

FM Series - Inductive Sensors



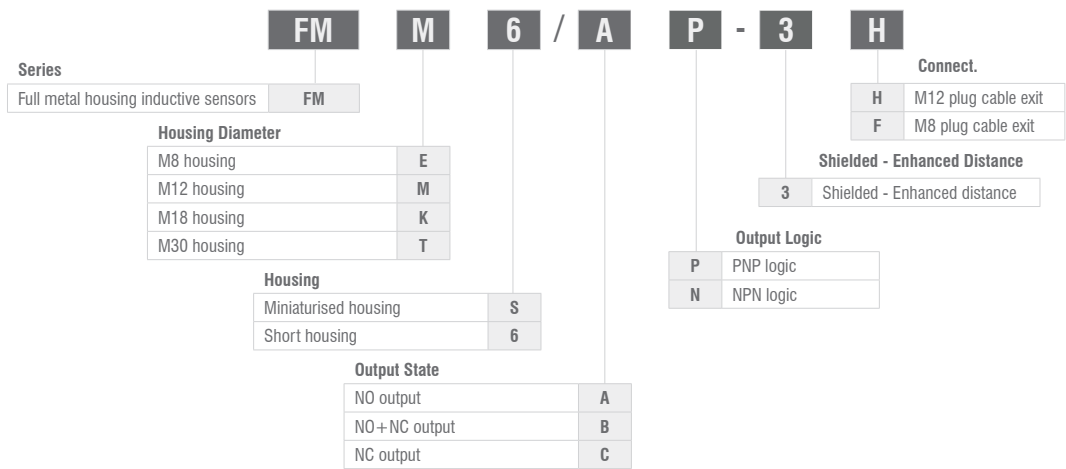
Key Features

- Complete range of full metal inductive sensors
- AISI316L stainless steel housing



Technical Datasheet

Options & Ordering Codes



Available Models

Diameter	Installation	Distance	Connection	Distance (mm)	PNP NO	NPN NO	PNP NC	NPN NC
M8	Shielded	Enhanced	M8	2mm	FMES/AP-3F	FMES/AN-3F	FMES/CP-3F	FMES/CN-3F
M12	Shielded	Enhanced	M12	3mm	FMM6/AP-3H	FMM6/AN-3H	FMM6/CP-3H	FMM6/CN-3H

Diameter	Installation	Distance	Connection	Distance (mm)	PNP NO	NPN NO	PNP NO + NC	NPN NO + NC
M18	Shielded	Enhanced	M12	5mm	-	-	FMK6/BP-3H	FMK6/BN-3H
M30	Shielded	Enhanced	M12	10mm	-	-	FMT6/BP-3H	FMT6/BN-3H

Correction Factors




Code	Steel FE 360	Copper	Aluminium	Brass	Stainless Steel
FMES/xx	1	0	0	0	0.3
FMM6/xx	1	0	0	0.1	0.53
FMK6/xx	1	0	0.13	0.27	0.7
FMT6/xx	1	0	0	0.1	0.67

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Technical Specification



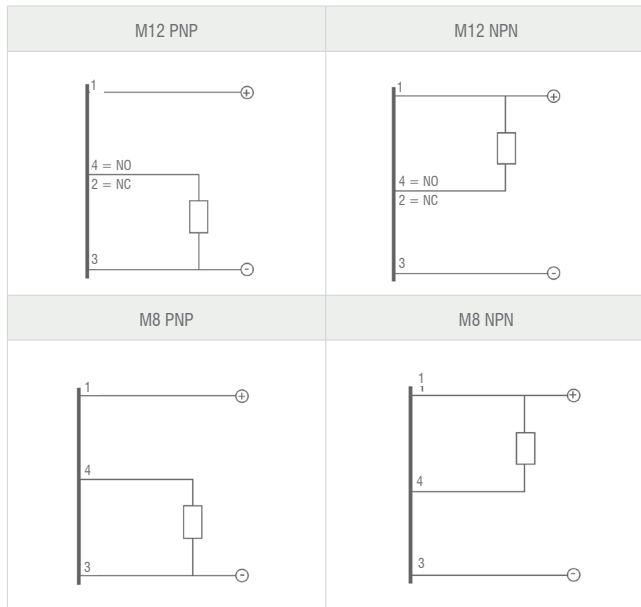
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	FMES	FMM6	FMK6	FMT6
				
Diameter	M8	M12	M18	M30
Nominal Sensing Distance SN	2mm	3mm	5mm	10mm
Head Thickness	0.25mm	0.50mm		1mm
Impact Resistance	IK05		IK08	IK10
Pressure Resistance	80 Bar			
Operating Distance	0...1.62mm	0...2.43mm	0...4mm	0...8.1mm
Hysteresis	1...20%			
Standard Target	8 x 8mm FE360	12 x 12mm FE360	18 x 18mm FE360	30 x 30mm FE360
Repeat Accuracy	5% Ub 20-30V Ta=23°C ±5°C 5%			
Supply Voltage Range	10...30VDC			
Max. Ripple Content	≤10%			
Output Current	≤200mA			
Output Voltage Drop	≤1.5V @ 200mA			
Logic Output	PNP or NPN - NO or NC or NO+NC			
Correction Factor	See Correction Factors table			
No Load Supply Current	≤10 mA			
Leakage Current	10 µA			
Switching Frequency	250Hz	200Hz	100Hz	80Hz
Time Delay Before Availability	≤ 50 ms			
Ambient Temperature Range	-25° ... +70°C			
Temperature Drift of SR	10% Sr			
Short Circuit Protection	●			
Voltage Reversal Protection	●			
Induction Protection	●			
LED Indicators	Yellow (output state)			
Protection Degree	IP 67 / IP 68 / IP 69K			
EMC Protection	In conformity with the EMC Directive, according to IEC 60947-5-2			
Shocks And Vibrations	IEC 60947-5-2			
Housing Material	AISI 316L			
Sensing Face	AISI 316L			
Connection	M8 plug cable exit	M12 plug cable exit		

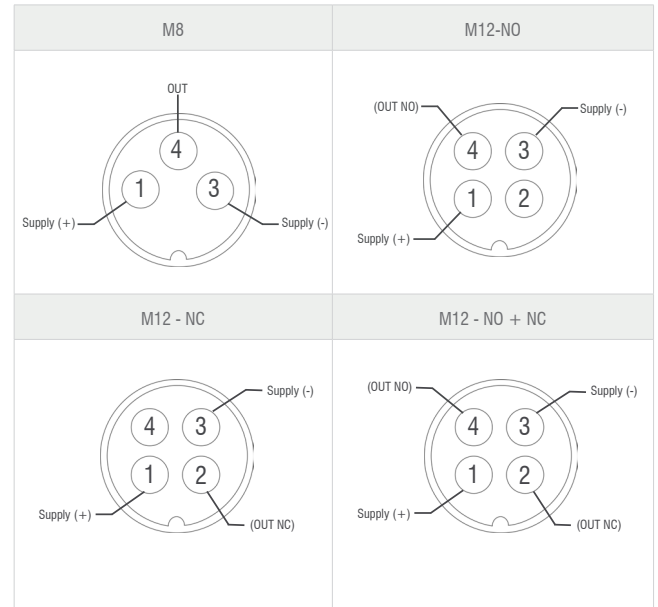
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Electrical Diagrams Of Connections

3 Wire Versions

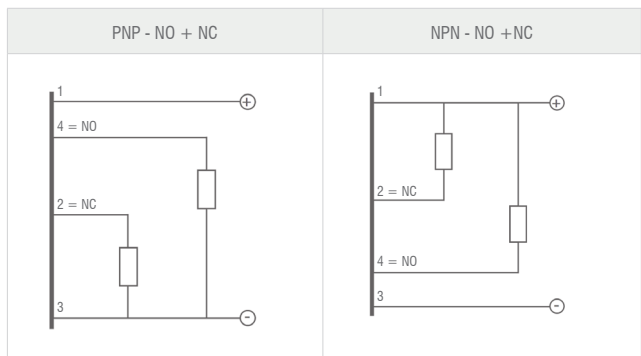


Plug

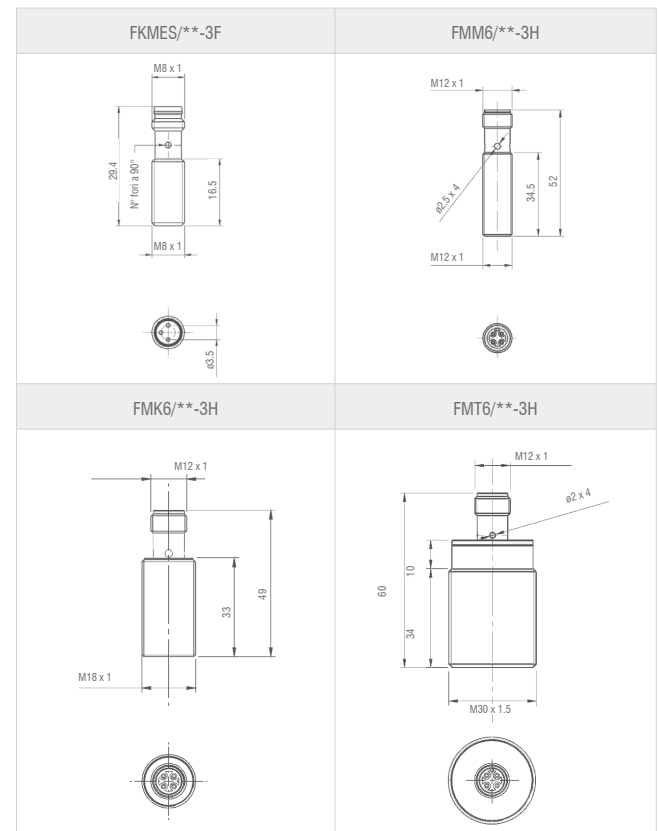


Electrical Diagrams Of Connections

Complementary Outputs



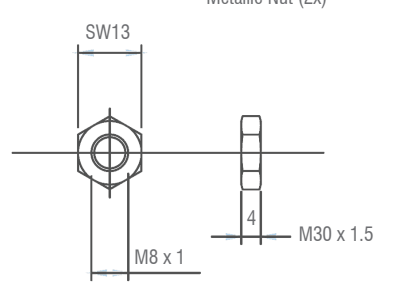
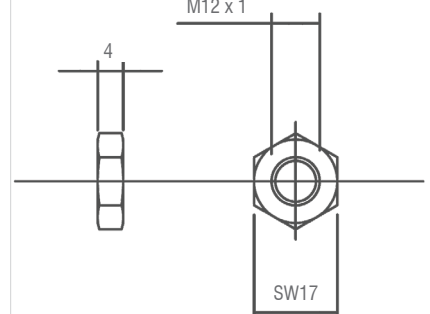
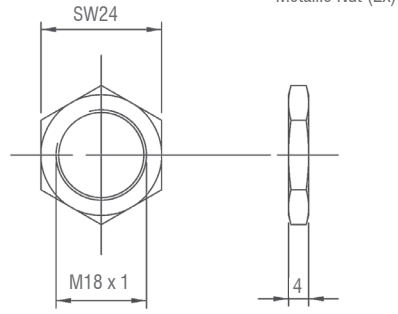
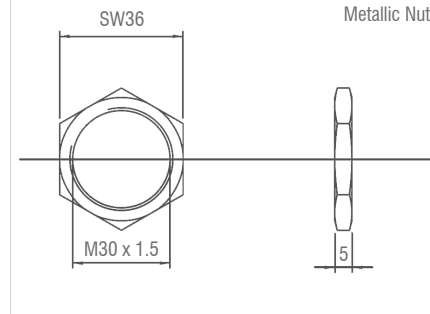
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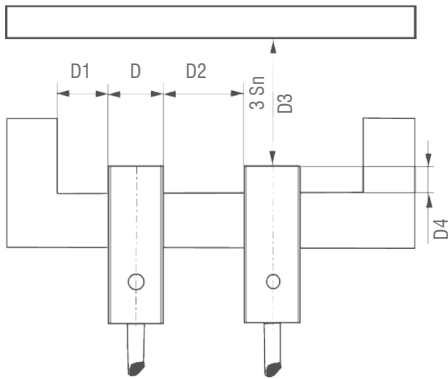
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Dimensions (mm)

Accessories included in all models

FME/**-3F	FMM6/**-3H
<p>Metallic Nut (2x)</p> 	<p>Metallic Nut (2x)</p> 
FMK6/**-3H	FMT6/**-3H
<p>Metallic Nut (2x)</p> 	<p>Metallic Nut (2x)</p> 

Installation



Code	D4	D1	D2	D3
FMES	≥ 0mm	≥ 2mm	≥ 8mm	≥ 6mm
FMM6	≥ 0mm	≥ 6mm	≥ 12mm	≥ 9mm
FMK6	≥ 0mm	≥ 9mm	≥ 18mm	≥ 15mm
FMT6	≥ 0mm	≥ 15mm	≥ 30mm	≥ 30mm