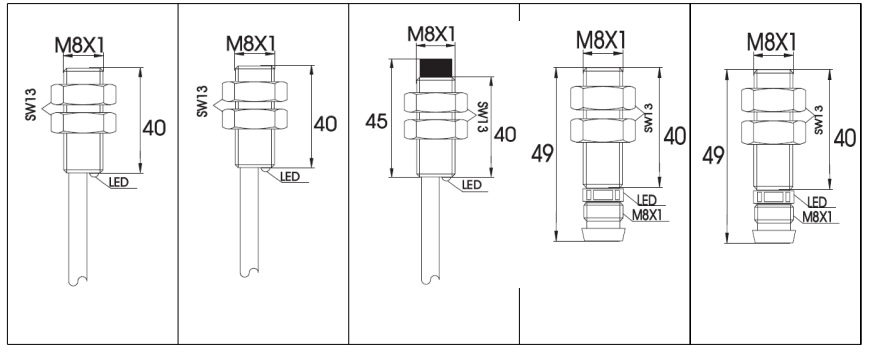


M8 Inductive Proximity Sensors

**Standard Length
"Mini's"
Extended Sensing
3 Wire DC
2 Wire DC**



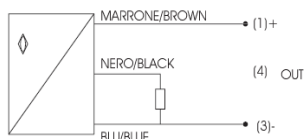
(Wiring Schematic)

3 Wire DC	PNP – Normally Open	(1)	IMM3281C	IMM3281.5C	IMM3582C	IMM3281M8	IMM3281.5M8
	PNP – Normally Closed	(1)	IMM3381C	IMM3381.5C	IMM3682C	IMM3381M8	IMM3381.5M8
	PNP – Selectable	(4)	-	-	-	-	-
	NPN – Normally Open	(2)	IMM2281C	IMM2281.5C	IMM2582C	IMM2281M8	IMM2281.5M8
	NPN – Normally Closed	(2)	IMM2381C	IMM2381.5C	IMM2682C	IMM2381M8	IMM2381.5M8
	NPN – Selectable	(5)	-	-	-	-	-
2 Wire DC	Normally Open	-	-	-	-	-	-
	Normally Closed	-	-	-	-	-	-
2 Wire AC	Normally Open	-	-	-	-	-	-
	Normally Closed	-	-	-	-	-	-

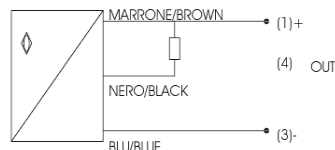
Mating cables / connectors

Form	M8 Shielded	M8 Shielded	M8 Non-Shielded	M8 Shielded	M8 Shielded
Nominal Sensing Distance (Sn)	1mm	1.5mm	2mm	1mm	1.5mm
Housing Material	Nickel Plated Brass				
Termination Type	2.0 Meter Cable	2.0 Meter Cable	2.0 Meter Cable	M8 Connector	M8 Connector
Min / Max Supply Voltage	10 to 30Vdc				
Max. Load Current (I _r)	200mA				
Max ripple factor (V _r)	≤ 10%				
Voltage Drop (U _d)	≤ 3V @ 200mA				
Power Consumption (I _o)	≤ 10mA				
Switching Frequency (Hz)	1.5kHz	1.5kHz	1kHz	1.5kHz	1.5kHz
Repeatability	< 2% nominal sensing distance				
Hysteresis	≤ 10% Sn				
Short Circuit Protection	Yes				
Output LED	Yes				
Operating Temperature	-25 to +70 C				
IP Rating	IP67 (with connector mounted)				

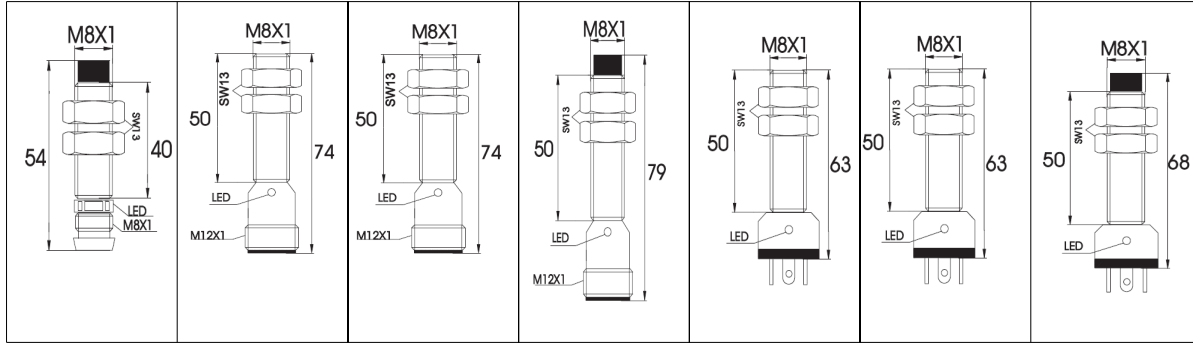
Wiring Diagram



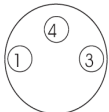
(1) PNP



(2) NPN



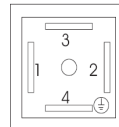
PNP – NO	IMM3582M8	IMM3281M12	IMM3281.5M12	IMM3582M12	IMM3281P	IMM3281.5P	IMM3582P
PNP – NC	IMM3682M8	IMM3381M12	IMM3381.5M12	IMM3682M12	IMM3381P	IMM3381.5P	IMM3682P
PNP – NO/NC	-	-	-	-	-	-	-
NPN – NO	IMM2582M8	IMM2281M12	IMM2281.5M12	IMM2582M12	IMM2281P	IMM2281.5P	IMM2582P
NPN – NC	IMM2682M8	IMM2381M12	IMM2381.5M12	IMM2682M12	IMM2381P	IMM2381.5P	IMM2682P
NPN – NO/NC	-	-	-	-	-	-	-
2W DC NO	-	-	-	-	-	-	-
2W DC NC	-	-	-	-	-	-	-
2W AC NO	-	-	-	-	-	-	-
2W AC NC	-	-	-	-	-	-	-
Mates							
Form	M8 Non-Shielded	M8 Shielded	M8 Shielded	M8 Non-Shielded	M8 Shielded	M8 Shielded	M8 Non-Shielded
Sn	2mm	1mm	1.5mm	2mm	1mm	1.5mm	2mm
Housing	Nickel Plated Brass						
Termination	M8 Connector	M12 Connector	M12 Connector	M12 Connector	Sub-Base Plug	Sub-Base Plug	Sub-Base Plug
Supply Vdc	10 to 30Vdc						
Max Load	200mA						
Max ripple	≤ 10%						
Ud	≤ 3V @ 200mA						
Io	≤ 10mA						
Hz	1kHz	1.5kHz	1.5kHz	1kHz	1.5kHz	1.5kHz	1kHz
Repeatability	< 2% nominal sensing distance						
Hysteresis	≤ 10% Sn						
Short Protection	Yes						
LED	Yes						
Op Temp	-25 to +70 C						
IP Rating	IP67 (with connector mounted)						



1 + MARRONE / BROWN
4 OUT NERO / BLACK
3 - BLU / BLUE



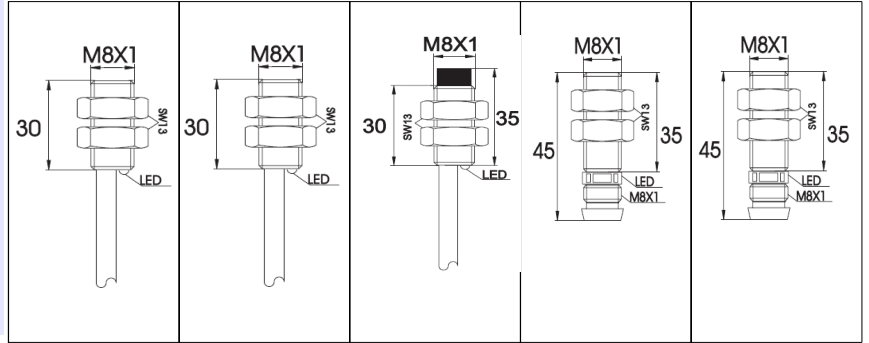
1 + MARRONE / BROWN
4 OUT NERO / BLACK
3 - BLU / BLUE



1 + MARRONE / BROWN
4 OUT NERO / BLACK
3 - BLU / BLUE

M8 Inductive Proximity Sensors

**Standard Length
"Mini's"
Extended Sensing
3 Wire DC
2 Wire DC**



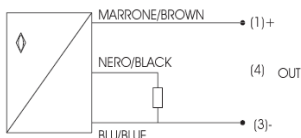
(Wiring Schematic)

3 Wire DC	PNP – Normally Open	(1)	IMC3281C	IMC3281.5C	IMC3582C	IMC3281M8	IMC3281.5M8
	PNP – Normally Closed	(1)	IMC3381C	IMC3381.5C	IMC3682C	IMC3381M8	IMC3381.5M8
	PNP – Selectable	(4)	-	-	-	-	-
	NPN – Normally Open	(2)	IMC2281C	IMC2281.5C	IMC2582C	IMC2281M8	IMC2281.5M8
	NPN – Normally Closed	(2)	IMC2381C	IMC2381.5C	IMC2682C	IMC2381M8	IMC2381.5M8
	NPN – Selectable	(5)	-	-	-	-	-
2 Wire DC	Normally Open	-	-	-	-	-	
	Normally Closed	-	-	-	-	-	
2 Wire AC	Normally Open	-	-	-	-	-	
	Normally Closed	-	-	-	-	-	

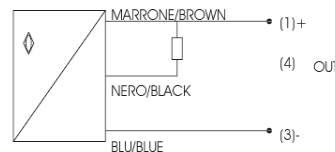
Mating cables / connectors

Form	M8 Shielded	M8 Shielded	M8 Non-Shielded	M8 Shielded	M8 Shielded
Nominal Sensing Distance (Sn)	1mm	1.5mm	2mm	1mm	1.5mm
Housing Material	Nickel Plated Brass				
Termination Type	2.0 Meter Cable	2.0 Meter Cable	2.0 Meter Cable	M8 Connector	M8 Connector
Min / Max Supply Voltage	10 to 30Vdc				
Max. Load Current (I _r)	200mA				
Max ripple factor (V _r)	≤ 10%				
Voltage Drop (U _d)	≤ 3V @ 200mA				
Power Consumption (I _o)	≤ 10mA				
Switching Frequency (Hz)	1.5kHz	1.5kHz	1kHz	1.5kHz	1.5kHz
Repeatability	< 2% nominal sensing distance				
Hysteresis	≤ 10% Sn				
Short Circuit Protection	Yes				
Output LED	Yes				
Operating Temperature	-25 to +70 C				
IP Rating	IP67 (with connector mounted)				

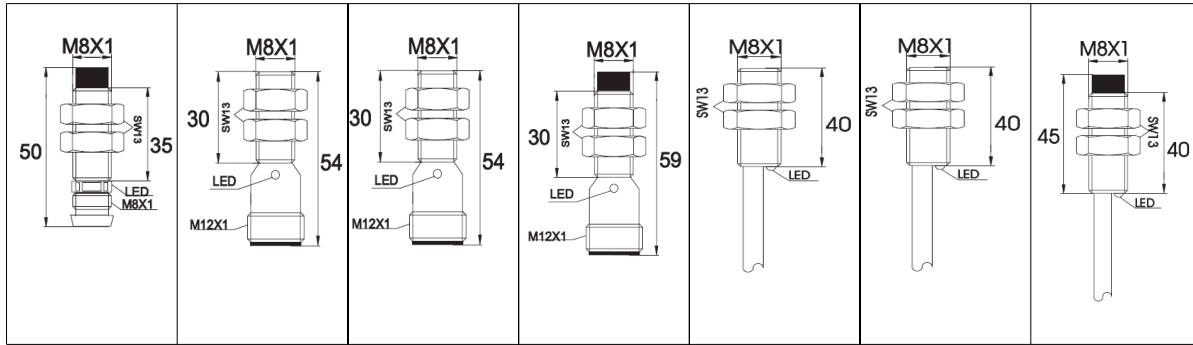
Wiring Diagram



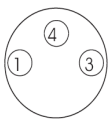
(1) PNP



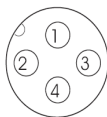
(2) NPN



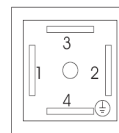
PNP – NO	IMC3582M8	IMC3281M12	IMC3281.5M12	IMC3582M12	IMM3282C	IMM3283C	IMM3584C
PNP – NC	IMC3682M8	IMC3381M12	IMC3381.5M12	IMC3682M12	IMM3382C	IMM3383C	IMM3684C
PNP – NO/NC	-	-	-	-	-	-	-
NPN – NO	IMC2582M8	IMC2281M12	IMC2281.5M12	IMC2582M12	IMM2282C	IMM2283C	IMM2584C
NPN – NC	IMC2682M8	IMC2381M12	IMC2381.5M12	IMC2682M12	IMM2382C	IMM2383C	IMM2684C
NPN – NO/NC	-	-	-	-	-	-	-
2W DC NO	-	-	-	-	-	-	-
2W DC NC	-	-	-	-	-	-	-
2W AC NO	-	-	-	-	-	-	-
2W AC NC	-	-	-	-	-	-	-
Mates							
Form	M8 Non-Shielded	M8 Shielded	M8 Shielded	M8 Non-Shielded	M8 Shielded	M8 Shielded	M8 Non-Shielded
Sn	2mm	1mm	1.5mm	2mm	2mm	3mm	4mm
Housing	Nickel Plated Brass						
Termination	M8 Connector	M12 Connector	M12 Connector	M12 Connector	2.0 Meter Cable	2.0 Meter Cable	2.0 Meter Cable
Supply Vdc	10 to 30Vdc						
Max Load	200mA						
Max ripple	≤ 10%						
Ud	≤ 3V @ 200mA						
Io	≤ 10mA						
Hz	1kHz	1.5kHz	1.5kHz	1kHz	1kHz	1kHz	1kHz
Repeatability	< 2% nominal sensing distance						
Hysteresis	≤ 10% Sn						
Short Protection	Yes						
LED	Yes						
Op Temp	-25 to +70 C						
IP Rating	IP67 (with connector mounted)						



1+ MARRONE / BROWN
4 OUT NERO / BLACK
3- BLU / BLUE



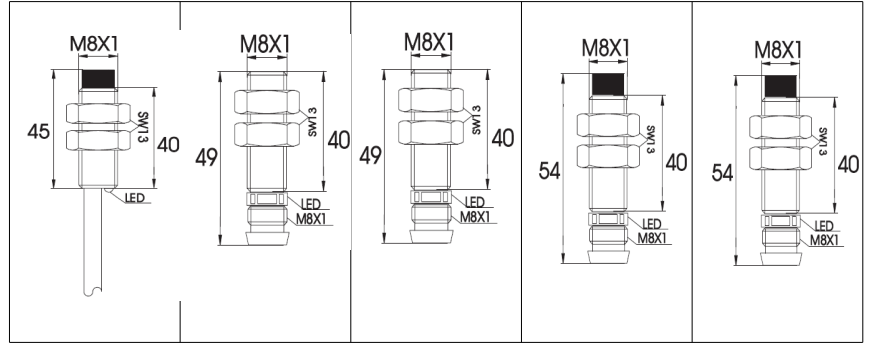
1+ MARRONE / BROWN
4 OUT NERO / BLACK
3- BLU / BLUE



1+ MARRONE / BROWN
⊕ 4 OUT NERO / BLACK
3- BLU / BLUE

M8 Inductive Proximity Sensors

**Standard Length
"Mini's"**
Extended Sensing
3 Wire DC
2 Wire DC



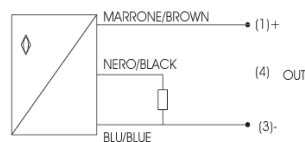
(Wiring Schematic)

3 Wire DC	PNP – Normally Open	(1)	IMM3586C	IMM3282M8	IMM3283M8	IMM3584M8	IMM3586M8
	PNP – Normally Closed	(1)	IMM3686C	IMM3383M8	IMM3383M8	IMM3684M8	IMM3686M8
	PNP – Selectable	(4)	-	-	-	-	-
	NPN – Normally Open	(2)	IMM2586C	IMM2282M8	IMM2283M8	IMM2584M8	IMM2586M8
	NPN – Normally Closed	(2)	IMM2686C	IMM2382M8	IMM2383M8	IMM2684M8	IMM2686M8
	NPN – Selectable	(5)	-	-	-	-	-
2 Wire DC	Normally Open	(6)	-	-	-	-	-
	Normally Closed	(6)	-	-	-	-	-
2 Wire AC	Normally Open	(7)	-	-	-	-	-
	Normally Closed	(7)	-	-	-	-	-

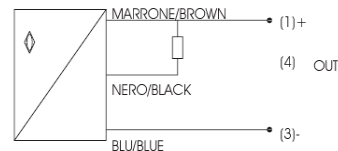
Mating cables / connectors

Form	M8 Non-Shielded	M8 Shielded	M8 Shielded	M8 Non-Shielded	M8 Non-Shielded
Nominal Sensing Distance (Sn)	6mm	2mm	3mm	4mm	6mm
Housing Material	Nickel Plated Brass				
Termination Type	2.0 Meter Cable	M8 Connector	M8 Connector	M8 Connector	M8 Connector
Min / Max Supply Voltage	10 to 30Vdc				
Max. Load Current (I _r)	200mA				
Max ripple factor (V _r)	≤ 10%				
Voltage Drop (U _d)	≤ 3 V @200mA				
Power Consumption (I _o)	≤ 10mA				
Switching Frequency (Hz)	1kHz	1kHz	1kHz	1kHz	1kHz
Repeatability	< 2% nominal sensing distance				
Hysteresis	≤ 10% Sn				
Short Circuit Protection	Yes				
Output LED	Yes				
Operating Temperature	-25 to +70 C				
IP Rating	IP67 (with connector mounted)				

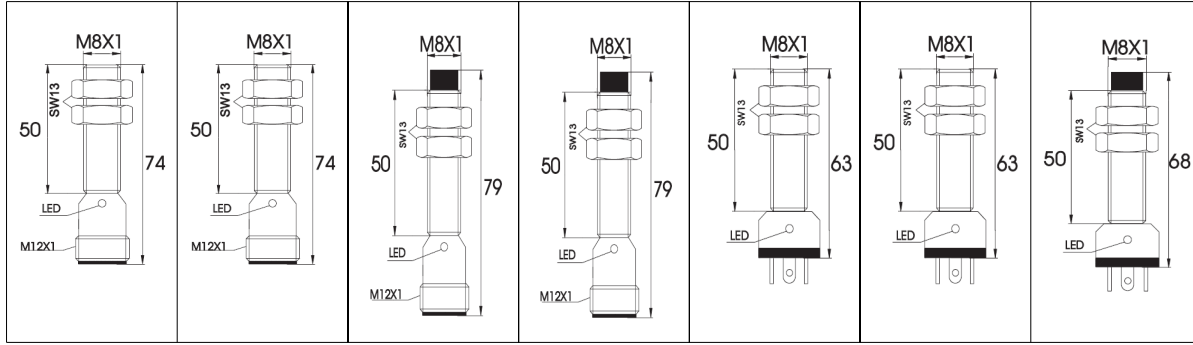
Wiring Diagram



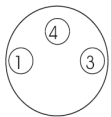
(1) PNP



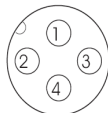
(2) NPN



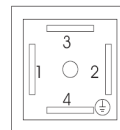
PNP – NO	IMM3282M12	IMM3283M12	IMM3584M12	IMM3586M12	IMM3282P	IMM3283P	IMM3584P
PNP – NC	IMM3382M12	IMM3383M12	IMM3684M12	IMM3686M12	IMM3382P	IMM3383P	IMM3684P
PNP – NO/NC	-	-	-	-	-	-	-
NPN – NO	IMM2282M12	IMM2283M12	IMM2584M12	IMM2586M12	IMM2282P	IMM2283P	IMM2584P
NPN – NC	IMM2382M12	IMM2383M12	IMM2684M12	IMM2686M12	IMM2382P	IMM2383P	IMM2684P
NPN – NO/NC	-	-	-	-	-	-	-
2W DC NO	-	-	-	-	-	-	-
2W DC NC	-	-	-	-	-	-	-
2W AC NO	-	-	-	-	-	-	-
2W AC NC	-	-	-	-	-	-	-
Mates							
Form	M12 Non-Shielded	M12 Shielded	M12 Non-Shielded	M12 Shielded	M12 Non-Shielded	M12 Shielded	M12 Non-Shielded
Sn	2mm	3mm	4mm	6mm	2mm	3mm	4mm
Housing	Nickel Plated Brass						
Termination	M12 Connector	M12 Connector	M12 Connector	M12 Connector	Sub-Base Plug	Sub-Base Plug	Sub-Base Plug
Supply Vdc	10 to 30 Vdc						
Max Load	200mA						
Max ripple	≤ 10%						
Ud	≤ 3 V @200mA						
Io	≤ 10mA						
Hz	1kHz	1kHz	1kHz	1kHz	1kHz	1kHz	1kHz
Repeatability	< 2% nominal sensing distance						
Hysteresis	≤ 10% Sn						
Short Protection	Yes						
LED	Yes						
Op Temp	-25 to +70 C						
IP Rating	IP67 (with connector mounted)						



1 + MARRONE / BROWN
4 OUT NERO / BLACK
3 - BLU / BLUE



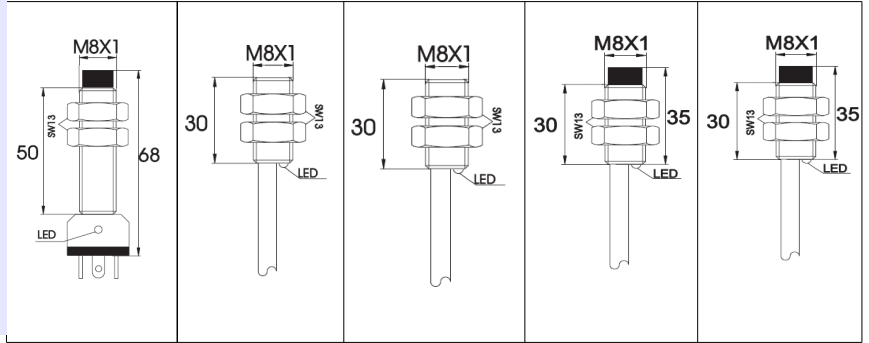
1 + MARRONE / BROWN
4 OUT NERO / BLACK
3 - BLU / BLUE



1 + MARRONE / BROWN
⊕ 4 OUT NERO / BLACK
3 - BLU / BLUE

M8 Inductive Proximity Sensors

**Standard Length
"Mini's"
Extended Sensing
3 Wire DC
2 Wire DC**



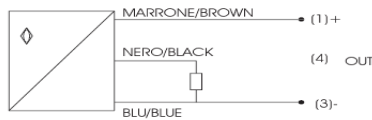
(Wiring Schematic)

3 Wire DC	PNP – Normally Open	(1)	IMM3586P	IMC3282C	IMC3283C	IMC3584C	IMC3586C
	PNP – Normally Closed	(1)	IMM3686P	IMC3382C	IMC3383C	IMC3684C	IMC3686C
	PNP – Selectable	(4)	-	-	-	-	-
	NPN – Normally Open	(2)	IMM2586P	IMC2282C	IMC2283C	IMC2584C	IMC2586C
	NPN – Normally Closed	(2)	IMM2686P	IMC2382C	IMC2383C	IMC2684C	IMC2686C
	NPN – Selectable	(5)	-	-	-	-	-
2 Wire DC	Normally Open	(6)	-	-	-	-	-
	Normally Closed	(6)	-	-	-	-	-
2 Wire AC	Normally Open	(7)	-	-	-	-	-
	Normally Closed	(7)	-	-	-	-	-

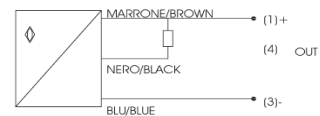
Mating cables / connectors

Form	M8 Non-Shielded	M8 Shielded	M8 Shielded	M8 Non-Shielded	M8 Non-Shielded
Nominal Sensing Distance (Sn)	6mm	2mm	3mm	4mm	6mm
Housing Material	Nickel Plated Brass				
Termination Type	Sub-Base Plug	2.0 Meter Cable	2.0 Meter Cable	2.0 Meter Cable	2.0 Meter Cable
Min / Max Supply Voltage	10 to 30Vdc				
Max. Load Current (I _r)	200mA				
Max ripple factor (V _r)	≤ 10%				
Voltage Drop (U _d)	≤ 3 V @200mA				
Power Consumption (I _o)	≤ 10mA				
Switching Frequency (Hz)	1kHz	1kHz	1kHz	1kHz	1kHz
Repeatability	< 2% nominal sensing distance				
Hysteresis	≤ 10% Sn				
Short Circuit Protection	Yes				
Output LED	Yes				
Operating Temperature	-25 to +70 C				
IP Rating	IP67 (with connector mounted)				

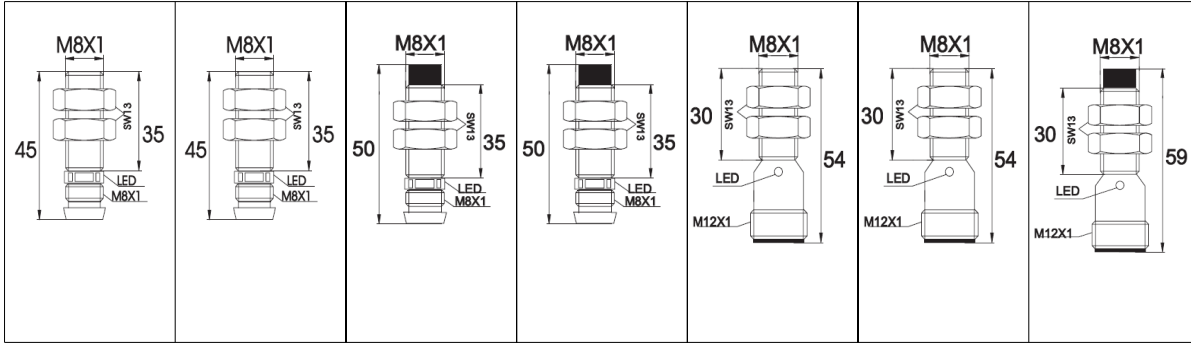
Wiring Diagram



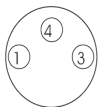
(1) PNP



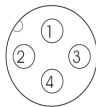
(2) NPN



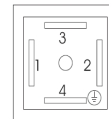
PNP – NO	IMC3282M8	IMC3283M8	IMC3584M8	IMC3586M8	IMC3282M12	IMC3283M12	IMC3584M12
PNP – NC	IMC3382M8	IMC3383M8	IMC3684M8	IMC3686M8	IMC3382M12	IMC3383M12	IMC3684M12
PNP – NO/NC	-	-	-	-	-	-	-
NPN – NO	IMC2282M8	IMC2283M8	IMC2584M8	IMC2586M8	IMC2282M12	IMC2283M12	IMC2584M12
NPN – NC	IMC2382M8	IMC2383M8	IMC2684M8	IMC2686M8	IMC2382M12	IMC2383M12	IMC2684M12
NPN – NO/NC	-	-	-	-	-	-	-
2W DC NO	-	-	-	-	-	-	-
2W DC NC	-	-	-	-	-	-	-
2W AC NO	-	-	-	-	-	-	-
2W AC NC	-	-	-	-	-	-	-
Mates							
Form	M8 Shielded	M8 Shielded	M8 Non-Shielded	M8 Non-Shielded	M8 Shielded	M8 Shielded	M8 Non-Shielded
Sn	2mm	3mm	4mm	6mm	2mm	3mm	4mm
Housing	Nickel Plated Brass						
Termination	M8 Connector	M8 Connector	M8 Connector	M8 Connector	M12 Connector	M12 Connector	M12 Connector
Supply Vdc	10 to 30 Vdc						
Max Load	200mA						
Max ripple	≤ 10%						
Ud	≤ 3 V @200mA						
Io	≤ 10mA						
Hz	1kHz	1kHz	1kHz	1kHz	1kHz	1kHz	1kHz
Repeatability	< 2% nominal sensing distance						
Hysteresis	≤ 10% Sn						
Short Protection	Yes						
LED	Yes						
Op Temp	-25 to +70 C						
IP Rating	IP67 (with connector mounted)						



1+ MARRONE / BROWN
4 OUT NERO / BLACK
3- BLU / BLUE



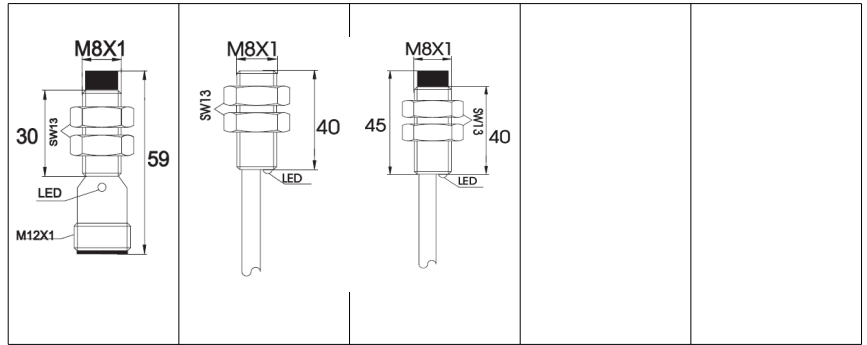
1+ MARRONE / BROWN
4 OUT NERO / BLACK
3- BLU / BLUE



1+ MARRONE / BROWN
4 OUT NERO / BLACK
3- BLU / BLUE

M8 Inductive Proximity Sensors

**Standard Length
"Mini's"
Extended Sensing
3 Wire DC
2 Wire DC**



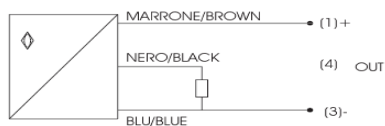
(Wiring Schematic)

3 Wire DC	PNP – Normally Open	(1)	IMC3586M12	-	-	-	-
	PNP – Normally Closed	(1)	IMC3686M12	-	-	-	-
	PNP – Selectable	(4)	-	-	-	-	-
	NPN – Normally Open	(2)	IMC2586M12	-	-	-	-
	NPN – Normally Closed	(2)	IMC2686M12	-	-	-	-
	NPN – Selectable	(5)	-	-	-	-	-
2 Wire DC	Normally Open	(6)	-	IMM4282C	IMM4583C	-	-
	Normally Closed	(6)	-	IMM4383C	IMM4683C	-	-
2 Wire AC	Normally Open	(7)	-	-	-	-	-
	Normally Closed	(7)	-	-	-	-	-

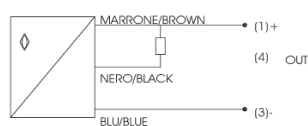
Mating cables / connectors

Form	M8 Non-Shielded	M8 Shielded	M8 Non-Shielded		
Nominal Sensing Distance (Sn)	6mm	2mm	3mm		
Housing Material	Nickel Plated Brass				
Termination Type	M12 Connector	2.0 Meter Cable	2.0 Meter Cable		
Min / Max Supply Voltage	10 to 30Vdc				
Max. Load Current (I _r)	200mA				
Max ripple factor (V _r)	≤ 10%				
Voltage Drop (U _d)	≤ 3 V @200mA				
Power Consumption (I _o)	≤ 10mA				
Switching Frequency (Hz)	1kHz	1kHz	1kHz		
Repeatability	< 2% nominal sensing distance				
Hysteresis	≤ 10% Sn				
Short Circuit Protection	Yes				
Output LED	Yes				
Operating Temperature	-25 to +70 C				
IP Rating	IP67 (with connector mounted)				

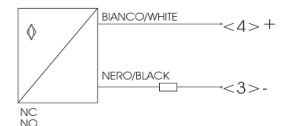
Wiring Diagram



(1) PNP



(2) NPN



(6) 2 FILI / 2 WIRE



Inductive Proximity Sensors

PNP – NO							
PNP – NC							
PNP – NO/NC							
NPN – NO							
NPN – NC							
NPN – NO/NC	-	-	-	-	-	-	-
2W DC NO	-	-	-	-	-	-	-
2W DC NC	-	-	-	-	-	-	-
2W AC NO	-	-	-	-	-	-	-
2W AC NC	-	-	-	-	-	-	-
