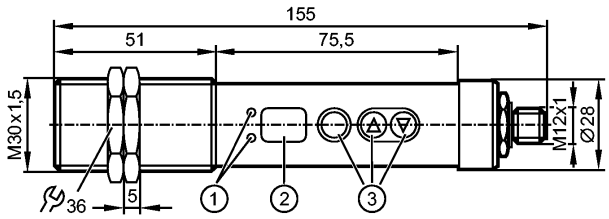
TW7000

TW-023CMDM30-QFPKG/US

Temperature sensors



1: LEDs (switching status)
2: 7-segment LED display (2 digits)
3: Programming buttons

CE

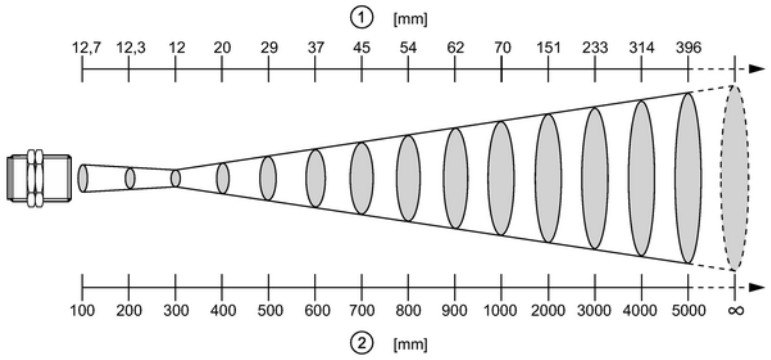
Product characteristics		
Infrared temperature sensor		
Threaded type M30 x 1.5		
M12 connector		
wave length range 8...14 µm		
2 switching outputs		
7-segment LED display (2 digits)		
Measuring range: 50...500 °C / 122...932 °F		
Application		
Application		asphalt, coated metal, liquids, glass, rubber, wood, ceramics, plastics, lacquers, food products, paper, fabric
Electrical data		
Electrical design		DC PNP
Operating voltage	[V]	10...34 DC
Current consumption	[mA]	30 (24 V)
Protection class		III
Inputs		
Test input		
Outputs		
Output		2 switching outputs
Output function		normally open / closed programmable
Current rating	[mA]	150
Voltage drop	[V]	< 2.5
Short-circuit protection		yes (non-latching)
Overload protection		yes
Measuring / setting range		
Measuring range		50...500 °C / 122...932 °F
Factory setting		SP1 = 25 %; rP1 = 23 % | SP2 = 75 %; rP2 = 73 %
wave length range [µm]		8...14

efector600

TW7000

TW-023CMDM30-QFPKG/US

Temperature sensors

Measuring range / distance [mm]	 1: diameter of the measured spot; 2: measuring distance		
Setting range			
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			
Switching output	[K]	4.5	
Display	[K]	4.5	
Accuracy / deviations			
Accuracy		< ± 1 %; < ± 1 % of MEW (degree of emission = 1 and T = 23 °C)	
Reaction times			
Response time Switching output	[ms]	< 100	
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)
MTTF	[Years]	150	
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	

TW7000

TW-023CMDM30-QFPKG/US

Temperature sensors

Operating elements	3 Pushbuttons

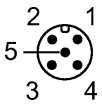
Electrical connection

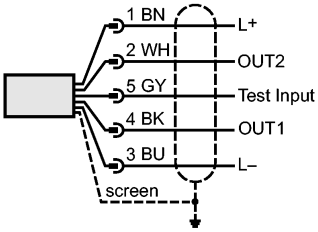
Connection	M12 connector

Wiring

Core colors

BK	black
BN	brown
BU	blue
GY	grey
WH	white





Accessories

Accessories (included)	2 lock nuts

Remarks

Remarks	MW = measured value MEW = final value of the measuring range
Pack quantity [piece]	1