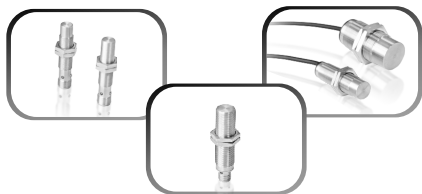


Metal Probe Inductive Proximity Sensor

Features

- Short-circuit protection, reversed polarity protection and overload protection (DC)
- Integrated stainless steel housing & metal sensing face
- Red LED to check output status
- Much better performance in preventing damages caused by impact & friction



Metal Probe Inductive Proximity Sensor

M8 –Cable(DC) / F-01

M8 –Connector(DC) / F-02

M12 –Cable(DC) / F-03

M12 –Connector(DC) / F-04

M12 –Cable(AC) / F-05

M18 –Cable(DC) / F-06

M18 –Connector(DC) / F-07

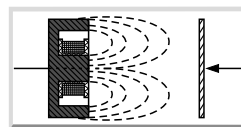
M18 –Cable(AC) / F-08

M30 –Cable(DC) / F-09

M30 –Connector(DC) / F-10

M30 –Cable(AC) / F-11

Inductive



PICTURE

M8x1, L40



CE

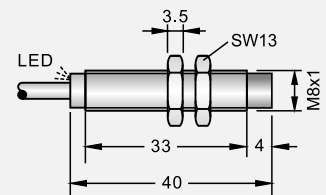
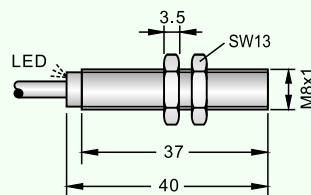
M8x1, L40



CE

DC-3 wires NPN N.O.	MST8-S1.2NA-D3Y2	* 01	MST8-N02NA-D3Y2	* 01
DC-3 wires NPN N.C.	MST8-S1.2NB-D3Y2	* 02	MST8-N02NB-D3Y2	* 02
DC-3 wires PNP N.O.	MST8-S1.2PA-D3Y2	* 03	MST8-N02PA-D3Y2	* 03
DC-3 wires PNP N.C.	MST8-S1.2PB-D3Y2	* 04	MST8-N02PB-D3Y2	* 04
DC-2 wires N.O.	MST8-S1.2LA-D2Y2	* 18	MST8-N02LA-D2Y2	* 18
DC-2 wires N.C.	MST8-S1.2LB-D2Y2	* 19	MST8-N02LB-D2Y2	* 19
Rated sensing distance	1.2mm		2mm	
Mounting	shield		non-shield	
Supply voltage	12...24VDC (10-30VDC) , ripple: 10% max			
Leakage current	<0.01mA(3 wires) ; <0.8mA(2 wires)			
Setting distance	0...0.8mm		0...1.4mm	
Standard target	Iron 8x8x1mm			
Frequency	800Hz			
Consumption	≤15mA			
Load current	200mA			
Voltage drop(V _p)	≤1.8V(2 wires : Load current 100mA < 5V)			
Hysteresis	1...15%			
Repeatability	≤2%			
Display	Red LED			
Protection Circuit	Short circuit protection, reversed polarity protection and overload protection			
Operating temperature	-25...+70°C(no condensation)			
Anti-impact	500m/s ² (50G) X、Y、Z direction, each 10 times			
Anti-vibration	10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
Protection	IP67			
Connection	Cable: Φ3. 2mm 2M			
Housing material	stainless steel			
Sensing face material	stainless steel			

Dimensional drawing



Remark

01 . 02 . 03 . 04 . 18 . 19—NO of wiring diagram(refers to page 12...15)

PICTURE

M8x1, L55



M8x1, L59

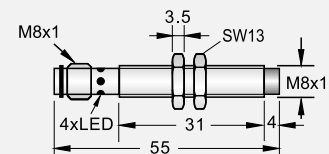
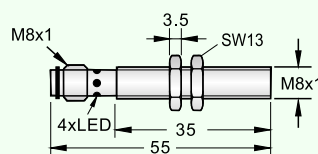


CE

CE

DC-3 wires NPN N.O.	MST8-S1.2NA-D3YV2	* 27	MST8-N02NA-D3YV2	* 27
DC-3 wires NPN N.C.	MST8-S1.2NB-D3YV2	* 27	MST8-N02NB-D3YV2	* 27
DC-3 wires PNP N.O.	MST8-S1.2PA-D3YV2	* 28	MST8-N02PA-D3YV2	* 28
DC-3 wires PNP N.C.	MST8-S1.2PB-D3YV2	* 28	MST8-N02PB-D3YV2	* 28
DC-2 wires N.O.				
DC-2 wires N.C.				
Rated sensing distance	1.2mm		2mm	
Mounting	shield		non-shield	
Supply voltage	12...24VDC (10-30VDC) , ripple: 10% max			
Leakage current	<0.01mA			
Setting distance	0...0.8mm		0...1.4mm	
Standard target	Iron 8x8x1mm			
Frequency	800Hz			
Consumption	≤15mA			
Load current	200mA			
Voltage drop(V _p)	≤1.8V			
Hysteresis	1...15%			
Repeatability	≤2%			
Display	Red LED			
Protection Circuit	Short circuit protection, reversed polarity protection and overload protection			
Operating temperature	-25...+70°C(no condensation)			
Anti-impact	500m/s ² (50G) X、Y、Z direction, each 10 times			
Anti-vibration	10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
Protection	IP67			
Connection	M8 connector, LEDx4			
Housing material	stainless steel			
Sensing face material	stainless steel			

Dimensional drawing



Remark

27 . 28—NO of wiring diagram(refers to page 12...15)

PICTURE

M12x1, L50



CE

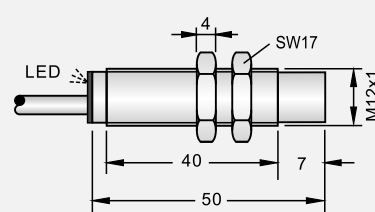
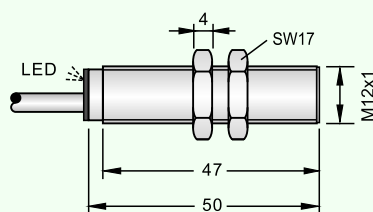
M12x1, L50



CE

DC-3 wires NPN N.O.	MST12-S02NA-D3Y2	* 01	MST12-N04NA-D3Y2	* 01
DC-3 wires NPN N.C.	MST12-S02NB-D3Y2	* 02	MST12-N04NB-D3Y2	* 02
DC-3 wires PNP N.O.	MST12-S02PA-D3Y2	* 03	MST12-N04PA-D3Y2	* 03
DC-3 wires PNP N.C.	MST12-S02PB-D3Y2	* 04	MST12-N04PB-D3Y2	* 04
DC-2 wires N.O.	MST12-S02LA-D2Y2	* 18	MST12-N04LA-D2Y2	* 18
DC-2 wires N.C.	MST12-S02LB-D2Y2	* 19	MST12-N04LB-D2Y2	* 19
Rated sensing distance	2mm		4mm	
Mounting	shield		non-shield	
Supply voltage	12...24VDC (10-30VDC) , ripple: 10% max			
Leakage current	<0.01mA(3 wires) ; <0.8mA(2 wires)			
Setting distance	0...1.4mm		0...2.8mm	
Standard target	Iron 12x12x1mm			
Frequency	600Hz		400Hz	
Consumption	≤15mA			
Load current	200mA			
Voltage drop(V _p)	≤1.8V(2 wires : Load current 100mA < 5V)			
Hysteresis	1...15%			
Repeatability	≤2%			
Display	Red LED			
Protection Circuit	Short circuit protection, reversed polarity protection and overload protection			
Operating temperature	-25...+70°C(no condensation)			
Anti-impact	500m/s ² (50G) X、Y、Z direction, each 10 times			
Anti-vibration	10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
Protection	IP67			
Connection	Cable: φ4mm 2M			
Housing material	stainless steel			
Sensing face material	stainless steel			

Dimensional drawing



Remark

01 . 02 . 03 . 04 . 18 . 19—NO of wiring diagram(refers to page 12...15)

PICTURE

M12x1, L60

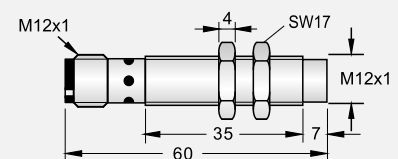
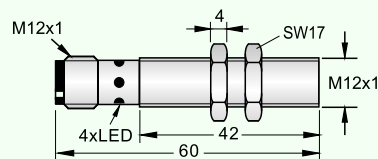


M12x1, L60



DC-3 wires NPN N.O.	MST12-S02NA-D4YV1	* 29	MST12-N04NA-D4YV1	* 29
DC-3 wires NPN N.C.	MST12-S02NB-D4YV1	* 30	MST12-N04NB-D4YV1	* 30
DC-3 wires PNP N.O.	MST12-S02PA-D4YV1	* 31	MST12-N04PA-D4YV1	* 31
DC-3 wires PNP N.C.	MST12-S02PB-D4YV1	* 32	MST12-N04PB-D4YV1	* 32
DC-2 wires N.O.	MST12-S02LA-D4YV1	* 37	MST12-N04LA-D4YV1	* 37
DC-2 wires N.C.	MST12-S02LB-D4YV1	* 38	MST12-N04LB-D4YV1	* 38
Rated sensing distance	2mm		4mm	
Mounting	shield		non-shield	
Supply voltage	12...24VDC (10-30VDC) , ripple: 10% max			
Leakage current	<0.01mA(3 wires) ; <0.8mA(2 wires)			
Setting distance	0...1.4mm		0...2.8mm	
Standard target	Iron 12x12x1mm			
Frequency	600Hz		400Hz	
Consumption	≤15mA			
Load current	200mA			
Voltage drop(V _p)	≤1.8V(2 wires : Load current 100mA < 5V)			
Hysteresis	1...15%			
Repeatability	≤2%			
Display	Red LED			
Protection Circuit	Short circuit protection, reversed polarity protection and overload protection			
Operating temperature	-25...+70°C(no condensation)			
Anti-impact	500m/s ² (50G) X、 Y、 Z direction, each 10 times			
Anti-vibration	10...55Hz(amplitude 1.5mm)X、 Y、 Z direction each 2 hours			
Protection	IP67			
Connection	M12 connector, LEDx4			
Housing material	stainless steel			
Sensing face material	stainless steel			

Dimensional drawing



Remark 29 . 30 . 31 . 32 . 37 . 38—NO of wiring diagram(refers to page 12...15)

PICTURE

M12x1, L55



CE

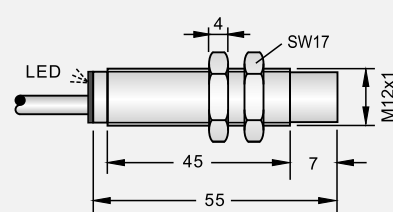
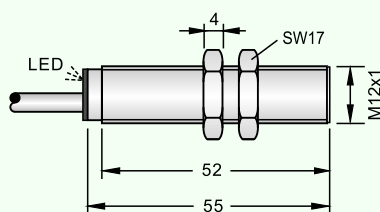
M12x1, L55



CE

AC-2 wires N.O.	MST12-S02AA-A2N2	* 20	MST12-N04AA-A2N2	* 20
AC-2 wires N.C.	MST12-S02AB-A2N2	* 21	MST12-N04AB-A2N2	* 21
Rated sensing distance	2mm		4mm	
Mounting	shield		non-shield	
Supply voltage	20...250V AC(50/60Hz)			
Leakage current	≤1.7mA			
Setting distance	0...1.4mm		0...2.8mm	
Standard target	Iron 12x12x1mm			
Frequency	20Hz			
Consumption				
Load current	200mA			
Voltage drop(V _p)	≤8V			
Hysteresis	3...15%			
Repeatability	≤2%			
Display	Red LED			
Protection Circuit				
Operating temperature	-25...+70°C(no condensation)			
Anti-impact	500m/s ² (50G) X、Y、Z direction, each 10 times			
Anti-vibration	10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
Protection	IP67			
Connection	Cable: Φ4mm 2M			
Housing material	stainless steel			
Sensing face material	stainless steel			

Dimensional drawing



Remark

20 . 21—NO of wiring diagram(refers to page 12...15)

PICTURE

M18x1, L60



CE

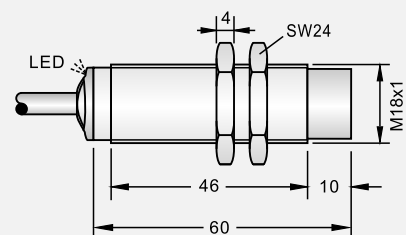
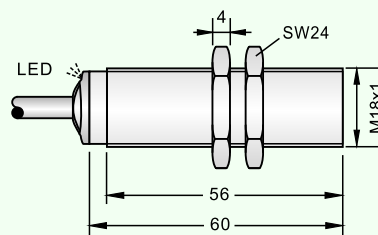
M18x1, L60



CE

DC-3 wires NPN N.O.	MST18-S05NA-D3Y2	* 01	MST18-N08NA-D3Y2	* 01
DC-3 wires NPN N.C.	MST18-S05NB-D3Y2	* 02	MST18-N08NB-D3Y2	* 02
DC-3 wires PNP N.O.	MST18-S05PA-D3Y2	* 03	MST18-N08PA-D3Y2	* 03
DC-3 wires PNP N.C.	MST18-S05PB-D3Y2	* 04	MST18-N08PB-D3Y2	* 04
DC-2 wires N.O.	MST18-S05LA-D2Y2	* 18	MST18-N08LA-D2Y2	* 18
DC-2 wires N.C.	MST18-S05LB-D2Y2	* 19	MST18-N08LB-D2Y2	* 19
Rated sensing distance	5mm		8mm	
Mounting	shield		non-shield	
Supply voltage	12...24VDC (10-30VDC) , ripple: 10% max			
Leakage current	<0.01mA(3 wires) ; <0.8mA(2 wires)			
Setting distance	0...3.5mm		0...5.6mm	
Standard target	Iron 18x18x1mm		Iron 25x25x1mm	
Frequency	400Hz		300Hz	
Consumption	≤15mA			
Load current	200mA			
Voltage drop(V _p)	≤1.8V(2 wires : Load current 100mA < 5V)			
Hysteresis	1...15%			
Repeatability	≤2%			
Display	Red LED			
Protection Circuit	Short circuit protection, reversed polarity protection and overload protection			
Operating temperature	-25...+70°C(no condensation)			
Anti-impact	500m/s ² (50G) X、Y、Z direction, each 10 times			
Anti-vibration	10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
Protection	IP67			
Connection	Cable: Φ4.8mm 2M			
Housing material	stainless steel			
Sensing face material	stainless steel			

Dimensional drawing



Remark

01 . 02 . 03 . 04 . 18 . 19—NO of wiring diagram(refers to page 12...15)

PICTURE

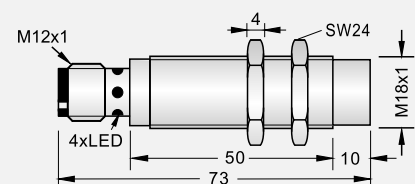
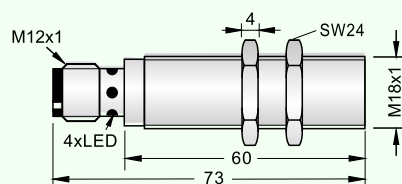
M18x1, L73

CE
M18x1, L73

CE

DC-3 wires NPN N.O.	MST18-S05NA-D4YV1	* 29	MST18-N08NA-D4YV1	* 29
DC-3 wires NPN N.C.	MST18-S05NB-D4YV1	* 30	MST18-N08NB-D4YV1	* 30
DC-3 wires PNP N.O.	MST18-S05PA-D4YV1	* 31	MST18-N08PA-D4YV1	* 31
DC-3 wires PNP N.C.	MST18-S05PB-D4YV1	* 32	MST18-N08PB-D4YV1	* 32
DC-2 wires N.O.	MST18-S05LA-D4YV1	* 37	MST18-N08LA-D4YV1	* 37
DC-2 wires N.C.	MST18-S05LB-D4YV1	* 38	MST18-N08LB-D4YV1	* 38
Rated sensing distance	5mm		8mm	
Mounting	shield		non-shield	
Supply voltage	12...24VDC (10-30VDC) , ripple: 10% max			
Leakage current	<0.01mA(3 wires) ; <0.8mA(2 wires)			
Setting distance	0...3.5mm		0...5.6mm	
Standard target	Iron 18x18x1mm		Iron 25x25x1mm	
Frequency	400Hz		300Hz	
Consumption	≤15mA			
Load current	200mA			
Voltage drop(V_p)	≤1.8V(2 wires : Load current 100mA < 5V)			
Hysteresis	1...15%			
Repeatability	≤2%			
Display	Red LED			
Protection Circuit	Short circuit protection, reversed polarity protection and overload protection			
Operating temperature	-25...+70°C(no condensation)			
Anti-impact	500m/s ² (50G) X、Y、Z direction, each 10 times			
Anti-vibration	10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
Protection	IP67			
Connection	M12 connector, LEDx4			
Housing material	stainless steel			
Sensing face material	stainless steel			

Dimensional drawing



Remark

29 . 30 . 31 . 32 . 37 . 38—NO of wiring diagram(refers to page 12...15)

PICTURE

M18x1, L60



CE

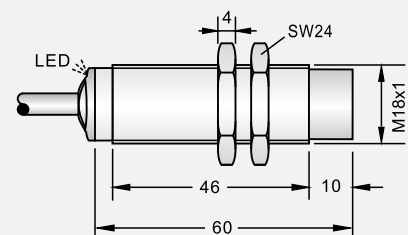
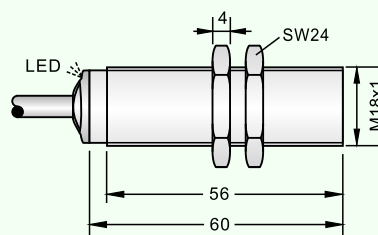
M18x1, L60



CE

AC-2 wires N.O.	MST18-S05AA-A2N2	* 20	MST18-N08AA-A2N2	* 20
AC-2 wires N.C.	MST18-S05AB-A2N2	* 21	MST18-N08AB-A2N2	* 21
Rated sensing distance	5mm		8mm	
Mounting	shield		non-shield	
Supply voltage	20...250V AC(50/60Hz)			
Leakage current	≤1.7mA			
Setting distance	0...3.5mm		0...5.6mm	
Standard target	Iron 18x18x1mm		Iron 25x25x1mm	
Frequency	20Hz			
Consumption				
Load current	200mA			
Voltage drop(V _p)	≤8V			
Hysteresis	3...15%			
Repeatability	≤2%			
Display	Red LED			
Protection Circuit				
Operating temperature	-25...+70°C(no condensation)			
Anti-impact	500m/s ² (50G) X、Y、Z direction, each 10 times			
Anti-vibration	10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
Protection	IP67			
Connection	Cable: Φ4.8mm 2M			
Housing material	stainless steel			
Sensing face material	stainless steel			

Dimensional drawing



Remark 20 . 21—NO of wiring diagram(refers to page 12...15)

PICTURE

M30x1.5, L60



CE

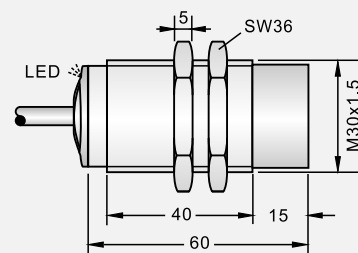
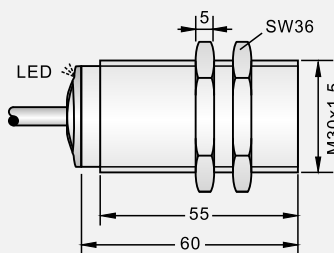
M30x1.5, L60



CE

DC-3 wires NPN N.O.	MST30-S10NA-D3Y2	* 01	MST30-N15NA-D3Y2	* 01
DC-3 wires NPN N.C.	MST30-S10NB-D3Y2	* 02	MST30-N15NB-D3Y2	* 02
DC-3 wires PNP N.O.	MST30-S10PA-D3Y2	* 03	MST30-N15PA-D3Y2	* 03
DC-3 wires PNP N.C.	MST30-S10PB-D3Y2	* 04	MST30-N15PB-D3Y2	* 04
DC-2 wires N.O.	MST30-S10LA-D2Y2	* 18	MST30-N15LA-D2Y2	* 18
DC-2 wires N.C.	MST30-S10LB-D2Y2	* 19	MST30-N15LB-D2Y2	* 19
Rated sensing distance	10mm		15mm	
Mounting	shield		non-shield	
Supply voltage	12...24VDC (10-30VDC) , ripple: 10% max			
Leakage current	<0.01mA(3 wires) ; <0.8mA(2 wires)			
Setting distance	0...7mm		0...10.5mm	
Standard target	Iron 30x30x1mm		Iron 45x45x1mm	
Frequency	300Hz		200Hz	
Consumption	≤15mA			
Load current	200mA			
Voltage drop(V _p)	≤1.8V(2 wires : Load current 100mA < 5V)			
Hysteresis	1...15%			
Repeatability	≤2%			
Display	Red LED			
Protection Circuit	Short circuit protection, reversed polarity protection and overload protection			
Operating temperature	-25...+70°C(no condensation)			
Anti-impact	500m/s ² (50G) X、Y、Z direction, each 10 times			
Anti-vibration	10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
Protection	IP67			
Connection	Cable: Φ4.8mm 2M			
Housing material	stainless steel			
Sensing face material	stainless steel			

Dimensional drawing



Remark

01 . 02 . 03 . 04 . 18 . 19—NO of wiring diagram(refers to page 12...15)

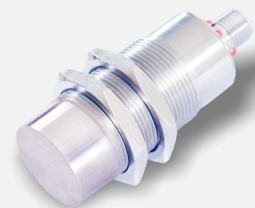
PICTURE

M30x1.5, L73



CE

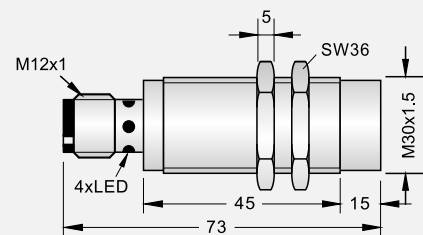
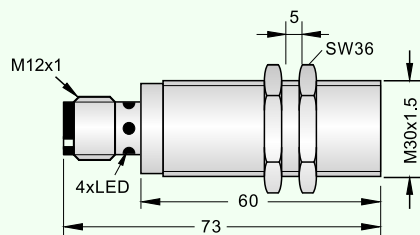
M30x1.5, L73



CE

DC-3 wires NPN N.O.	MST30-S10NA-D4YV1	* 29	MST30-N15NA-D4YV1	* 29
DC-3 wires NPN N.C.	MST30-S10NB-D4YV1	* 30	MST30-N15NB-D4YV1	* 30
DC-3 wires PNP N.O.	MST30-S10PA-D4YV1	* 31	MST30-N15PA-D4YV1	* 31
DC-3 wires PNP N.C.	MST30-S10PB-D4YV1	* 32	MST30-N15PB-D4YV1	* 32
DC-2 wires N.O.	MST30-S10LA-D4YV1	* 37	MST30-N15LA-D4YV1	* 37
DC-2 wires N.C.	MST30-S10LB-D4YV1	* 38	MST30-N15LB-D4YV1	* 38
Rated sensing distance	10mm		15mm	
Mounting	shield		non-shield	
Supply voltage	12...24VDC (10-30VDC) , ripple: 10% max			
Leakage current	<0.01mA(3 wires) ; <0.8mA(2 wires)			
Setting distance	0...7mm		0...10.5mm	
Standard target	Iron 30x30x1mm		Iron 45x45x1mm	
Frequency	300Hz		200Hz	
Consumption	≤15mA			
Load current	200mA			
Voltage drop(V _p)	≤1.8V(2 wires : Load current 100mA < 5V)			
Hysteresis	1...15%			
Repeatability	≤2%			
Display	Red LED			
Protection Circuit	Short circuit protection, reversed polarity protection and overload protection			
Operating temperature	-25...+70°C(no condensation)			
Anti-impact	500m/s ² (50G) X、Y、Z direction, each 10 times			
Anti-vibration	10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
Protection	IP67			
Connection	M12 connector, LEDx4			
Housing material	stainless steel			
Sensing face material	stainless steel			

Dimensional drawing



Remark

29 . 30 . 31 . 32 . 37 . 38—NO of wiring diagram(refers to page 12...15)

PICTURE

M30x1.5, L60



CE

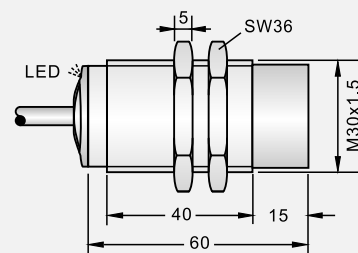
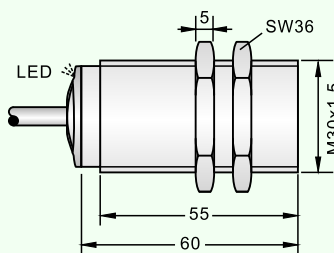
M30x1.5, L60



CE

AC-2 wires N.O.	MST30-S10AA-A2N2	* 20	MST30-N15AA-A2N2	* 20
AC-2 wires N.C.	MST30-S10AB-A2N2	* 21	MST30-N15AB-A2N2	* 21
Rated sensing distance	10mm		15mm	
Mounting	shield		non-shield	
Supply voltage	20...250V AC(50/60Hz)			
Leakage current	≤1.7mA			
Setting distance	0...7mm		0...10.5mm	
Standard target	Iron 30x30x1mm		Iron 45x45x1mm	
Frequency	20Hz			
Consumption				
Load current	200mA			
Voltage drop(V _p)	≤8V			
Hysteresis	3...15%			
Repeatability	≤2%			
Display	Red LED			
Protection Circuit				
Operating temperature	-25...+70°C(no condensation)			
Anti-impact	500m/s ² (50G) X、Y、Z direction, each 10 times			
Anti-vibration	10...55Hz(amplitude 1.5mm)X、Y、Z direction each 2 hours			
Protection	IP67			
Connection	Cable: Φ5mm 2M			
Housing material	stainless steel			
Sensing face material	stainless steel			

Dimensional drawing



Remark

20 . 21—NO of wiring diagram(refers to page 12...15)