

Temperaturgivare för instick svetsat skyddsrör, form 2 med reducerad spets

Användningsområde

För temperaturmätning i gaser och vätskor i rör och tankar vid medelhögt tryck och medelhöga flöden där snabba svartstider är viktigt. Monteras antingen med skjutbar fläns enligt DIN EN 50446 eller med gastät klämförskruvning. Se avsnitt "Tillbehör".

Armatyr

Material syrafast stål / 1.4571 eller likvärdigt, \varnothing 11 eller 12 mm.
Mätspets reducerad till \varnothing 6 mm. För mer utförlig information se "Teoriavsnitt".

Mätinsats

Bytbar mätinsats av syrafast stål $D=\varnothing$ 3 mm. Insatslängden = L + 10 mm.
För utförlig information om mätinsatsen se TR/TC 100.

Processtemperatur

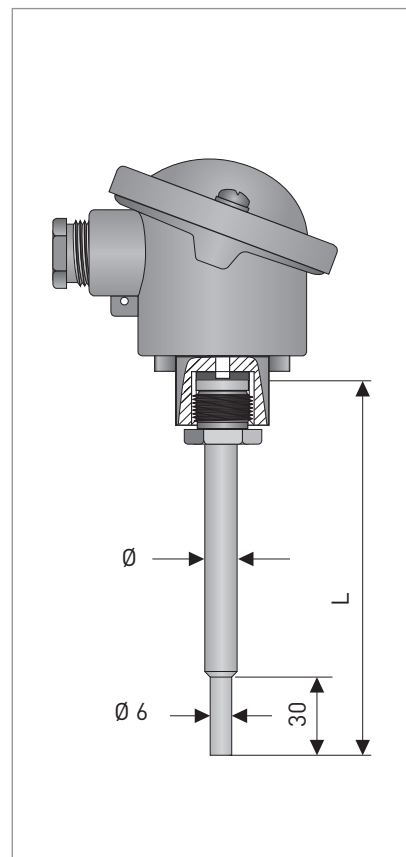
| | |
|-----|-----------------|
| TRA | -196...+600 °C* |
| TCA | -40...+600 °C** |

Kapslingsklass

Se avsnitt Kopplingshuvuden på sida 120.

Svarstider

| Typ | Vatten 0.4 m/s | |
|---------------------------|----------------|-------|
| | t 0.5 | t 0.9 |
| TRA-P20, \varnothing 11 | 8 s | 22 s |
| TCA-P20, \varnothing 11 | 7 s | 18 s |



Dimensioner i mm

För mer detaljerade dimensioner se kapitel "Dimensioner för insticksgivare" på sida 149.

Beställningskod för TRA-P20 med standardinställningar

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| V | T | S | 1 | 4 | 5 | 0 | 1 | 3 | 2 | 1 | 4 | 0 | 0 | 4 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| | | | | | | | 1 | | | | | | | | | 7 | 8 | | | | | | | | | | | |

Detta är ett urval av de valmöjligheter som finns för denna givare. För komplett beställningskod se sidan 18.

1. TYP

| | | |
|---|-----------------|---------|
| 5 | Motståndsgivare | TRA-P20 |
| E | Termoelement | TCA-P20 |

7. DIAMETER SKYDDSFICKA (\varnothing)

| | |
|---|-------|
| 3 | 11 mm |
| 4 | 12 mm |

8. PROCESSANSLUTNING

| | |
|---|--------------------------------|
| 0 | Utan |
| P | Klämförskruvning G 1/2 (SS) |
| R | Klämförskruvning G 3/4 (SS) |
| S | Klämförskruvning 1/2" NPT (SS) |
| U | Klämförskruvning G 1/2 (PTFE) |
| V | Klämförskruvning G 3/4 (PTFE) |
| N | Klämförskruvning G 1 (SS) |

* Max. och Min. temperatur gäller under rätt förutsättningar. För mer info se "Termisk belastning av kopplingshuvud" på sidan 154

** Temperaturspannet kan utökas med annat material i skyddsröret

| | | | |
|--|--|--|---|
| 1. Type | | | |
| 1 TRA-P 10 (Form 2) [Ex] | 2 TRA-S 11 (Form 8) [Ex] | 4 TRA-F 13 (Form 2F) [Ex] | |
| 5 TRA-P 20 reduced tip | 3* TRA-S 12 (Form 2G) [Ex] | 8 TRA-F 23 reduced tip | |
| A TCA-P 10 (Form 2) [Ex] | 6 TRA-S 21 reduced tip | D TCA-F 13 (Form 2F) [Ex] | |
| E TCA-P 20 reduced tip | 7 TRA-S 22 reduced tip | H TCA-F 23 reduced tip | |
| B TCA-S 11 (Form 8) [Ex] | C TCA-S 12 (Form 2G) [Ex] | | |
| F TCA-S 21 reduced tip | G TCA-S 22 reduced tip | | |
| TRA RTD temperature assembly | | | |
| TCA TC temperature assembly | | | |
| 2. Certificate | | | |
| 0 without | 1 ATEX Ex ia | 4 IECEx Ex ia | |
| 3. Connection heads | | | |
| Aluminium M20x1,5 | | Stainless steel M20x1,5 | |
| 1 BA screw cover, IP65 | 8 BVA screw cover, IP65 | B BUZ-HK hinged cover, IP54 [Ex] | |
| 2 BUZ-S hinged cover, snap, IP65 | C SXD screw cover, IP68 [Ex] | 7 BBK screw cover, IP54 | |
| 3 BUZ-T hinged cover, screw, IP65 [Ex] | M BHY screw cover, M16x1,5, IP67 | | |
| 4 BGK screw cover, IP65 | R SXD-W* screw cover+Indicator, IP68 [Ex] | | |
| 5 BUZ-H hinged cover, IP65 [Ex] | | | |
| 6 BUZ-HW* with indicator, IP65 | | | |
| A AXD screw cover, IP68 [Ex] | | | |
| P AXD-W* screw cover+Indicator, IP68 [Ex] | | | |
| 4. Measuring insert = sensor / wiring | | | |
| 2 1x Pt100 3-wire [Ex] | 8 1x Pt100 3-wire + Smart Sense | A 1x Thermocouple Type J (Fe-CuNi) [Ex] | |
| 3 1x Pt100 4-wire [Ex] | | B 1x Thermocouple Type K (NiCr-Ni) [Ex] | |
| 4 2x Pt100 3-wire (Cl.A, WW) [Ex] | | D 2x Thermocouple Type J (Fe-CuNi) [Ex] | |
| 5 2x Pt100 4-wire (Cl.A, WW) [Ex] | | E 2x Thermocouple Type K (NiCr-Ni) [Ex] | |
| 5. Measuring insert / tolerance class | | | |
| Mineral insulated thin film | | Mineral insulated wire wound | |
| 1 Cl. B (-50...+500°C) | 4 Cl. A (-100 ... +450°C) | A Cl.1 | |
| 2 Cl. A (-30 ... +300°C) | 6 Cl. B (-200... +600°C) | | |
| 3 Cl. A, vibration-proof (-20 ... +200°C) | 5 Cl. AA (-50... +250°C) | | |
| | 7 1/10 DIN B (0°C) | | |
| | P Matched pair cl. A | | |
| 6. Protection tube material | | | |
| 0 without | | | |
| 1 1.4571 316Ti (Ø 9, 11, 12 mm; up to + 600°C) | | | |
| 3 1.4404 316L (Ø 10, 12, 15, mm; up to + 600°C) | | | |
| 7. Protection tube diameter | | | |
| 0 without | 3 11 mm 1.4571 | 5 15 mm 1.4404 | |
| 1 9 mm 1.4571 (not reduced tip) | 4 12 mm 1.4571 / 1.4404 | P 14 mm PTFE / 1.4571 / 1.4404 | |
| 2 10 mm 1.4404 (not reduced tip) | | | |
| 8. Process connection | | | |
| 0 without | Flanged | | Compression fittings |
| Threaded | | | |
| 1 G 1/2 A | B Flange DN25, EN1092-1 | P Compression fitting G 1/2, SS | |
| 2 G 3/4 A | C Flange DN40, EN1092-1 | R Compression fitting G 3/4, SS | |
| 3 G 1 A | D Flange DN50, EN1092-1 | N Compression fitting G 1, SS | |
| 5 1/2" NPT | H Flange 1", ASME B16.5 | S Compression fitting 1/2" NPT, SS | |
| 6 3/4" NPT | L Flange 1,5", ASME B16.5 | U Compression fitting G 1/2, PTDE | |
| 7 1" NPT | X Sliding flange UZ21 for Ø5 tube | V Compression fitting G 3/4, PTFE | |
| 9. Pressure rating | | | |
| 0 without | A 150 lbs RF B16.5 | | |
| 1 PN 40 Form B1 | B 300 lbs RF B16.5 | | |
| 10. Immersion length thermowell (L) | | | |
| 0 without | 5 170 mm | A 305 mm | R 450 mm |
| 1 75 mm | M 200 mm | B 315 mm | F 465 mm |
| 2 100 mm | 6 225 mm | P 350 mm | G 480 mm |
| 3 115 mm | 7 250 mm | C 390 mm | S 500 mm |
| L 150 mm | 8 270 mm | D 395 mm | H 545 mm |
| 4 160 mm | N 300 mm | E 400 mm | K 725 mm |
| | | | Z customised length (55...6000 mm) |
| 11. Extension tube length (HL) | | | |
| 0 without | H 150 mm | L 170 mm | |
| 1 80 mm (standard length for flange) | K 160 mm | M 180 mm | |
| 3 145 mm (standard length for thread) | D 110 mm | N 190 mm | |
| A 70 mm | E 120 mm | P 200 mm | |
| B 90 mm | F 130 mm | Z customised length (min 55...400 mm) | |
| C 100 mm | G 140 mm | | |
| 12. Type of connection / head mounted transmitter | | | |
| 0 with flying leads for transmitter mounting | | | |
| 1 Standard version with ceramic terminal block | | | |
| L with head mounted transmitter // APAQ C130 | | Basic RTD/TC | |
| 4 with head mounted transmitter // IPAQ C202 | | Basic RTD | [Ex] |
| C with head mounted transmitter // IPAQ C330 | | Universal | [Ex] |
| E with head mounted transmitter // IPAQ C520 | | Smart, HART, SIL2 | [Ex] |
| M with head mounted transmitter // IPAQ C530 | | Smart, HART | [Ex] |
| 13. Type of connection / rail mounted transmitter | | | |
| 0 without | | | |
| L with rail mounted transmitter // APAQ R130 | | Basic RTD/TC | |
| A with rail mounted transmitter // IPAQ-4L | | Universal, 90 - 250 VAC | |
| B with rail mounted transmitter // IPAQ-4L | | Universal, 20 - 30 VDC | |
| C with rail mounted transmitter // IPAQ R330 | | Universal | [Ex] |
| H with rail mounted transmitter // IPAQ R520 | | Smart, HART / SIL2 | [Ex] |
| M with rail mounted transmitter // IPAQ R530 | | Smart, HART | [Ex] |
| 14. Measuring range | | | |
| 0 without | 4 -50 ... +150°C | 8 0...+200°C | D 0... +400°C |
| 1 customised * | 5 0 ... +50°C | A 0...+250°C | E 0... +450°C |
| 2 -50 ... +50°C | 6 0...+100°C | B 0...+300°C | F 0... +500°C |
| 3 -50 ... +100°C | 7 0...+150°C | C 0...+350°C | G 0... +600°C |

Vissa kombinationer är inte möjliga. Vänligen kontakta KROHNE Inor för ytterligare information.

