MAGNETIC SENSORS

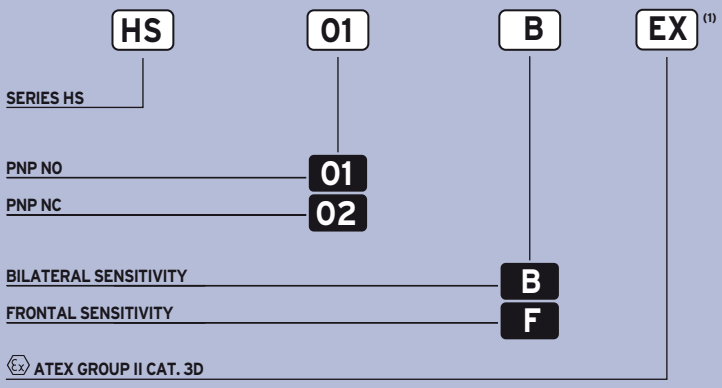
Ø 9 HALL EFFECT

12÷30 V DC - 3 WIRES - PNP OUTPUT

- Fast 50 ms ON/OFF
- Sensing models: Front end travel
  Bilateral side travel
- Choice of magnet targets

HS Series

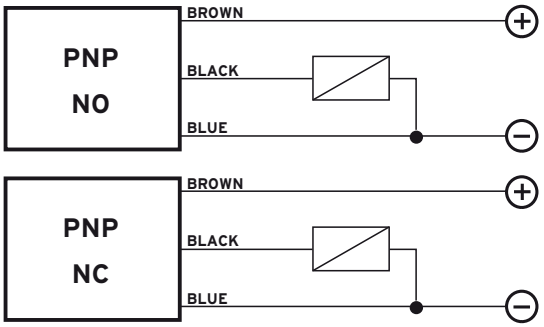
IDENTIFICATION CODE



MAGNETIC FLUX (Gauss)	
• SENSOR ON	≥ 25 (Tip. 15 at 25°C)
• SENSORE OFF	≤ 5 (Tip. 11 at 25°C)
• HYSTERESIS	Max. diff. 7 (Tip. 4 at 25°C)
NOMINAL VOLTAGE	12 ÷ 30 VDC (-15/+10%)
RESIDUAL RIPPLE	≤ 10%
MAX. CURRENT OUTPUT	200 mA
ABSORPTION AT 30 VDC	≤ 10 mA
VOLTAGE DROP (Sensor ON)	< 1.8 V
YELLOW LED	Output indicator
GREEN LED	Supply indicator
SWITCHING FREQUENCY (max.)	10 kHz
TIME RESPONSE	100 ms
START UP DELAY	50 ms
SHORT CIRCUIT PROTECTION	Present (self-resetting)
ELECTRIC PROTECTIONS	Against reversal polarity - inductive loads
TEMPERATURE LIMITS	- 20 ÷ +60 °C
PROTECTION DEGREE	IP 67
CABLE LENGTH	2 m
CABLE SECTION	3 x 0.25 mm²
HOUSING MATERIAL	Nickel-plated brass
WEIGHT (Approximately)	50 g

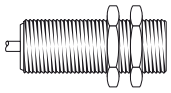
(1) Device marking Ex II 3D IP67 T6X.

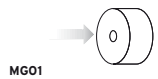
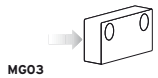
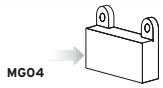
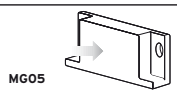
WIRING DIAGRAMS



HALL EFFECT SENSOR/MAGNETE SWITCHING DISTANCE (mm)

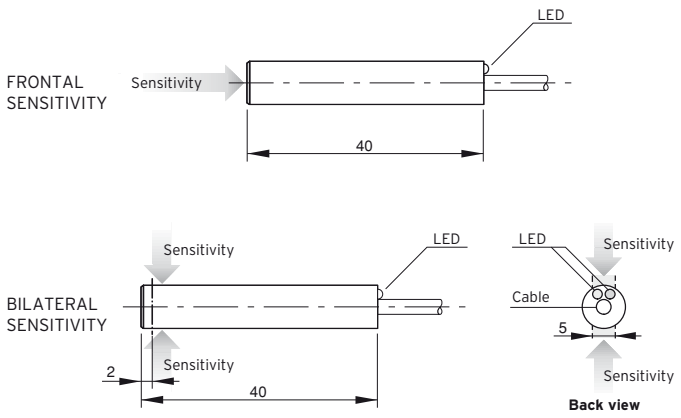
DIAMETER 9



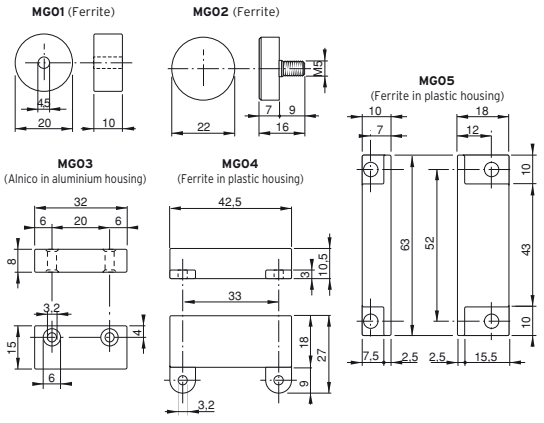
Distance	Hysteresis	
33	4	 MG01
30	4	 MG02
18	5	 MG03
41	6,5	 MG04
35	7	 MG05

WARNING: The data specified in this table have an approximate value because they depend on the magnet position, on the material on which it is applied (ferromagnetic or not) and because they are related to the magnet during the frontal approach.

DIMENSIONS (mm)



MAGNETS DIMENSIONS (mm)



MAGNETIC

MAGNETIC SENSORS

Ø 12 HALL EFFECT

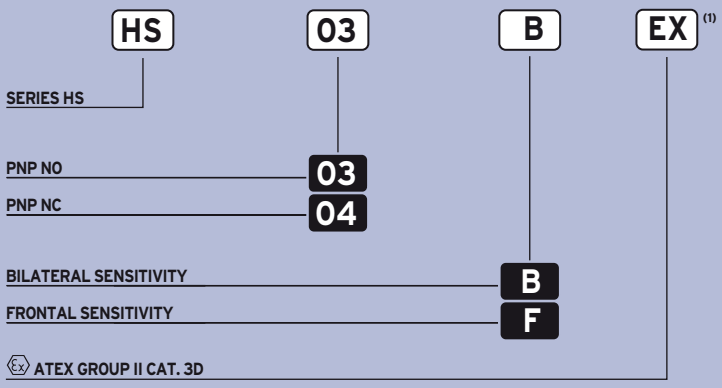
12÷30 V DC - 3 WIRES - PNP OUTPUT

- Fast 50 ms ON/OFF
- Sensing models: Front end travel
  Bilateral side travel
- Choice of magnet targets

INFRA

HS Series

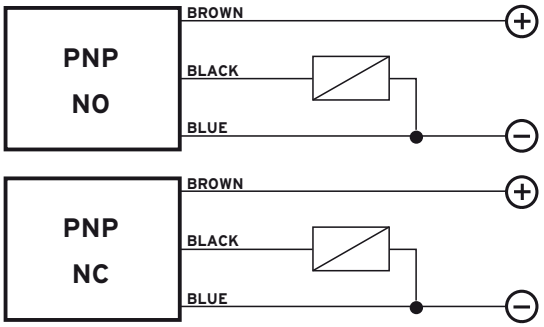
IDENTIFICATION CODE



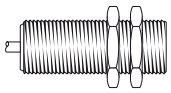
MAGNETIC FLUX (Gauss)	
• SENSOR ON	≥ 25 (Tip. 15 at 25°C)
• SENSORE OFF	≤ 5 (Tip. 11 at 25°C)
• HYSTERESIS	Max. diff. 7 (Tip. 4 at 25°C)
NOMINAL VOLTAGE	12 ÷ 30 VDC (-15/+10%)
RESIDUAL RIPPLE	≤ 10%
MAX. CURRENT OUTPUT	200 mA
ABSORPTION AT 30 VDC	≤ 10 mA
VOLTAGE DROP (Sensor ON)	< 1.8 V
YELLOW LED	Output indicator
GREEN LED	Supply indicator
SWITCHING FREQUENCY (max.)	10 kHz
TIME RESPONSE	100 ms
START UP DELAY	50 ms
SHORT CIRCUIT PROTECTION	Present (self-resetting)
ELECTRIC PROTECTIONS	Against reversal polarity - inductive loads
TEMPERATURE LIMITS	- 20 ÷ +60 °C
PROTECTION DEGREE	IP 67
CABLE LENGTH	2 m
CABLE SECTION	3 x 0.25 mm²
HOUSING MATERIAL	Nickel-plated brass
WEIGHT (Approximately)	110 g

(1) Device marking Ⓔx II 3D IP67 T6X.

WIRING DIAGRAMS



HALL EFFECT SENSOR/MAGNETE SWITCHING DISTANCE (mm)

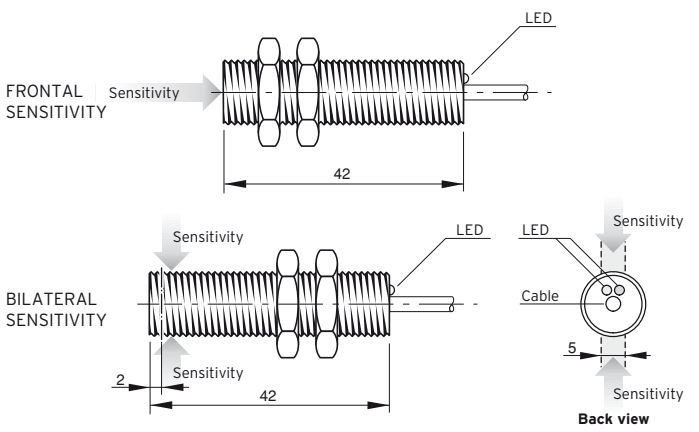


DIAMETER 12

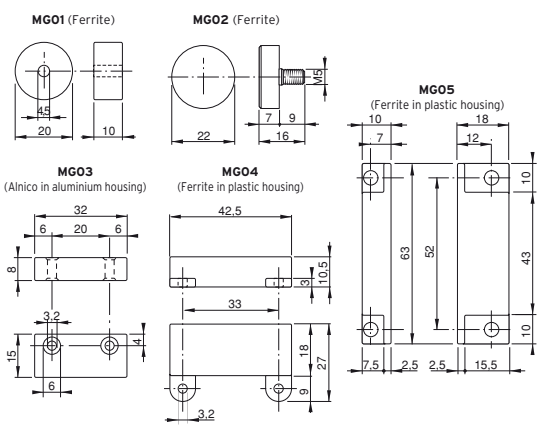
Distance	Hysteresis	
33	4	MG01
30	4	MG02
18	5	MG03
41	6,5	MG04
35	7	MG05

WARNING: The data specified in this table have an approximate value because they depend on the magnet position, on the material on which it is applied (ferromagnetic or not) and because they are related to the magnet during the frontal approach.

DIMENSIONS (mm)



MAGNETS DIMENSIONS (mm)



MAGNETIC

MAGNETIC SENSORS

Ø 18 HALL EFFECT

12÷30 V DC - 3 WIRES - PNP OUTPUT

- Fast 50 ms ON/OFF
- Sensing models: Front end travel
  Bilateral side travel
- Choice of magnet targets

INFRA

HS Series

IDENTIFICATION CODE

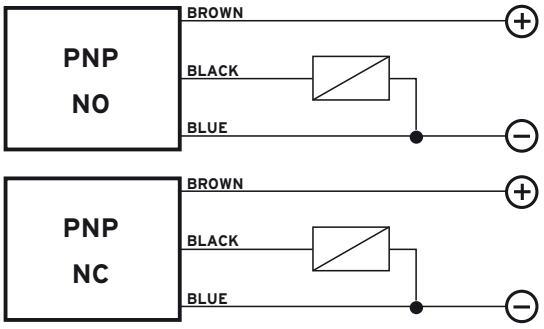
HS	05	B	EX (1)

- HS — SERIES HS
- 05 — PNP NO
- 06 — PNP NC
- B — BILATERAL SENSITIVITY
- F — FRONTAL SENSITIVITY
- EX — ATEX GROUP II CAT. 3D

MAGNETIC FLUX (Gauss)	
• SENSOR ON	≥ 25 (Tip. 15 at 25°C)
• SENSORE OFF	≤ 5 (Tip. 11 at 25°C)
• HYSTERESIS	Max. diff. 7 (Tip. 4 at 25°C)
NOMINAL VOLTAGE	12 ÷ 30 VDC (-15/+10%)
RESIDUAL RIPPLE	≤ 10%
MAX. CURRENT OUTPUT	200 mA
ABSORPTION AT 30 VDC	≤ 10 mA
VOLTAGE DROP (Sensor ON)	< 1.8 V
YELLOW LED	Output indicator
GREEN LED	Supply indicator
SWITCHING FREQUENCY (max.)	10 kHz
TIME RESPONSE	100 ms
START UP DELAY	50 ms
SHORT CIRCUIT PROTECTION	Present (self-resetting)
ELECTRIC PROTECTIONS	Against reversal polarity - inductive loads
TEMPERATURE LIMITS	- 20 ÷ +60 °C
PROTECTION DEGREE	IP 67
CABLE LENGTH	2 m
CABLE SECTION	3 x 0.25 mm²
HOUSING MATERIAL	Nickel-plated brass
WEIGHT (Approximately)	145 g

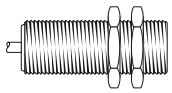
(1) Device marking Ex II 3D IP67 T6X.

WIRING DIAGRAMS



HALL EFFECT SENSOR/MAGNETE SWITCHING DISTANCE (mm)

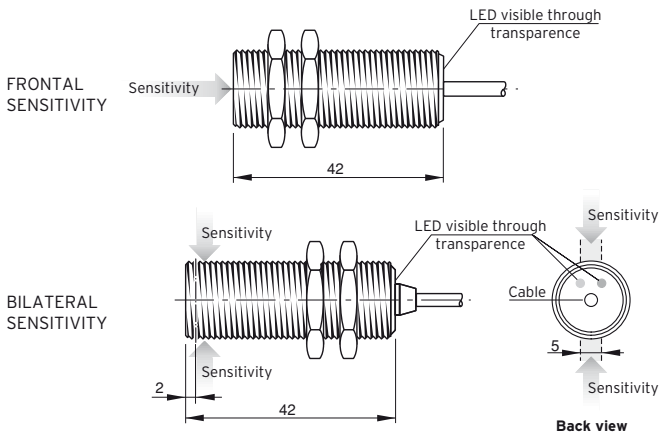
DIAMETER 18



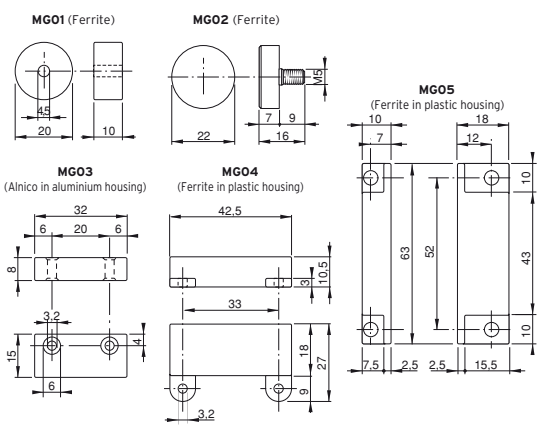
Distance	Hysteresis	
33	4	MG01
30	4	MG02
18	5	MG03
41	6,5	MG04
35	7	MG05

WARNING: The data specified in this table have an approximate value because they depend on the magnet position, on the material on which it is applied (ferromagnetic or not) and because they are related to the magnet during the frontal approach.

DIMENSIONS (mm)



MAGNETS DIMENSIONS (mm)



MAGNETIC

MAGNETIC SENSORS

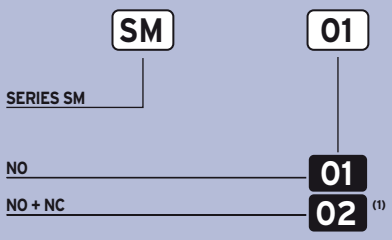
Ø 6 REED CONTACT

- Plastic housing
- 2 ms delay on activation
- 2 m integrated cable
- Choice of magnet targets

INFRA

SM Series

IDENTIFICATION CODE

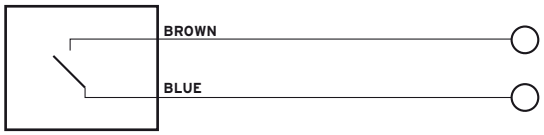


MAX. VOLTAGE	(SM01)	250 Vpeak (I max = 0.04 A)
MAX. CURRENT	(SM01)	0.04 A
POWER	(SM01)	10 VA
SWITCHING FREQUENCY		200 Hz
DELAY ON ACTIVATION		2 ms
REPEATABILITY		± 0.3 mm
TEMPERATURE LIMITS		-20 ÷ +60°C
PROTECTION DEGREE		IP 67
CABLE LENGTH		2 m
CABLE SECTION		SM01=2x0.50mm²/SM02=3x0.35mm²
HOUSING MATERIAL		ABS

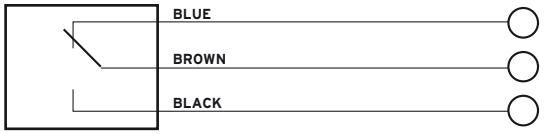
(1) Pw = 3VA : 100 Vpeak (I max = 0.03A) - 12V (I max = 0.25A)

WIRING DIAGRAMS

NO CONTACT

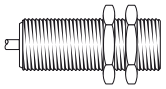


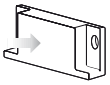
NO + NC CONTACT



REED EFFECT SENSOR/MAGNETE SWITCHING DISTANCE (mm)

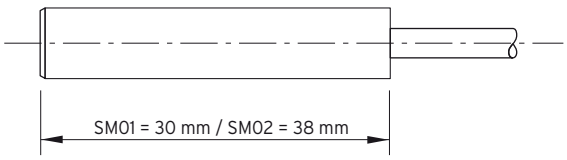
DIAMETER 6



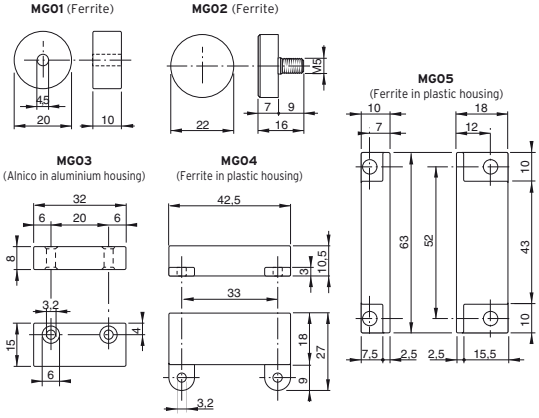
Distance	Hysteresis	
24	5	 MG01
22	5	 MG02
6	2,5	 MG03
32	5	 MG04
29	5	 MG05

WARNING: The data specified in this table have an approximate value because they depend on the magnet position, on the material on which it is applied (ferromagnetic or not) and because they are related to the magnet during the frontal approach. Reed contact sensors can be also activated laterally considering that switching distances are always influenced by the magnet position and orientation besides the material on which it is applied (ferromagnetic or not).

DIMENSIONS (mm)



MAGNETS DIMENSIONS (mm)



MAGNETIC

MAGNETIC SENSORS

Ø 8 REED CONTACT

- Metal housing
- 2 ms delay on activation
- 2 m integrated cable
- Choice of magnet targets

INFRA

SM Series

IDENTIFICATION CODE

SM — **03**

SERIES SM

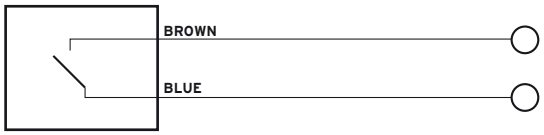
NO — **03**

NO + NC - NOT AVAILABLE - — **04**

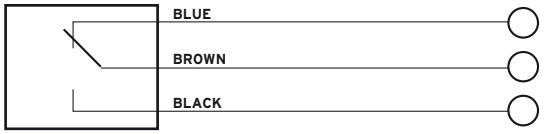
MAX. VOLTAGE	250 Vpeak (I max = 0.05 A)
MAX. CURRENT	0.5 A (V max = 20V)
POWER	10 VA
SWITCHING FREQUENCY	200 Hz
DELAY ON ACTIVATION	2 ms
REPEATABILITY	± 0.3 mm
TEMPERATURE LIMITS	-20 ÷ +60°C
PROTECTION DEGREE	IP 67
CABLE LENGTH	2m
CABLE SECTION	3 x 0.50 mm²
HOUSING MATERIAL	Nickel-plated brass

WIRING DIAGRAMS

NO CONTACT

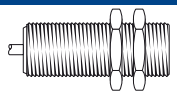


NO + NC CONTACT



REED CONTACT SENSOR MAGNET SWITCHING DISTANCE (mm)

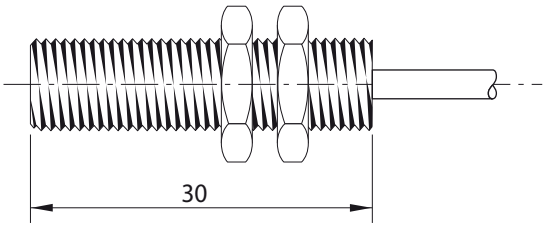
DIAMETER 8



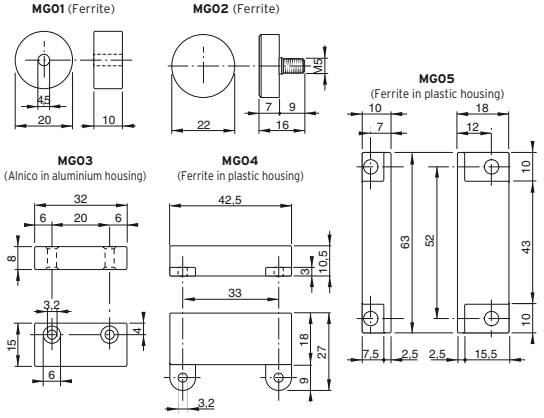
Distance	Hysteresis	
24	5	MG01
22	5	MG02
6	2,5	MG03
32	5	MG04
29	5	MG05

WARNING: The data specified in this table have an approximate value because they depend on the magnet position, on the material on which it is applied (ferromagnetic or not) and because they are related to the magnet during the frontal approach. Reed contact sensors can be also activated laterally considering that switching distances are always influenced by the magnet position and orientation besides the material on which it is applied (ferromagnetic or not).

DIMENSIONS (mm)



MAGNETS DIMENSIONS (mm)



MAGNETIC

MAGNETIC SENSORS

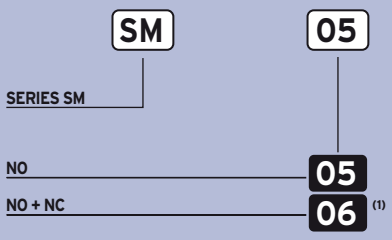
Ø 10 REED CONTACT

- Metal housing
- 2 ms delay on activation
- 2 m integrated cable
- Choice of magnet targets

INFRA

SM Series

IDENTIFICATION CODE

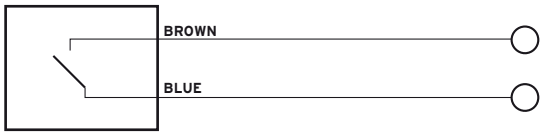


MAX. VOLTAGE	(SM05)	250 Vpeak
MAX. CURRENT	(SM05)	0.04 A
POWER	(SM05)	10 VA
SWITCHING FREQUENCY		200 Hz
DELAY ON ACTIVATION		2 ms
REPEATABILITY		± 0.3 mm
TEMPERATURE LIMITS		-20 ÷ +60°C
PROTECTION DEGREE		IP 67
CABLE LENGTH		2m
CABLE SECTION		SM05 = 2x0.50 mm² / SM06 = 3x0.35 mm²
HOUSING MATERIAL		Nickel-plated brass

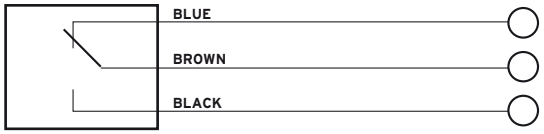
(1) Max Power = 3 Va : 100 Vpeak (I max = 0.03 A) - 12 V (I max = 0.25 A)

WIRING DIAGRAMS

NO CONTACT

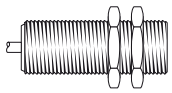


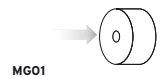
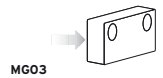
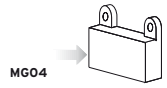
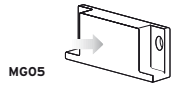
NO + NC CONTACT



REED EFFECT SENSOR/MAGNETE SWITCHING DISTANCE (mm)

DIAMETER 10



Distance	Hysteresis	
24	5	 MG01
22	5	 MG02
6	2,5	 MG03
32	5	 MG04
29	5	 MG05

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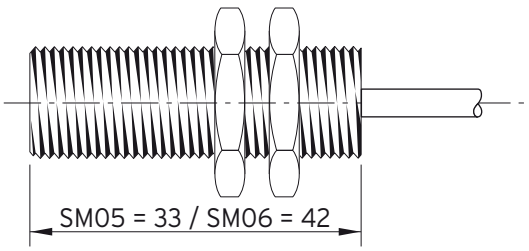
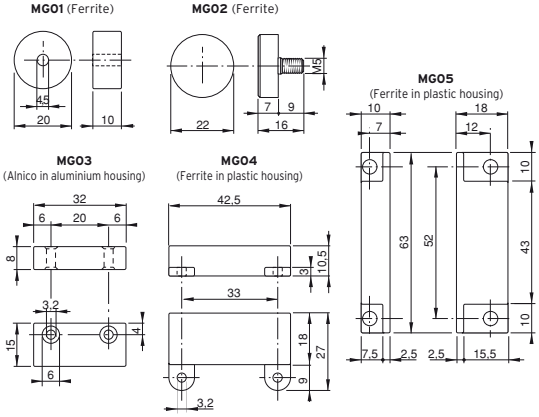
DIMENSIONS (mm)



MAGNETS DIMENSIONS (mm)



MAGNETIC

MAGNETIC SENSORS

Ø 12 REED CONTACT

- Metal and plastic housing
- 2 ms delay on activation
- 2 m integrated cable
- Choice of magnet targets

INFRA

SM Series

MAGNETIC

IDENTIFICATION CODE

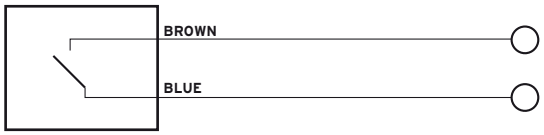
SM	07
SERIES SM	
NO - Length 40mm	07
NO + NC - Length 42mm	08 (4)
POWER NO - Length 30mm	09 (2)
POWER NO - Length 70mm	13 (1)
POWER NO+NC - Length 70mm	14 (3)
NO - Length 100mm - plastic	19 (2)
POWER NO+NC - Length 100mm - plastic	20 (5)
POWER NO - Length 100mm - plastic	21 (1)
BISTABLE - Length 100mm - plastic	22 (3)
NO+NC - Length 100mm - plastic	23 (6)

MAX. VOLTAGE	(SM07)	230 Vpeak
MAX. CURRENT	(SM07)	0.04 A
POWER	(SM07)	10 VA
SWITCHING FREQUENCY		200 Hz
DELAY ON ACTIVATION		2 ms
REPEATABILITY		± 0.3 mm
TEMPERATURE LIMITS		-20 ÷ +60°C
PROTECTION DEGREE		IP 67
CABLE LENGTH		2m
CABLE SECTION	SM07/SM09/SM13=2x0.50mm² - SM08/SM14=3x0.35mm² - SM19/SM21/SM22=2x0.75mm²	
HOUSING MATERIAL		Nickel-plated brass

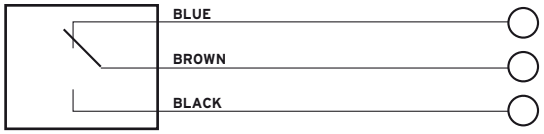
(1) Pw = 100W : I max = 3A (V = 33V) - Vpeak = 250V (I = 0.4A)
(2) Pw = 50W : I max = 1A (V = 50V) - Vpeak = 250V (I = 0.2A)
(3) Pw = 100W : I max = 3A (V = 33V) - Vpeak = 250V (I = 0.4A)
(4) Pw = 3W : I max = 0.25A (V = 12V) - Vpeak = 100V (I = 0.03A)
(5) Pw = 60W : I max = 3A (V = 20V) - Vpeak = 250V (I = 0.24A)
(6) Pw = 10W : I max = 0.5A (V = 20V) - Vpeak = 175V (I = 0.06A)

WIRING DIAGRAMS

NO CONTACT

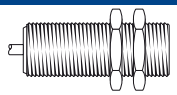


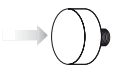
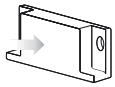
NO + NC CONTACT



REED CONTACT SENSOR MAGNET SWITCHING DISTANCE (mm)

DIAMETER 12



Distance	Hysteresis	
24 12 (Power)	5 7 (Power)	MG01 
22 10 (Power)	5 6 (Power)	MG02 
6 0 (Power)	2.5 0 (Power)	MG03 
22 22 (Power)	9 9 (Power)	MG04 
20 20 (Power)	9 9 (Power)	MG05 

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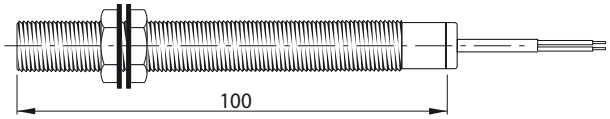
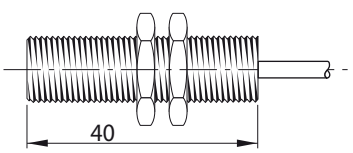
PLASTIC HOUSING MODELS DIMENSIONS (mm)

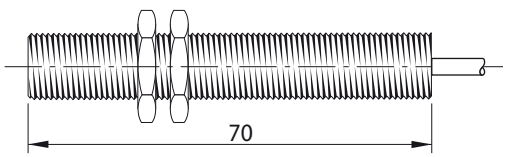


METAL HOUSING MODELS DIMENSIONS (m)

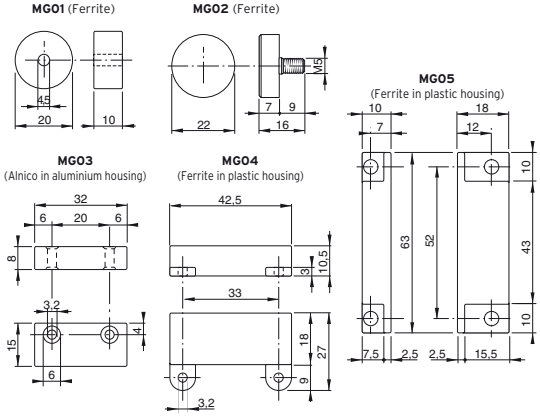
SHORT HOUSING



LONG HOUSING



MAGNETS DIMENSIONS (mm)



MAGNETIC SENSORS

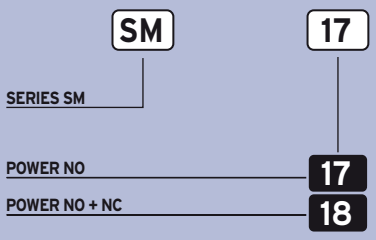
Ø 18 REED CONTACT

- Metal housing
- 2 ms delay on activation
- 2 m integrated cable
- Choice of magnet targets

INFRA

SM Series

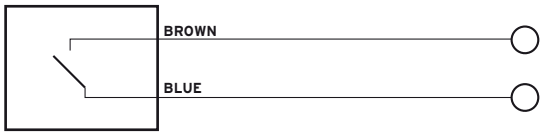
IDENTIFICATION CODE



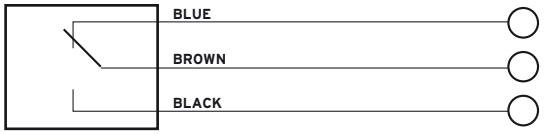
MAX. VOLTAGE	SM17 : 250Vpeak (I=0.4A) -	SM18 : 250Vpeak (I=0.25A)
MAX. CURRENT	SM17 : 0.4 A (V=250V) -	SM18 : 3 A (V=20V)
POWER	SM17 = 100 VA -	SM18 = 60 VA
SWITCHING FREQUENCY	200 Hz	
DELAY ON ACTIVATION	2 ms	
REPEATABILITY	± 0.3 mm	
TEMPERATURE LIMITS	-20 ÷ +60°C	
PROTECTION DEGREE	IP 67	
CABLE LENGTH	2m	
CABLE SECTION	SM17=2x0.5 mm² / SM18=3x0.5 mm²	
HOUSING MATERIAL	Nickel-plated brass	

WIRING DIAGRAMS

NO CONTACT

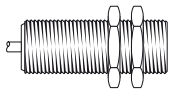


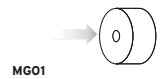
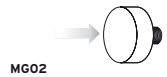
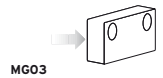
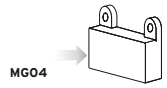
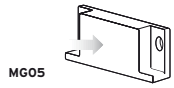
NO + NC CONTACT



HALL EFFECT SENSOR/MAGNETE SWITCHING DISTANCE (mm)

DIAMETER 18



Distance	Hysteresis	
12	7	 MG01
10	6	 MG02
–	–	 MG03
22	9	 MG04
20	9	 MG05

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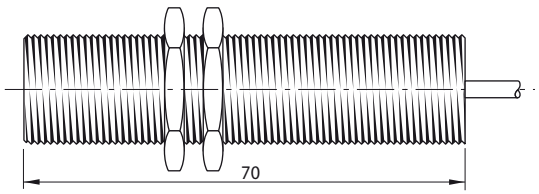
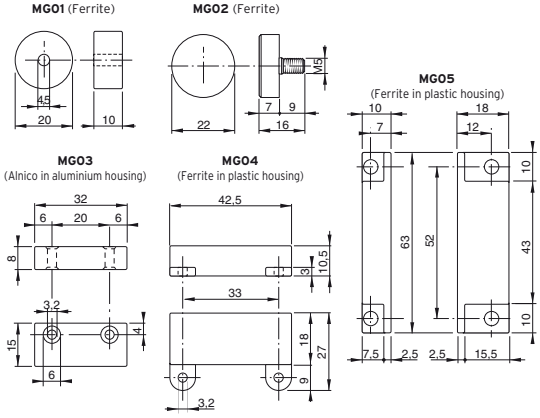
DIMENSIONS (mm)

LONG HOUSING



MAGNETS DIMENSIONS (mm)



MAGNETIC