

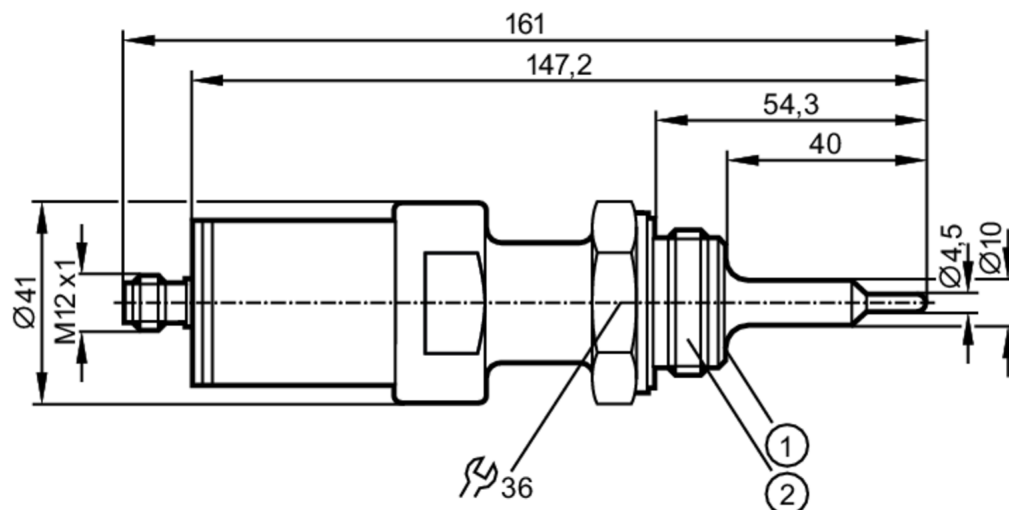
## Temperature transmitter with drift detection

TAD040KLES30-A-DKG/US

Article no longer available - archive entry

Alternative articles: TAD991 + E33403

When selecting an alternative article and accessories please note that technical data may differ!



- 1 sealing area  
2 Aseptoflex thread



EHEDG Certified

## Product characteristics

|                              |                                                             |              |
|------------------------------|-------------------------------------------------------------|--------------|
| Number of inputs and outputs | Number of digital outputs: 1; Number of analogue outputs: 1 |              |
| Measuring range              | -25...160 °C                                                | -13...320 °F |
| Process connection           | Aseptoflex                                                  |              |
| Installation length EL [mm]  | 40                                                          |              |

## Application

|                                 |                                                                                                                    |  |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------|--|
| Special feature                 | Gold-plated contacts                                                                                               |  |
| Measuring element               | 1 x Pt 1000 + 1 x NTC; (thermally coupled, with backup function (temperature measuring even if one element fails)) |  |
| Media                           | liquids and gases                                                                                                  |  |
| Pressure rating [bar]           | 50                                                                                                                 |  |
| Minimum installation depth [mm] | 15                                                                                                                 |  |
| No dead space                   | yes                                                                                                                |  |

## Electrical data

|                             |                            |  |
|-----------------------------|----------------------------|--|
| Operating voltage [V]       | 20...32 DC; (to SELV/PELV) |  |
| Current consumption [mA]    | 23; (24 V)                 |  |
| Protection class            | III                        |  |
| Reverse polarity protection | yes                        |  |
| Power-on delay time [s]     | 4                          |  |
| Integrated watchdog         | yes                        |  |



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| Inputs / outputs                                |       |                                                                                                                                                                                                                                     |
|-------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of inputs and outputs                    |       | Number of digital outputs: 1; Number of analogue outputs: 1                                                                                                                                                                         |
| Outputs                                         |       |                                                                                                                                                                                                                                     |
| Total number of outputs                         |       | 2                                                                                                                                                                                                                                   |
| Output signal                                   |       | switching signal; analogue signal; (configurable)                                                                                                                                                                                   |
| Electrical design                               |       | PNP/NPN                                                                                                                                                                                                                             |
| Number of digital outputs                       |       | 1                                                                                                                                                                                                                                   |
| Output function                                 |       | normally open / normally closed / diagnostic signal; (parameterisable)                                                                                                                                                              |
| Max. voltage drop switching output DC           | [V]   | 2                                                                                                                                                                                                                                   |
| Permanent current rating of switching output DC | [mA]  | 250                                                                                                                                                                                                                                 |
| Diagnostic output                               |       | Drift monitoring; fault monitoring                                                                                                                                                                                                  |
| Number of analogue outputs                      |       | 1                                                                                                                                                                                                                                   |
| Analogue current output                         | [mA]  | 4...20                                                                                                                                                                                                                              |
| Max. load                                       | [Ω]   | (Ub - 10 V) x 50                                                                                                                                                                                                                    |
| Short-circuit protection                        |       | yes                                                                                                                                                                                                                                 |
| Type of short-circuit protection                |       | pulsed                                                                                                                                                                                                                              |
| Overload protection                             |       | yes                                                                                                                                                                                                                                 |
| Measuring/setting range                         |       |                                                                                                                                                                                                                                     |
| Probe length L                                  | [mm]  | 40                                                                                                                                                                                                                                  |
| Measuring range                                 |       | -25...160 °C      -13...320 °F                                                                                                                                                                                                      |
| Drift warning                                   |       | 0.2...5 °C      0.4...9 °F                                                                                                                                                                                                          |
| Drift alarm                                     |       | 0.2...5 °C      0.4...9 °F                                                                                                                                                                                                          |
| In steps of                                     |       | 0.05 °C      0.1 °F                                                                                                                                                                                                                 |
| Resolution                                      |       |                                                                                                                                                                                                                                     |
| Resolution of analogue output                   | [K]   | 0.05                                                                                                                                                                                                                                |
| Accuracy / deviations                           |       |                                                                                                                                                                                                                                     |
| Precision analogue output                       | [K]   | ± 0,2 (-10...100°C); ± 0,3 (-25...-10/100...150°C); (probe completely inserted into the measured medium up to the sealing chamfer)                                                                                                  |
| Drift monitoring                                | [K]   | ± 0,2 (-10...100°C); ± 0,3 (-25...-10/100...150°C *); (probe completely inserted into the measured medium up to the sealing chamfer)                                                                                                |
| Temperature coefficient                         | [X22] | < ± 0,01; (in case of deviation from the reference condition 25 ± 5 °C)                                                                                                                                                             |
| Response times                                  |       |                                                                                                                                                                                                                                     |
| Dynamic response T05 / T09                      | [s]   | 6 / 13                                                                                                                                                                                                                              |
| Software / programming                          |       |                                                                                                                                                                                                                                     |
| Parameter setting options                       |       | drift warning/drift alarm threshold; Fail-Safe; Display unit; scaling of the analogue output; redundancy switching; performance diagnostic output; switching logic; normally open / normally closed; programmable via EPS interface |
| Operating conditions                            |       |                                                                                                                                                                                                                                     |
| Ambient temperature                             | [°C]  | -25...70                                                                                                                                                                                                                            |
| Note on ambient temperature                     |       | electronics: -25...70 °C<br>Process connection: -32...170 °C                                                                                                                                                                        |
| Storage temperature                             | [°C]  | -40...85                                                                                                                                                                                                                            |

TAD961



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|            |               |
|------------|---------------|
| Protection | IP 67; IP 69K |
|------------|---------------|

Tests / approvals

|                      |                                                 |                     |
|----------------------|-------------------------------------------------|---------------------|
| EMC                  | DIN EN 61000-4-2 ESD                            | 4 kV CD / 8 kV AD   |
|                      | EN 61000-4-3 HF radiated                        | 10 V/m              |
|                      | DIN EN 61000-4-4 Burst                          | 2 kV                |
|                      | EN 61000-4-6 HF conducted                       | 10 V                |
| Shock resistance     | DIN IEC 68-2-27                                 | 50 g (11 ms)        |
| Vibration resistance | DIN EN 60068-2-6                                | 20 g (10...2000 Hz) |
| Note on approval     | Including free 5-point calibration certificate. |                     |

Mechanical data

|                                                   |                                           |
|---------------------------------------------------|-------------------------------------------|
| Weight [g]                                        | 0.456                                     |
| Materials                                         | stainless steel (1.4404 / 316L); PEI; FKM |
| Materials (wetted parts)                          | stainless steel (1.4404 / 316L)           |
| Process connection                                | Aseptoflex                                |
| Surface characteristics Ra/Rz of the wetted parts | Ra: < 0.6                                 |
| Installation length EL [mm]                       | 40                                        |

Remarks

|               |                                                                                                                                                                                                                                                                                   |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Remarks       | referring to UL: for use on a low voltage circuit with overcurrent protection<br>in accordance with UL873 tab. 28.1 or $I_{max} = 100/U_b$ ( $U_b$ = voltage of the circuit)<br>The 3-A qualification is only valid if adapters with 3-A qualification are used for installation. |
| Pack quantity | 1 pcs.                                                                                                                                                                                                                                                                            |

Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection

