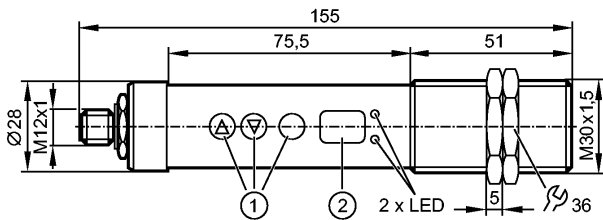


TW7000

TW-023CMDM30-QFPKG/US

Temperature sensors



1: Programming buttons
2: 7-segment LED display

Made in Germany



Product characteristics

Infrared temperature sensor
Threaded type M30 x 1.5
M12 connector
2 switching outputs
7-segment LED display (2 digits)
Measuring range: 50...500 °C / 122...932 °F

Application

Application	asphalt, coated metal, liquids, glass, rubber, wood, ceramics, plastics, lacquers, food products, paper, fabric
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Electrical data

Electrical design	DC PNP
Operating voltage [V]	10...34 DC
Current consumption [mA]	< 30 (24 V)
Protection class	III

Inputs

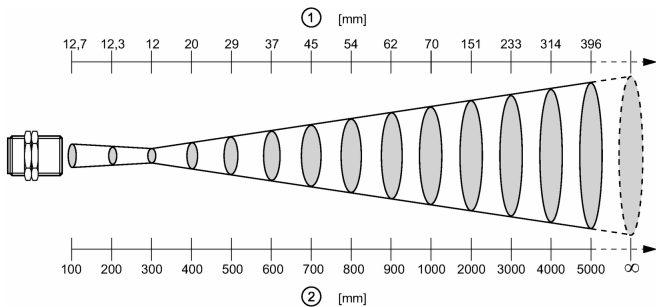
Test input	
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Outputs

Output	2 switching outputs
Output function	normally open / closed programmable
Current rating [mA]	150
Voltage drop [V]	< 2.5
Short-circuit protection	pulsed
Overload protection	yes

Measuring / setting range

Measuring range [°C/°F]	50...500 / 122...932
wave length range [µm]	8...14
Measuring range / distance [mm]	



1: diameter of the measured spot; 2: measuring distance

Setting range

TW7000

TW-023CMDM30-QFPKG/US

Temperature sensors

Set point, SP	[°C/°F]	50...495.5 / 122...923.9 (0...99 %)
Reset point, rP	[°C/°F]	50...495.5 / 122...923.9 (0...99 %)
in steps of	[°C/°F]	4.5 / 8.1 (1 %)
Factory setting		SP1 = 25 %; rP1 = 23 % SP2 = 75 %; rP2 = 73 %
Resolution		
Switching output	[K]	4.5 (1 %)
Display	[K]	4.5 (1 %)

Accuracy / deviations

Switch point accuracy	< ± 1 % of MEW (degree of emission = 1 and T = 23 °C)
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Reaction times

Response time Switching output [ms]	< 100
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Software / programming

Adjustment of the switch point	Programming buttons
Programming options	hysteresis; NO / NC; switch-on / switch-off delay

Environment

Ambient temperature	[°C]	0...65
Storage temperature	[°C]	-20..80
Max. relative air humidity		< 95 % (non condensing)
Protection		IP 65

Tests / approvals

EMC	DIN EN 61000-4-2 ESD: 4 kV CD / 8 kV AD DIN EN 61000-4-3 HF radiated: 10 V/m DIN EN 61000-4-4 Burst: 2 kV coupling clamp DIN EN 61000-4-5 Surge: 0.5 / 1 kV DIN EN 61000-4-6 HF conducted: 10 V EN 55011 (Emission): class B
Shock resistance	DIN EN 60068-2-27: 30 g (11 ms)
Vibration resistance	DIN EN 60068-2-6: 5 g (10...2000 Hz)

Mechanical data

Housing materials	threaded sleeve: stainless steel (303S22); polyester
Lens material	Infrared transparent crystal lens with anti-reflex coating
Weight	[kg] 0.335

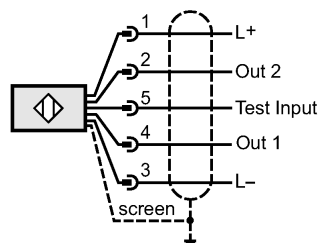
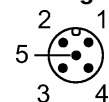
Displays / operating elements

Display	Switching status 2 x LED yellow Function display 7-segment LED display 2-digit Measured values 7-segment LED display 2-digit
Operating elements	3 Pushbuttons

Electrical connection

Connection	M12 connector
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Wiring





TW7000

TW-023CMDM30-QFPKG/US

Temperature sensors

Accessories	
Accessories (included)	2 lock nuts
Remarks	
Pack quantity [piece]	1