

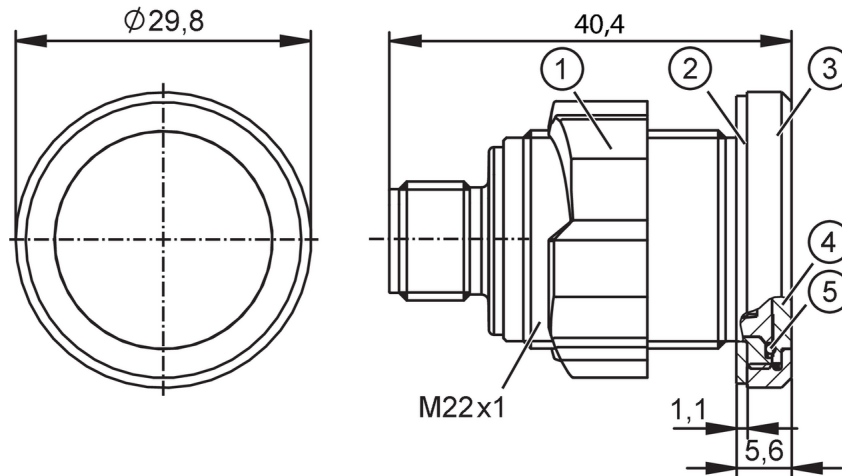
# KTE301



## Capacitive touch sensor

KTEEFOEMMFRKG/US/IO

FDA compliance only in conjunction with the FDA-compliant E12840 seal



- 1 Nut (included in packaging)
- 2 sealing (fitted)
- 3,4,5 Symbol disc + sealing (optionally mounted)



### Product characteristics

Electrical design	PNP/NPN; (configurable)
Output function	normally open / closed; (configurable)
Communication interface	IO-Link
Housing	Threaded type
Dimensions [mm]	M22 x 1 / L = 40.4

### Application

Principle of operation	dynamic; static; Bistable; combination; (configurable)
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### Electrical data

Operating voltage [V]	8...32 DC
Protection class	III
Reverse polarity protection	yes
Current consumption	<ul style="list-style-type: none"> <li>&lt; 7,2 mA; (LED off: <math>U_b = 24\text{ V}</math>)</li> <li>&lt; 125 mA; (LED white, max. brightness: <math>U_b = 8\text{ V}</math>)</li> <li>&lt; 79 mA; (LED white, max. brightness: <math>U_b = 12\text{ V}</math>)</li> <li>&lt; 43 mA; (LED white, max. brightness: <math>U_b = 24\text{ V}</math>)</li> <li>&lt; 35 mA; (LED white, max. brightness : <math>U_b = 32\text{ V}</math>)</li> </ul>

### Inputs

Total number of inputs	2
Switching level high [V]	> 19.2; (at 24 V safely on : Voltage $\geq U_b \cdot 0,8$ )
Switching level low [V]	< 4.8; (at 24V safely off : Voltage $\leq U_b \cdot 0,2$ )
Inputs	according to the standard IEC 61131-2 (Typ 3)

### Outputs

Electrical design	PNP/NPN; (configurable)
Output function	normally open / closed; (configurable)

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Max. voltage drop switching output DC	[V]	1.5
Permanent current rating of switching output DC	[mA]	200
Short-circuit protection		yes
Overload protection		yes

### Reaction times

Response time	[ms]	64
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### Software / programming

Parameter setting options	normally open / closed; PNP/NPN; static; dynamic; Bistable; combination; Switch-on and switch-off delay; brightness; sensitivity; Operating conditions
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### Interfaces

Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1.3	
Profiles	Smart Sensor - SSP 1.1	Fixed Switching Sensor
	Common - I&D	Identification and Diagnosis
	Extension	Sensor Control Wide
	Function	Locator
	Function	ProductURI
Min. process cycle time	[ms]	13.2
Supported DeviceIDs	<b>Type of operation</b>	<b>DeviceID</b>
	default	1559

### Operating conditions

Ambient temperature	[°C]	-30...65
Protection		IP 65; IP 67; (IP 69K on the front)

### Tests / approvals

EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m / 3 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	10 V
	IEC 61000-6-3, EN 55011	(Class B)
	IEC 61000-4-5 Surge	1 kV (L+ to L- , 42 Ω, 0,5 μF) / 0,5 kV (all cables to L- , 42 Ω, 0,5 μF)
Vibration resistance	EN 60068-2-6 Fc	20 g (10...3000 Hz) / 50 sweep cycles per frequency; 1 octave per minute in 3 axes
Shock resistance	EN 60068-2-27 Ea	50 g 11 ms half-sine; 20 shocks each in every direction of the 3 coordinate axes
Continuous shock resistance	EN 60068-2-29 Eb	40 g 6 ms half-sine; 8000 shocks each in every direction of the 3 coordinate axes
MTTF	[years]	218

### Mechanical data

Weight	[g]	58.1
Housing		Threaded type
Dimensions	[mm]	M22 x 1 / L = 40.4
Thread designation		M22 x 1
Material		housing: stainless steel; lock nut: PBT; Symbol disc: PA; Gasket: NR

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### Displays / operating elements

Display	Power	LED, RGB configurable
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### Accessories

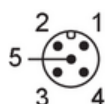
Items supplied	lock nuts: 1 x M22
	transparent symbol disc: 1
	symbol sticker: 1
	Gasket: 1
	O-ring: 1
Accessories (optional)	Symbol disc

### Remarks

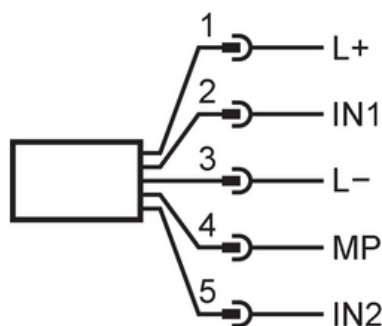
Pack quantity	1 pcs.
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### Electrical connection

Connector: 1 x M12; coding: A



### Connection



1	L+	
2	IN1	
3	L-	
4	MP	DO (NO/NC), IO-Link
5	IN2	

MP: multifunctional input; DO: digital output; NO: normally open; NC: normally closed

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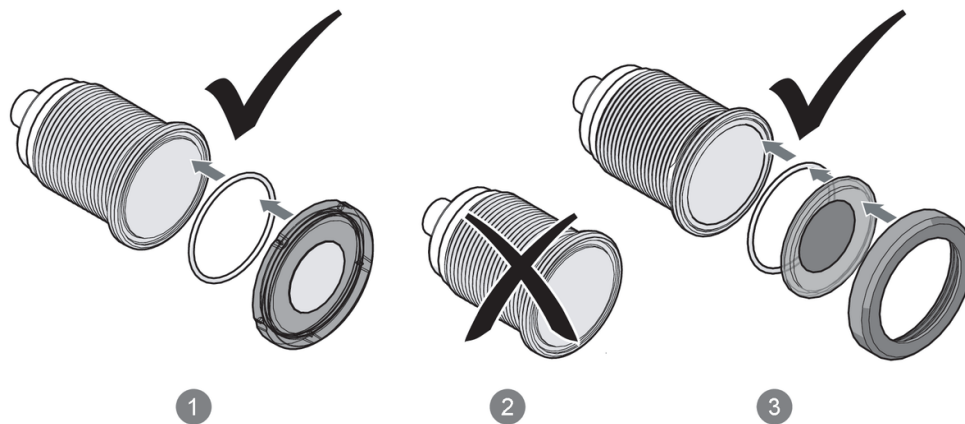


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### Diagrams and graphs

application note relevant for the function



function  
only  
ensured  
with  
symbol  
disc  
(can  
be  
ordered  
separately)

1. function ensured with plastic disc
2. function not ensured without disc
3. function ensured with stainless steel disc