

# TA3155

## Temperature transmitter

TA-200CLEM14-A-ZVG/US



### Product characteristics

|                              |                                           |              |
|------------------------------|-------------------------------------------|--------------|
| Number of inputs and outputs | Number of analog outputs: 1               |              |
| Measuring range              | -50...150 °C                              | -58...302 °F |
| Process connection           | threaded connection G 1/4 external thread |              |
| Installation length EL [mm]  | 200                                       |              |

### Application

|                       |                                         |
|-----------------------|-----------------------------------------|
| System                | gold-plated contacts                    |
| Measuring element     | 1 x Pt 1000; (to DIN EN 60751, class A) |
| Media                 | liquids and gases                       |
| Pressure rating [bar] | 400                                     |

### Electrical data

|                             |                                               |
|-----------------------------|-----------------------------------------------|
| Operating voltage [V]       | 10...30 DC; (cULus - Class 2 source required) |
| Current consumption [mA]    | < 30                                          |
| Protection class            | III                                           |
| Reverse polarity protection | yes                                           |

### Inputs / outputs

|                              |                             |
|------------------------------|-----------------------------|
| Number of inputs and outputs | Number of analog outputs: 1 |
|------------------------------|-----------------------------|

### Outputs

|                            |                                                 |
|----------------------------|-------------------------------------------------|
| Total number of outputs    | 1                                               |
| Output signal              | analog signal                                   |
| Number of analog outputs   | 1                                               |
| Analog current output [mA] | 4...20                                          |
| Max. load [Ω]              | (U <sub>b</sub> - 8,5 V) / 21,5 mA; 24 V: 720 Ω |
| Short-circuit protection   | yes                                             |
| Overload protection        | yes                                             |

### Measuring/setting range

|                 |      |              |              |
|-----------------|------|--------------|--------------|
| Probe length L  | [mm] | 188          |              |
| Measuring range |      | -50...150 °C | -58...302 °F |

### Resolution

|                                 |      |
|---------------------------------|------|
| Resolution of analog output [K] | 0.04 |
|---------------------------------|------|

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| Accuracy / deviations                                                               |                                                                                                    |                                                                                               |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| Precision analog output                                                             | [K]                                                                                                | $\pm 0,3 + (\pm 0,1 \% \text{ MS})$                                                           |
| Temperature coefficient                                                             | [% of the span / 10 K]                                                                             | 0,1; (In case of deviation from the reference condition $25 \pm 5 \text{ }^{\circ}\text{C}$ ) |
| Reaction times                                                                      |                                                                                                    |                                                                                               |
| Dynamic response T05 / T09                                                          | [s]                                                                                                | 1 / 3; (according to DIN EN 60751)                                                            |
| Operating conditions                                                                |                                                                                                    |                                                                                               |
| Ambient temperature                                                                 | [ $^{\circ}\text{C}$ ]                                                                             | -40...100                                                                                     |
| Storage temperature                                                                 | [ $^{\circ}\text{C}$ ]                                                                             | -40...100                                                                                     |
| Protection                                                                          |                                                                                                    | IP 68; IP 69K                                                                                 |
| Tests / approvals                                                                   |                                                                                                    |                                                                                               |
| EMC                                                                                 | DIN EN 61000-6-2                                                                                   |                                                                                               |
|                                                                                     | DIN EN 61000-6-3                                                                                   |                                                                                               |
| Shock resistance                                                                    | DIN EN 60068-2-27                                                                                  | 50 g (11 ms)                                                                                  |
| Vibration resistance                                                                | DIN EN 60068-2-6                                                                                   | 20 g (10...2000 Hz)                                                                           |
| MTTF                                                                                | [years]                                                                                            | 1092                                                                                          |
| UL approval                                                                         | UL approval number                                                                                 | K005                                                                                          |
| Mechanical data                                                                     |                                                                                                    |                                                                                               |
| Weight                                                                              | [g]                                                                                                | 155.5                                                                                         |
| Housing                                                                             |                                                                                                    | tubular                                                                                       |
| Dimensions                                                                          | [mm]                                                                                               | $\varnothing 18.8 / L = 255.3$                                                                |
| Material                                                                            |                                                                                                    | stainless steel (1.4404 / 316L); PEI; FKM                                                     |
| Materials (wetted parts)                                                            |                                                                                                    | stainless steel (1.4404 / 316L); FKM                                                          |
| Process connection                                                                  |                                                                                                    | threaded connection G 1/4 external thread                                                     |
| Probe diameter                                                                      | [mm]                                                                                               | 6                                                                                             |
| Installation length EL                                                              | [mm]                                                                                               | 200                                                                                           |
| Remarks                                                                             |                                                                                                    |                                                                                               |
| Remarks                                                                             | The values for accuracy apply to flowing water.                                                    |                                                                                               |
|                                                                                     | referring to UL: for use on a low voltage circuit with overcurrent protection                      |                                                                                               |
|                                                                                     | in accordance with UL873 tab. 28.1 or $I_{\text{max}} = 100/U_b$ ( $U_b$ = voltage of the circuit) |                                                                                               |
| Pack quantity                                                                       |                                                                                                    | 1 pcs.                                                                                        |
| Electrical connection                                                               |                                                                                                    |                                                                                               |
| Connector: 1 x M12; coding: A; Contacts: gold-plated                                |                                                                                                    |                                                                                               |
|  |                                                                                                    |                                                                                               |

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### Connection



OUT: analog output  
Colors to DIN EN 60947-5-2