

**GENERAL CHARACTERISTICS**

Measurement of differential temperature between two operating sites with lowest possible installation expense and a 4..20 mA two wire system which is complying to industrial standards. The sensing elements T1 and T2 measure the temperature at each location by a platinum resistance sensor at the same time. T1, as well as recording temperature, includes electronics which build up the differential of both temperatures (T1-T2) and emits this via a current amplifier as a proportional 4..20 mA signal. Two different characteristic curves are available as a standard. The electronic circuit involves a total of < 4 mA, so that a two wire system can be used.

- \* simple recording of differential temperature
- \* self assembly connectors
- \* large distance possible between two sensing elements
- \* variable rotating plug connection
- \* different characteristic curves possible

Außengewinde G1/2A Edelstahl

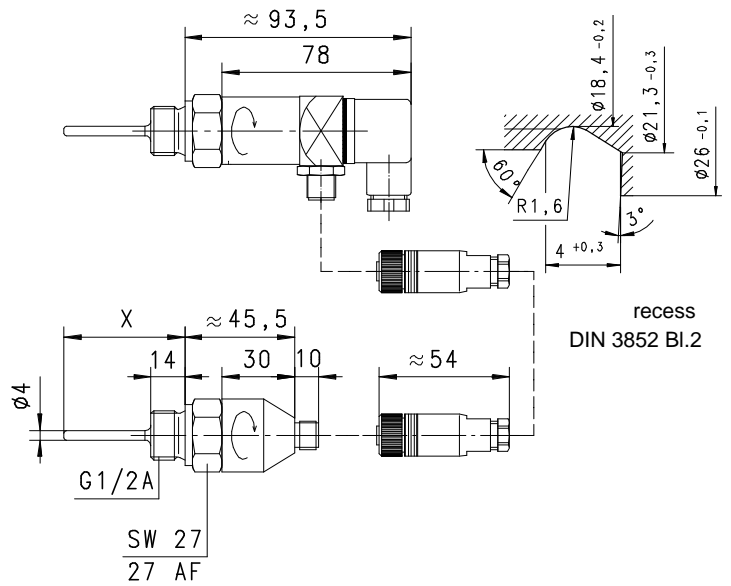


**TECHNICAL DATA**

differential temperature	T1-T2: 20, 30 or 50 Kelvin
accuracy	±1 Kelvin
transient time	2 min
max. pressure	max. 25 bar
operating temperature for electronics	0..80°C
measurement range T1	-20..80 °C optional -20..120 °C (goose-neck)
measurement range T2	-20..120 °C
weight	0.45kg

T 1

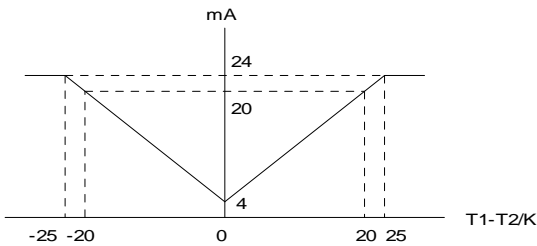
T 2



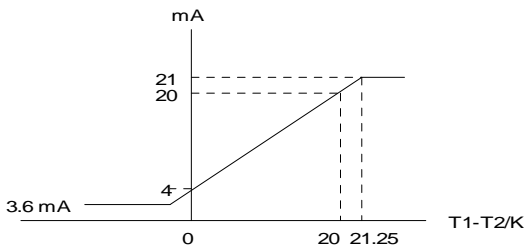
**CHARACTERISTIC CURVES**

Examples for measurement range 20 Kelvin differential temperature

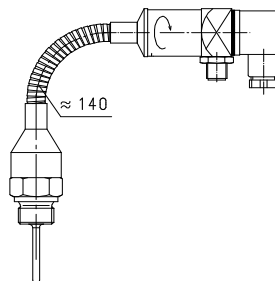
Typ A



Typ B



"goose-neck" option for higher temperatures



**MOUNTING**

By means of the enclosed Sikurit seals the sensors are tightened into the T piece of the pipe. Please only use the hexagonal head for tightening! Take care to locate the tip of the sensing device fully into the flow area and avoid direct contact to pipe wall. Accordingly the upper part of the sensor with the plug connectors can be turned to any position in order to orientate proper with the cable connectors.

**MATERIALS**

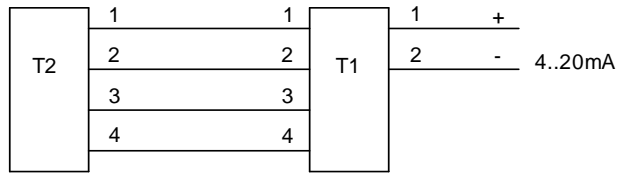
temperature probe stainless steel 1.4571  
 other materials brass nickel plated, PP

**ELECTRICAL DATA**

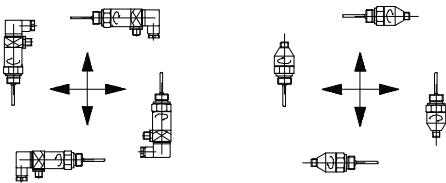
supply voltage	15..30 V DC
analogue output	4..20 mA (2-wire)
reverse polarity proof	yes up to 25V (pin 1..4) up to 40V (pin 1 and 2)
short circuit proof	yes
connection	plug DIN 43650-A
protection class	IP 65

locking plugs M12x1

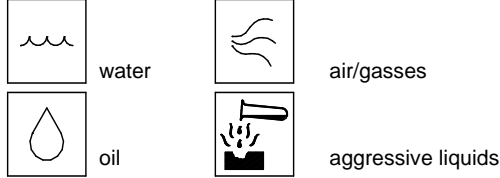
plug DIN 43650-A



**MOUNTING POSITION**



**METERING SUBSTANCES**



**NOMENCLATURE**

ETSD1-	04-	020	K	050	A		basic type specification
ETSD1-							● reference temperature sensor T1
	04-						● difference 0 K corresponds with 4mA
		020					● difference 20 K corresponds with 20mA
		030					● difference 30 K corresponds with 20mA
		050					● difference 50 K corresponds with 20mA
			K				● material medium contact stainless steel 1.4571
				028			● sensor length 28 mm
				029			● sensor length 29.6 mm
				045			● sensor length 45 mm
				050			● sensor length 50 mm
				100			● sensor length 100 mm
				150			● sensor length 150 mm
				200			● sensor length 200 mm
					A		● characteristic curve type A
					B		● characteristic curve type B
						H	● option goose-neck

ETSD2-	K	050		basic type specification
ETSD2-				● reference temperature sensor T2
	K			● material medium contact stainless steel 1.4571
		028		● sensor length 28 mm
		029		● sensor length 29.6 mm
		045		● sensor length 45 mm
		050		● sensor length 50 mm
		100		● sensor length 100 mm
		150		● sensor length 150 mm
		200		● sensor length 200 mm

For a complete temperature difference test station, sensor ETSD1 and ETSD2 must be ordered !

**Attention!** Use ETSD1 and ETSD2 with pairing serial number only.

**ACCESSORIES**

display connects with switch point GIA-0420VO product information 91.1.GIA.VO

All technical changes reserved

●BASIC Standard ○BASIC Programme option □VARIO Special option ⊕ PLUS Accessories ✗not recommendable