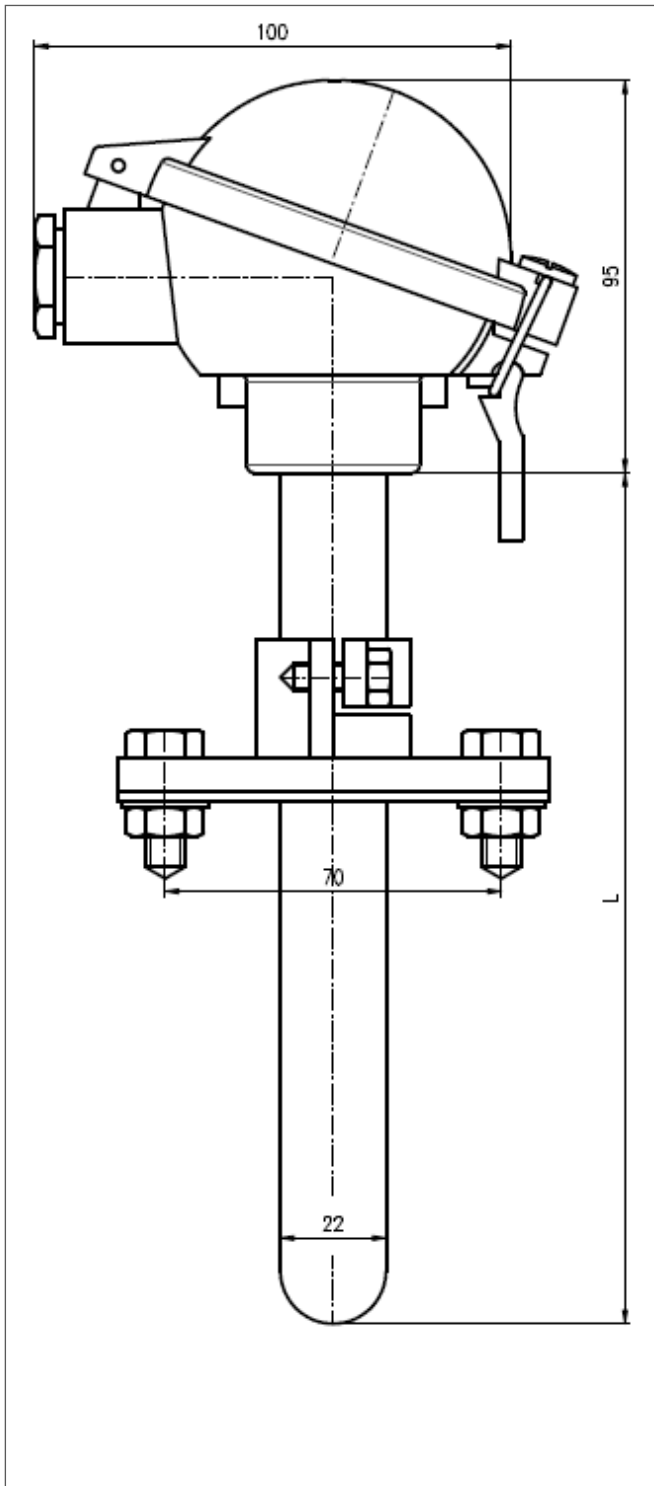


## BASIC DIMENSIONS



Type TTI-30 thermocouples are used for temperature measurement in different industrial furnaces up to 1200°C. Different types of sensors, heads and thermowell materials can be combined.

### Sensors:

- Thermocouple type K (NiCr-Ni)
- Thermocouple type J (FeCu-Ni)

As per EN 60584 and IEC 60584:

Type J	class I (°C)	class II (°C)
temperature	-40 < t < 375	-40 < t < 333
tolerance	±1,5	±2,5
temperature	375 < t < 750	333 < t < 750
tolerance	±0,004•[t]	±0,0075•[t]
Type K	class I (°C)	class II (°C)
temperature	-40 < t < 375	-40 < t < 333
tolerance	±1,5	±2,5
temperature	375 < t < 1000	333 < t < 1200
tolerance	±0,004•[t]	±0,0075•[t]

### Thermowell materials:

- EN 1.0305 / 35.8
- EN 1.4571 / AISI 316Ti
- EN 1.4404 / AISI 316L
- EN 1.4749 / AISI 446-1
- EN 1.4762 / AISI 446
- EN 1.4841 / AISI 314
- EN 2.4816 / Inconel 600

### Thermocouple conductor wire diameters:

- Ø1,6mm
- Ø2,3mm
- Ø2,5mm

### Mounting bracket (flange):

- material EN1.0402 AISI (M) 1020
- black powder lacquer coating

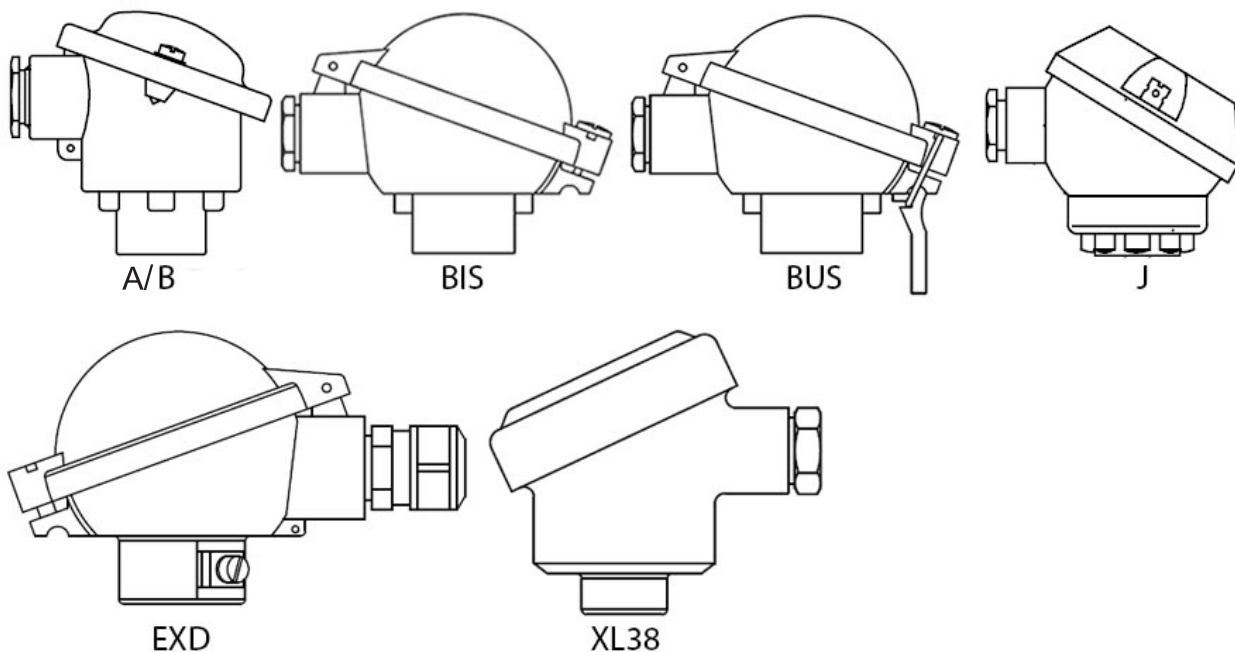
(mounting bracket for welding also available)

## HEAD TYPES

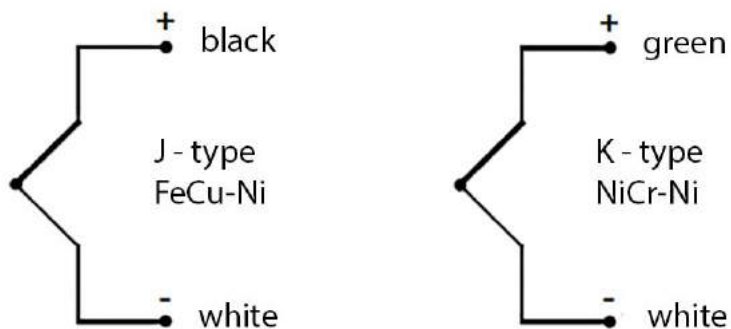
Heads per DIN 43729

Materials:

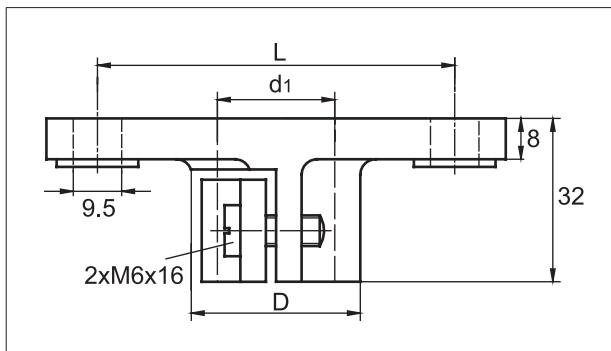
- aluminum alloy (A,B,BIS,BUS,J,EXD)
- polyamid PA12 antistatic (BIS)
- stainless steel (XL38)



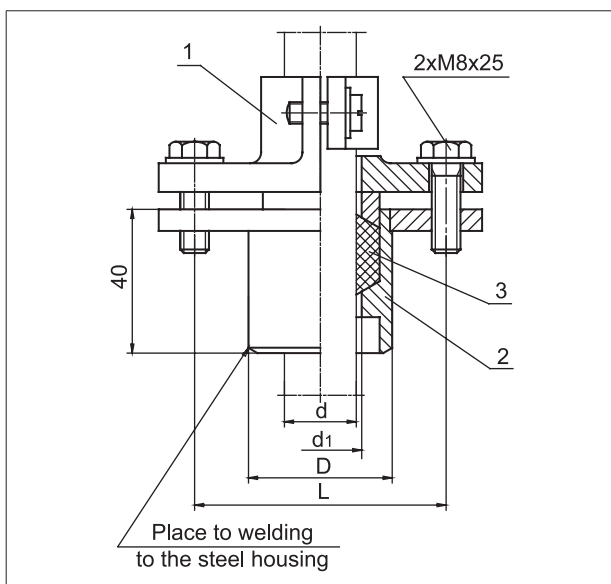
## CONNECTION SCHEMES



## MOUNTING BRACKETS:



TYPE	DIAMETER OF CLAMPING PIPE d [mm]	DIMENSIONS [mm]		
		d <sub>1</sub>	D	L
UZ 21-15	Ø15	16	27	55
UZ 21-22	Ø22	23	33	70
UZ 21-26-29	Ø26÷Ø29	29	39	70
UZ 21-32	Ø32	33	39	70
Material	EN1.040 AISI(M)1020, black powder lacquer coating.			
Max temp.	300°C			
Gas tightness	non tightness			
<b>Ordering sample: Mounting bracket MT 1</b>				



TYPE	DIAMETER OF CLAMPING PIPE d [mm]	DIMENSION [mm]		
		d <sub>1</sub>	D	L
UZ 11-15	Ø15	16	35	55
UZ 11-22	Ø22	23	40	70
UZ 11-32	Ø32	33	50	70
Materials	1.EN1.040 AISI(M)1020, black powder lacquer coating. 2. Carbon steel ST30, black powder lacquer coating. 3. Ceramic packing cord or teflon ring.			
Max temp.	300°C			
Gas tightness	to 1 bar (300°C)			
<b>Ordering sample: Mounting bracket MT 2</b>				

## CONFIGURATION

TTI-30		CODE	
1. INSERT	CERAMIC TUBE Ø15	C	for thermowell Ø22x2mm
	MANTEL Ø6mm	M6	
	MANTEL Ø8mm	M8	
	MANTEL Ø10mm	M10	
2. SENSOR ELEMENT	J	J	specify acc.class
	K	K	specify acc.class
	2x J	2J	specify acc.class
	2x K	2K	specify acc.class
3. LENGHT (L)	500	L500	
	710	L710	
	1000	L1000	
	1200	L1200	
	1400	L1400	
	2000	L2000	
	X	Lx	
4. THERMOWELL MATERIAL	EN 1.0305 / 35.8	1	Ø22x2
	EN 1.4571 / AISI 316Ti	2	Ø22x2
	EN 1.4404 / AISI 316L	3	Ø22x2
	EN 1.4762 / AISI 446	4	Ø22x2
	EN 1.4841 / AISI 314	5	Ø22x2
	EN 2.4816 / Inconel 600	6	Ø22x2
5. HEAD TYPE	B (IP54)	B	
	A (IP 54)	A	
	BIS (IP65)	BIS	
	BUS (IP65)	BUS	
	BIS-PA12 (IP68)	BIS-PA	
	J (IP54)	J	
	EXD (IP68)	EXD	
	XE38 IP(65)	XE38	
6. TRANSMITTER	5334A3B	5334A3B	4-20mA
	5334B3B	5334B3B	4-20mA Ex
	5331A3B	5331A3B	universal 4-20mA
	5331D3B	5331D3B	universal 4-20mA Ex
	5335A	5335A	universal HART 5
	5335D	5335D	universal HART 5 Ex
	5337A	5337A	universal HART 5 or HART 7
	5337D	5337D	universal HART 5 or HART 7 Ex
	5350A	5350A	universal BUS
	5350B	5350B	universal BUS Ex
7. TRANSMITTER TEMPERATURE RANGE		A/B	A-temp. at 4mV, B- temp. at 20mV
8. MOUNTING BRACKET	MT1	MT1	
	MT2	MT2	

### EXAMPLE:

	tip	1.	2.	3.	4.	5.	6.	7.	8.
CODE:	TTI-30	M10	K	L1000	6	B	/	/	MT1