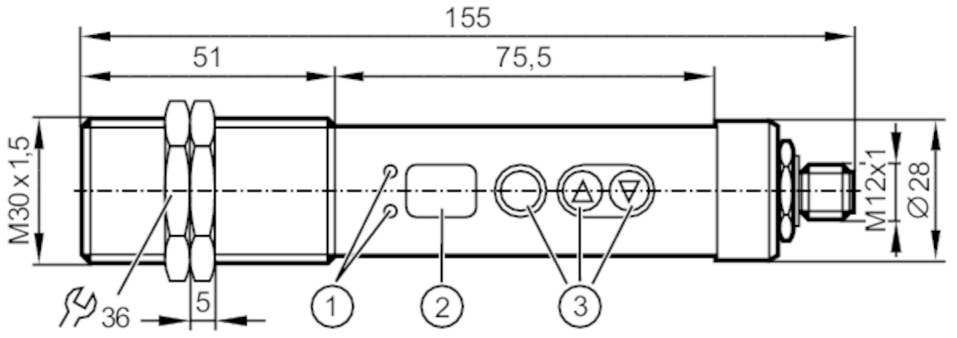
TW7000

Infrared temperature sensor

TW-023CMDM30-QFPKG/US



1 LEDs switching status
2 7-segment LED display 2-digit
3 programming buttons

CE

Product characteristics			
Number of inputs and outputs		Number of digital outputs: 2	
Measuring range		50...500 °C	122...932 °F
Application			
Application		asphalt; coated metal; liquids; glass; rubber; wood; ceramics; plastics; lacquers; food products; paper; fabric	
Electrical data			
Operating voltage	[V]	10...34 DC	
Current consumption	[mA]	30; (24 V)	
Protection class		III	
Inputs / outputs			
Number of inputs and outputs		Number of digital outputs: 2	
Inputs			
Test input		test function active at U(test) > 9 V	
Outputs			
Total number of outputs		2	
Output signal		switching signal	
Electrical design		PNP	
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]	150	
Short-circuit protection		yes	
Type of short-circuit protection		pulsed	
Overload protection		yes	
Detection zone			
Wave length range	[µm]	8...14	

TW7000

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Measuring/setting range			
Measuring range		50...500 °C	122...932 °F
Factory setting		SP1 = 25 %; rP1 = 23 %; SP2 = 75 %; rP2 = 73 %	
Set point SP		50...495.5 °C	122...923.9 °F
Reset point rP		50...495.5 °C	122...923.9 °F
In steps of		4.5 °C	8.1 °F
Resolution			
Resolution of switching output	[K]	4.5	
Resolution of display	[K]	4.5	
Accuracy / deviations			
Accuracy	[K]	< ± 1 %; (of VMR (degree of emission = 1 and T = 23 °C))	
Response times			
Response time	[ms]	100	
Software / programming			
Adjustment of the switch point		programming buttons	
Parameter setting options		Hysteresis; normally open / normally closed; switch-on/switch-off delay	
Operating conditions			
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)
MTTF	[years]	150	
Mechanical data			
Weight	[g]	350	
Housing		threaded type	
Dimensions	[mm]	M30 x 1.5 / L = 155	
Thread designation		M30 x 1.5	
Materials		threaded sleeve: stainless steel (303/1.4305); operator interface: polyester	
Lens material		front pane:Infrared transparent crystal lens with anti-reflex coating	
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

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Accessories

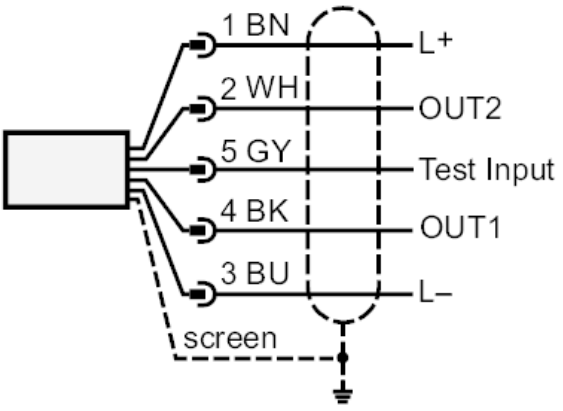
Items supplied	lock nuts: 2

Remarks

Remarks	MW = measured value
	MEW = Final value of the measuring range
Pack quantity	1 pcs.

Electrical connection

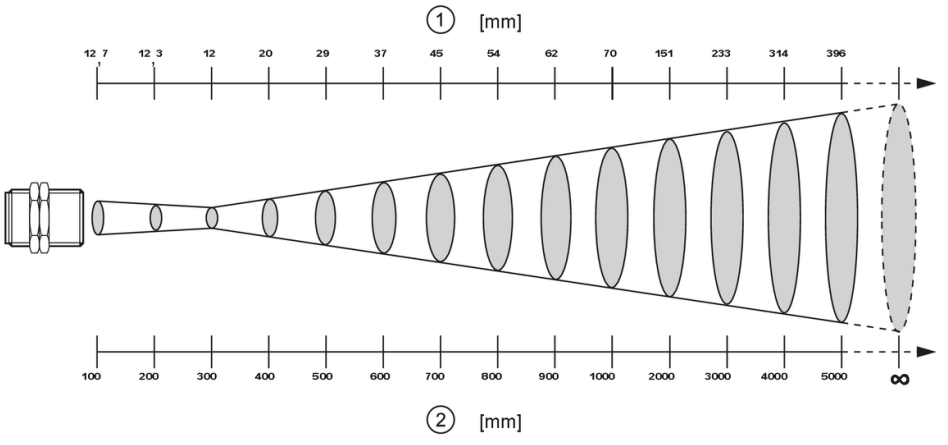
Connection



	Core colours :
BK =	black
BN =	brown
BU =	blue
GY =	grey
WH =	white

Connector: 1 x M12

Diagrams and graphs



1 diameter of the measured spot

2 measuring distance