

Reliably detect and measure hot objects

TEMPERATURE SENSORS

With temperature sensors, you can measure and monitor temperatures by contact or contactlessly in a wide range of applications.

The most important benefits

- Rugged M30 stainless steel housing with IP67 protection
- Temperature range 250...1250 °C
- Numerous functions and settings using the IO-Link interface



Sensors

RFID

Machine Vision and
Optical Identification

Human Machine
Interfaces

Systems

Safety

Industrial Networking

Power Supplies

Connectivity

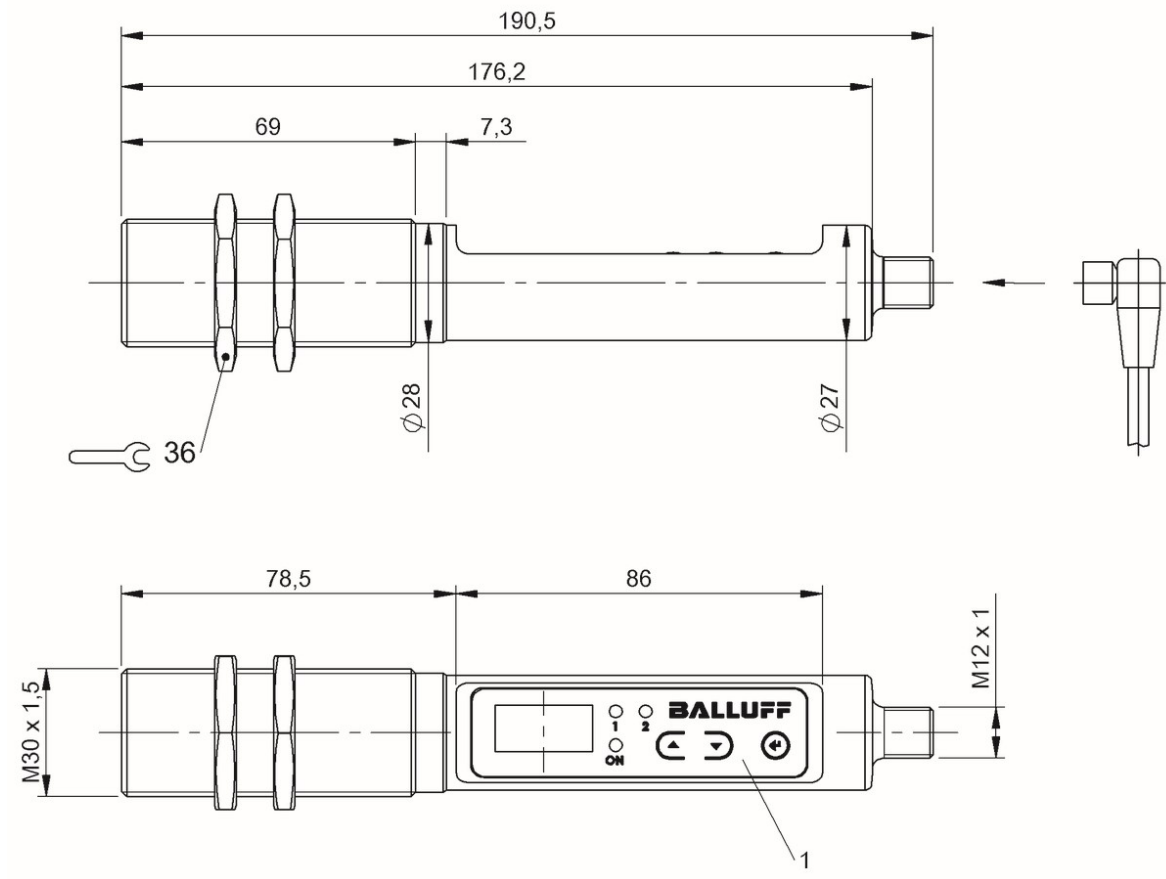
Accessories



	BTS0003 BTS M30E0-PSB-H0001-S04G	
Measuring range	250...1250 °C	
Temperature resolution	1 °C, 1 °F, 1 %	
Reproducibility	±1 °C	
Wave length	1200...1700 nm	
Distance ratio	50:1	
Dimension	Ø 30 x 190 mm	
Connection	M12x1 connector, 4-pin	
Operating voltage U _b	10...30 VDC	
Analog output	Analog, current 4...20 mA	
Switching output	PNP normally open/normally closed (NO/NC)	
Interface	—	
Material sensing surface	Borosilicate crown glass (N-BK7), coated	
Housing material	Stainless steel, stainless steel (1.4404) Black anodized aluminum, aluminum (3.3206)	
Protection degree	IP65, IP67	
Ambient temperature	-5...65 °C	
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BTS0002 BTS M30E0-UUI-H0001-S04G	
250...1250 °C	
1 °C, 1 °F, 1 %	
±1 °C	
1200...1700 nm	
50:1	
Ø 30 x 190 mm	
M12x1 connector, 4-pin	
10...30 VDC	
—	
2x PNP normally open/normally closed (NO/NC)	
IO-Link 1.1	
Borosilicate crown glass (N-BK7), coated	
Stainless steel (1.4404), stainless steel (1.4404) Black anodized aluminum, aluminum (3.3206)	
IP65, IP67	
-5...65 °C	
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1) Display and control panel

BTS0003, BTS0002



	BFT0015 BFT 6025-HV003-A00A0C-S4	BFT0012 BFT 6025-HV003-A02A0C-S4	BFT001H BFT 6025-HV003-D00A0C-S4	
Measuring range	-20...80 °C	-20...80 °C	-20...80 °C	
Measuring element	Pt1000	Pt1000	Pt1000	
Operating voltage U _b	15...35 VDC	15...35 VDC	15...35 VDC	
Analog output	Analog, voltage 0...10 V	Analog, current 4...20 mA	—	
Switching output	PNP	PNP	2x PNP	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Installation length from contact surface	25 mm	25 mm	25 mm	
Process connection	G 1/2" outer	G 1/2" outer	G 1/2" outer	
Process connection material	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)	
Gasket, material	Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	
Housing material	PC/ABS TPE-E, PC, stainless steel (1.4301)	PC/ABS TPE-E, PC, stainless steel (1.4301)	PC/ABS TPE-E, PC, stainless steel (1.4301)	
Pressure rating max.	150 bar	150 bar	150 bar	
Ambient temperature	-20...80 °C	-20...80 °C	-20...80 °C	
Protection degree	IP65, IP67	IP65, IP67	IP65, IP67	
Approval/Conformity	CE, cULus	CE, cULus	CE, cULus	
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	BFT001C BFT 6025-JC003-A00A0C-S4	BFT0018 BFT 6025-JC003-A02A0C-S4	BFT001L BFT 6025-JC003-D00A0C-S4	BFT0016 BFT 6050-HV003-A00A0C-S4	BFT0013 BFT 6050-HV003-A02A0C-S4
	-20...80 °C	-20...80 °C	-20...80 °C	-20...80 °C	-20...80 °C
	Pt1000	Pt1000	Pt1000	Pt1000	Pt1000
	15...35 VDC	15...35 VDC	15...35 VDC	15...35 VDC	15...35 VDC
	Analog, voltage 0...10 V	Analog, current 4...20 mA	—	Analog, voltage 0...10 V	Analog, current 4...20 mA
	PNP	PNP	2x PNP	PNP	PNP
	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
	25 mm	25 mm	25 mm	50 mm	50 mm
	NPT 1/2" outer	NPT 1/2" outer	NPT 1/2" outer	G 1/2" outer	G 1/2" outer
	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)
	—	—	—	Fluoroelastomer	Fluoroelastomer
	PC/ABS TPE-E, PC, stainless steel (1.4301)	PC/ABS TPE-E, PC, stainless steel (1.4301)	PC/ABS TPE-E, PC, stainless steel (1.4301)	PC/ABS TPE-E, PC, stainless steel (1.4301)	PC/ABS TPE-E, PC, stainless steel (1.4301)
	150 bar	150 bar	150 bar	150 bar	150 bar
	-20...80 °C	-20...80 °C	-20...80 °C	-20...80 °C	-20...80 °C
	IP65, IP67	IP65, IP67	IP65, IP67	IP65, IP67	IP65, IP67
	CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus
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	BFT001J BFT 6050-HV003-D00A0C-S4	BFT001E BFT 6050-JC003-A00A0C-S4	BFT0019 BFT 6050-JC003-A02A0C-S4	
Measuring range	-20...80 °C	-20...80 °C	-20...80 °C	
Measuring element	Pt1000	Pt1000	Pt1000	
Operating voltage U _b	15...35 VDC	15...35 VDC	15...35 VDC	
Analog output	—	Analog, voltage 0...10 V	Analog, current 4...20 mA	
Switching output	2x PNP	PNP	PNP	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Installation length from contact surface	50 mm	50 mm	50 mm	
Process connection	G 1/2" outer	NPT 1/2" outer	NPT 1/2" outer	
Process connection material	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)	
Gasket, material	Fluoroelastomer	—	—	
Housing material	PC/ABS TPE-E, PC, stainless steel (1.4301)	PC/ABS TPE-E, PC, stainless steel (1.4301)	PC/ABS TPE-E, PC, stainless steel (1.4301)	
Pressure rating max.	150 bar	150 bar	150 bar	
Ambient temperature	-20...80 °C	-20...80 °C	-20...80 °C	
Protection degree	IP65, IP67	IP65, IP67	IP65, IP67	
Approval/Conformity	CE, cULus	CE, cULus	CE, cULus	
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BFT001M BFT 6050-JC003-D00A0C-S4	BFT0017 BFT 6100-HV003-A00A0C-S4	BFT0014 BFT 6100-HV003-A02A0C-S4	BFT001K BFT 6100-HV003-D00A0C-S4	BFT001F BFT 6100-JC003-A00A0C-S4
-20...80 °C	-20...80 °C	-20...80 °C	-20...80 °C	-20...80 °C
Pt1000	Pt1000	Pt1000	Pt1000	Pt1000
15...35 VDC	15...35 VDC	15...35 VDC	15...35 VDC	15...35 VDC
—	Analog, voltage 0...10 V	Analog, current 4...20 mA	—	Analog, voltage 0...10 V
2x PNP	PNP	PNP	2x PNP	PNP
Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
50 mm	100 mm	100 mm	100 mm	100 mm
NPT 1/2" outer	G 1/2" outer	G 1/2" outer	G 1/2" outer	NPT 1/2" outer
Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)
—	Fluoroelastomer	Fluoroelastomer	Fluoroelastomer	—
PC/ABS TPE-E, PC, stainless steel (1.4301)	PC/ABS TPE-E, PC, stainless steel (1.4301)	PC/ABS TPE-E, PC, stainless steel (1.4301)	PC/ABS TPE-E, PC, stainless steel (1.4301)	PC/ABS TPE-E, PC, stainless steel (1.4301)
150 bar	150 bar	150 bar	150 bar	150 bar
-20...80 °C	-20...80 °C	-20...80 °C	-20...80 °C	-20...80 °C
IP65, IP67	IP65, IP67	IP65, IP67	IP65, IP67	IP65, IP67
CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus
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	BFT001A BFT 6100-JC003-A02A0C-S4	BFT001N BFT 6100-JC003-D00A0C-S4	BFT0001 BFT 6025-DX001-R02A0A-S4	
Measuring range	-20...80 °C	-20...80 °C	-50...150 °C	
Measuring element	Pt1000	Pt1000	Pt1000	
Operating voltage U _b	15...35 VDC	15...35 VDC	—	
Analog output	Analog, current 4...20 mA	—	Analog, resistance	
Switching output	PNP	2x PNP	—	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Installation length from contact surface	100 mm	100 mm	25 mm	
Process connection	NPT 1/2" outer	NPT 1/2" outer	G 1/4" outer	
Process connection material	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4305)	
Gasket, material	—	—	—	
Housing material	PC/ABS TPE-E, PC, stainless steel (1.4301)	PC/ABS TPE-E, PC, stainless steel (1.4301)	—	
Pressure rating max.	150 bar	150 bar	50 bar	
Ambient temperature	-20...80 °C	-20...80 °C	-40...100 °C	
Protection degree	IP65, IP67	IP65, IP67	IP66, IP67	
Approval/Conformity	CE, cULus	CE, cULus	CE	
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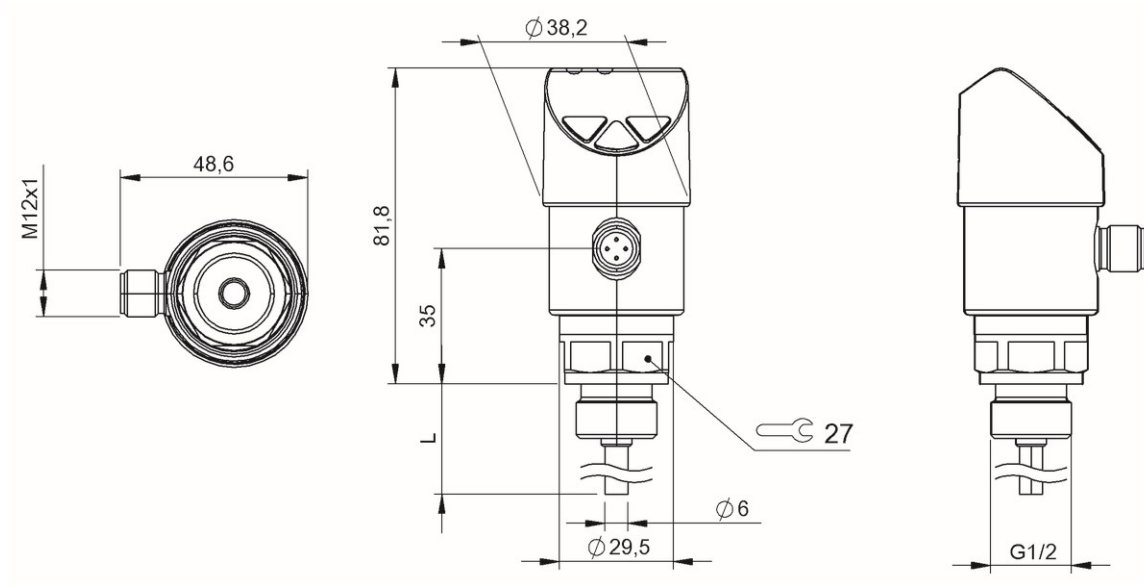
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-50...150 °C	-50...150 °C	-50...150 °C	-30...150 °C	-30...150 °C
Pt1000	Pt1000	Pt1000	Pt1000	Pt1000
—	—	—	10...30 VDC	10...30 VDC
Analog, resistance	Analog, resistance	Analog, resistance	Analog, current 4...20 mA	Analog, current 4...20 mA
—	—	—	—	—
Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin
25 mm	50 mm	50 mm	25 mm	25 mm
NPT 1/4" outer	G 1/4" outer	NPT 1/4" outer	G 1/4" outer	NPT 1/4" outer
Stainless steel (1.4305)	Stainless steel (1.4305)	Stainless steel (1.4305)	Stainless steel (1.4571)	Stainless steel (1.4571)
—	—	—	—	—
—	—	—	Stainless steel (1.4571)	Stainless steel (1.4571)
50 bar	50 bar	50 bar	270 bar	270 bar
-40...100 °C	-40...100 °C	-40...100 °C	-40...85 °C	-40...85 °C
IP66, IP67	IP66, IP67	IP66, IP67	IP67, IP69, IP69K	IP67, IP69, IP69K
CE	CE	CE	CE, cULus	CE, cULus
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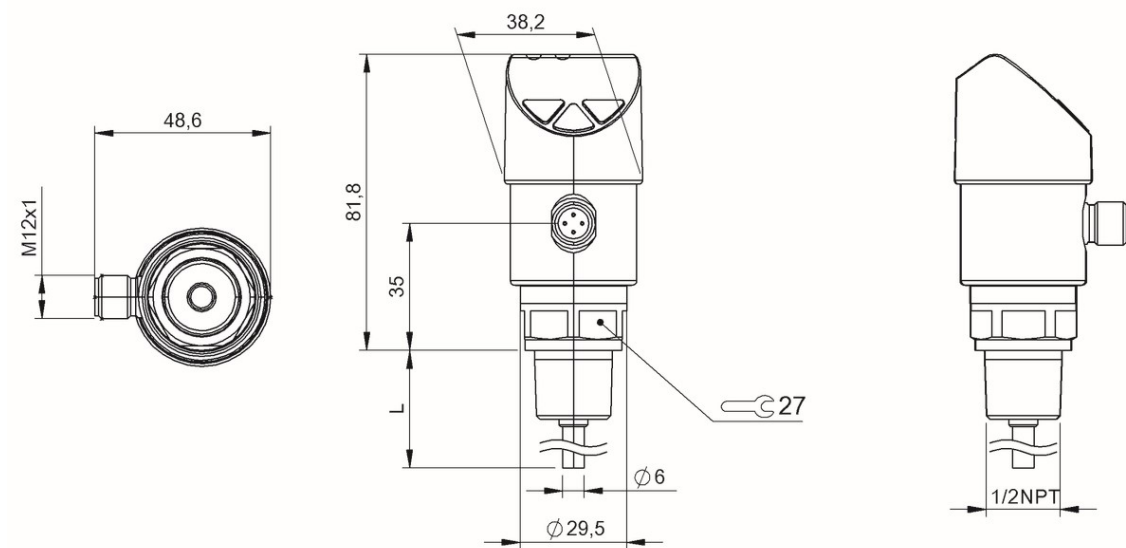
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Measuring range	-30...150 °C	-30...150 °C	-30...150 °C	
Measuring element	Pt1000	Pt1000	Pt1000	
Operating voltage U_b	10...30 VDC	10...30 VDC	10...30 VDC	
Analog output	Analog, current 4...20 mA	Analog, current 4...20 mA	Analog, current 4...20 mA	
Switching output	—	—	—	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	
Installation length from contact surface	50 mm	50 mm	100 mm	
Process connection	G 1/4" outer	NPT 1/4" outer	G 1/4" outer	
Process connection material	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)	
Gasket, material	—	—	—	
Housing material	Stainless steel (1.4571)	Stainless steel (1.4571)	Stainless steel (1.4571)	
Pressure rating max.	270 bar	270 bar	270 bar	
Ambient temperature	-40...85 °C	-40...85 °C	-40...85 °C	
Protection degree	IP67, IP69, IP69K	IP67, IP69, IP69K	IP67, IP69, IP69K	
Approval/Conformity	CE, cULus	CE, cULus	CE, cULus	
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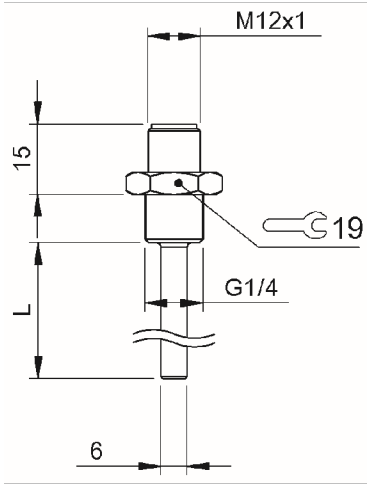
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-30...150 °C				
Pt1000				
10...30 VDC				
Analog, current 4...20 mA				
—				
Connector, M12x1 connector, 4-pin				
100 mm				
NPT 1/4" outer				
Stainless steel (1.4571)				
—				
Stainless steel (1.4571)				
270 bar				
-40...85 °C				
IP67, IP69, IP69K				
CE, cULus				
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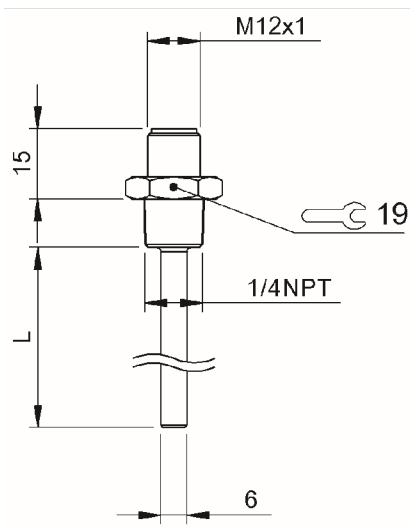
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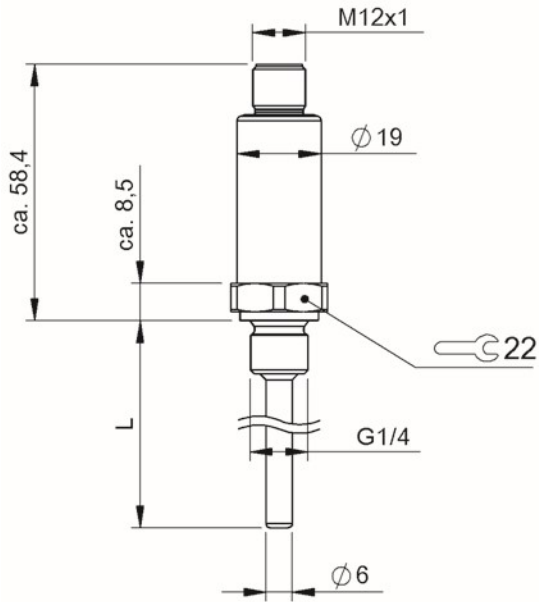


BFT0001, BFT0002

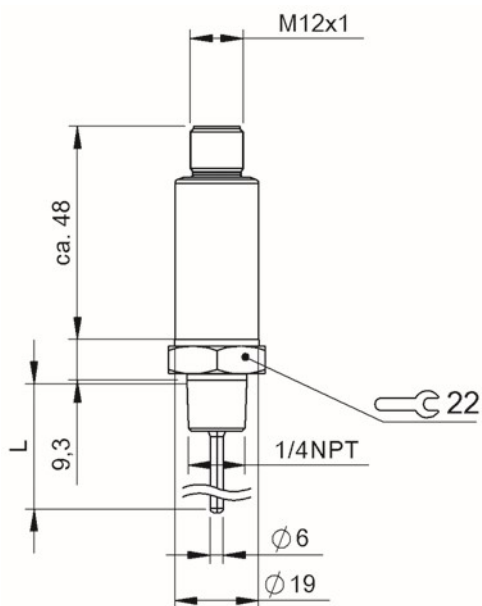


BFT0003, BFT0004

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BFT0005, BFT0006, BFT0007



BFT0008, BFT0009, BFT000A

