



Proximity switch, capacitive, $S_n=25\text{mm}$, 1N/O, 2L, 20-250VAC, M30, insulated material, M12

Part no. E53KAL30A2EA
Catalog No. 134771
Alternate Catalog No. E53KAL30A2EA

Delivery program

Basic function			Capacitive sensors
Product range			E53 Capacitive Series
Connection			2-wire
Design (outer dimensions)		mm	M30 x 1.5
Rated operational voltage	U_e		20 - 250 V AC
Rated switching distance	S_n	mm	25
Type of mounting			Non-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	25
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	M30 x 1.5
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 (ecl@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	30
Mechanical mounting condition for sensor		Not flat
Switching distance	mm	25
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

Dimensions



① Sensitivity setting



Assets (links)

[Declaration of CE Conformity](#)

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[Instruction Leaflets](#)

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Additional product information (links)

IL05307002Z E53 Series Capacitive Sensors

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

