
Overload protection:		Present

Detection zone

Sensing hole diameter:	[mm]	100
Minimum detectable object:	[mm]	Ø 12x20 - Fe360

Accuracy and Deviations

Correction factor:		Stainless steel: 0.9 - Brass: 0.5 - Aluminium: 0.4 - Copper: 0.4
Hysteresis:	[%Sr]	Depends on the sensitivity
Switching point drift:	[%Sr]	-10 ÷ +10
Repeatability:	[%Sn]	< 0.3

Environmental conditions

Temperature limits:	[°C]	-20 ÷ +60
IP rating:		IP65

Display and control elements

Display:		Output switching status - 1 x LED: Yellow
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Mechanical data

Housing:		Ring
Dimensions:	[Hz]	140 x 29 x 165
Materials:		Housing: PVC black - Sensing area: PVC black
Mounting:		Not embeddable
Weigth:	[g]	710

Electrical connection

Cable:	2 m - PVC/PVC - 4 x 0.25 mm ²
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Compliance to Standards / Directives

Directives compliance:	2014/30/EU -Electromagnetic compatibility directive (EMC)
Standards compliance:	EN60947-5-2 - Product standard

2. NORME DI INSTALLAZIONE

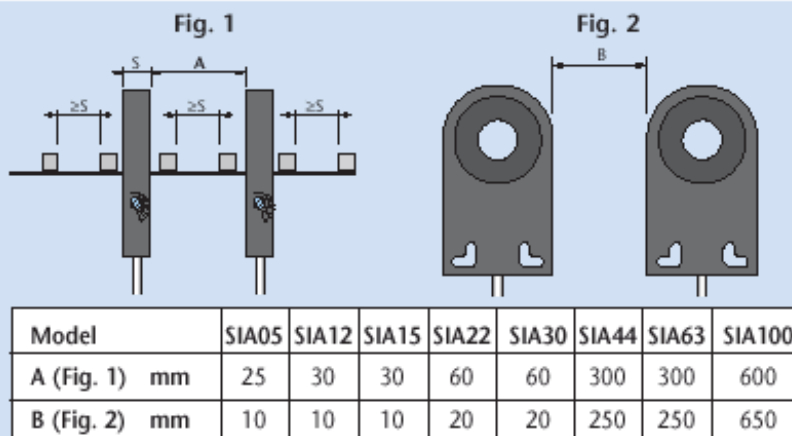
WIRING DIAGRAM

4 WIRES CABLE - LOGIC NPN NO+NC



INSTRUCTIONS FOR CORRECT INSTALLATION

INSTRUCTIONS FOR CORRECT INSTALLATION



Titolo img 1

MIN. DIMENSIONS OF THE OBJECT TO DETECT (Fe37)

Model		SIA100
Lenght	mm	20
Diameter	mm	12

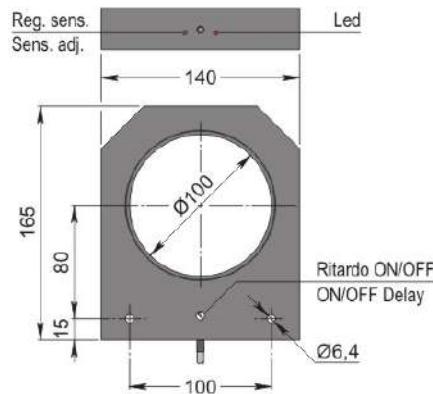
SWITCHING FREQUENCY

The switching frequency of inductive ring sensors depends on delayed impulse time (**when inserted**) according to the formula :

$$\text{Switching frequency (Hz)} = \frac{1}{(T \text{ impulse} + 10) \text{ mS}}$$

Vice versa, the switching frequency will be 100 Hz.

Part number: **SIA000298** Model: **SIA100-CE NPN NO+NC R LC10**



Dimension in mm

1. TECHNICAL CHARACTERISTICS



Electrical data

Power supply type:	Direct current
Working voltage: [V]	10 ÷ 30
Current consumption: [mA]	< 15 mA @ 24Vdc
Protection class:	III
Reverse polarity protection:	Presente

Outputs

Electrical design:		NPN
Function:		NO+NC
Delay ON de-energization:	[ms]	100 (when inserted)
Max voltage drop:	[V]	< 1.8
Max output current:	[mA]	200
Max switching frequency:	[Hz]	See instructions for installation
Short circuit protection:		Present
Overload protection:		Present

Detection zone

Sensing hole diameter:	[mm]	100
Minimum detectable object:	[mm]	Ø 12x20 - Fe360

Accuracy and Deviations

Correction factor:		Stainless steel: 0.9 - Brass: 0.5 - Aluminium: 0.4 - Copper: 0.4
Hysteresis:	[%Sr]	Depends on the sensitivity
Switching point drift:	[%Sr]	-10 ÷ +10
Repeatability:	[%Sn]	< 0.3

Environmental conditions

Temperature limits:	[°C]	-20 ÷ +60
IP rating:		IP65

Display and control elements

Display:	Output switching status - 1 x LED: Yellow
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Mechanical data

Housing:		Ring
Dimensions:	[Hz]	140 x 29 x 165
Materials:		Housing: PVC black - Sensing area: PVC black
Mounting:		Not embeddable
Weigth:	[g]	950

Electrical connection

Cable:	10 m - PVC/PVC - 4 x 0.25 mm ²
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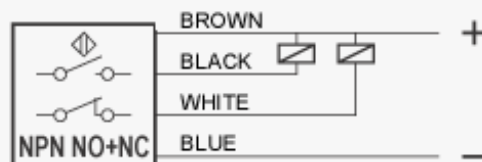
Compliance to Standards / Directives

Directives compliance:	2014/30/EU -Electromagnetic compatibility directive (EMC)
Standards compliance:	EN60947-5-2 - Product standard

2. NORME DI INSTALLAZIONE

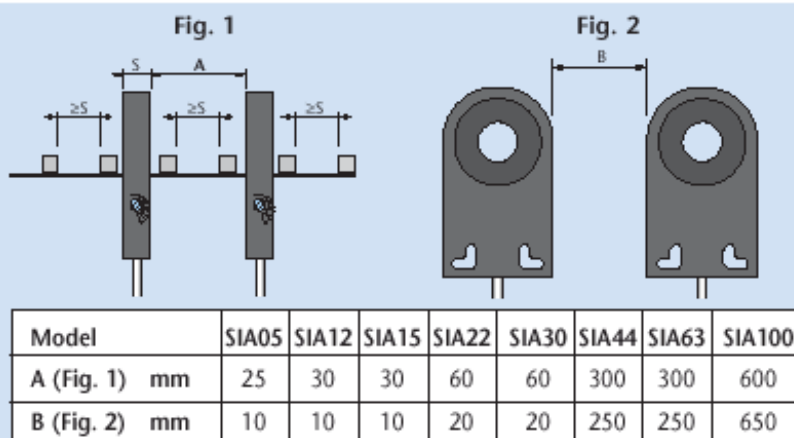
WIRING DIAGRAM

4 WIRES CABLE - LOGIC NPN NO+NC



INSTRUCTIONS FOR CORRECT INSTALLATION

INSTRUCTIONS FOR CORRECT INSTALLATION



Titolo img 1

MIN. DIMENSIONS OF THE OBJECT TO DETECT (Fe37)

Model		SIA100
Lenght	mm	20
Diameter	mm	12

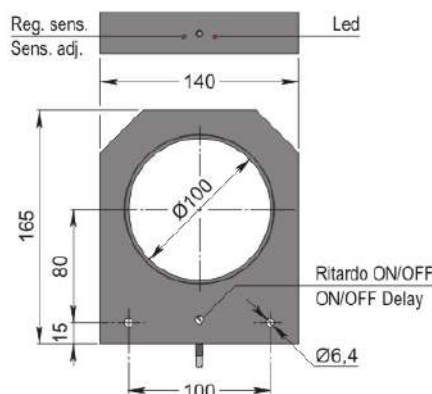
SWITCHING FREQUENCY

The switching frequency of inductive ring sensors depends on delayed impulse time (**when inserted**) according to the formula :

$$\text{Switching frequency (Hz)} = \frac{1}{(T \text{ impulse} + 10) \text{ mS}}$$

Vice versa, the switching frequency will be 100 Hz.

Part number: **SIA000296** Model: **SIA100-CE NPN NO+NC R LC5**



Dimension in mm

1. TECHNICAL CHARACTERISTICS



Electrical data

Power supply type:		Direct current
Working voltage:	[V]	10 ÷ 30
Current consumption:	[mA]	< 15 mA @ 24Vdc
Protection class:		III
Reverse polarity protection:		Presente

Outputs

Electrical design:		NPN
Function:		NO+NC
Delay ON de-energization:	[ms]	100 (when inserted)
Max voltage drop:	[V]	< 1.8
Max output current:	[mA]	200
Max switching frequency:	[Hz]	See instructions for installation
Short circuit protection:		Present
Overload protection:		Present

Detection zone

Sensing hole diameter:	[mm]	100
Minimum detectable object:	[mm]	Ø 12x20 - Fe360

Accuracy and Deviations

Correction factor:		Stainless steel: 0.9 - Brass: 0.5 - Aluminium: 0.4 - Copper: 0.4
Hysteresis:	[%Sr]	Depends on the sensitivity
Switching point drift:	[%Sr]	-10 ÷ +10
Repeatability:	[%Sn]	< 0.3

Environmental conditions

Temperature limits:	[°C]	-20 ÷ +60
IP rating:		IP65

Display and control elements

Display:		Output switching status - 1 x LED: Yellow
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Mechanical data

Housing:		Ring
Dimensions:	[Hz]	140 x 29 x 165
Materials:		Housing: PVC black - Sensing area: PVC black
Mounting:		Not embeddable
Weigth:	[g]	800

Electrical connection

Cable:	5 m - PVC/PVC - 4 x 0.25 mm ²
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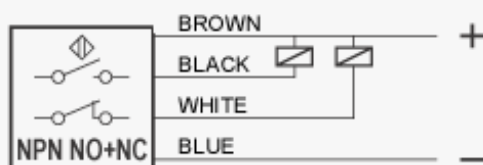
Compliance to Standards / Directives

Directives compliance:	2014/30/EU -Electromagnetic compatibility directive (EMC)
Standards compliance:	EN60947-5-2 - Product standard

2. NORME DI INSTALLAZIONE

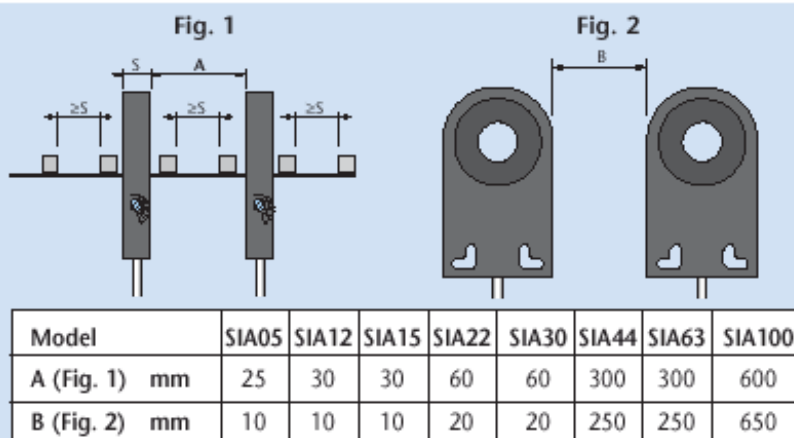
WIRING DIAGRAM

4 WIRES CABLE - LOGIC NPN NO+NC



INSTRUCTIONS FOR CORRECT INSTALLATION

INSTRUCTIONS FOR CORRECT INSTALLATION



Titolo img 1

MIN. DIMENSIONS OF THE OBJECT TO DETECT (Fe37)

Model		SIA100
Lenght	mm	20
Diameter	mm	12

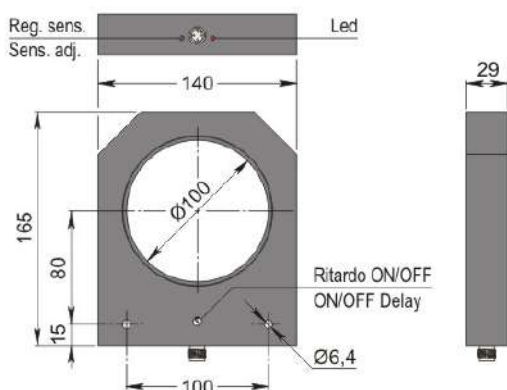
SWITCHING FREQUENCY

The switching frequency of inductive ring sensors depends on delayed impulse time (**when inserted**) according to the formula :

$$\text{Switching frequency (Hz)} = \frac{1}{(T \text{ impulse} + 10) \text{ mS}}$$

Vice versa, the switching frequency will be 100 Hz.

Part number: **SIA000158** Model: **SIA100-CE PNP NO+NC H R**



Dimension in mm

1. TECHNICAL CHARACTERISTICS



Electrical data

Power supply type:		Direct current
Working voltage:	[V]	10 ÷ 30
Current consumption:	[mA]	< 15 mA @ 24Vdc
Protection class:		III
Reverse polarity protection:		Presente

Outputs

Electrical design:		PNP
Function:		NO+NC
Delay ON de-energization:	[ms]	100 (when inserted)
Max voltage drop:	[V]	< 1.8
Max output current:	[mA]	200
Max switching frequency:	[Hz]	See instructions for installation
Short circuit protection:		Present
Overload protection:		Present

Detection zone

Sensing hole diameter:	[mm]	100
Minimum detectable object:	[mm]	Ø 12x20 - Fe360

Accuracy and Deviations

Correction factor:		Stainless steel: 0.9 - Brass: 0.5 - Aluminium: 0.4 - Copper: 0.4
Hysteresis:	[%Sr]	Depends on the sensitivity
Switching point drift:	[%Sr]	-10 ÷ +10
Repeatability:	[%Sn]	< 0.3

Environmental conditions

Temperature limits:	[°C]	-20 ÷ +60
IP rating:		IP65

Display and control elements

Display:		Output switching status - 4 x 90° LED: Yellow
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Mechanical data

Housing:		Ring
Dimensions:	[Hz]	140 x 29 x 165
Materials:		Housing: PVC black - Sensing area: PVC black
Mounting:		Not embeddable
Weigth:	[g]	650

Electrical connection

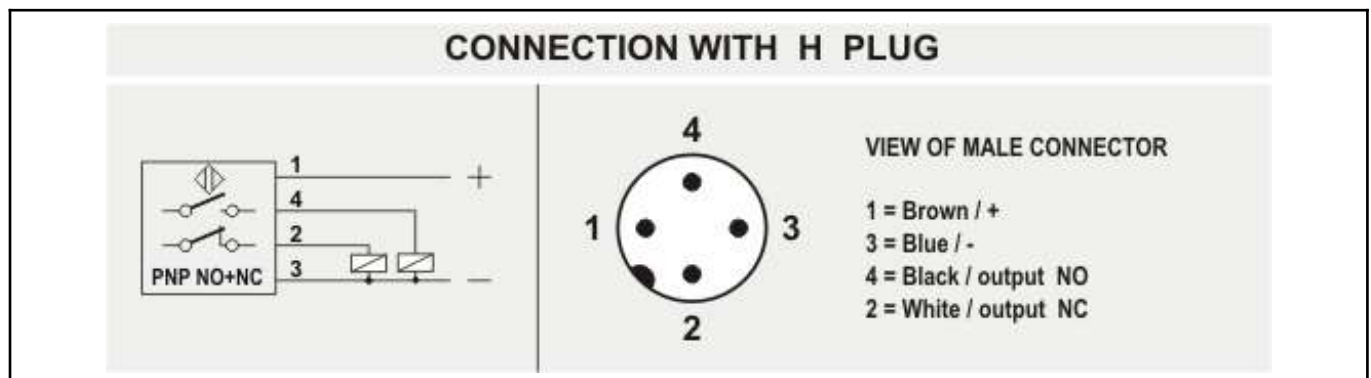
Connector:	H type - M12X1 - Gold plated contacts
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Compliance to Standards / Directives

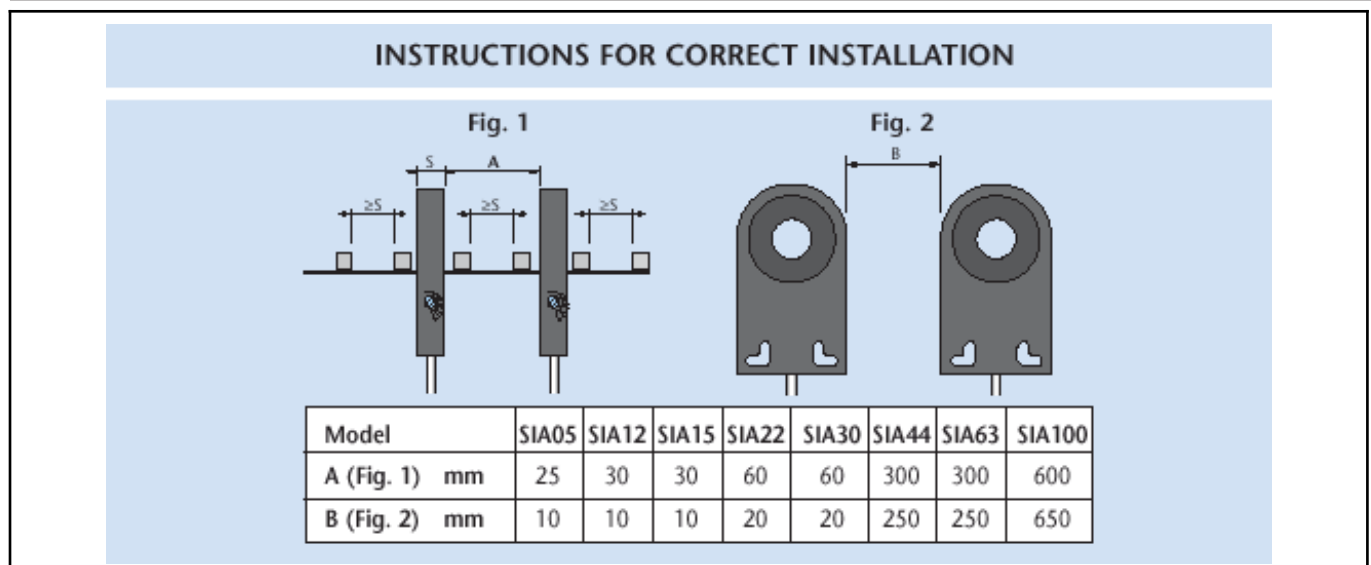
Directives compliance:	2014/30/EU -Electromagnetic compatibility directive (EMC)
Standards compliance:	EN60947-5-2 - Product standard

2. NORME DI INSTALLAZIONE

WIRING DIAGRAM



INSTRUCTIONS FOR CORRECT INSTALLATION



Titolo img 1

MIN. DIMENSIONS OF THE OBJECT TO DETECT (Fe37)

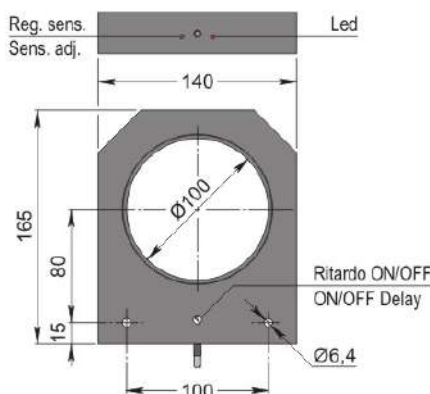
Model		SIA100
Lenght	mm	20
Diameter	mm	12

SWITCHING FREQUENCY

The switching frequency of inductive ring sensors depends on delayed impulse time (**when inserted**) according to the formula :

$$\text{Switching frequency (Hz)} = \frac{1}{(T \text{ impulse} + 10) \text{ mS}}$$

Vice versa, the switching frequency will be 100 Hz.

Part number: **SIA000157** Model: **SIA100-CE PNP NO+NC R**

Dimension in mm



1. TECHNICAL CHARACTERISTICS

Electrical data

Power supply type:	Direct current
Working voltage: [V]	10 ÷ 30
Current consumption: [mA]	< 15 mA @ 24Vdc
Protection class:	III
Reverse polarity protection:	Presente

Outputs

Electrical design:	PNP
Function:	NO+NC
Delay ON de-energization:	[ms] 100 (when inserted)
Max voltage drop:	[V] < 1.8
Max output current:	[mA] 200
Max switching frequency:	[Hz] See instructions for installation
Short circuit protection:	Present
Overload protection:	Present

Detection zone

Sensing hole diameter:	[mm]	100
Minimum detectable object:	[mm]	Ø 12x20 - Fe360

Accuracy and Deviations

Correction factor:		Stainless steel: 0.9 - Brass: 0.5 - Aluminium: 0.4 - Copper: 0.4
Hysteresis:	[%Sr]	Depends on the sensitivity
Switching point drift:	[%Sr]	-10 ÷ +10
Repeatability:	[%Sn]	< 0.3

Environmental conditions

Temperature limits:	[°C]	-20 ÷ +60
IP rating:		IP65

Display and control elements

Display:	Output switching status - 1 x LED: Yellow
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Mechanical data

Housing:		Ring
Dimensions:	[Hz]	140 x 29 x 165
Materials:		Housing: PVC black - Sensing area: PVC black
Mounting:		Not embeddable
Weigth:	[g]	710

Electrical connection

Cable:	2 m - PVC/PVC - 4 x 0.25 mm ²
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Compliance to Standards / Directives

Directives compliance:	2014/30/EU -Electromagnetic compatibility directive (EMC)
Standards compliance:	EN60947-5-2 - Product standard

2. NORME DI INSTALLAZIONE

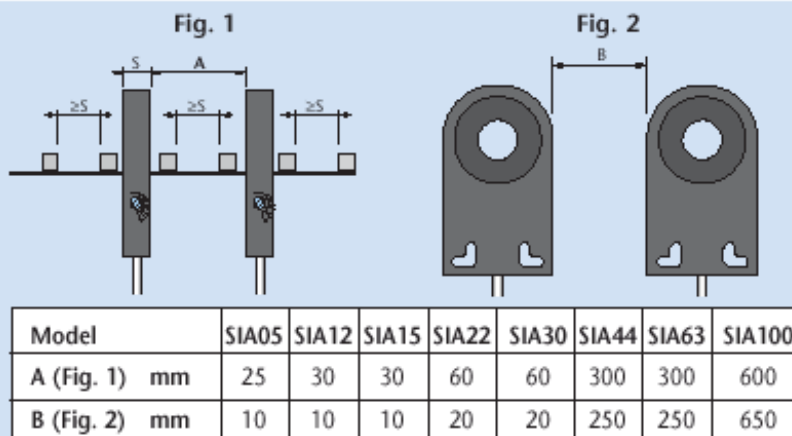
WIRING DIAGRAM

4 WIRES CABLE - LOGIC PNP NO+NC



INSTRUCTIONS FOR CORRECT INSTALLATION

INSTRUCTIONS FOR CORRECT INSTALLATION



Titolo img 1

MIN. DIMENSIONS OF THE OBJECT TO DETECT (Fe37)

Model		SIA100
Lenght	mm	20
Diameter	mm	12

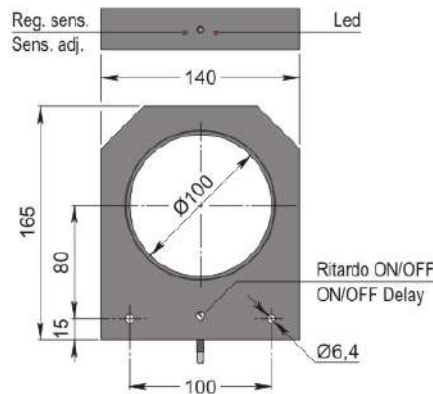
SWITCHING FREQUENCY

The switching frequency of inductive ring sensors depends on delayed impulse time (**when inserted**) according to the formula :

$$\text{Switching frequency (Hz)} = \frac{1}{(T \text{ impulse} + 10) \text{ mS}}$$

Vice versa, the switching frequency will be 100 Hz.

Part number: **SIA000336** Model: **SIA100-CE PNP NO+NC R LC10**



Dimension in mm



1. TECHNICAL CHARACTERISTICS

Electrical data

Power supply type:	Direct current
Working voltage: [V]	10 ÷ 30
Current consumption: [mA]	< 15 mA @ 24Vdc
Protection class:	III
Reverse polarity protection:	Presente

Outputs

Electrical design:		PNP
Function:		NO+NC
Delay ON de-energization:	[ms]	100 (when inserted)
Max voltage drop:	[V]	< 1.8
Max output current:	[mA]	200
Max switching frequency:	[Hz]	See instructions for installation
Short circuit protection:		Present
Overload protection:		Present

Detection zone

Sensing hole diameter:	[mm]	100
Minimum detectable object:	[mm]	Ø 12x20 - Fe360

Accuracy and Deviations

Correction factor:		Stainless steel: 0.9 - Brass: 0.5 - Aluminium: 0.4 - Copper: 0.4
Hysteresis:	[%Sr]	Depends on the sensitivity
Switching point drift:	[%Sr]	-10 ÷ +10
Repeatability:	[%Sn]	< 0.3

Environmental conditions

Temperature limits:	[°C]	-20 ÷ +60
IP rating:		IP65

Display and control elements

Display:	Output switching status - 1 x LED: Yellow
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Mechanical data

Housing:		Ring
Dimensions:	[Hz]	140 x 29 x 165
Materials:		Housing: PVC black - Sensing area: PVC black
Mounting:		Not embeddable
Weigth:	[g]	950

Electrical connection

Cable:	10 m - PVC/PVC - 4 x 0.25 mm ²
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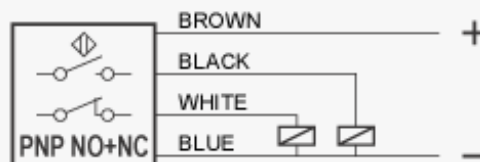
Compliance to Standards / Directives

Directives compliance:	2014/30/EU -Electromagnetic compatibility directive (EMC)
Standards compliance:	EN60947-5-2 - Product standard

2. NORME DI INSTALLAZIONE

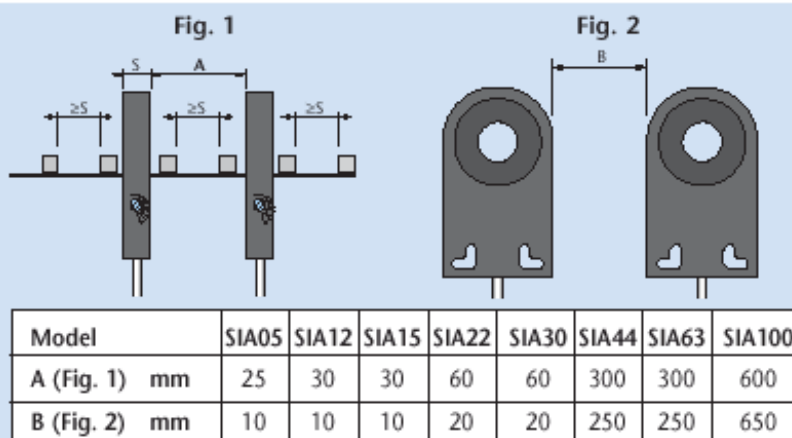
WIRING DIAGRAM

4 WIRES CABLE - LOGIC PNP NO+NC



INSTRUCTIONS FOR CORRECT INSTALLATION

INSTRUCTIONS FOR CORRECT INSTALLATION



Titolo img 1

MIN. DIMENSIONS OF THE OBJECT TO DETECT (Fe37)

Model		SIA100
Lenght	mm	20
Diameter	mm	12

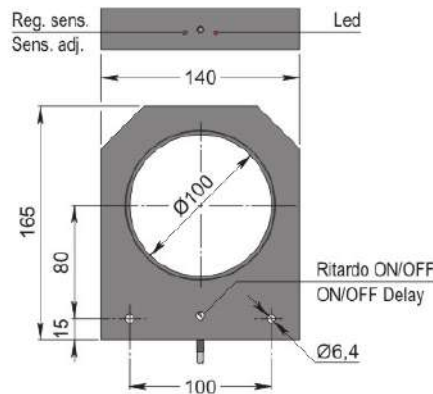
SWITCHING FREQUENCY

The switching frequency of inductive ring sensors depends on delayed impulse time (**when inserted**) according to the formula :

$$\text{Switching frequency (Hz)} = \frac{1}{(T \text{ impulse} + 10) \text{ mS}}$$

Vice versa, the switching frequency will be 100 Hz.

Part number: **SIA000334** Model: **SIA100-CE PNP NO+NC R LC5**



Dimension in mm

1. TECHNICAL CHARACTERISTICS



Electrical data

Power supply type:	Direct current
Working voltage: [V]	10 ÷ 30
Current consumption: [mA]	< 15 mA @ 24Vdc
Protection class:	III
Reverse polarity protection:	Presente

Outputs

Electrical design:		PNP
Function:		NO+NC
Delay ON de-energization:	[ms]	100 (when inserted)
Max voltage drop:	[V]	< 1.8
Max output current:	[mA]	200
Max switching frequency:	[Hz]	See instructions for installation
Short circuit protection:		Present
Overload protection:		Present

Detection zone

Sensing hole diameter:	[mm]	100
Minimum detectable object:	[mm]	Ø 12x20 - Fe360

Accuracy and Deviations

Correction factor:		Stainless steel: 0.9 - Brass: 0.5 - Aluminium: 0.4 - Copper: 0.4
Hysteresis:	[%Sr]	Depends on the sensitivity
Switching point drift:	[%Sr]	-10 ÷ +10
Repeatability:	[%Sn]	< 0.3

Environmental conditions

Temperature limits:	[°C]	-20 ÷ +60
IP rating:		IP65

Display and control elements

Display:	Output switching status - 1 x LED: Yellow
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Mechanical data

Housing:		Ring
Dimensions:	[Hz]	140 x 29 x 165
Materials:		Housing: PVC black - Sensing area: PVC black
Mounting:		Not embeddable
Weight:	[g]	800

Electrical connection

Cable:	5 m - PVC/PVC - 4 x 0.25 mm ²
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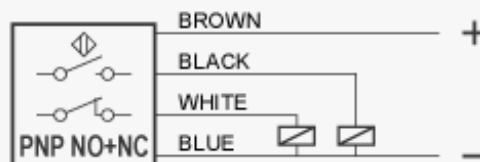
Compliance to Standards / Directives

Directives compliance:	2014/30/EU -Electromagnetic compatibility directive (EMC)
Standards compliance:	EN60947-5-2 - Product standard

2. NORME DI INSTALLAZIONE

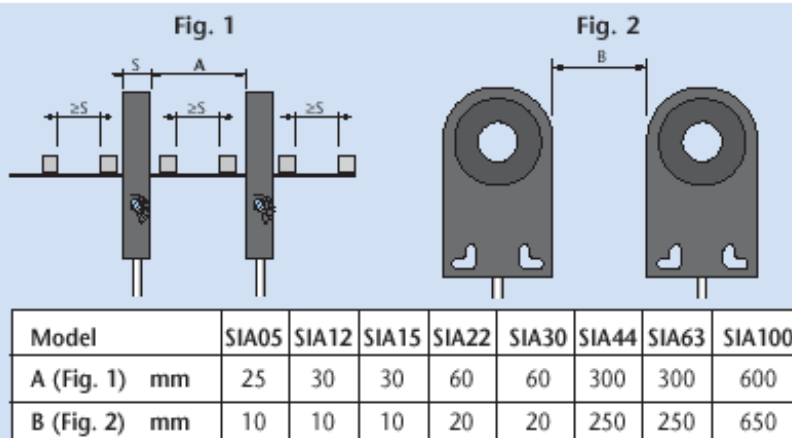
WIRING DIAGRAM

4 WIRES CABLE - LOGIC PNP NO+NC



INSTRUCTIONS FOR CORRECT INSTALLATION

INSTRUCTIONS FOR CORRECT INSTALLATION



Titolo img 1

MIN. DIMENSIONS OF THE OBJECT TO DETECT (Fe37)

Model		SIA100
Lenght	mm	20
Diameter	mm	12

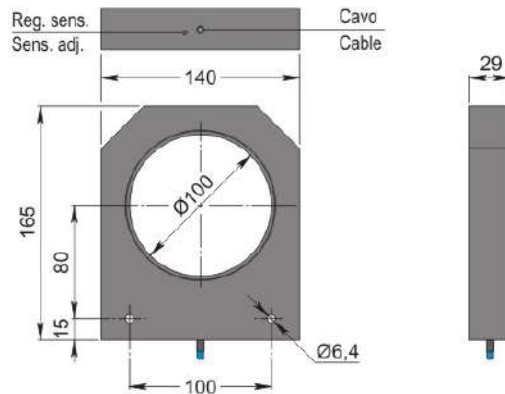
SWITCHING FREQUENCY

The switching frequency of inductive ring sensors depends on delayed impulse time (**when inserted**) according to the formula :

$$\text{Switching frequency (Hz)} = \frac{1}{(T \text{ impulse} + 10) \text{ mS}}$$

Vice versa, the switching frequency will be 100 Hz.

Part number: **SIA000109** Model: **SIA100-NE**



Dimension in mm

1. TECHNICAL CHARACTERISTICS



Electrical data

Power supply type:		Direct current
Working voltage:	[V]	5 ÷ 30
Current consumption:	[mA]	On <= 1 mA - Off >= 3 mA @ 8.2V
Protection class:		III
Reverse polarity protection:		Presente

Outputs

Electrical design:		Namur
Max switching frequency:	[Hz]	100

Detection zone

Sensing hole diameter:	[mm]	100
Minimum detectable object:	[mm]	Ø 12x20 - Fe360

Accuracy and Deviations

Correction factor:		Stainless steel: 0.9 - Brass: 0.5 - Aluminium: 0.4 - Copper: 0.4
Hysteresis:	[%Sr]	Depends on the sensitivity
Switching point drift:	[%Sr]	-10 ÷ +10
Repeatability:	[%Sn]	< 0.3

Environmental conditions

Temperature limits:	[°C]	-20 ÷ +60
IP rating:		IP65

Mechanical data

Housing:		Ring
Dimensions:	[Hz]	140 x 29 x 165
Materials:		Housing: PVC black - Sensing area: PVC black
Mounting:		Not embeddable
Weight:	[g]	710

Electrical connection

Cable: 2 m - PVC/PVC - 2 x 0.50 mm²

Compliance to Standards / Directives

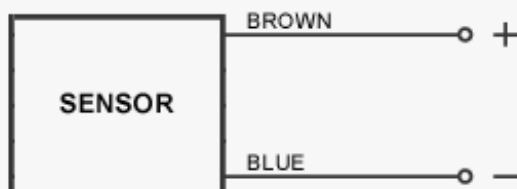
Directives compliance: 2014/30/EU - Electromagnetic compatibility directive (EMC)

Standards compliance: EN60947-5-6 - Product standard

2. NORME DI INSTALLAZIONE

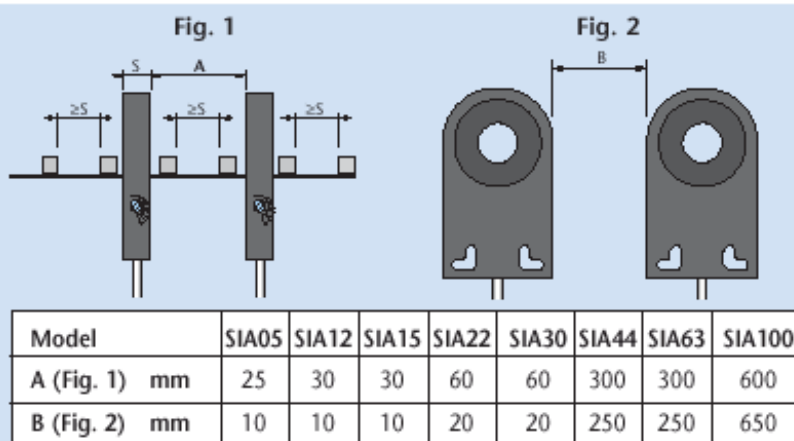
WIRING DIAGRAM

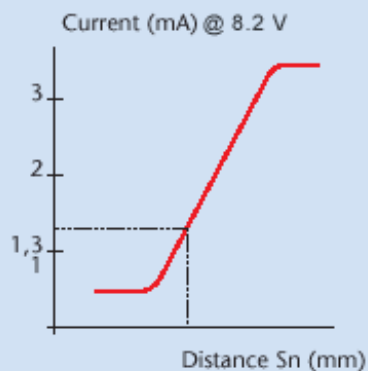
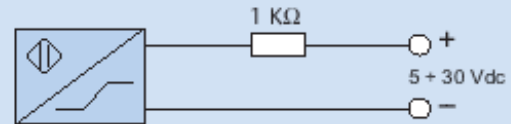
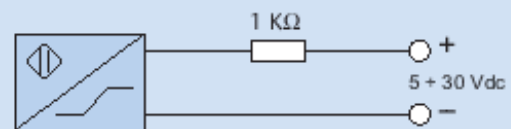
2 WIRES CABLE



INSTRUCTIONS FOR CORRECT INSTALLATION

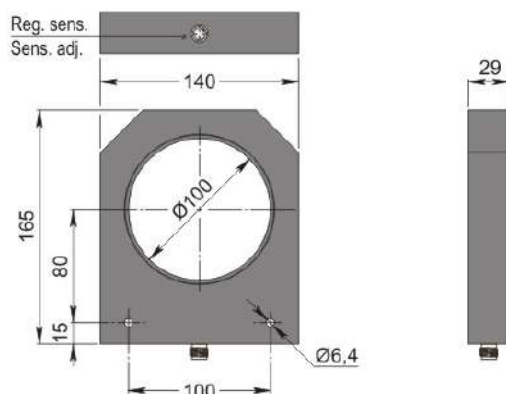
INSTRUCTIONS FOR CORRECT INSTALLATION



WORKING PRINCIPLEMetallic
plateIn presence of metal $I \leq 1 \text{ mA @ } 8.2 \text{ V}$ In absence of metal $I \geq 3 \text{ mA @ } 8.2 \text{ V}$ 

The NAMUR sensors are electronic devices whose absorbed current varies in the presence of a metallic object. The difference between these sensors and traditional sensors is the absence of amplifier trigger stages.

Part number: **SIA000110** Model: **SIA100-NE H**



Dimension in mm

1. TECHNICAL CHARACTERISTICS



Electrical data

Power supply type:	Direct current
Working voltage:	[V] 5 ÷ 30
Current consumption:	[mA] On <= 1 mA - Off >= 3 mA @ 8.2V
Protection class:	III
Reverse polarity protection:	Presente

Outputs

Electrical design:	Namur
Max switching frequency:	[Hz] 100

Detection zone

Sensing hole diameter:	[mm] 100
Minimum detectable object:	[mm] Ø 12x20 - Fe360

Accuracy and Deviations

Correction factor:	Stainless steel: 0.9 - Brass: 0.5 - Aluminium: 0.4 - Copper: 0.4
Hysteresis:	[%Sr] Depends on the sensitivity
Switching point drift:	[%Sr] -10 ÷ +10
Repeatability:	[%Sn] < 0.3

Environmental conditions

Temperature limits:	[°C] -20 ÷ +60
IP rating:	IP65

Mechanical data

Housing:	Ring
Dimensions:	[Hz] 140 x 29 x 165
Materials:	Housing: PVC black - Sensing area: PVC black
Mounting:	Not embeddable
Weight:	[g] 650

Electrical connection

Connector: H type - M12X1 - Gold plated contacts

Compliance to Standards / Directives

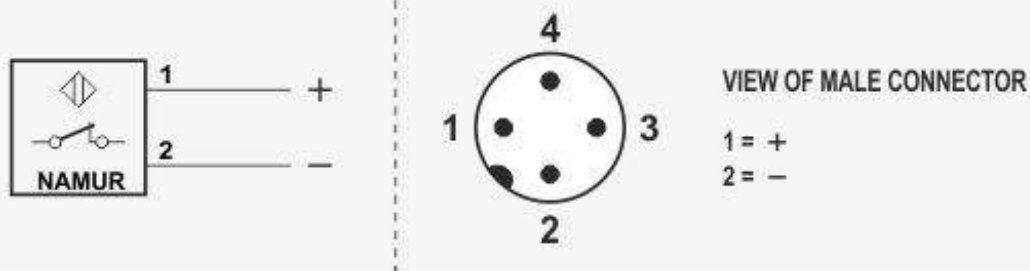
Directives compliance: 2014/30/EU -Electromagnetic compatibility directive (EMC)

Standards compliance: EN60947-5-6 - Product standard

2. NORME DI INSTALLAZIONE

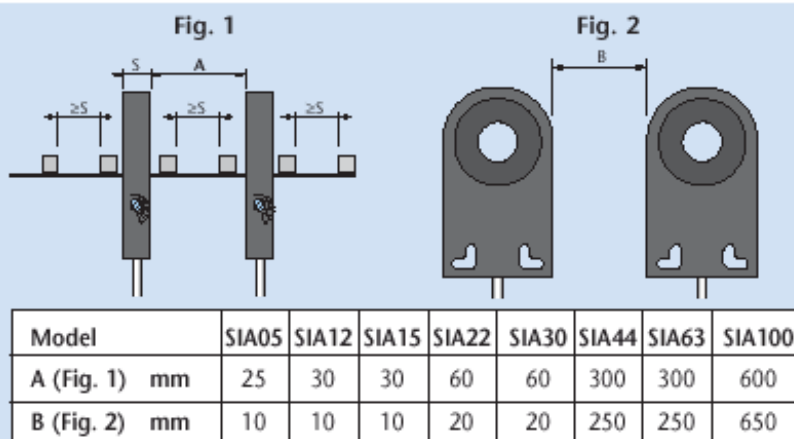
WIRING DIAGRAM

CONNECTION WITH H PLUG

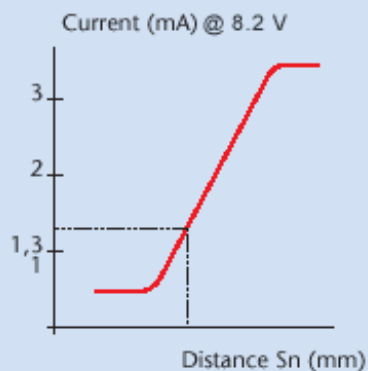
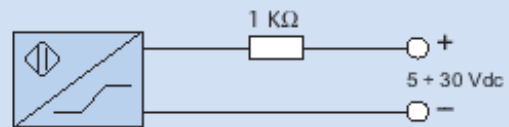
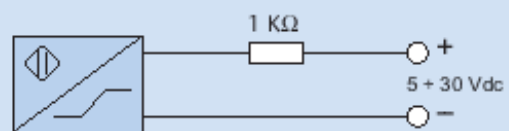


INSTRUCTIONS FOR CORRECT INSTALLATION

INSTRUCTIONS FOR CORRECT INSTALLATION

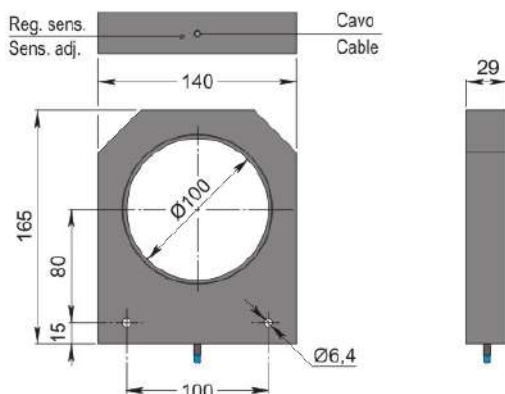


Titolo img 1

WORKING PRINCIPLEIn presence of metal $I \leq 1 \text{ mA @ } 8.2 \text{ V}$ In absence of metal $I \geq 3 \text{ mA @ } 8.2 \text{ V}$ 

The NAMUR sensors are electronic devices whose absorbed current varies in the presence of a metallic object. The difference between these sensors and traditional sensors is the absence of amplifier trigger stages.

Part number: **SIA000260** Model: **SIA100-NE LC10**



Dimension in mm

1. TECHNICAL CHARACTERISTICS



Electrical data

Power supply type:		Direct current
Working voltage:	[V]	5 ÷ 30
Current consumption:	[mA]	On <= 1 mA - Off >= 3 mA @ 8.2V
Protection class:		III
Reverse polarity protection:		Presente

Outputs

Electrical design:		Namur
Max switching frequency:	[Hz]	100

Detection zone

Sensing hole diameter:	[mm]	100
Minimum detectable object:	[mm]	Ø 12x20 - Fe360

Accuracy and Deviations

Correction factor:		Stainless steel: 0.9 - Brass: 0.5 - Aluminium: 0.4 - Copper: 0.4
Hysteresis:	[%Sr]	Depends on the sensitivity
Switching point drift:	[%Sr]	-10 ÷ +10
Repeatability:	[%Sn]	< 0.3

Environmental conditions

Temperature limits:	[°C]	-20 ÷ +60
IP rating:		IP65

Mechanical data

Housing:		Ring
Dimensions:	[Hz]	140 x 29 x 165
Materials:		Housing: PVC black - Sensing area: PVC black
Mounting:		Not embeddable
Weight:	[g]	950

Electrical connection

Cable: 10 m - PVC/PVC - 2 x 0.50 mm²

Compliance to Standards / Directives

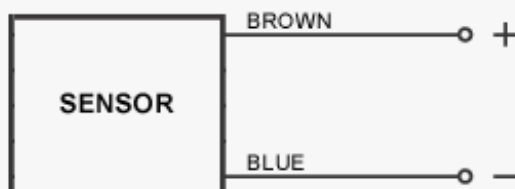
Directives compliance: 2014/30/EU - Electromagnetic compatibility directive (EMC)

Standards compliance: EN60947-5-6 - Product standard

2. NORME DI INSTALLAZIONE

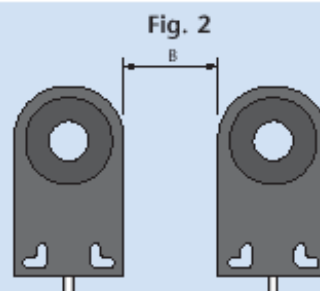
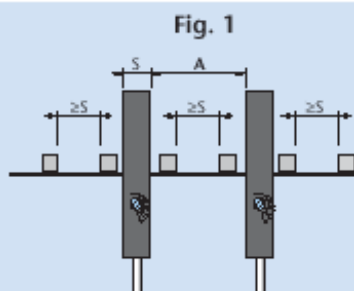
WIRING DIAGRAM

2 WIRES CABLE



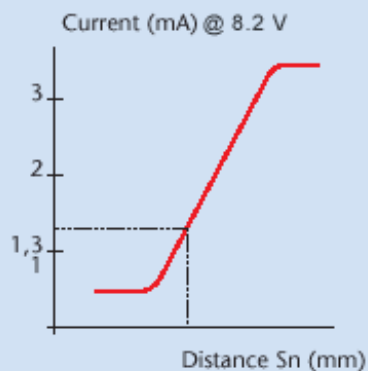
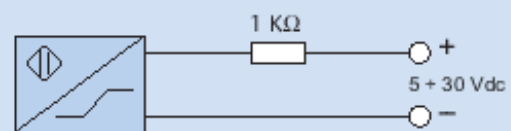
INSTRUCTIONS FOR CORRECT INSTALLATION

INSTRUCTIONS FOR CORRECT INSTALLATION



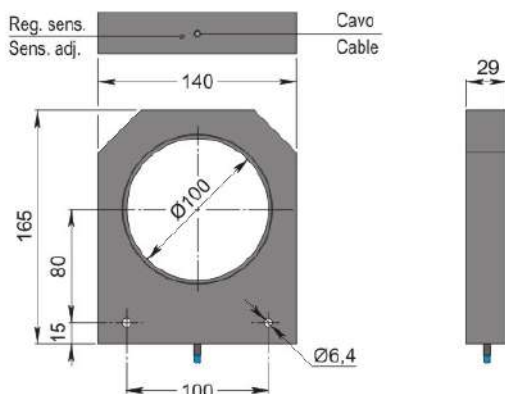
Model	SIA05	SIA12	SIA15	SIA22	SIA30	SIA44	SIA63	SIA100
A (Fig. 1) mm	25	30	30	60	60	300	300	600
B (Fig. 2) mm	10	10	10	20	20	250	250	650

Titolo img 1

WORKING PRINCIPLEMetallic
plateIn presence of metal $I \leq 1 \text{ mA @ } 8.2 \text{ V}$ In absence of metal $I \geq 3 \text{ mA @ } 8.2 \text{ V}$ 

The NAMUR sensors are electronic devices whose absorbed current varies in the presence of a metallic object. The difference between these sensors and traditional sensors is the absence of amplifier trigger stages.

Part number: **SIA000258** Model: **SIA100-NE LC5**



Dimension in mm

1. TECHNICAL CHARACTERISTICS



Electrical data

Power supply type:	Direct current
Working voltage:	[V] 5 ÷ 30
Current consumption:	[mA] On <= 1 mA - Off >= 3 mA @ 8.2V
Protection class:	III
Reverse polarity protection:	Presente

Outputs

Electrical design:	Namur
Max switching frequency:	[Hz] 100

Detection zone

Sensing hole diameter:	[mm] 100
Minimum detectable object:	[mm] Ø 12x20 - Fe360

Accuracy and Deviations

Correction factor:	Stainless steel: 0.9 - Brass: 0.5 - Aluminium: 0.4 - Copper: 0.4
Hysteresis:	[%Sr] Depends on the sensitivity
Switching point drift:	[%Sr] -10 ÷ +10
Repeatability:	[%Sn] < 0.3

Environmental conditions

Temperature limits:	[°C] -20 ÷ +60
IP rating:	IP65

Mechanical data

Housing:	Ring
Dimensions:	[Hz] 140 x 29 x 165
Materials:	Housing: PVC black - Sensing area: PVC black
Mounting:	Not embeddable
Weight:	[g] 800

Electrical connection

Cable: 5 m - PVC/PVC - 2 x 0.50 mm²

Compliance to Standards / Directives

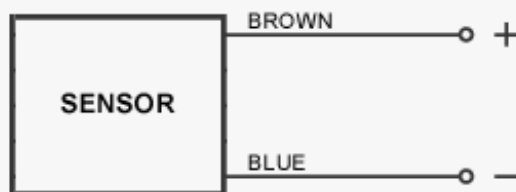
Directives compliance: 2014/30/EU - Electromagnetic compatibility directive (EMC)

Standards compliance: EN60947-5-6 - Product standard

2. NORME DI INSTALLAZIONE

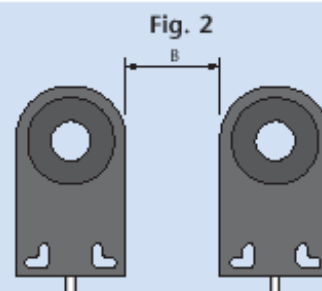
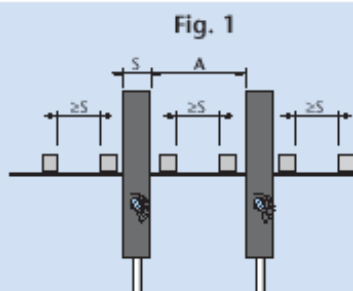
WIRING DIAGRAM

2 WIRES CABLE



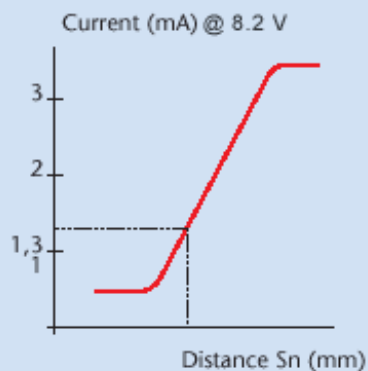
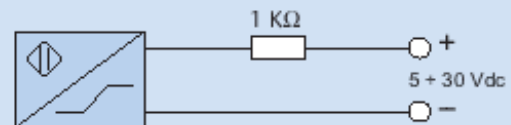
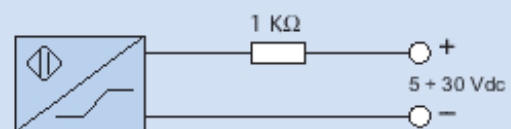
INSTRUCTIONS FOR CORRECT INSTALLATION

INSTRUCTIONS FOR CORRECT INSTALLATION

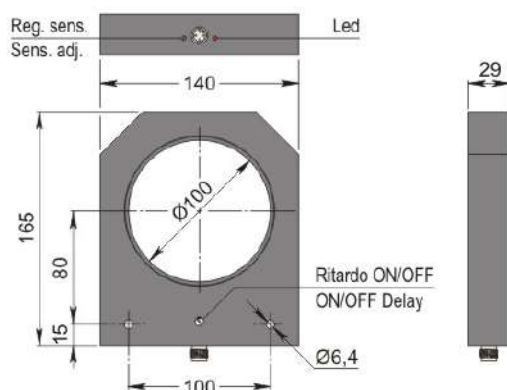


Model	SIA05	SIA12	SIA15	SIA22	SIA30	SIA44	SIA63	SIA100
A (Fig. 1) mm	25	30	30	60	60	300	300	600
B (Fig. 2) mm	10	10	10	20	20	250	250	650

Titolo img 1

WORKING PRINCIPLEIn presence of metal $I \leq 1 \text{ mA @ } 8.2 \text{ V}$ In absence of metal $I \geq 3 \text{ mA @ } 8.2 \text{ V}$ 

The NAMUR sensors are electronic devices whose absorbed current varies in the presence of a metallic object. The difference between these sensors and traditional sensors is the absence of amplifier trigger stages.

Part number: **SIA000135** Model: **SIA100-CE NPN NO+NC H R**

Dimension in mm

1. TECHNICAL CHARACTERISTICS



Electrical data

Power supply type:	Direct current
Working voltage: [V]	10 ÷ 30
Current consumption: [mA]	< 15 mA @ 24Vdc
Protection class:	III
Reverse polarity protection:	Presente

Outputs

Electrical design:	NPN
Function:	NO+NC
Delay ON de-energization:	[ms] 100 (when inserted)
Max voltage drop:	[V] < 1.8
Max output current:	[mA] 200
Max switching frequency:	[Hz] See instructions for installation
Short circuit protection:	Present
Overload protection:	Present

Detection zone

Sensing hole diameter:	[mm]	100
Minimum detectable object:	[mm]	Ø 12x20 - Fe360

Accuracy and Deviations

Correction factor:		Stainless steel: 0.9 - Brass: 0.5 - Aluminium: 0.4 - Copper: 0.4
Hysteresis:	[%Sr]	Depends on the sensitivity
Switching point drift:	[%Sr]	-10 ÷ +10
Repeatability:	[%Sn]	< 0.3

Environmental conditions

Temperature limits:	[°C]	-20 ÷ +60
IP rating:		IP65

Display and control elements

Display:	Output switching status - 4 x 90° LED: Yellow
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Mechanical data

Housing:		Ring
Dimensions:	[Hz]	140 x 29 x 165
Materials:		Housing: PVC black - Sensing area: PVC black
Mounting:		Not embeddable
Weigth:	[g]	650

Electrical connection

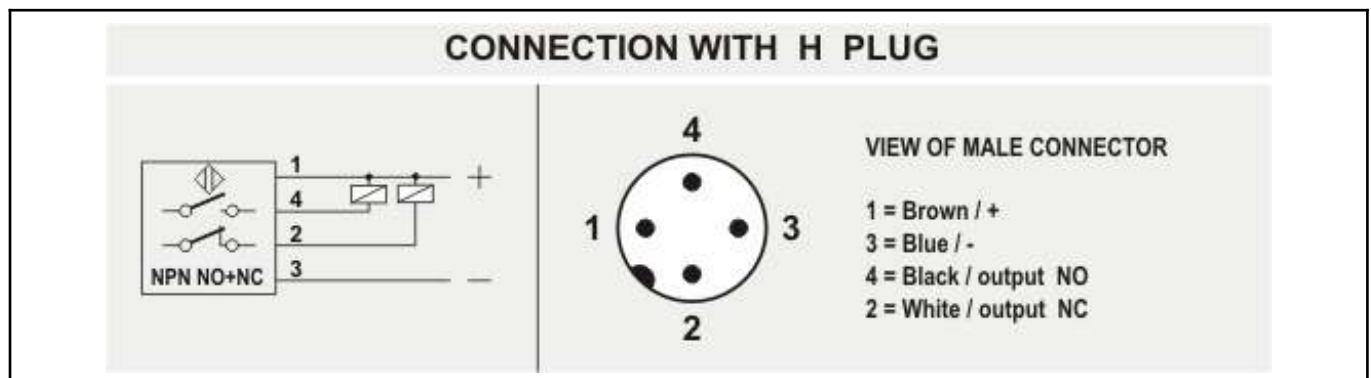
Connector:	H type - M12X1 - Gold plated contacts
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Compliance to Standards / Directives

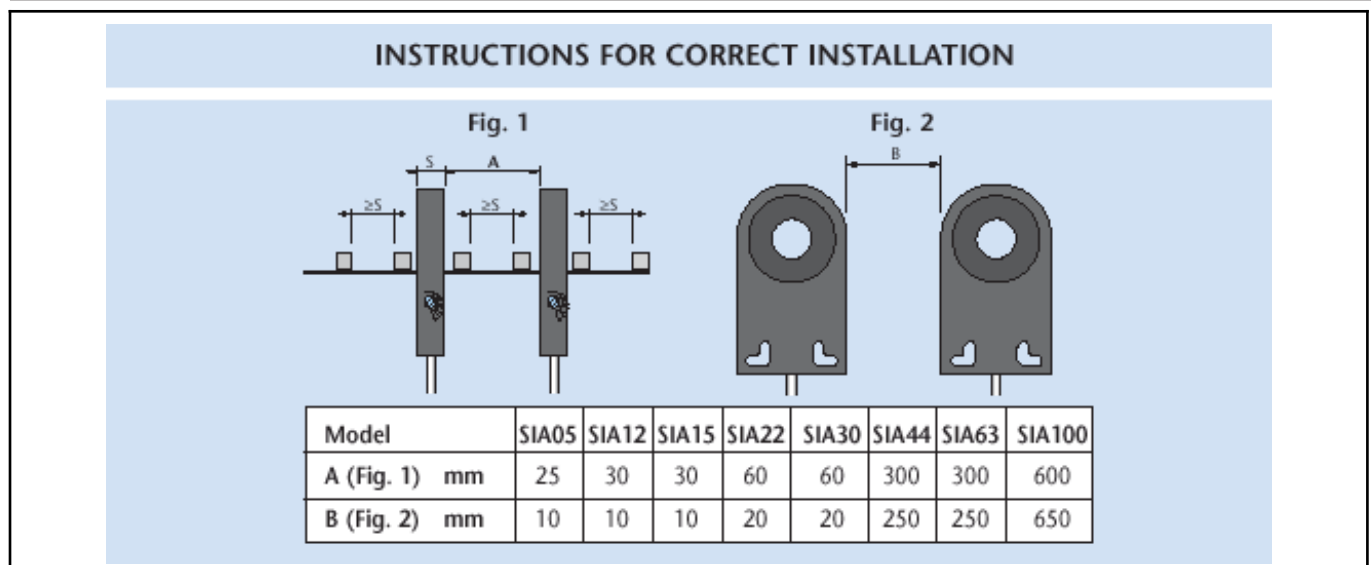
Directives compliance:	2014/30/EU -Electromagnetic compatibility directive (EMC)
Standards compliance:	EN60947-5-2 - Product standard

2. NORME DI INSTALLAZIONE

WIRING DIAGRAM



INSTRUCTIONS FOR CORRECT INSTALLATION



Titolo img 1

MIN. DIMENSIONS OF THE OBJECT TO DETECT (Fe37)

Model		SIA100
Lenght	mm	20
Diameter	mm	12

SWITCHING FREQUENCY

The switching frequency of inductive ring sensors depends on delayed impulse time (**when inserted**) according to the formula :

$$\text{Switching frequency (Hz)} = \frac{1}{(T \text{ impulse} + 10) \text{ mS}}$$

Vice versa, the switching frequency will be 100 Hz.