

LMH610

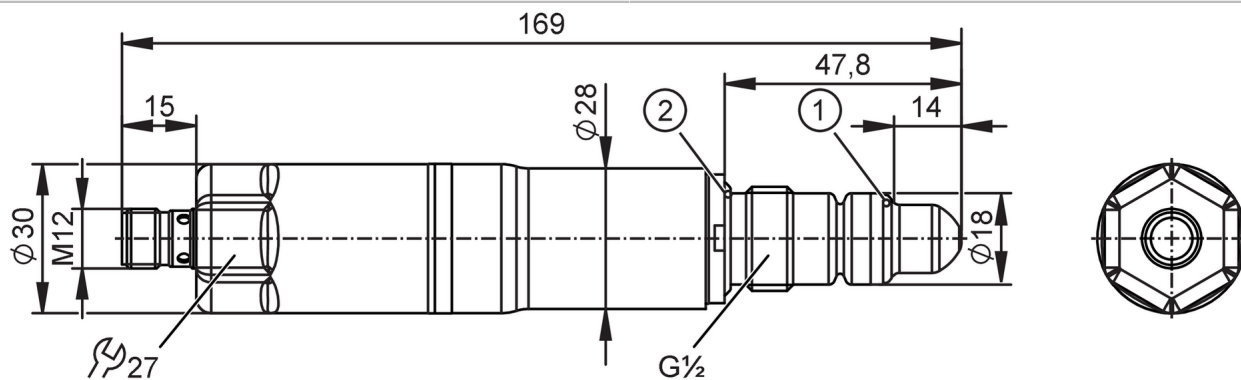


Sensor for point level detection

LMACE-A12K-QSKG-1/US

To ensure secure mounting compatible with the medium, a sealing set suitable for the application must be used. Please refer to chapters Medium temperature and Accessories.

These sealing sets are not included.



- 1 O-ring not supplied
2 Gasket not supplied



ADI-FREE



DoC ASME BPE

EC 1935/2004

FCM CN FCM JP



IO-Link

USP

Product characteristics

Number of inputs and outputs	Number of digital outputs: 2
Factory setting	oils; oil-based media
Process connection	threaded connection G 1/2

Application

Special feature	Gold-plated contacts
Media	Fluessige Medien pastose Medien; powder
Conditionally suitable for	use at pressures > 40...100 bar only on request
Cannot be used for	See the operating instructions, chapter "Function and features".
Medium temperature [°C]	-20...250
Medium temperature [°C]	when used under hygienic conditions with accessories: E43030 -15...240
	when used under hygienic conditions with accessories: E43033 -15...200
	when used under hygienic conditions with accessories: E43031 -20...150
	when used under industrial conditions with accessories: E43032 -20...250
Pressure rating [bar]	40
Vacuum resistance [mbar]	-1000
Probe length [mm]	13.7

Electrical data

Operating voltage [V]	18...30 DC
Current consumption [mA]	< 30
Protection class	III
Reverse polarity protection	yes
Measuring principle	capacitive

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Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 2	
Outputs			
Total number of outputs		2	
Output signal		switching signal; IO-Link	
Electrical design		PNP/NPN	
Number of digital outputs		2	
Output function		normally open / normally closed; (parameterisable)	
Max. voltage drop switching output DC [V]		2.5	
Permanent current rating of switching output DC [mA]		100	
Short-circuit protection		yes	
Type of short-circuit protection		pulsed	
Overload protection		yes	
Measuring/setting range			
Factory setting		oils; oil-based media	
Temperature measurement			
Measuring range [°C]		-40...250	
Resolution [°C]		0.1	
Accuracy / deviations			
Temperature measurement			
Accuracy [K]		± 0,6	
Temperature drift per 10 K [K]		± 0.055	
Response times			
Response time [s]		< 0.5	
Interfaces			
Communication interface		IO-Link	
Transmission type		COM2 (38,4 kBaud)	
IO-Link revision		1.1	
SDCI standard		IEC 61131-9	
Profiles	Smart Sensor - SSP 4.1.2		Measuring and Switching Sensor, 2 channel
	Common - I&D		Identification and Diagnosis
	Extension		Quantity detection, switches when value exceeds the setpoint
	Function		Locator
	Function		ProductURI
SIO mode		yes	
Required master port type		A	
Min. process cycle time [ms]		4.5	
Supported DeviceIDs	Type of operation		DeviceID
	default		1516
Operating conditions			
Ambient temperature [°C]		-40...85	

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Note on ambient temperature	Medium temperature: $\leq 200\text{ }^{\circ}\text{C}$ -40...60 $^{\circ}\text{C}$
Storage temperature [°C]	Medium temperature: $\leq 250\text{ }^{\circ}\text{C}$ -40...85
Protection	IP 68; IP 69K; (7 days / 3 m water depth / 0.3 bar: IP68)

Tests / approvals

EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-4	: in plastic or open metal tanks
	DIN EN 61000-6-3	: in a closed metal tank
Shock resistance	DIN EN 60068-2-27	50 g (11 ms)
Vibration resistance	DIN EN 60068-2-6	20 g (10...2000 Hz)
MTTF [years]		356
UL approval	UL approval no.	H017
	File number UL	E174191

Mechanical data

Weight [g]	301.7
Housing	cylindrical
Dimensions [mm]	$\varnothing 30 / L = 169$
Materials	housing: stainless steel (316L/1.4404); Adapter plug: PEI; O-ring: FKM
Materials (wetted parts)	probe: ceramics (99.97 % Al_2O_3) surface characteristics: $R_a < 0,38\text{ }\mu\text{m} / R_z = 4\text{ }\mu\text{m}$; O-ring (internal): FFKM
Process connection	threaded connection G 1/2

Displays / operating elements

Display	switching status	LED, yellow
	operating status	LED, green
	warning	LED, red

Accessories

Accessory required	sealing set, E43030
	sealing set, E43033
	sealing set, E43031
	Gasket, E43032

Remarks

Remarks	An overview of the materials, approvals and conformities of the accessories can be found in the respective data sheet.
	The E43031 sealing kit slightly increases the sensor sensitivity
	the values for accuracy and response times apply to flowing water and an isolated process
	see operating instructions
Notes	To ensure secure mounting compatible with the medium, a sealing set suitable for the application must be used. Please refer to chapters Medium temperature and Accessories.; These sealing sets are not included.
Pack quantity	1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



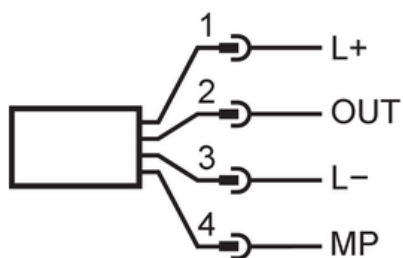
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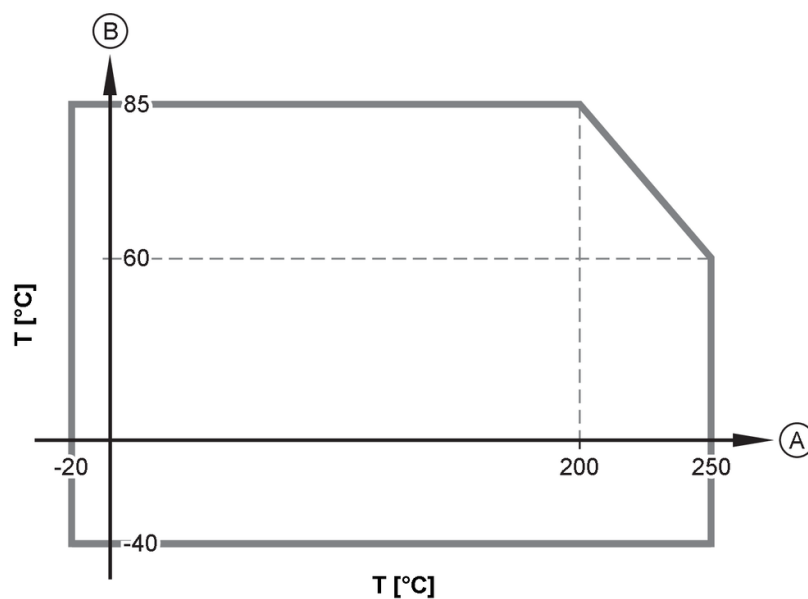
Connection



1	L+	
2	OUT	DO2 (NC)
3	L-	
4	MP	DO1 (NO), IO-Link

DO: digital output; MP: multi-function connection

Diagrams and graphs



- A Medium temperature
B Ambient temperature