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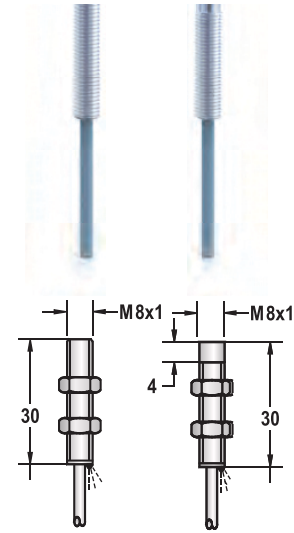
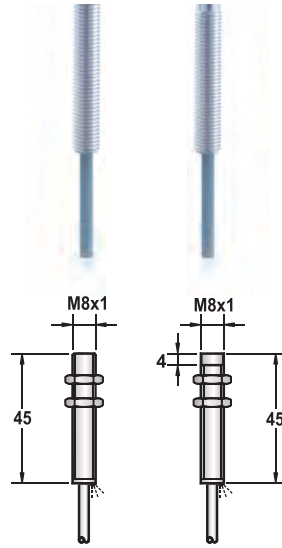
2016

Metal Face Inductive Sensors

INDUCTIVE
METAL FACE
HIGH/LOW TEMPERATURE
PHOTOELECTRIC
ULTRASONIC
ADAPTIVE
CAPACITIVE
QUICK CONNECT CABLES
CUSTOMIZATION

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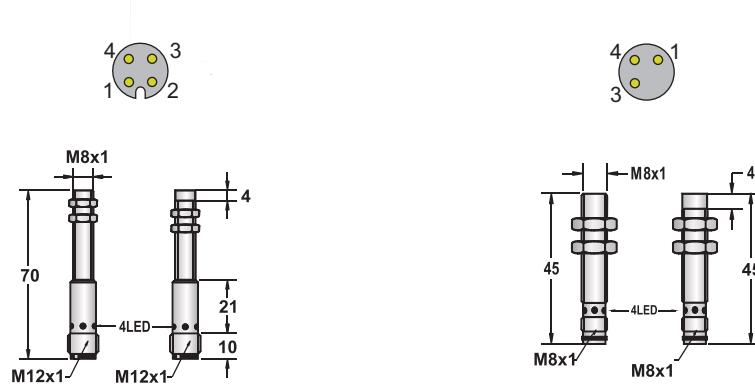
METAL FACE INDUCTIVE PROXIMITY SENSOR



Diameter	M8		M8			
	● Flush	○ Non-flush	● 1mm	○ 2mm	● 1mm	○ 2mm
Switching Distance Sn:mm			1mm	2mm	1mm	2mm
LED Indicator			Yes		Yes	
Operating Voltage			10 - 30 vdc		10 - 30 vdc	
Ripple			<10%		<10%	
No Load Current			<10mA		<10mA	
Max Load Current			200mA		200mA	
Leakage Current			<0.01mA		<0.01mA	
Voltage Drop			<1.5v		<1.5v	
Switching Frequency			1 KHz	700 Hz	1 KHz	700 Hz
Response Time			0.5ms/0.5ms	0.7ms/0.7ms	0.5ms/0.5ms	0.7ms/0.7ms
Switching Hysteresis			<15%(Sr)		<15%(Sr)	
Repeat Accuracy			<1%(Sr)	<2%(Sr)	<1%(Sr)	<2%(Sr)
Enclosure Rating			IP67		IP67	
Operating Temperature			-25C+70C		-25C+70C	
Temperature Drift			<10%(Sr)		<10%(Sr)	
Protection			Short Circuit, Reverse Polarity		Short Circuit, Reverse Polarity	
Connection Type			3-wire, 2-meter Cable		3-wire, 2-meter Cable	
Material Tube/Face			Stainless Steel		Stainless Steel	
Cable Material			PVC		PVC	
Product Style	Wiring Diag.	2-meter Cable		2-meter Cable		
NPN N.O.	1	KF1SF-M0801N-O3U2	KF1SN-M0802N-O3U2	KF1SF-M0801N-O3S2	KF1SN-M0802N-O3S2	
NPN N.C.	2	KF1SF-M0801N-C3U2	KF1SN-M0802N-C3U2	KF1SF-M0801N-C3S2	KF1SN-M0802N-C3S2	
PNP N.O.	3	KF1SF-M0801P-O3U2	KF1SN-M0802P-O3U2	F1SF-M0801P-O3S2	F1SN-M0802P-O3S2	
PNP N.C.	4	KF1SF-M0801P-C3U2	KF1SN-M0802P-C3U2	F1SF-M0801P-C3S2	F1SN-M0802P-C3S2	

Note: See Terminal Connection page for wiring diagram

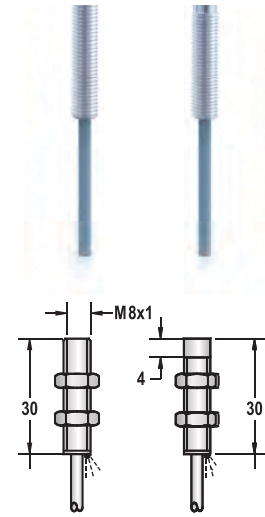
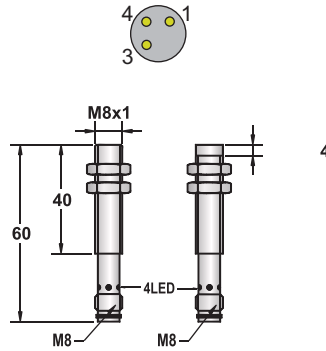
METAL FACE INDUCTIVE PROXIMITY SENSOR



Diameter	M8 - Micro 4-pin				M8 - Pico 3-Pin	
	● Flush	○ Non-flush	● 1mm	○ 2mm	● 1mm	○ 2mm
Switching Distance Sn:mm			1mm	2mm	1mm	2mm
LED Indicator			Yes		Yes	
Operating Voltage			10 - 30 vdc		10 - 30 vdc	
Ripple			<10%		<10%	
No Load Current			<10mA		<10mA	
Max Load Current			200mA		200mA	
Leakage Current			<0.01mA		<0.01mA	
Voltage Drop			<1.5v		<1.5v	
Switching Frequency			1 KHz	700 Hz	1 KHz	700 Hz
Response Time			0.5ms/0.5ms	0.7ms/0.7ms	0.5ms/0.5ms	0.2ms/0.2ms
Switching Hysteresis			<15%(Sr)		<15%(Sr)	
Repeat Accuracy			<1%(Sr)	<2%(Sr)	<1%(Sr)	<2%(Sr)
Enclosure Rating			IP67		IP67	
Operating Temperature			-25C-+70C		-25C-+70C	
Temperature Drift			<10%(Sr)		<10%(Sr)	
Protection			Short Circuit, Reverse Polarity		Short Circuit, Reverse Polarity	
Connection Type			4-pin Micro DC		3-pin Pico DC	
Material Tube/Face			Stainless Steel		Stainless Steel	
Cable Material			-		-	
Product Style	Wiring Diag.	4-pin Micro DC		3-pin Pico DC		
NPN N.O.	1	KF1SF-M0801N-OEU4	KF1SN-M0802N-OEU4	KF1SF-M0801N-OPS3	KF1SN-M0802N-OPS3	
NPN N.C.	2	KF1SF-M0801N-CEU4	KF1SN-M0802N-CEU4	KF1SF-M0801N-CPS3	KF1SN-M0802N-CPS3	
PNP N.O.	3	KF1SF-M0801P-OEU4	KF1SN-M0802P-OEU4	KF1SF-M0801P-OPS3	KF1SN-M0802P-OPS3	
PNP N.C.	4	KF1SF-M0801P-CEU4	KF1SN-M0802P-CEU4	KF1SF-M0801P-CPS3	KF1SN-M0802P-CPS3	

Note: See Terminal Connection page for wiring diagram

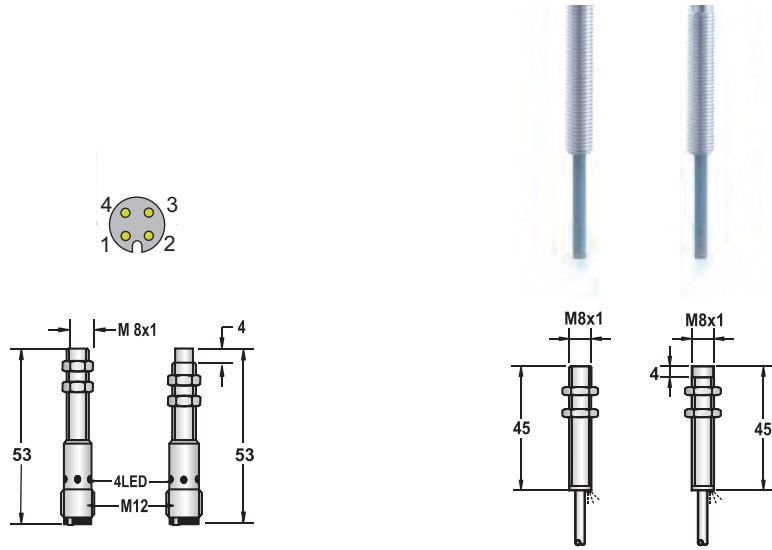
METAL FACE INDUCTIVE PROXIMITY SENSOR



Diameter	M8 - Pico 3-Pin		M8			
	● Flush	○ Non-flush	●	○		
Switching Distance Sn:mm			1mm	2mm	2mm	3.5mm
LED Indicator			Yes		Yes	
Operating Voltage			10 - 30 vdc		0	
Ripple			<10%		<10%	
No Load Current			<10mA		<10mA	
Max Load Current			200mA		200mA	
Leakage Current			<0.01mA		<0.01mA	
Voltage Drop			<1.5v		<1.5v	
Switching Frequency			1 KHz	700 Hz	1 KHz	700 Hz
Response Time			0.5ms/0.5ms	0.7ms/0.7ms	0.5ms/0.5ms	0.2ms/0.2ms
Switching Hysteresis			<15%(Sr)		<15%(Sr)	
Repeat Accuracy			<1%(Sr)	<2%(Sr)	<2%(Sr)	<3%(Sr)
Enclosure Rating			IP67		IP67	
Operating Temperature			-25C-+70C		-25C-+70C	
Temperature Drift			<10%(Sr)		<10%(Sr)	
Protection			Short Circuit, Reverse Polarity		Short Circuit, Reverse Polarity	
Connection Type			3-pin Pico DC		2-meter Cable	
Material Tube/Face			Stainless Steel		Stainless Steel	
Cable Material			-		PVC	
Product Style	Wiring Diag.	3-pin Pico DC		2-meter Cable		
NPN N.O.	1	KF1SF-M0801N-OPU3	KF1SN-M0802N-OPU3	KF1SF-M0802N-O3S2	KF1SN-M083.5N-O3S2	
NPN N.C.	2	KF1SF-M0801N-CPU3	KF1SN-M0802N-CPU3	KF1SF-M0802N-C3S2	KF1SN-M083.5N-C3S2	
PNP N.O.	3	KF1SF-M0801P-OPU3	KF1SN-M0802P-OPU3	KF1SF-M0802P-O3S2	KF1SN-M083.5P-O3S2	
PNP N.C.	4	KF1SF-M0801P-CPU3	KF1SN-M0802P-CPU3	KF1SF-M0802P-C3S2	KF1SN-M083.5P-C3S2	

Note: See Terminal Connection page for wiring diagram

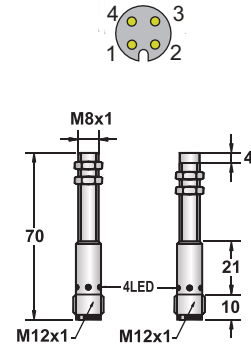
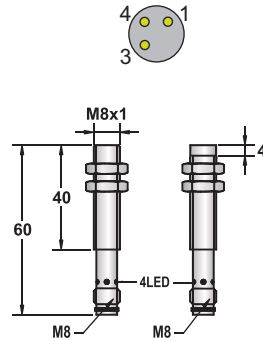
METAL FACE INDUCTIVE PROXIMITY SENSOR



Diameter	M8 - Micro 4-pin				M8	
	● Flush	○ Non-flush	●	○	●	○
Switching Distance Sn:mm			1mm	2mm	2mm	3.5mm
LED Indicator			Yes		Yes	
Operating Voltage			10 - 30 vdc		10 - 30 vdc	
Ripple			<10%		<10%	
No Load Current			<10mA		<10mA	
Max Load Current			200mA		200mA	
Leakage Current			<0.01mA		<0.01mA	
Voltage Drop			<1.5v		<1.5v	
Switching Frequency			1 KHz	700 Hz	1 KHz	700 Hz
Response Time			0.5ms/0.5ms	0.7ms/0.7ms	0.5ms/0.5ms	0.2ms/0.2ms
Switching Hysteresis			<15%(Sr)		<15%(Sr)	
Repeat Accuracy			<1%(Sr)	<2%(Sr)	<2%(Sr)	<3%(Sr)
Enclosure Rating			IP67		IP67	
Operating Temperature			-25C-+70C		-25C-+70C	
Temperature Drift			<10%(Sr)		<10%(Sr)	
Protection			Short Circuit, Reverse Polarity		Short Circuit, Reverse Polarity	
Connection Type			4-pin Micro DC		2-meter Cable	
Material Tube/Face			Stainless Steel		Stainless Steel	
Cable Material			-		PVC	
Product Style	Wiring Diag.	4-pin Micro DC			2-meter Cable	
NPN N.O.	1	KF1SF-M0801N-OES4	KF1SN-M0802N-OES4	KF1SF-M0802N-O3U2	KF1SN-M083.5N-O3U2	
NPN N.C.	2	KF1SF-M0801N-CES4	KF1SN-M0802N-CES4	KF1SF-M0802N-O3U2	KF1SN-M083.5N-C3U2	
PNP N.O.	3	KF1SF-M0801P-OES4	KF1SN-M0802P-OES4	KF1SF-M0802P-O3U2	KF1SN-M083.5P-O3U2	
PNP N.C.	4	KF1SF-M0801P-CES4	KF1SN-M0802P-CES4	KF1SF-M0802P-O3U2	KF1SN-M083.5P-C3U2	

Note: See Terminal Connection page for wiring diagram

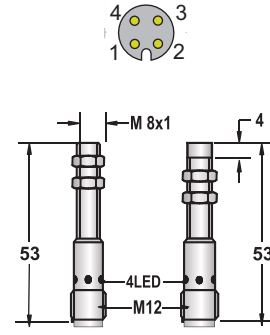
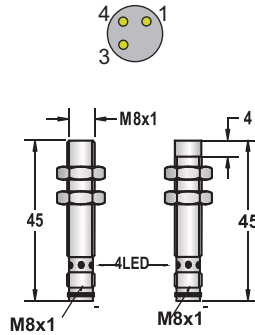
METAL FACE INDUCTIVE PROXIMITY SENSOR



Diameter	M8 - Pico 3-Pin				M8 - Micro 4-pin	
	● Flush	○ Non-flush	●	○	●	○
Switching Distance Sn:mm			2mm	3.5mm	2mm	3.5mm
LED Indicator			Yes		Yes	
Operating Voltage			10 - 30 vdc		10 - 30 vdc	
Ripple			<10%		<10%	
No Load Current			<10mA		<10mA	
Max Load Current			200mA		200mA	
Leakage Current			<0.01mA		<0.01mA	
Voltage Drop			<1.5v		<1.5v	
Switching Frequency			700 Hz	700 Hz	700 Hz	700 Hz
Response Time			0.7ms/0.7ms	0.7ms/0.7ms	0.7ms/0.7ms	0.7ms/0.7ms
Switching Hysteresis			<15%(Sr)		<15%(Sr)	
Repeat Accuracy			<2%(Sr)	<3%(Sr)	<2%(Sr)	<3%(Sr)
Enclosure Rating			IP67		IP67	
Operating Temperature			-25C+70C		-25C+70C	
Temperature Drift			<10%(Sr)		<10%(Sr)	
Protection			Short Circuit, Reverse Polarity		Short Circuit, Reverse Polarity	
Connection Type			3-pin Pico DC		4-pin Micro DC	
Material Tube/Face			Stainless Steel		Stainless Steel	
Cable Material			-		-	
Product Style	Wiring Diag.	3-pin Pico DC		4-pin Micro DC		
NPN N.O.	1	KF1SF-M0802N-OPU3	KF1SN-M083.5N-OPU3	KF1SF-M0802N-OEU4	KF1SN-M083.5N-OEU4	
NPN N.C.	2	KF1SF-M0802N-CPU3	KF1SN-M083.5N-CPU3	KF1SF-M0802N-CEU4	KF1SN-M083.5N-CEU4	
PNP N.O.	3	KF1SF-M0802P-OPU3	KF1SN-M083.5P-OPU3	KF1SF-M0802P-OEU4	KF1SN-M083.5P-OEU4	
PNP N.C.	4	KF1SF-M0802P-CPU3	KF1SN-M083.5P-CPU3	KF1SF-M0802P-CEU4	KF1SN-M083.5P-CEU4	

Note: See Terminal Connection page for wiring diagram

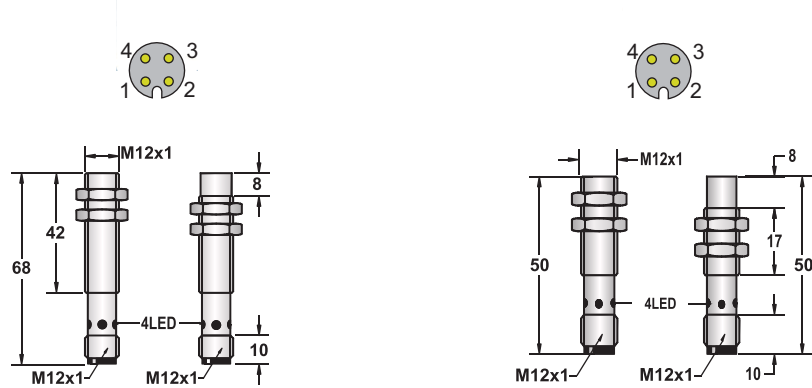
METAL FACE INDUCTIVE PROXIMITY SENSOR



Diameter	M8 - Pico 3-pin		M8 - Micro 4-pin		
	● Flush	○ Non-flush	●	○	
Switching Distance Sn:mm	2mm		3.5mm		
LED Indicator	Yes				
Operating Voltage	10 - 30 vdc				
Ripple	<10%				
No Load Current	<10mA				
Max Load Current	200mA				
Leakage Current	<0.01mA				
Voltage Drop	<1.5v				
Switching Frequency	1 KHz	700 Hz	1 KHz	700 Hz	
Response Time	0.5ms/0.5ms	0.7ms/0.7ms	0.5ms/0.5ms	0.2ms/0.2ms	
Switching Hysteresis	<15%(Sr)				
Repeat Accuracy	<2%(Sr)	<3%(Sr)	<2%(Sr)	<3%(Sr)	
Enclosure Rating	IP67				
Operating Temperature	-25C-+70C				
Temperature Drift	<10%(Sr)				
Protection	Short Circuit, Reverse Polarity				
Connection Type	3-pin Pico DC		4-pin Micro DC		
Material Tube/Face	Stainless Steel				
Cable Material	-				
Product Style	Wiring Diag.	3-pin Pico DC		4-pin Micro DC	
NPN N.O.	1	KF1SF-M0802N-OPS3	KF1SN-M083.5N-OPS3	KF1SF-M0802N-OES4	KF1SN-M083.5N-OES4
NPN N.C.	2	KF1SF-M0802N-CPS3	KF1SN-M083.5N-CPS3	KF1SF-M0802N-CES4	KF1SN-M083.5N-CES4
PNP N.O.	3	KF1SF-M0802P-OPS3	KF1SN-M083.5P-OPS3	KF1SF-M0802P-OES4	KF1SN-M083.5P-OES4
PNP N.C.	4	KF1SF-M0802P-CPS3	KF1SN-M083.5P-CPS3	KF1SF-M0802P-CES4	KF1SN-M083.5P-CES4

Note: See Terminal Connection page for wiring diagram

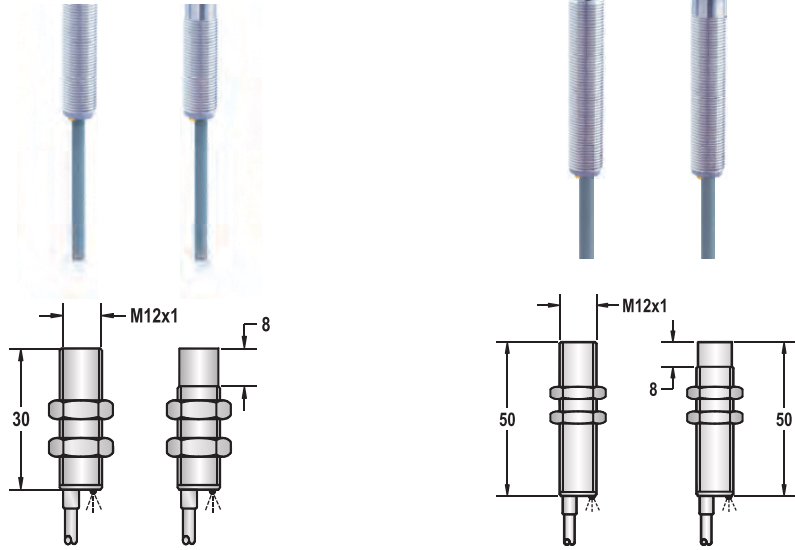
METAL FACE INDUCTIVE PROXIMITY SENSOR



Diameter	M12 - Micro 4-pin		M12 - Micro 4-pin		
	● Flush	○ Non-flush	●	○	
Switching Distance Sn:mm	4mm	6mm	4mm	6mm	
LED Indicator	Yes		Yes		
Operating Voltage	10 - 30 vdc		0		
Ripple	<10%		<10%		
No Load Current	<10mA		<10mA		
Max Load Current	200mA		200mA		
Leakage Current	<0.01mA		<0.01mA		
Voltage Drop	<1.5v		<1.5v		
Switching Frequency	1 KHz	1 KHz	1 KHz	1 KHz	
Response Time	0.5ms/0.5ms	0.5ms/0.5ms	0.5ms/0.5ms	0.5ms/0.5ms	
Switching Hysteresis	<15%(Sr)		<15%(Sr)		
Repeat Accuracy	<1%(Sr)	<2%(Sr)	<1%(Sr)	<2%(Sr)	
Enclosure Rating	IP67		IP67		
Operating Temperature	-25C-+70C		-25C-+70C		
Temperature Drift	<10%(Sr)		<10%(Sr)		
Protection	Short Circuit, Reverse Polarity		Short Circuit, Reverse Polarity		
Connection Type	4-pin Micro DC		4-pin Micro DC		
Material Tube/Face	Stainless Steel		Stainless Steel		
Cable Material	-		-		
Product Style	Wiring Diag.	4-pin Micro DC		4-pin Micro DC	
NPN N.O.	1	KF1SF-M1204N-OEU4	KF1SN-M1206N-OEU4	KF1SF-M1204N-OES4	KF1SN-M1206N-OES4
NPN N.C.	2	KF1SF-M1204N-CEU4	KF1SN-M1206N-CEU4	KF1SF-M1204N-CES4	KF1SN-M1206N-CES4
PNP N.O.	3	KF1SF-M1204P-OEU4	KF1SN-M1206P-OEU4	KF1SF-M1204P-OES4	KF1SN-M1206P-OES4
PNP N.C.	4	KF1SF-M1204P-CEU4	KF1SN-M1206P-CEU4	KF1SF-M1204P-CES4	KF1SN-M1206P-CES4

Note: See Terminal Connection page for wiring diagram

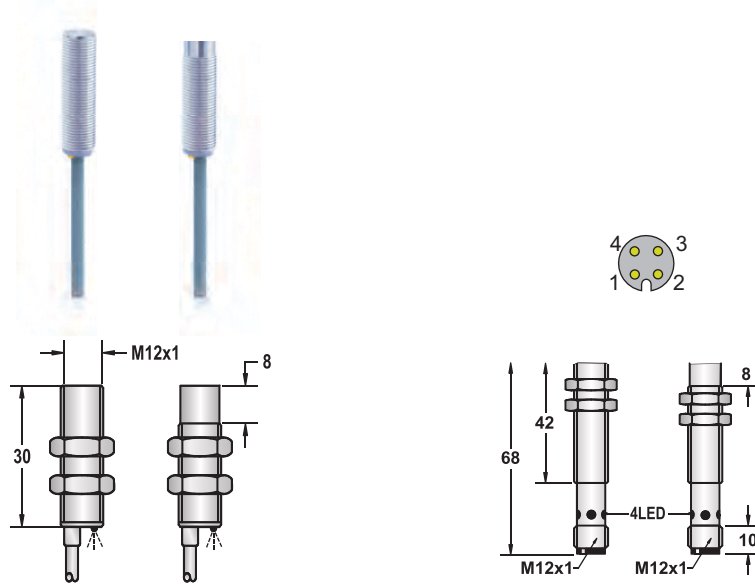
METAL FACE INDUCTIVE PROXIMITY SENSOR



Diameter		M12		M12			
		● Flush	○ Non-flush	●	○	●	○
Switching Distance	Sn:mm	4mm	6mm	2mm	4mm		
LED Indicator		Yes		Yes			
Operating Voltage		10 - 30 vdc		10 - 30 vdc			
Ripple		<10%		<10%			
No Load Current		<10mA		<10mA			
Max Load Current		200mA		200mA			
Leakage Current		<0.01mA		<0.01mA			
Voltage Drop		<1.5v		<1.5v			
Switching Frequency		600 Hz	400Hz	1 KHz	700 Hz		
Response Time		1ms/1ms	1.5ms/1.5ms	0.5ms/0.5ms	0.7ms/0.7ms		
Switching Hysteresis		<15%(Sr)		<15%(Sr)			
Repeat Accuracy		<2%(Sr)	<3%(Sr)	<1%(Sr)	<2%(Sr)		
Enclosure Rating		IP67		IP67			
Operating Temperature		-25C+70C		-25C+70C			
Temperature Drift		<10%(Sr)		<10%(Sr)			
Protection		Short Circuit, Reverse Polarity		Short Circuit, Reverse Polarity			
Connection Type		3-wire, 2-meter Cable		3-wire, 2-meter Cable			
Material Tube/Face		Stainless Steel		Stainless Steel			
Cable Material		PVC		PVC			
Product Style	Wiring Diag.	2-meter Cable		2-meter Cable			
NPN N.O.	1	KF1SF-M1204N-O3S2	KF1SN-M1206N-O3S2	KF1SF-M1202N-O3U2	KF1SN-M1204N-O3U2		
NPN N.C.	2	KF1SF-M1204N-C3S2	KF1SN-M1206N-C3S2	KF1SF-M1202N-C3U2	KF1SN-M1204N-C3U2		
PNP N.O.	3	KF1SF-M1204P-O3S2	KF1SN-M1206P-O3S2	KF1SF-M1202P-O3U2	KF1SN-M1204P-O3U2		
PNP N.C.	4	KF1SF-M1204P-C3S2	KF1SN-M1206P-C3S2	KF1SF-M1202P-C3U2	KF1SN-M1204P-C3U2		

Note: See Terminal Connection page for wiring diagram

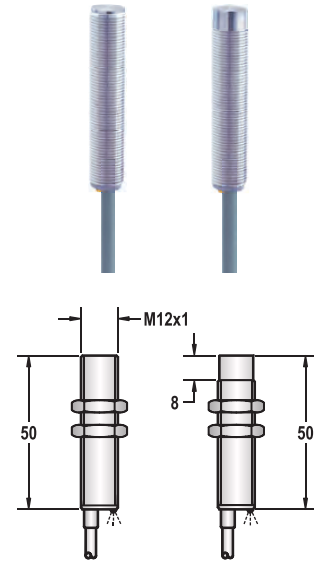
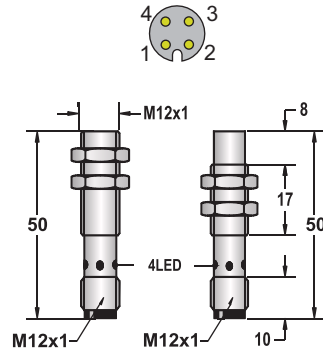
METAL FACE INDUCTIVE PROXIMITY SENSOR



	M12		M12 - Micro 4-pin			
	● Flush	○ Non-flush	● 2mm	○ 4mm	● 2mm	○ 4mm
Switching Distance Sn:mm			2mm	4mm	2mm	4mm
LED Indicator			Yes		Yes	
Operating Voltage			10 - 30 vdc		10 - 30 vdc	
Ripple			<10%		<10%	
No Load Current			<10mA		<10mA	
Max Load Current			200mA		200mA	
Leakage Current			<0.01mA		<0.01mA	
Voltage Drop			<1.5v		<1.5v	
Switching Frequency			2 KHz	1 KHz	2 KHz	1 KHz
Response Time			0.2ms/0.2ms	0.5ms/0.5ms	0.2ms/0.2ms	0.5ms/0.5ms
Switching Hysteresis			<15%(Sr)		<15%(Sr)	
Repeat Accuracy			<1%(Sr)	<2%(Sr)	<1%(Sr)	<2%(Sr)
Enclosure Rating			IP67		IP67	
Operating Temperature			-25C-+70C		-25C-+70C	
Temperature Drift			<10%(Sr)		<10%(Sr)	
Protection			Short Circuit, Reverse Polarity		Short Circuit, Reverse Polarity	
Connection Type			2-meter Cable		4-pin Micro	
Material Tube/Face			Stainless Steel		Stainless Steel	
Cable Material			PVC		-	
Product Style	Wiring Diag.	2-meter Cable		4-pin Micro DC		
NPN N.O.	1	KF1SF-M1202N-O3S2	KF1SN-M1204N-O3S2	KF1SF-M1202N-OEU4	KF1SN-M1204N-OEU4	
NPN N.C.	2	KF1SF-M1202N-C3S2	KF1SN-M1204N-C3S2	KF1SF-M1202N-CEU4	KF1SN-M1204N-CEU4	
PNP N.O.	3	KF1SF-M1202P-O3S2	KF1SN-M1204P-O3S2	KF1SF-M1202P-OEU4	KF1SN-M1204P-OEU4	
PNP N.C.	4	KF1SF-M1202P-C3S2	KF1SN-M1204P-C3S2	KF1SF-M1202P-CEU4	KF1SN-M1204P-CEU4	

Note: See Terminal Connection page for wiring diagram

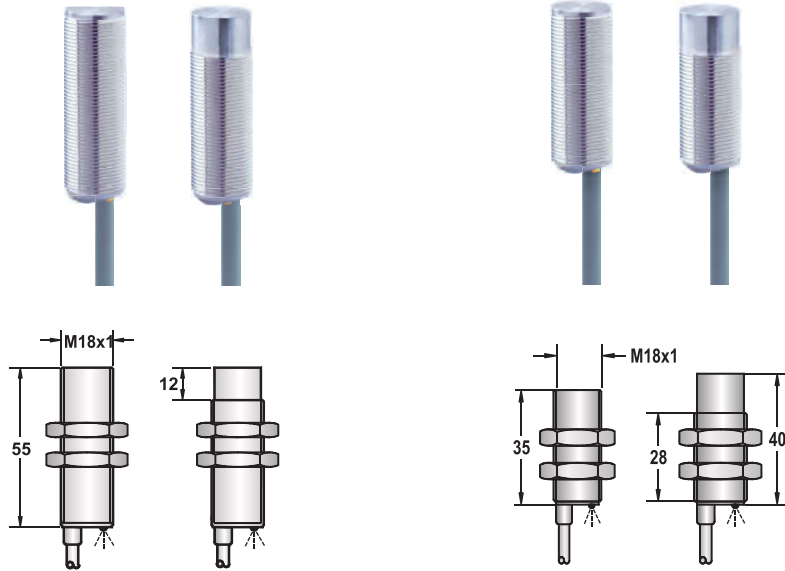
METAL FACE INDUCTIVE PROXIMITY SENSOR



Diameter	M12 - Micro 4-pin		M12			
	● Flush	○ Non-flush	● 2mm	○ 4mm	● 4mm	○ 6mm
Switching Distance Sn:mm			2mm	4mm	4mm	6mm
LED Indicator			Yes		Yes	
Operating Voltage			10 - 30 vdc		10 - 30 vdc	
Ripple			<10%		<10%	
No Load Current			<10mA		<10mA	
Max Load Current			200mA		200mA	
Leakage Current			<0.01mA		<0.01mA	
Voltage Drop			<1.5v		<1.5v	
Switching Frequency			2 KHz	1 KHz	1 KHz	700 Hz
Response Time			0.2ms/0.2ms	0.5ms/0.5ms	0.5ms/0.5ms	0.7ms/0.7ms
Switching Hysteresis			<15%(Sr)		<15%(Sr)	
Repeat Accuracy			<1%(Sr)	<2%(Sr)	<2%(Sr)	<3%(Sr)
Enclosure Rating			IP67		IP67	
Operating Temperature			-25C+70C		-25C+70C	
Temperature Drift			<10%(Sr)		<10%(Sr)	
Protection			Short Circuit, Reverse Polarity		Short Circuit, Reverse Polarity	
Connection Type			4-pin Micro DC		2-meter Cable	
Material Tube/Face			Stainless Steel		Stainless Steel	
Cable Material			-		PVC	
Product Style	Wiring Diag.	4-pin Micro DC		2-meter Cable		
NPN N.O.	1	KF1SF-M1202N-OES4	KF1SN-M1204N-OES4	KF1SF-M1204N-O3U2	KF1SN-M1206N-O3U2	
NPN N.C.	2	KF1SF-M1202N-CES4	KF1SN-M1204N-CES4	KF1SF-M1204N-C3U2	KF1SF-M1206N-C3U2	
PNP N.O.	3	KF1SF-M1202P-OES4	KF1SN-M1204P-OES4	KF1SF-M1204P-O3U2	KF1SN-M1206P-O3U2	
PNP N.C.	4	KF1SF-M1202P-CES4	KF1SN-M1204P-CES4	KF1SF-M1204P-C3U2	KF1SF-M1206P-C3U2	

Note: See Terminal Connection page for wiring diagram

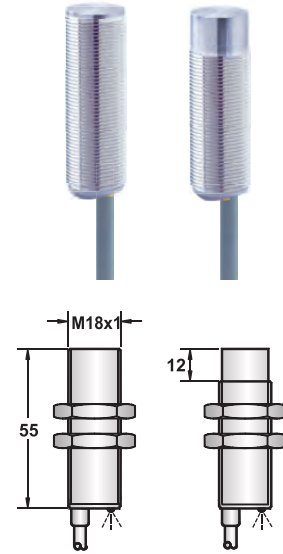
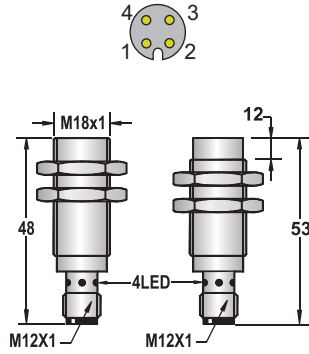
METAL FACE INDUCTIVE PROXIMITY SENSOR



Diameter	M18		M18			
	● Flush	○ Non-flush	● 5mm	○ 8mm	● 5mm	○ 8mm
Switching Distance Sn:mm			5mm	8mm	5mm	8mm
LED Indicator			Yes		Yes	
Operating Voltage			10 - 30 vdc		10 - 30 vdc	
Ripple			<10%		<10%	
No Load Current			<10mA		<10mA	
Max Load Current			200mA		200mA	
Leakage Current			<0.01mA		<0.01mA	
Voltage Drop			<1.5v		<1.5v	
Switching Frequency			1 KHz	500Hz	1 KHz	500Hz
Response Time			0.5ms/0.5ms	1ms/1ms	0.5ms/0.5ms	1ms/1ms
Switching Hysteresis			<15%(Sr)		<15%(Sr)	
Repeat Accuracy			<1%(Sr)	<2%(Sr)	<1%(Sr)	<2%(Sr)
Enclosure Rating			IP67		IP67	
Operating Temperature			-25C+70C		-25C+70C	
Temperature Drift			<10%(Sr)		<10%(Sr)	
Protection			Short Circuit, Reverse Polarity		Short Circuit, Reverse Polarity	
Connection Type			3-wire, 2-meter Cable		3-wire, 2-meter Cable	
Material Tube/Face			Stainless Steel		Stainless Steel	
Cable Material			PVC		PVC	
Product Style	Wiring Diag.	2-meter Cable		2-meter Cable		
NPN N.O.	1	KF1SF-M1805N-O3U2	KF1SN-M1808N-O3U2	KF1SF-M1805N-O3S2	KF1SN-M1808N-O3S2	
NPN N.C.	2	KF1SF-M1805N-C3U2	KF1SN-M1808N-C3U2	KF1SF-M1805N-C3S2	KF1SN-M1808N-C3S2	
PNP N.O.	3	KF1SF-M1805P-O3U2	KF1SN-M1808P-O3U2	KF1SF-M1805P-O3S2	KF1SN-M1808P-O3S2	
PNP N.C.	4	KF1SF-M1805P-C3U2	KF1SN-M1808P-C3U2	KF1SF-M1805P-C3S2	KF1SN-M1808P-C3S2	

Note: See Terminal Connection page for wiring diagram

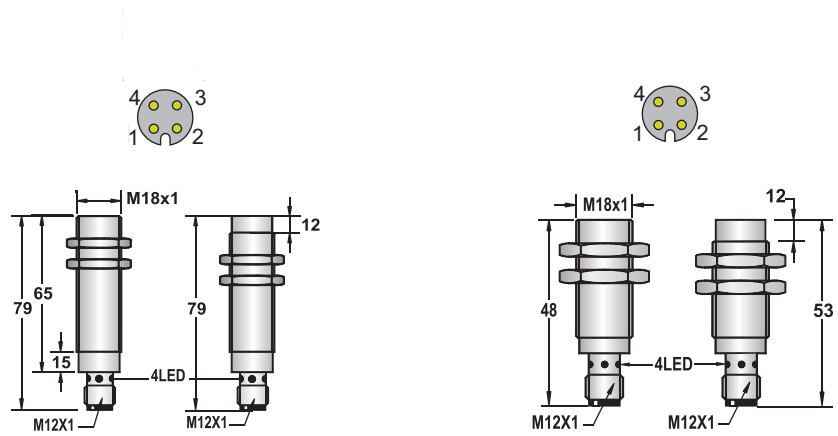
METAL FACE INDUCTIVE PROXIMITY SENSOR



Diameter	M18 - Micro 4-pin		M18		
	● Flush	○ Non-flush	●	○	
Switching Distance Sn:mm	5mm		8mm	10mm	
LED Indicator	Yes		Yes		
Operating Voltage	10 - 30 vdc		10 - 30 vdc		
Ripple	<10%		<10%		
No Load Current	<10mA		<10mA		
Max Load Current	200mA		200mA		
Leakage Current	<0.01mA		<0.01mA		
Voltage Drop	<1.5v		<1.5v		
Switching Frequency	1 KHz	500Hz	500Hz	300Hz	
Response Time	0.5ms/0.5ms	1ms/1ms	1ms/1ms	1.5ms/1.5ms	
Switching Hysteresis	<15%(Sr)		<15%(Sr)		
Repeat Accuracy	<1%(Sr)	<2%(Sr)	<2%(Sr)	<3%(Sr)	
Enclosure Rating	IP67		IP67		
Operating Temperature	-25C-+70C		-25C-+70C		
Temperature Drift	<10%(Sr)		<10%(Sr)		
Protection	Short Circuit, Reverse Polarity		Short Circuit, Reverse Polarity		
Connection Type	4-pin Micro DC		2-meter Cable		
Material Tube/Face	Stainless Steel		Stainless Steel		
Cable Material	-		PVC		
Product Style	Wiring Diag.	4-pin Micro DC		2-meter Cable	
NPN N.O.	1	KF1SF-M1805N-OES4	KF1SN-M1808N-OES4	KF1SF-M1808N-O3U2	KF1SN-M1810N-O3U2
NPN N.C.	2	KF1SF-M1805N-CES4	KF1SN-M1808N-CES4	KF1SF-M1808N-C3U2	KF1SN-M1810N-C3U2
PNP N.O.	3	KF1SF-M1805P-OES4	KF1SN-M1808P-OES4	KF1SF-M1808P-O3U2	KF1SN-M1810P-O3U2
PNP N.C.	4	KF1SF-M1805P-CES4	KF1SN-M1808P-CES4	KF1SF-M1808P-C3U2	KF1SN-M1810P-C3U2

Note: See Terminal Connection page for wiring diagram

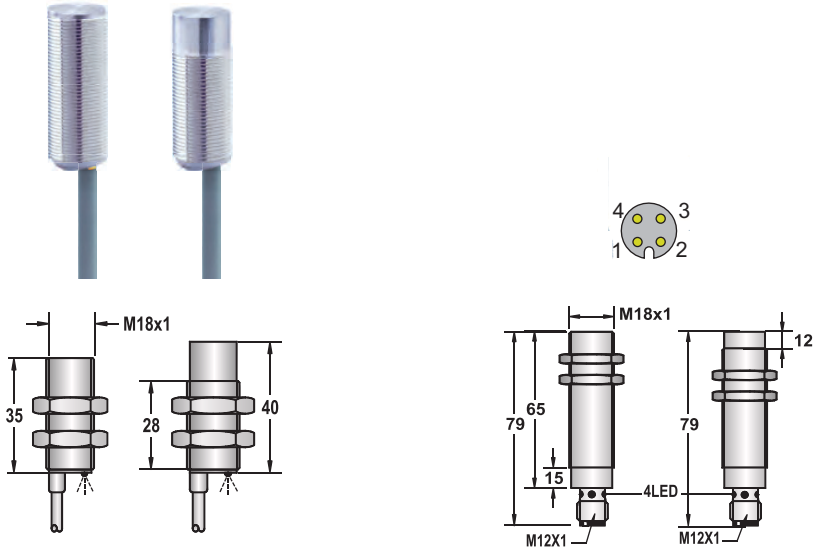
METAL FACE INDUCTIVE PROXIMITY SENSOR



Diameter	M18 - Micro 4-pin		M18 - Micro 4-pin		
	● Flush	○ Non-flush	●	○	
Switching Distance Sn:mm	5mm	8mm	8mm	10mm	
LED Indicator	Yes		Yes		
Operating Voltage	10 - 30 vdc		10 - 30 vdc		
Ripple	<10%		<10%		
No Load Current	<10mA		<10mA		
Max Load Current	200mA		200mA		
Leakage Current	<0.01mA		<0.01mA		
Voltage Drop	<1.5v		<1.5v		
Switching Frequency	1 KHz	500Hz	500Hz	300Hz	
Response Time	0.5ms/0.5ms	1ms/1ms	1ms/1ms	1.5ms/1.5ms	
Switching Hysteresis	<15%(Sr)		<15%(Sr)		
Repeat Accuracy	<1%(Sr)	<2%(Sr)	<2%(Sr)	<3%(Sr)	
Enclosure Rating	IP67		IP67		
Operating Temperature	-25C-+70C		-25C-+70C		
Temperature Drift	<10%(Sr)		<10%(Sr)		
Protection	Short Circuit, Reverse Polarity		Short Circuit, Reverse Polarity		
Connection Type	4-pin Micro DC		4-pin Micro DC		
Material Tube/Face	Stainless Steel		Stainless Steel		
Cable Material	-		-		
Product Style	Wiring Diag.	4-pin Micro DC		4-pin Micro DC	
NPN N.O.	1	KF1SF-M1805N-OEU4	KF1SF-M1805N-OEU4	KF1SF-M1808N-OES4	KF1SN-M1810N-OES4
NPN N.C.	2	KF1SF-M1805N-CEU4	KF1SF-M1805N-CEU4	KF1SF-M1808N-CES4	KF1SN-M1810N-CES4
PNP N.O.	3	KF1SF-M1805P-OEU4	KF1SN-M1808P-OEU4	KF1SF-M1808P-OES4	KF1SN-M1810P-OES4
PNP N.C.	4	KF1SF-M1805P-CEU4	KF1SN-M1808P-CEU4	KF1SF-M1808P-CES4	KF1SN-M1810P-CES4

Note: See Terminal Connection page for wiring diagram

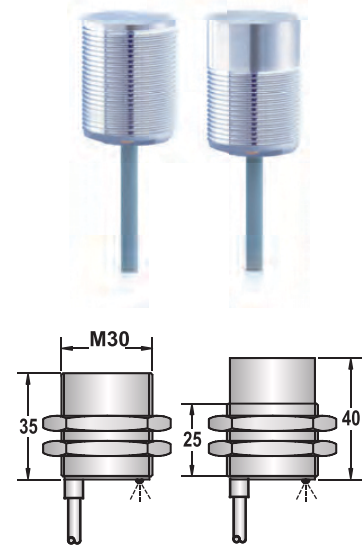
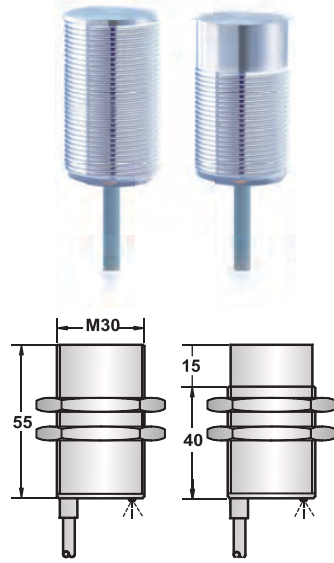
METAL FACE INDUCTIVE PROXIMITY SENSOR



Diameter	M18		M18 - Micro 4-pin			
	● Flush	○ Non-flush	● 8mm	○ 10mm	● 8mm	○ 10mm
Switching Distance Sn:mm			8mm	10mm	8mm	10mm
LED Indicator			Yes		Yes	
Operating Voltage			10 - 30 vdc		10 - 30 vdc	
Ripple			<10%		<10%	
No Load Current			<10mA		<10mA	
Max Load Current			200mA		200mA	
Leakage Current			<0.01mA		<0.01mA	
Voltage Drop			<1.5v		<1.5v	
Switching Frequency			500Hz	300Hz	500Hz	300Hz
Response Time			1ms/1ms	1.5ms/1.5ms	1ms/1ms	1.5ms/1.5ms
Switching Hysteresis			<15%(Sr)		<15%(Sr)	
Repeat Accuracy			<2%(Sr)	<3%(Sr)	<2%(Sr)	<3%(Sr)
Enclosure Rating			IP67		IP67	
Operating Temperature			-25C+70C		-25C+70C	
Temperature Drift			<10%(Sr)		<10%(Sr)	
Protection			Short Circuit, Reverse Polarity		Short Circuit, Reverse Polarity	
Connection Type			2-meter Cable		4-pin Micro	
Material Tube/Face			Stainless Steel		Stainless Steel	
Cable Material			PVC		-	
Product Style	Wiring Diag.	2-meter Cable		4-pin Micro DC		
NPN N.O.	1	KF1SF-M1808N-O3S2	KF1SN-M1810N-O3S2	KF1SF-M1808N-OEU4	KF1SN-M1810N-OEU4	
NPN N.C.	2	KF1SF-M1808N-C3S2	KF1SN-M1810N-C3S2	KF1SF-M1808N-CEU4	KF1SN-M1810N-CEU4	
PNP N.O.	3	KF1SF-M1808P-O3S2	KF1SN-M1810P-O3S2	KF1SF-M1808P-OEU4	KF1SN-M1810P-OEU4	
PNP N.C.	4	KF1SF-M1808P-C3S2	KF1SN-M1810P-C3S2	KF1SF-M1808P-CEU4	KF1SN-M1810P-CEU4	

Note: See Terminal Connection page for wiring diagram

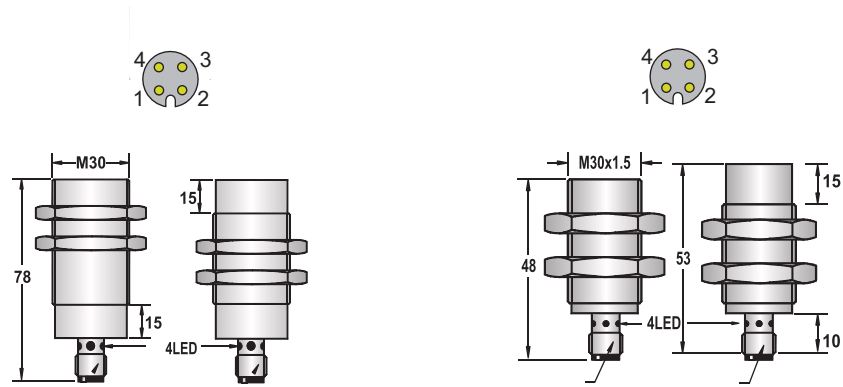
METAL FACE INDUCTIVE PROXIMITY SENSOR



Diameter	M30		M30		
	● Flush	○ Non-flush	●	○	
Switching Distance Sn:mm	10mm		13mm		
LED Indicator	Yes		Yes		
Operating Voltage	10 - 30 vdc		10 - 30 vdc		
Ripple	<10%		<10%		
No Load Current	<10mA		<10mA		
Max Load Current	200mA		200mA		
Leakage Current	<0.01mA		<0.01mA		
Voltage Drop	<1.5v		<1.5v		
Switching Frequency	300Hz	150 Hz	300Hz	150 Hz	
Response Time	1.5ms/1.5ms	3ms/3ms	1.5ms/1.5ms	3ms/3ms	
Switching Hysteresis	<15%(Sr)		<15%(Sr)		
Repeat Accuracy	<1%(Sr)	<2%(Sr)	<1%(Sr)	<2%(Sr)	
Enclosure Rating	IP67		IP67		
Operating Temperature	-25C-+70C		-25C-+70C		
Temperature Drift	<10%(Sr)		<10%(Sr)		
Protection	Short Circuit, Reverse Polarity		Short Circuit, Reverse Polarity		
Connection Type	3-wire, 2-meter Cable		3-wire, 2-meter Cable		
Material Tube/Face	Stainless Steel		Stainless Steel		
Cable Material	PVC		PVC		
Product Style	Wiring Diag.	2-meter Cable		2-meter Cable	
NPN N.O.	1	KF1SF-M3010N-O3U2	KF1SN-M3013N-O3U2	KF1SF-M3010N-O3S2	KF1SN-M3013N-O3S2
NPN N.C.	2	KF1SF-M3010N-C3U2	KF1SN-M3013N-C3U2	KF1SF-M3010N-C3S2	KF1SN-M3013N-C3S2
PNP N.O.	3	KF1SF-M3010P-O3U2	KF1SN-M3013P-O3U2	KF1SF-M3010P-O3S2	KF1SN-M3013P-O3S2
PNP N.C.	4	KF1SF-M3010P-C3U2	KF1SN-M3013P-C3U2	KF1SF-M3010P-C3S2	KF1SN-M3013P-C3S2

Note: See Terminal Connection page for wiring diagram

METAL FACE INDUCTIVE PROXIMITY SENSOR

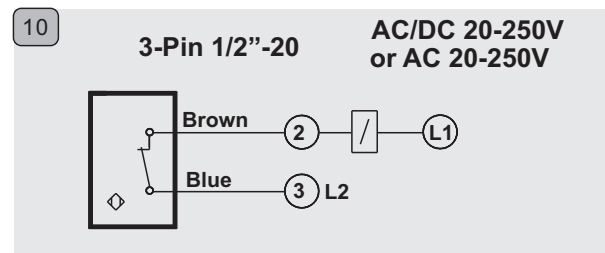
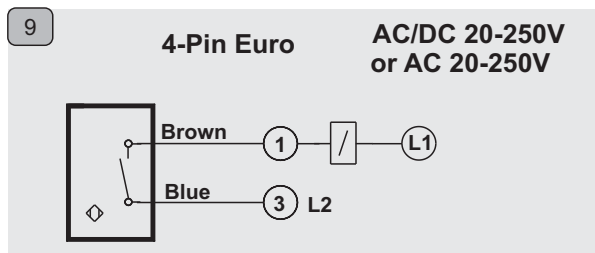
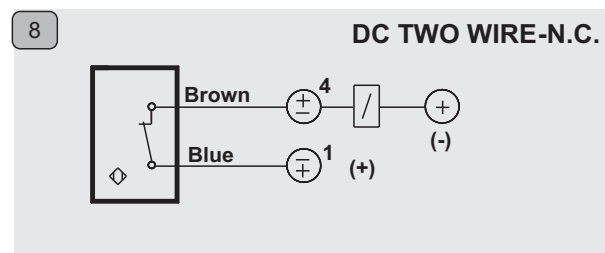
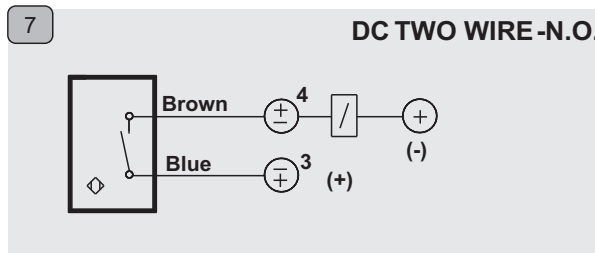
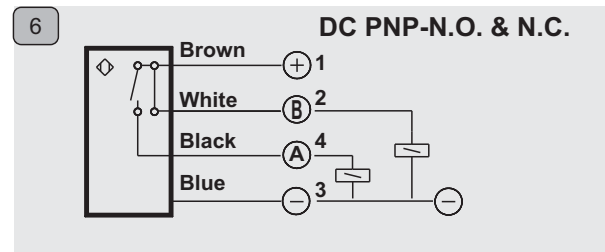
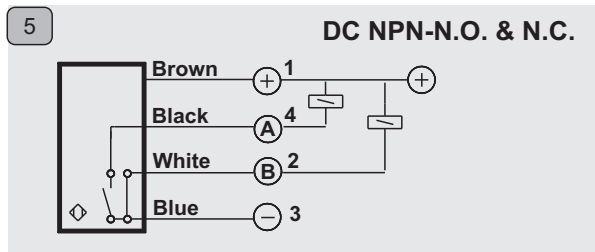
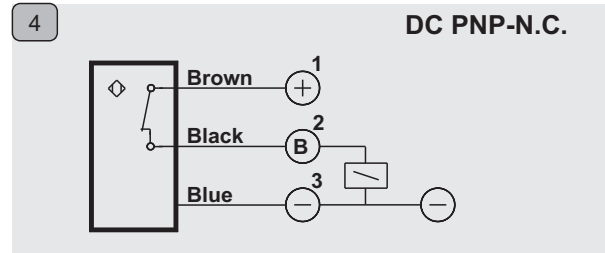
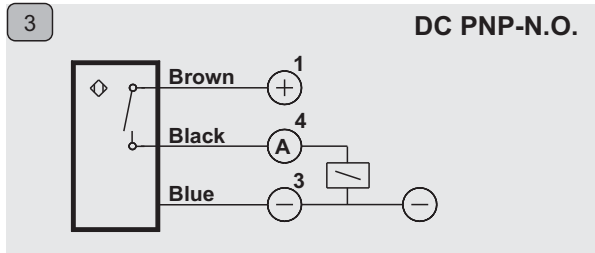
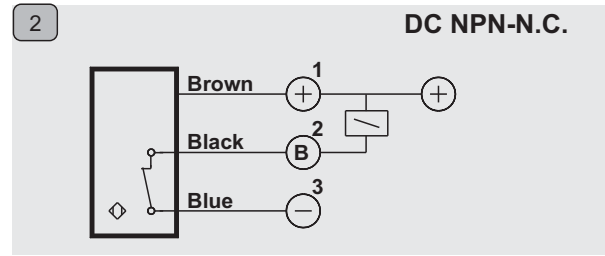
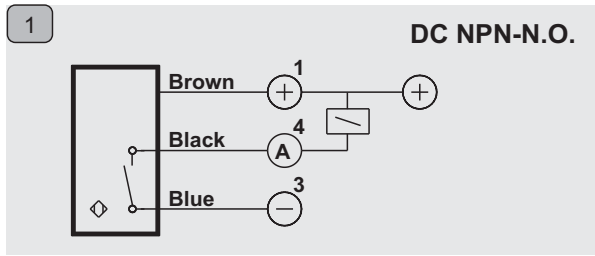


Diameter	M30 - Micro 4-pin		M30 - Micro 4-pin						
	● Flush	○ Non-flush	●	○	●	○			
Switching Distance Sn:mm	10mm		13mm		10mm		13mm		
LED Indicator	Yes				Yes				
Operating Voltage	10 - 30 vdc				10 - 30 vdc				
Ripple	<10%				<10%				
No Load Current	<10mA				<10mA				
Max Load Current	200mA				200mA				
Leakage Current	<0.01mA				<0.01mA				
Voltage Drop	<1.5v				<1.5v				
Switching Frequency	300Hz		150 Hz		300Hz		150 Hz		
Response Time	1.5ms/1.5ms		3ms/3ms		1.5ms/1.5ms		3ms/3ms		
Switching Hysteresis	<15%(Sr)				<15%(Sr)				
Repeat Accuracy	<1%(Sr)		<2%(Sr)		<1%(Sr)		<2%(Sr)		
Enclosure Rating	IP67				IP67				
Operating Temperature	-25C-+70C				-25C-+70C				
Temperature Drift	<10%(Sr)				<10%(Sr)				
Protection	Short Circuit, Reverse Polarity				Short Circuit, Reverse Polarity				
Connection Type	4-pin Micro DC				4-pin Micro DC				
Material Tube/Face	Stainless Steel				Stainless Steel				
Cable Material	-				-				
Product Style	Wiring Diag.	4-pin Micro DC		4-pin Micro DC		4-pin Micro DC		4-pin Micro DC	
NPN N.O.	1	KF1SF-M3010N-OEU4	KF1SN-M3013N-OEU4	KF1SF-M3010N-OES4	KF1SN-M3013N-O3S4	KF1SF-M3010N-OES4	KF1SN-M3013N-O3S4	KF1SF-M3010N-OES4	KF1SN-M3013N-O3S4
NPN N.C.	2	KF1SF-M3010N-CEU4	KF1SN-M3013N-CEU4	KF1SF-M3010N-CES4	KF1SN-M3013N-CES4	KF1SF-M3010N-CES4	KF1SN-M3013N-CES4	KF1SF-M3010N-CES4	KF1SN-M3013N-CES4
PNP N.O.	3	KF1SF-M3010P-OEU4	KF1SN-M3013P-OEU4	KF1SF-M3010P-OES4	KF1SN-M3013P-O3S4	KF1SF-M3010P-OES4	KF1SN-M3013P-O3S4	KF1SF-M3010P-OES4	KF1SN-M3013P-O3S4
PNP N.C.	4	KF1SF-M3010P-CEU4	KF1SN-M3013P-CEU4	KF1SF-M3010P-CES4	KF1SN-M3013P-CES4	KF1SF-M3010P-CES4	KF1SN-M3013P-CES4	KF1SF-M3010P-CES4	KF1SN-M3013P-CES4

Note: See Terminal Connection page for wiring diagram

TERMINAL CONNECTIONS:

Note: For cable version use color code, for connectors use pin numbers



12mm 4-Pin Micro DC



1/2"-20 3-Pin Micro AC



8mm 3-Pin Pico DC

Sensor View