



Proximity switch, capacitive, $S_n=8\text{mm}$, 1N/O, 2L, 20-250VAC, M18, insulated material, M12

Part no. E53KAL18A2SA
Catalog No. 134760
Alternate Catalog No. E53KAL18A2SA

Delivery program

Basic function			Capacitive sensors
Product range			E53 Capacitive Series
Connection			2-wire
Design (outer dimensions)		mm	M18 x 1
Rated operational voltage	U_e		20 - 250 V AC
Rated switching distance	S_n	mm	8
Type of mounting			Flush
For connection of:			Plug-in connection M12 x 1
Contacts			
N/O = Normally open			1 N/O
Material			Insulated material
Degree of Protection			IP65

Technical data

General

Standards			IEC/EN 60947-5-2-EMC
Ambient temperature			-25 - +70
Mechanical shock resistance		g	30 Shock duration 11 ms
Degree of Protection			IP65

Characteristics

Rated switching distance			
Rated switching distance	S_n	mm	8
Repetition accuracy of S_n		%	10
Temperature drift of S_n		%	10
Switching hysteresis of S_n		%	20
Rated operational voltage	U_e		20 - 250 V AC
Supply frequency			50 - 60
Residual ripple of U_e		%	10
Maximum load current	I_e	mA	< 300
Operating current in the switched state at 24 V DC	I_b	mA	2.5
Voltage drop at I_e	U_d	V	9
Switching Frequency		Hz	15
Min. load current	I_e	mA	5
Short-time current (10 ms, 5 Hz)		A	5
Residual current through the load in the blocked state at 230 V AC and 24 V DC	I_r	mA	2.5
Switching state display		LED	Red
Connection			2-wire
Contacts			
N/O = Normally open			1 N/O
Style			
Design (outer dimensions)		mm	M18 x 1
For connection of:			Plug-in connection M12 x 1
Material			Insulated material

Design verification as per IEC/EN 61439

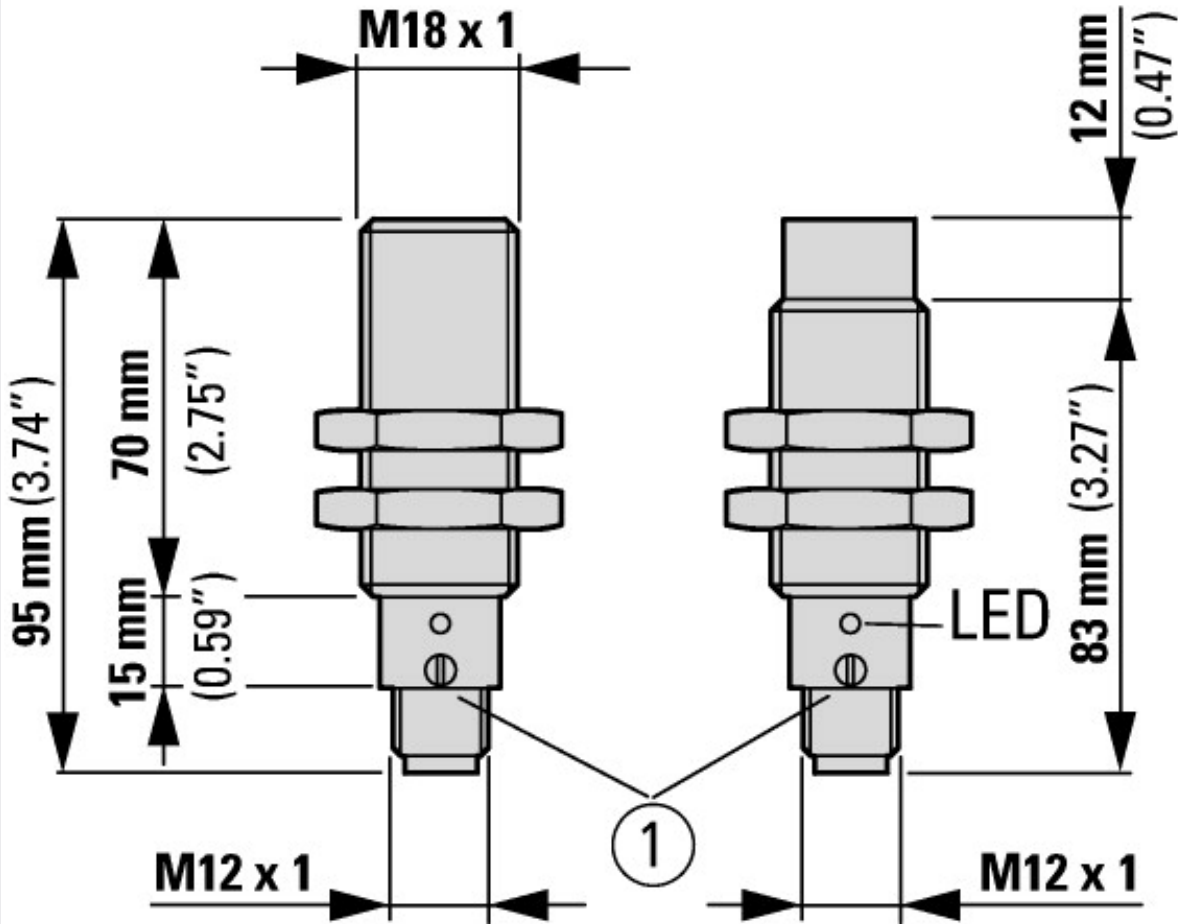
Technical data for design verification			
Operating ambient temperature min.		°C	-25
Operating ambient temperature max.		°C	70

Technical data ETIM 7.0

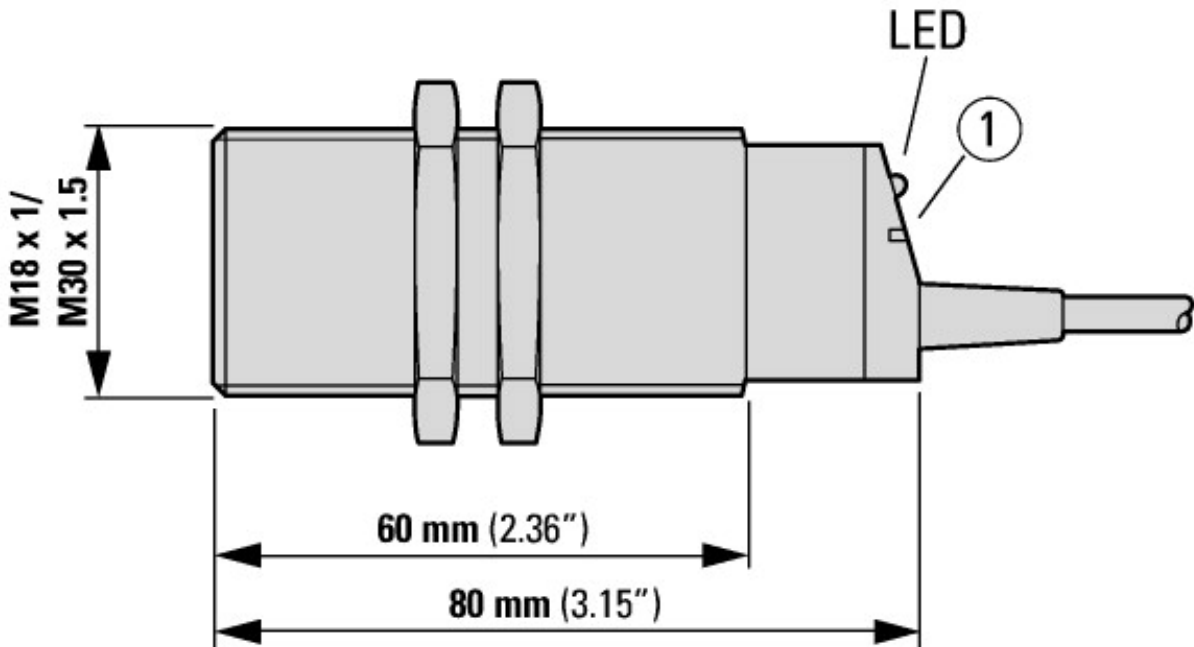
Sensors (EG000026) / Capacitive proximity switch (EC002715)			
Electric engineering, automation, process control engineering / Binary sensor technology, safety-related sensor technology / Proximity switch / Capacitive proximity switch (ecI@ss10.0.1-27-27-01-02 [AGZ377015])			
Width sensor		mm	0
Height of sensor		mm	0
Length of sensor		mm	80
Diameter sensor		mm	18
Mechanical mounting condition for sensor			Concise
Switching distance		mm	8
Suitable for safety functions			No
Type of switch function			Normally open contact
Type of switching output			Two-wire
Type of electric connection			Connector M12
Number of semiconductor outputs with signalling function			1
Number of contact energized outputs with signalling function			0
Number of protected semiconductor outputs			0
Number of protected contact energized outputs			0
Type of actuation			Other
Type of interface			None
Type of interface for safety communication			None
Construction type housing			Cylinder, screw-thread
Coating housing			Other
Cascadable			No
Category according to EN 954-1			B
SIL according to IEC 61508			None
Performance level acc. EN ISO 13849-1			None
Max. output current at protected output		mA	0
Supply voltage		V	20 - 250
Rated control supply voltage Us at AC 50HZ		V	20 - 250
Rated control supply voltage Us at AC 60HZ		V	20 - 250
Rated control supply voltage Us at DC		V	0 - 0
Voltage type			AC
Switching frequency		Hz	15
With monitoring function downstream switching devices			No
With status indication			Yes
Material housing			Plastic
Compression-resistant			No
Explosion safety category for gas			None
Explosion safety category for dust			None

Approvals

Product Standards			CE marking
Max. Voltage Rating			250 V AC, 30 V DC
Degree of Protection			IEC: IP65; UL/CSA: NEMA 4, 12, 13



① Sensitivity setting



Assets (links)

[Declaration of CE Conformity](#)
00003141

[Instruction Leaflets](#)
IL05307002Z2018_05

Additional product information (links)

IL05307002Z E53 Series Capacitive Sensors	
IL05307002Z E53 Series Capacitive Sensors	ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05307002Z2018_05.pdf