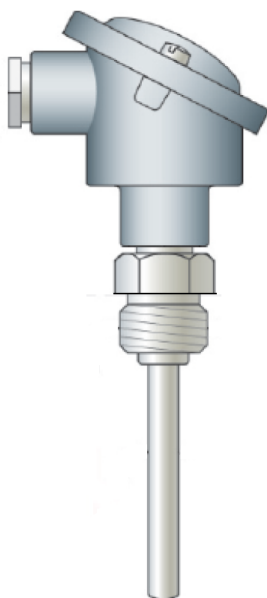


Thermocouple with connection head



2

Features

- With interchangeable measuring insert
- As single or double thermocouple
- Available with transmitter
- High precision, stability, quick response time

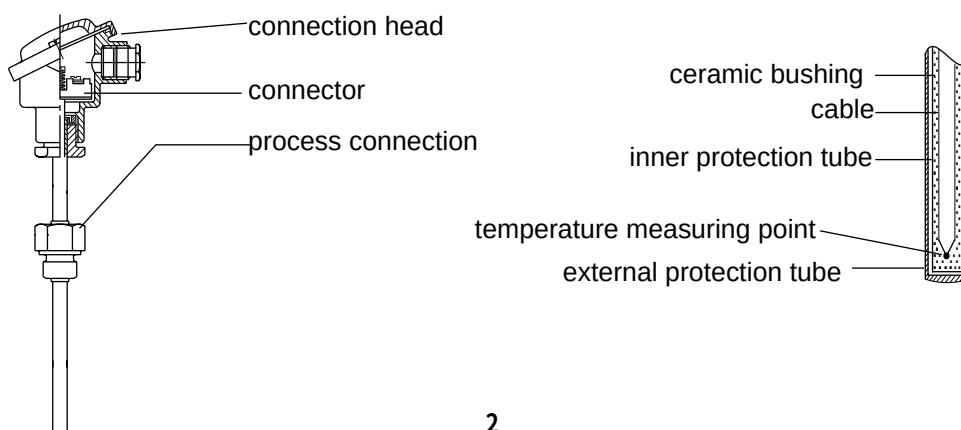
Descriptions

The temperature sensor are mainly used for measuring temperatures in liquids and gases. An important selection criterion is their reliable sealing against both negative and positive pressures. The heads are off the shelf with ceramic terminal blocks with two, four or six terminals. Several protection tubes in different materials and dimensions are available and mechanical damages. the choice of the appropriate protection tube material depends on the medium which has to be measured and conditions reigning in the site of measurement.

Applications

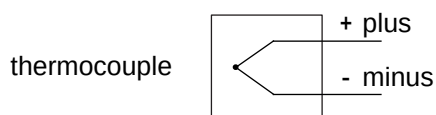
Applications include HVAC, refrigeration, heating installations, ovens, furnaces and plant engineering.

Construciton



2

Thermocouple connection



3

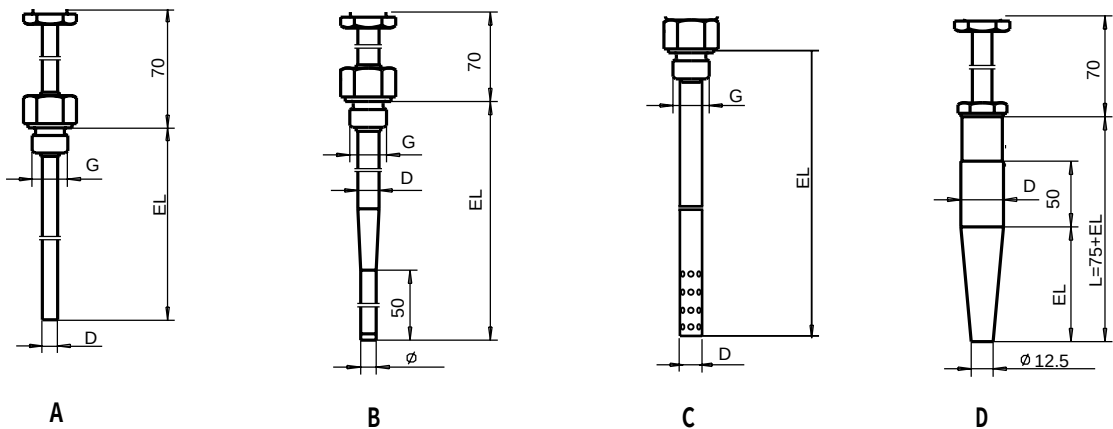
Thermocouples accuracy

Temperature element	Class 1	Temperature range	Class 2	Temperature range
T Cu-CuNi	0.5°C or (0.4% x T)°C	-40..+350°C	1°C or (0.75% x T)°C	-40..+350°C
J Fe-CuNi	1.5°C or (0.4% x T)°C	-40..+750°C	2.5°C or (0.75% x T)°C	-40..+750°C
K NiCr-Ni		-40..+1200°C		-40..+1200°C
E NiCr-CuNi		-40..+900°C		-40..+900°C
N NiCrSi-NiSi		-40..+1200°C		-40..+1200°C
S PtRh10-Pt	1.0°C or [0.3% x(t -1100)]°C	0..+1600°C	1.5°C or (0.25% x T)°C	0..+1600°C
R PtRh13-Pt		0..+1600°C		0..+1600°C
B PtRh30-PtRh6	—	0..+1700°C	1.5°C or (0.25% x T)°C	0..+1700°C

Protecting tube

Material	304/316L (stainless steel) (other material on customers requirements)
Diameter	6mm, 7mm, 9mm, 11mm (can be made in customers requirements)
Length	(can be made in customers requirements)
Protecting tube	the choice of the protecting tube length depends on the conditions reigning in the site of measurement.

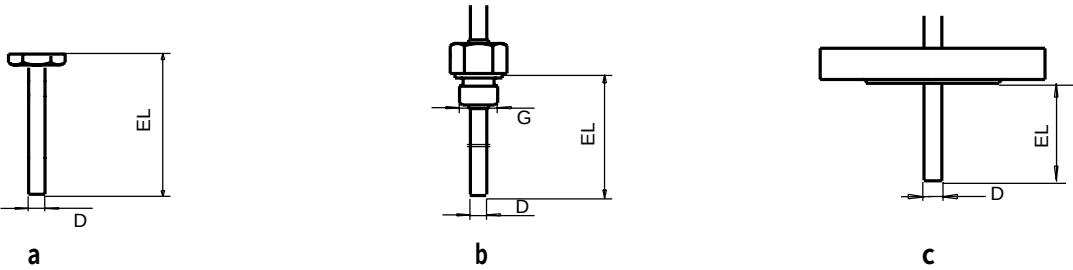
Protecting tube shape



4

- 4,A is a common form Protecting tube
- 4,B is a reducing Protecting tube,enables short response times and vibration-resistant construction.
- 4,C is a with hole Protecting tube,enables short response times and vibration-resistant construction.
- 4,D is a with sheath Protecting tube,enables short response times and vibration-resistant construction.

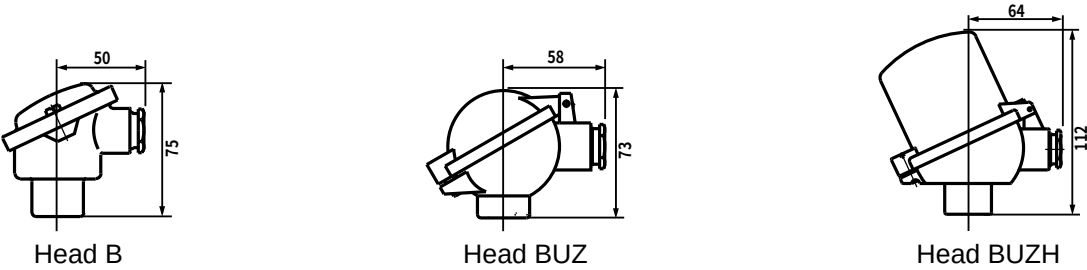
Process connection



5

- 5,a is no process connection(adjustable thread joint or counter flange)
- 5,b is fixed thread installation(see attached list 1)
- 5,c is fixed flange installation(see attached list 3)

Connection head



6

Head B	die-cast aluminum,M24x1.5, M 20x1.5; IP54, ambient temperature -20 to +100 °C
Head BUZ	die-cast aluminum,M24x1.5, M 20x1.5; IP65, ambient temperature -20 to +100 °C
Head BUZH	die-cast aluminum,M24x1.5, M 20x1.5; IP65, ambient temperature -20 to +100 °C (available with two transmitter)

Electrical connection

thermocouple connection(head B)

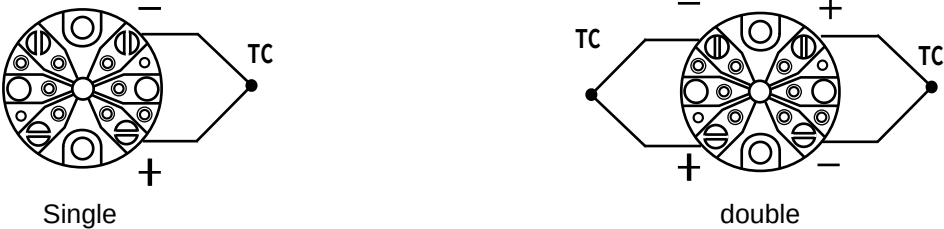


图 7

Transmitter

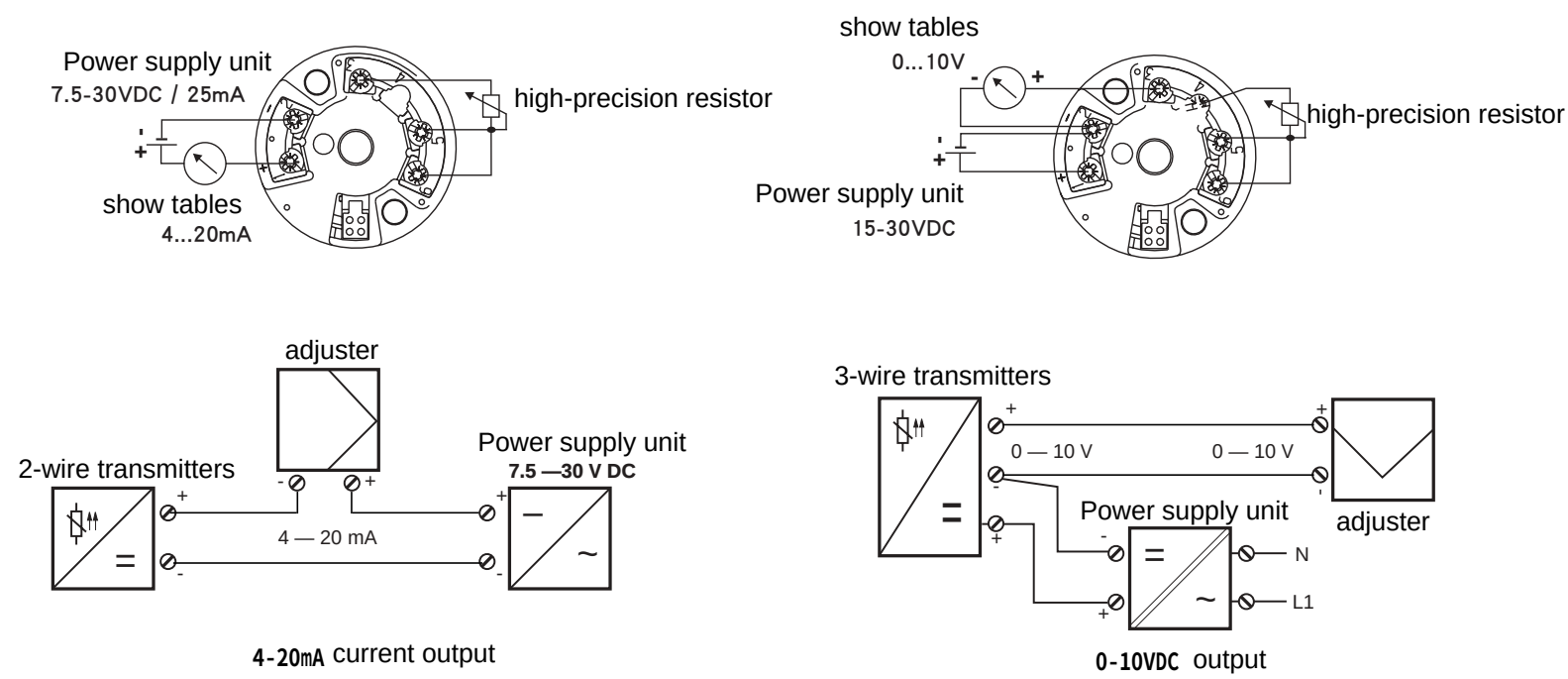


图 7

artificial circuit transmitters	with transmitters output 4 to 20mA or 0-10V
intelligence transmitters	with transmitters output 4 to 20mA / 4 to 20mA with Aart agreement
	detailed parameter please refer to transmitter data