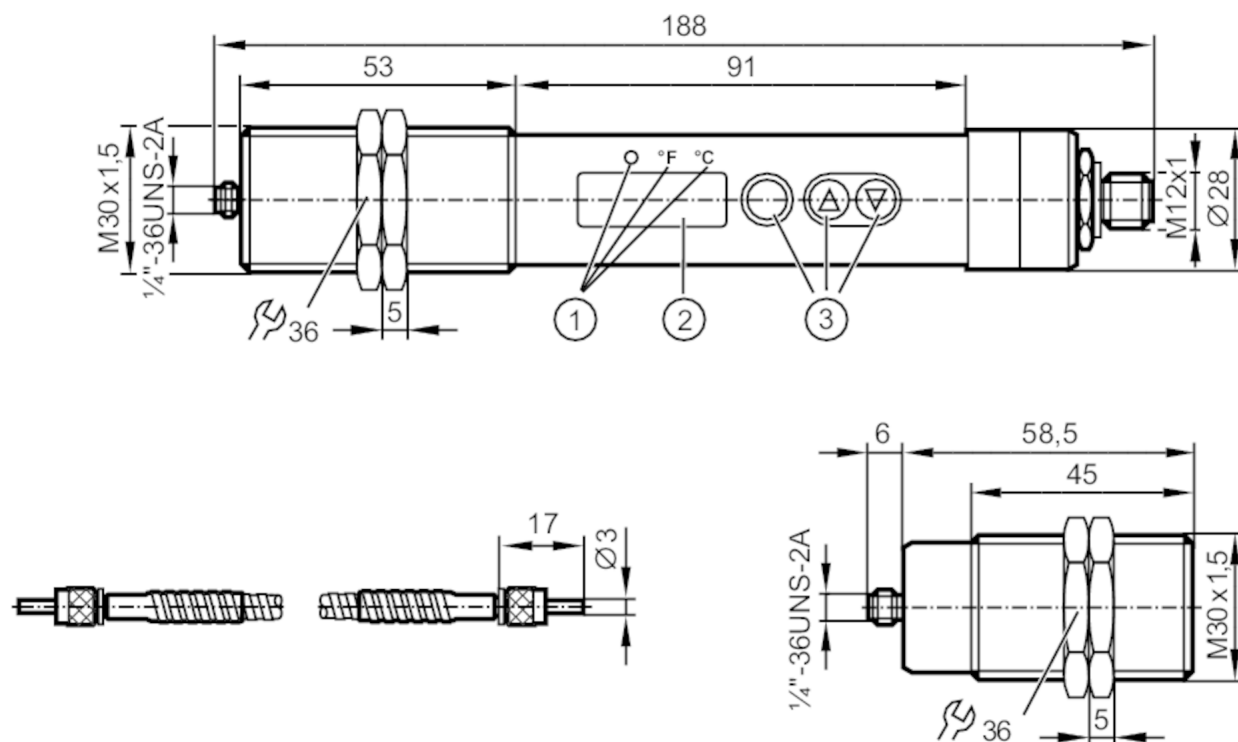


TW-150KLBM30-KFDKG/US



- CE IO-Link

Test input	type 3 (IEC 61131-2)
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Infrared temperature sensor

TW-150KLBM30-KFDKG/US

Outputs		
Total number of outputs		2
Output signal		switching signal; analogue signal; IO-Link; (configurable)
Electrical design		PNP
Number of digital outputs		1
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
Number of analogue outputs		1
Analogue current output	[mA]	4...20
Max. load	[Ω]	500
Short-circuit protection		yes
Type of short-circuit protection		pulsed
Short-circuit proof		yes
Overload protection		yes
Detection zone		
Wave length range	[μm]	1...1.7
Measuring/setting range		
Measuring range	300...1600 °C	572...2912 °F
Set point SP	301...1600 °C	574...2912 °F
Reset point rP	300...1599 °C	572...2910 °F
Analogue start point	300...1400 °C	572...2552 °F
Analogue end point	500...1600 °C	932...2912 °F
In steps of	1 °C	1 °F
Resolution		
Resolution of switching output	[K]	1
Resolution of analogue output	[K]	0.2; (+ 0.03% of the set measuring span)
Resolution of display	[K]	1
Accuracy / deviations		
Accuracy	[K]	< ± 0,5 %; (of measured value, min. 4 K (degree of emission = 1, T = 23 °C))
Repeatability	[K]	1
Response times		
Response time	[ms]	2; (T > 600 °C)
Software / programming		
Adjustment of the switch point		programming buttons
Parameter setting options		analogue range; normally open / normally closed; switch-on/ switch-off delay; Damping; Peakhold; emissivity; simulation function
Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)



Infrared temperature sensor

TW-150KLBM30-KFDKG/US

IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
SIO mode	yes	
Required master port type	A	
Process data analogue	16	
Process data binary	1	
Min. process cycle time [ms]	3.6	
Supported DeviceIDs	Type of operation	DeviceID
	default	719

Operating conditions		
Ambient temperature [°C]	0...65	
Note on ambient temperature	fibre optics and measuring head: -20...250 °C	
Storage temperature [°C]	-20...80	
Max. relative air humidity [%]	95; (non condensing)	
Protection	IP 65	

Tests / approvals		
EMC	DIN EN 61000-6-2	
	DIN EN 61000-6-4	
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]	74	

Mechanical data		
Weight [g]	899.5	
Housing	threaded type	
Dimensions [mm]	M30 x 1.5 / L = 188	
Thread designation	M30 x 1.5	
Fibre optic connection	¼"-36UNS-2A	
Materials	threaded sleeve: stainless steel (303/1.4305); polyester	
Lens material	tempered optical glass	

Displays / operating elements		
Display	Display unit	2 x LED, yellow
	switching status	1 x LED, yellow
	function display	7-segment LED display, 4-digit
	measured values	7-segment LED display, 4-digit
Operating elements	3	pushbuttons

Accessories		
Items supplied	lock nuts: 2	
	fibre optic: 2 m	
	Measuring head	

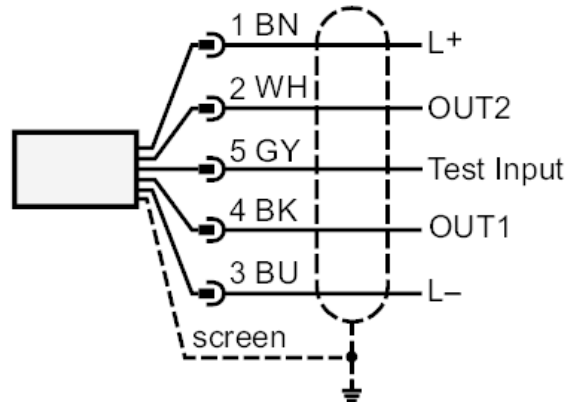
Remarks		
Remarks	Use a screened cable to protect infrared temperature sensors from interference.	
	The screen must be connected to the housing of the sensor via the connector.	
	On delivery the sensor is premounted and calibrated and is supplied with 2 m fibre optic.	
	If the fibre optic is replaced the sensor has to be recalibrated (ZC0062).	
Pack quantity	1 pcs.	

Infrared temperature sensor

TW-150KLBM30-KFDKG/US

Electrical connection

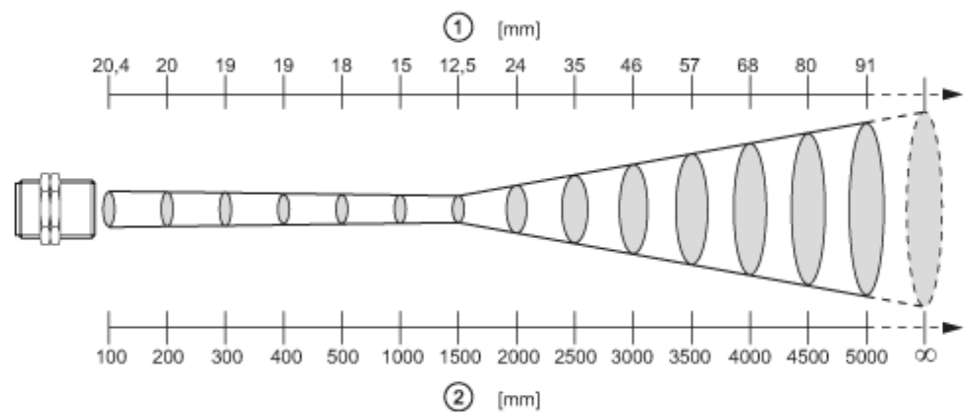
Connection



OUT1: switching output / IO-Link
 OUT2: analogue output
 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