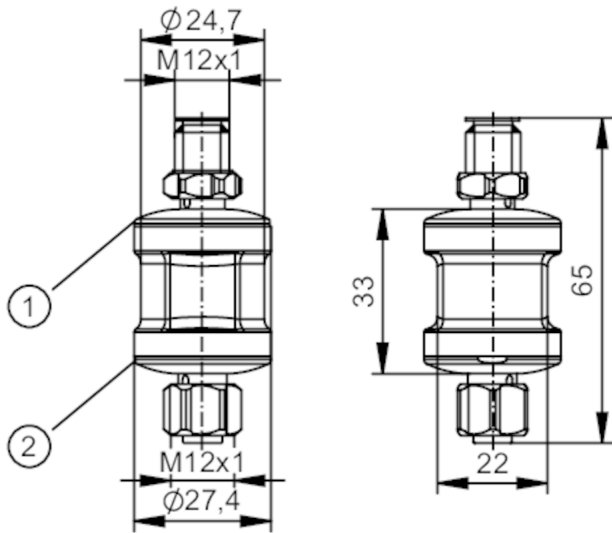


TP2001



Temperature plug for hygienic applications

TP-CDC-AFZVG/US/



- 1 LED switching status indication  
2 LED voltage indication

| Product characteristics                         |                                                             |                  |
|-------------------------------------------------|-------------------------------------------------------------|------------------|
| Number of inputs and outputs                    | Number of digital outputs: 1; Number of analogue outputs: 1 |                  |
| Measuring range                                 | -100...300 °C                                               | -148...572 °F    |
| Communication interface                         | IO-Link                                                     |                  |
| Application                                     |                                                             |                  |
| Special feature                                 | Gold-plated contacts                                        |                  |
| Application                                     | for Pt100 and Pt1000 measuring elements                     |                  |
| Electrical data                                 |                                                             |                  |
| Operating voltage                               | [V]                                                         | 18...32 DC       |
| Protection class                                |                                                             | III              |
| Reverse polarity protection                     |                                                             | yes              |
| Power-on delay time                             | [s]                                                         | 2                |
| Integrated watchdog                             |                                                             | yes              |
| 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                                   | analogue signal; IO-Link; switching signal; (configurable)  |                  |
| Electrical design                               | PNP/NPN                                                     |                  |
| Number of digital outputs                       |                                                             | 1                |
| Output function                                 | normally open / normally closed; (parameterisable)          |                  |
| Max. voltage drop switching output DC           | [V]                                                         | 2                |
| Permanent current rating of switching output DC | [mA]                                                        | 100              |
| Number of analogue outputs                      |                                                             | 1                |
| Analogue current output                         | [mA]                                                        | 4...20           |
| Max. load                                       | [Ω]                                                         | (Ub-13,5)/0,0215 |



## Temperature plug for hygienic applications

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|                                                                |                                                                                                               |                                                                 |
|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Short-circuit protection                                       | yes                                                                                                           |                                                                 |
| Type of short-circuit protection                               | not locked in place                                                                                           |                                                                 |
| Overload protection                                            | yes                                                                                                           |                                                                 |
| Measuring/setting range                                        |                                                                                                               |                                                                 |
| Measuring range                                                | -100...300 °C                                                                                                 | -148...572 °F                                                   |
| Factory setting                                                | -10...150 °C                                                                                                  |                                                                 |
| Resolution of analogue output [K]                              | 0.017; (MS: -10...150 °C)                                                                                     |                                                                 |
| Accuracy / deviations                                          |                                                                                                               |                                                                 |
| Precision analogue output [K]                                  | ± 0,1; (MS: -10...150 °C) ; or ± (0,067 % MS)                                                                 |                                                                 |
| Precision IO-Link [K]                                          | ± 0,05                                                                                                        |                                                                 |
| Temperature coefficient analogue output [% of the span / 10 K] | < 0,1                                                                                                         |                                                                 |
| Temperature coefficient IO-Link [% of the span / 10 K]         | < 0,06                                                                                                        |                                                                 |
| Response times                                                 |                                                                                                               |                                                                 |
| Max. measuring/display cycle [ms]                              | 350                                                                                                           |                                                                 |
| Software / programming                                         |                                                                                                               |                                                                 |
| Parameter setting options                                      | scaling of the analogue output; calibration adjustment; hysteresis / window; switching logic; simulation mode |                                                                 |
| Interfaces                                                     |                                                                                                               |                                                                 |
| Communication interface                                        | IO-Link                                                                                                       |                                                                 |
| Transmission type                                              | COM2 (38,4 kBaud)                                                                                             |                                                                 |
| IO-Link revision                                               | 1.1.3                                                                                                         |                                                                 |
| IO-Link resolution temperature [K]                             | 0.01                                                                                                          |                                                                 |
| Operating conditions                                           |                                                                                                               |                                                                 |
| Ambient temperature [°C]                                       | -25...80                                                                                                      |                                                                 |
| Storage temperature [°C]                                       | -40...85                                                                                                      |                                                                 |
| Protection                                                     | IP 68; IP 69K                                                                                                 |                                                                 |
| Tests / approvals                                              |                                                                                                               |                                                                 |
| EMC                                                            | DIN EN 61000-6-2                                                                                              | if frequencies above 40 MHz occur, the housing must be grounded |
|                                                                | DIN EN 61000-6-3                                                                                              |                                                                 |
| Shock resistance                                               | DIN EN 68000-2-27                                                                                             | 50 g (11 ms)                                                    |
| Vibration resistance                                           | DIN EN 60068-2-6                                                                                              | 20 g (10...2000 Hz)                                             |
| Mechanical data                                                |                                                                                                               |                                                                 |
| Weight [g]                                                     | 53.85                                                                                                         |                                                                 |
| Dimensions [mm]                                                | 65 x 27.4 x 27.4                                                                                              |                                                                 |
| Thread designation                                             | M12 x 1                                                                                                       |                                                                 |
| Materials                                                      | LED: PA; housing: stainless steel (316L/1.4404)                                                               |                                                                 |
| Sealing material                                               | FKM                                                                                                           |                                                                 |

# TP2001



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### Displays / operating elements

|         |                  |                 |
|---------|------------------|-----------------|
| Display | status           | 1 x LED, green  |
|         | switching status | 1 x LED, orange |

### Remarks

|               |                         |
|---------------|-------------------------|
| Remarks       | MS = set measuring span |
| Pack quantity | 1 pcs.                  |

### Electrical connection

Connector: 1 x M12; coding: A; Moulded body: TPU; Locking: stainless steel (316L/1.4404); Sealing: FKM; Contacts: gold-plated



### Connection

