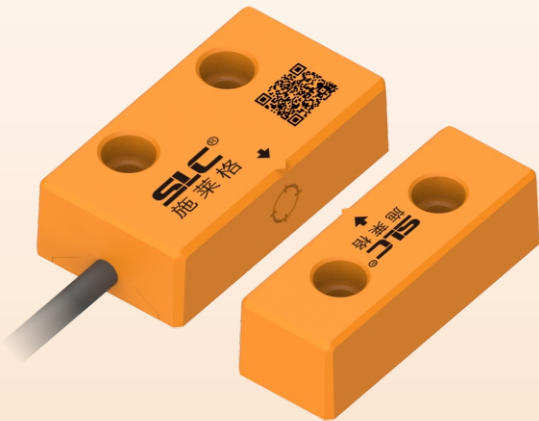




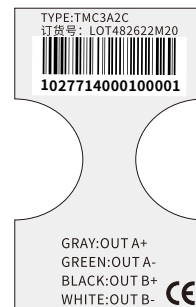
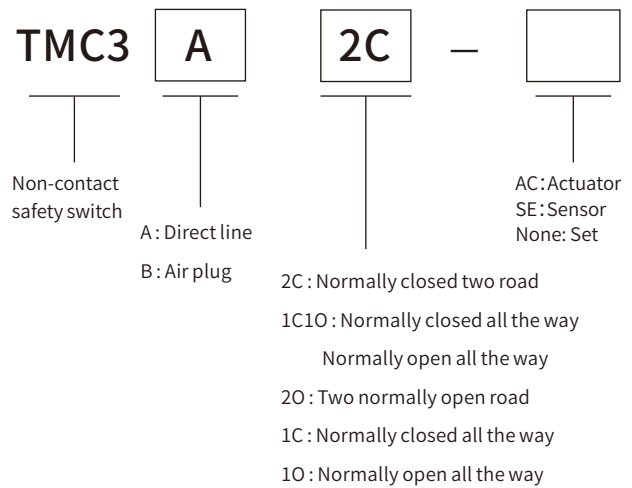
TMC3 series non - contact magnetic coded safety switches



> Functional features

The design of TMC3 magnetic code safety switch combines multiple magnetic sensitive elements, these magnetic sensitive elements parts must be triggered in a specific order to work normally, non-contact execution, and has a high misalignment tolerance, detection range is large, easy to install, can be multiple series, TMC3A2C/TMC3B2C can be used with SCDA127R security module up to level 4 safety level, through the CE certification, in line with ISO 13849-1 SIL3 PLc. Category 4.

> Model specification



Selection table

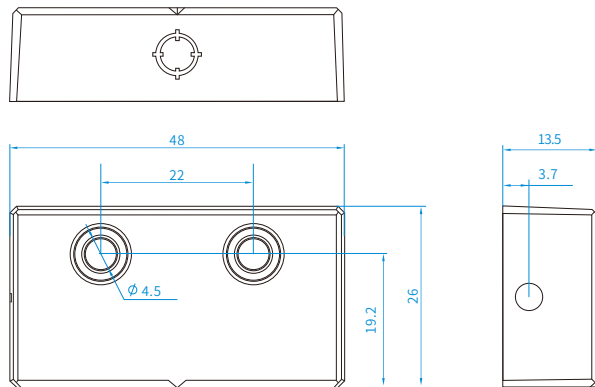
Contact	Model			Cable type	Description	Order number (Actuators+Sensor)
	Actuators	Sensor	Actuators+Sensor			
2N.C	TMC3A2C-AC	TMC3A2C-SE	TMC3A2C	Direct 3M cable	3M cable, straight out	LOT482622M20
2N.C	TMC3B2C-AC	TMC3B2C-SE	TMC3B2C	TMC32C-3M	Outgoing with air plug	LOT482622E20
1N.C&1N.O	TMC3A1C10-AC	TMC3A1C10-SE	TMC3A1C10	Direct 3M cable	3M cable, straight out	LOT482622M11
1N.C&1N.O	TMC3B1C10-AC	TMC3B1C10-SE	TMC3B1C10	TMC31C10-3M	Outgoing with air plug	LOT482622E11
2N.O	TMC3A2O-AC	TMC3A2O-SE	TMC3A2O	Direct 3M cable	3M cable, straight out	LOT482622M02
2N.O	TMC3B2O-AC	TMC3B2O-SE	TMC3B2O	TMC32O-3M	Outgoing with air plug	LOT482622E02
1N.C	TMC3A1C-AC	TMC3A1C-SE	TMC3A1C	Direct 3M cable	3M cable, straight out	LOT482622M10
1N.C	TMC3B1C-AC	TMC3B1C-SE	TMC3B1C	TMC31C-3M	Outgoing with air plug	LOT482622E10
1N.O	TMC3A1O-AC	TMC3A1O-SE	TMC3A1O	Direct 3M cable	3M cable, straight out	LOT482622M01
1N.O	TMC3B1O-AC	TMC3B1O-SE	TMC3B1O	TMC31O-3M	Outgoing with air plug	LOT482622E01

※ Note: only TMC3A2C and TMC3B2C can achieve the safety level of class 4.

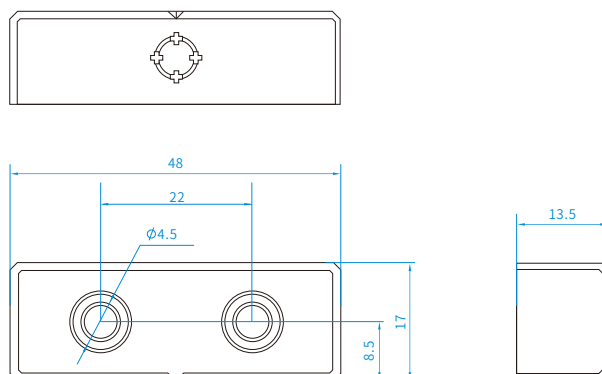
Installation dimensions



Sensor



Actuators

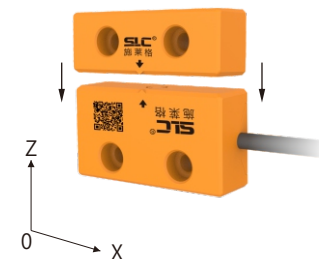
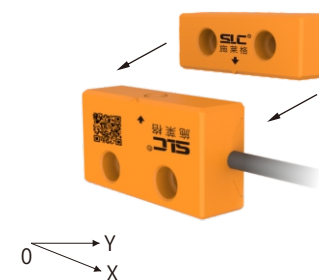


※ Depending on the product configuration and manufacturing process, the actual product size and weight may vary, please refer to the actual product.

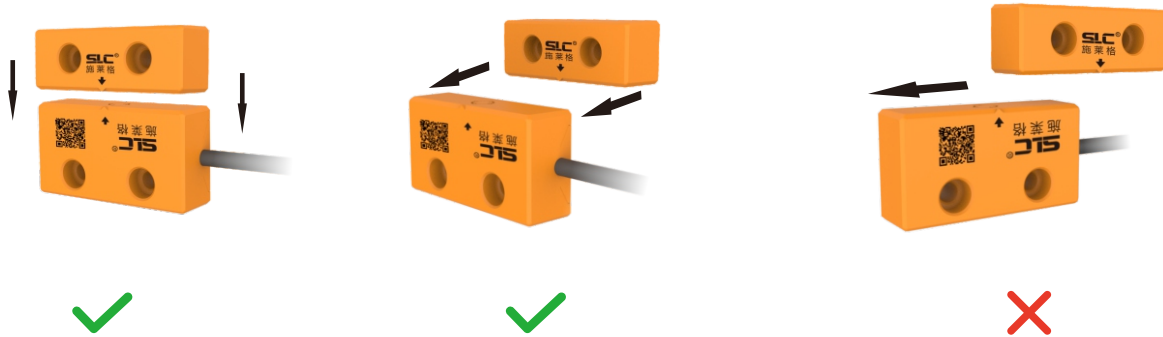
Technical parameters

Security level	
Safety grade standard	ISO13849-1 , IEC/EN60947-5-3
Security classification	3 types of switches conforming to ISO 13849-1; Dual channel interlock is suitable for class 3 or 4 systems
Output	
Safety output	2个N.C.REEDS
Outlet way	Direct out line (A); Out line with air plug (B)
Technical parameters	
Working distance	Make.Min: 8mm; Break.Max: 17mm
Typical tolerance	See alignment
Output current (max)	200mA
Response time	5ms
Protection grade	IP67(Can be customizedIP69K)
Operating frequency	1Hz
Working temperature	-10~+55°C
Relative humidity	5%~95%
Material	UL certified thermoplastics

Alignment diagram

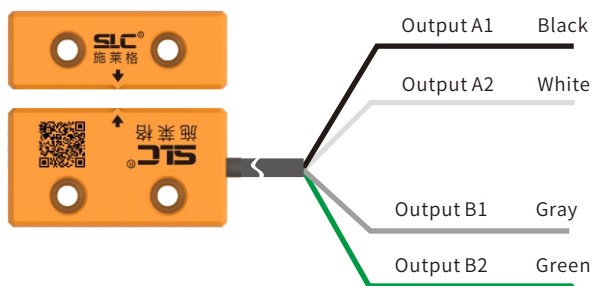
	Misalignment deviatio	Make	Break	On the schematic
Horizontal alignment	The deviation is in the X direction $\pm 2\text{mm}$ range	Z direction sensing distance 0~8mm	Z direction sensing distance $> 17\text{mm}$	
	The deviation is in the X -4mm~-2mm and 2mm~4mm range	Z direction induction decreases from 8mm to 6mm		
The vertical alignment	The deviation is in the X direction $\pm 2\text{mm}$ range	Y direction sensing distance 0~8mm	Y direction sensing distance $> 17\text{mm}$	
	The deviation is in the X -4mm~-2mm and 2mm~4mm range	Y direction induction decreases from 8mm to 6mm		

Approach direction



Safety switch wiring definition

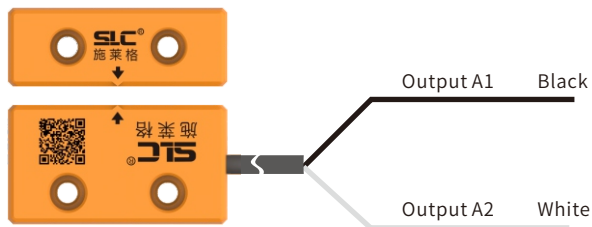
Two way output type



No.	Signal definition	Color
1	Output A1	Black
2	Output A2	White
3	Output B1	Gray
4	Output B2	Green

※A1/A2 is a set of switch outputs
B1/B2 is a set of switch outputs

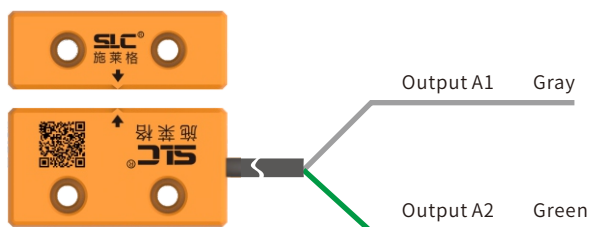
One way normally open output type



No.	Signal definition	Color
1	Output A1	Black
2	Output A2	White

※A1/A2 is a set of switch outputs

One way normally close output type

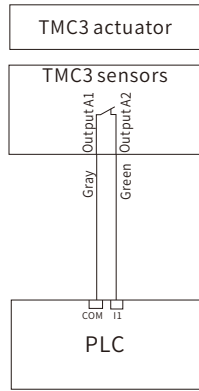


No.	Signal definition	Color
1	Output A1	Gray
2	Output A2	Green

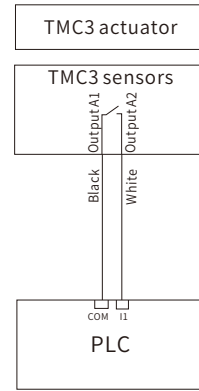
※A1/A2 is a set of switch outputs

Application wiring example

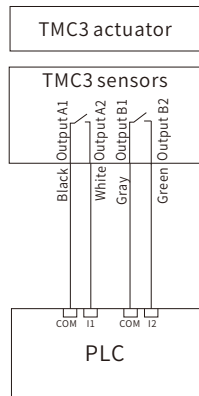
Schematic diagram of normally closed type wiring along the road



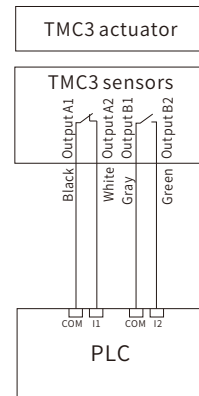
Schematic diagram of normally open wiring pattern along the road



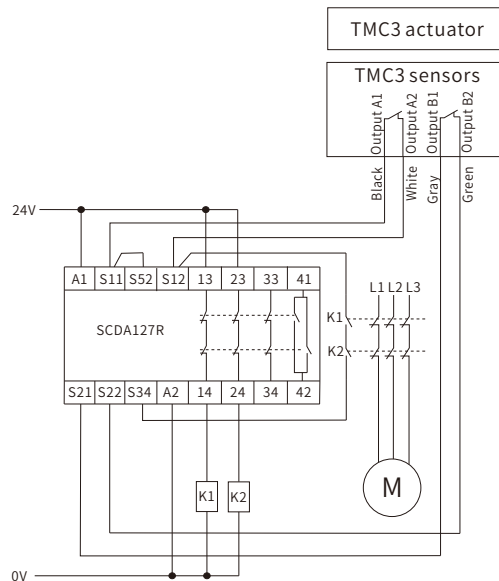
Schematic diagram of two normally open connections



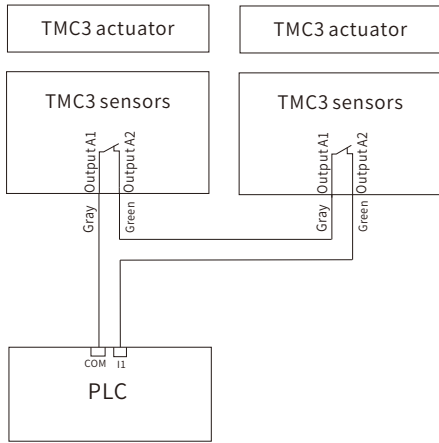
Wiring diagram of normally open and normally closed type



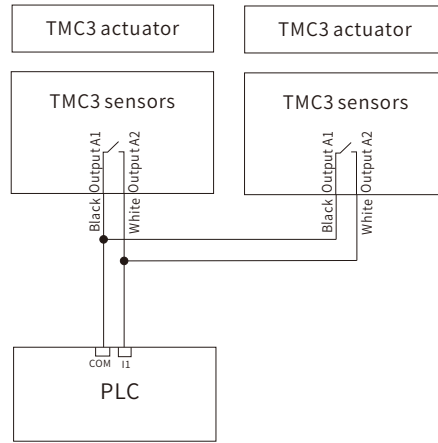
Schematic diagram of two normally closed connections



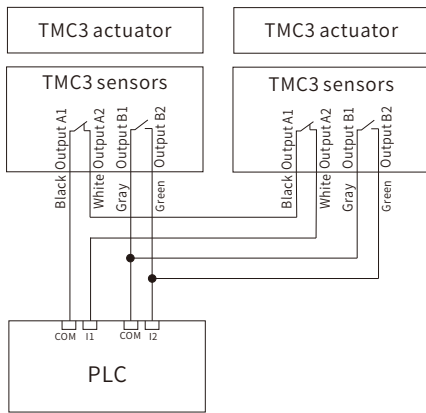
Schematic diagram of a normally closed connection line



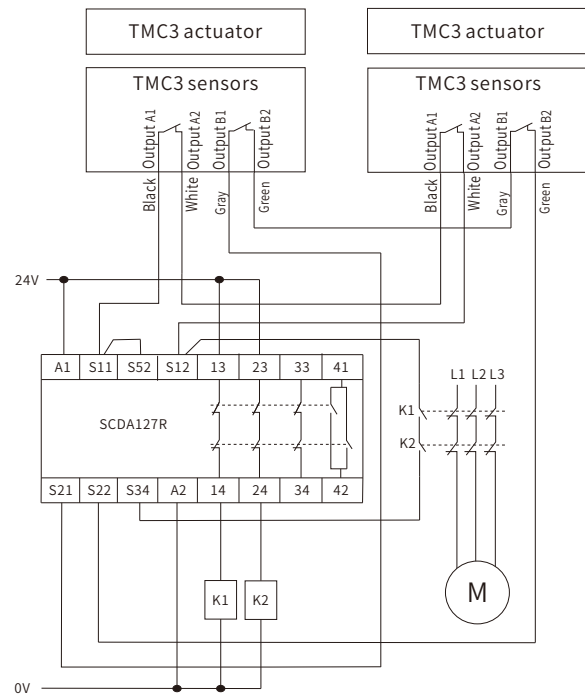
Schematic diagram of a normally open connection line



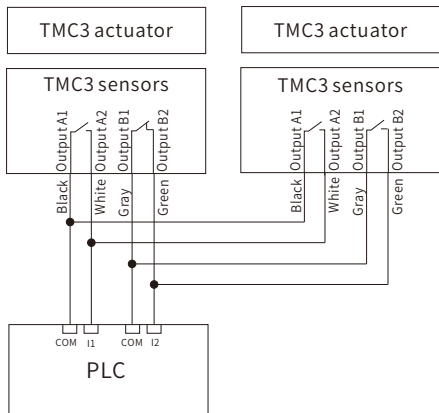
Schematic diagram of a normally open and normally closed connection line



Schematic diagram of two normally closed connection lines



Schematic diagram of two normally open connection lines



Warn

- ◆ Please make sure the connection is in the power off state.
- ◆ Please make sure that the passing current does not exceed the maximum output current of the product.
- ◆ Do not use in flammable or explosive environment.