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# Mineral-insulated RTD temperature probe according to DIN EN 60751

## Description

The mineral-insulated RTD temperature probe measures temperatures in liquids and gases.

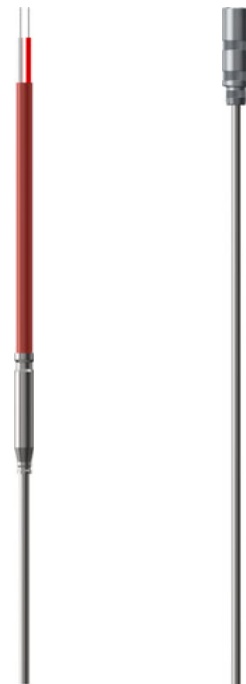
The device is suitable for hard-to-reach places in machines and systems thanks to the flexible probe tube.

## Areas of application

- Plant engineering
- Food and beverage industry
- Engine manufacturing
- Testing and laboratory technology
- Container/pipeline construction

## Special features

- Single and double RTD temperature probes
- Flexible sheath cable with vibration-resistant measuring insert
- Quick response time
- SIL and PL-qualified



Type 902250/30

Type 902240/20



Type 902230/40

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## Trademark information

All trademarks and trade and company names used are the property of their rightful owners or authors.

## Approval marks and certificates



Certificates for approved device versions are available for download on the manufacturer's website.

## Technical data

Information on connection types of RTD temperature probes and thermocouples ⇒ [Data sheet 900002](#).

Information on terminal heads and terminal bases ⇒ [Data sheet 909715](#).

Information on the design and application of RTD temperature probes ⇒ [Data sheet 902000](#).

## Electrical data

|                       |                                                                                                                                                                                                                             |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electrical connection |                                                                                                                                                                                                                             |
| Connection element    | Connection line with a stripped line end<br>Connection line with tin-plated connection wires<br>Connection line with ferrules<br>Connection line with M12 plug connector<br>Connection line with multi-pole plug connection |

## Inputs

### Sensor

|                      |                                                                                                                                                                                                                  |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measuring resistance | DIN EN IEC 60751                                                                                                                                                                                                 |
| Measuring insert     | 1× Pt100 in 2-wire circuit<br>1× Pt100 in 3-wire circuit<br>1× Pt100 in 4-wire circuit<br>1× Pt1000 in 2-wire circuit<br>1× Pt1000 in 3-wire circuit<br>2× Pt100 in 2-wire circuit<br>2× Pt100 in 3-wire circuit |
| Tolerance class      | Class B (standard)<br>Class A (only in three-wire or four-wire circuit)<br>Class AA (only in three-wire or four-wire circuit)                                                                                    |

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## Measurands

### Temperature

|                  |                                                                                                                                                                                                                                                                                                            |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Response times   |                                                                                                                                                                                                                                                                                                            |
| In water 0.4 m/s | $t_{0.5} \approx 0.7 \text{ s}$ , $t_{0.9} \approx 2.1 \text{ s}$ , $\varnothing 1.9 \text{ mm}$<br>$t_{0.5} \approx 1.3 \text{ s}$ , $t_{0.9} \approx 4.0 \text{ s}$ , $\varnothing 3 \text{ mm}$<br>$t_{0.5} \approx 5.0 \text{ s}$ , $t_{0.9} \approx 11.5 \text{ s}$ , $\varnothing 6 \text{ mm}$      |
| In air 3.0 m/s   | $t_{0.5} \approx 7.2 \text{ s}$ , $t_{0.9} \approx 20.5 \text{ s}$ , $\varnothing 1.9 \text{ mm}$<br>$t_{0.5} \approx 13.5 \text{ s}$ , $t_{0.9} \approx 41.0 \text{ s}$ , $\varnothing 3 \text{ mm}$<br>$t_{0.5} \approx 37.5 \text{ s}$ , $t_{0.9} \approx 117.5 \text{ s}$ , $\varnothing 6 \text{ mm}$ |

## Outputs

|              |                                                                   |
|--------------|-------------------------------------------------------------------|
| Transmitter  |                                                                   |
| Analog       | JUMO dTRANS T03 B transmitter ⇒ <a href="#">Data sheet 707030</a> |
| Programmable | dTRANS T01 Junior transmitter ⇒ <a href="#">Data sheet 707010</a> |
|              | JUMO dTRANS T05 B transmitter ⇒ <a href="#">Data sheet 707050</a> |

## Environmental influences

|                                     |                                                     |
|-------------------------------------|-----------------------------------------------------|
| Admissible ambient temperature      |                                                     |
| Connection line insulation material |                                                     |
| PVC                                 | -5 to +80 °C                                        |
| Silicone                            | -50 to +180 °C                                      |
| PTFE                                | -50 to +260 °C                                      |
| Metal braiding                      | -50 to +260 °C (+350 °C)                            |
| Adapter sleeve (end closure)        | Up to 120 °C as standard, up to 300 °C upon request |

Caution: reduced ambient temperature range when using transmitters!

## Mechanical features

### Materials

|                                     |                                           |
|-------------------------------------|-------------------------------------------|
| Process connection                  | Stainless steel                           |
| Protection tube                     | Stainless steel                           |
| Connection line insulation material | PVC<br>Silicone<br>PTFE<br>Metal braiding |

### Device

|                 |                                                                                          |
|-----------------|------------------------------------------------------------------------------------------|
| Protection tube | $\varnothing 1.9 \text{ mm}$<br>$\varnothing 3 \text{ mm}$<br>$\varnothing 6 \text{ mm}$ |
|-----------------|------------------------------------------------------------------------------------------|

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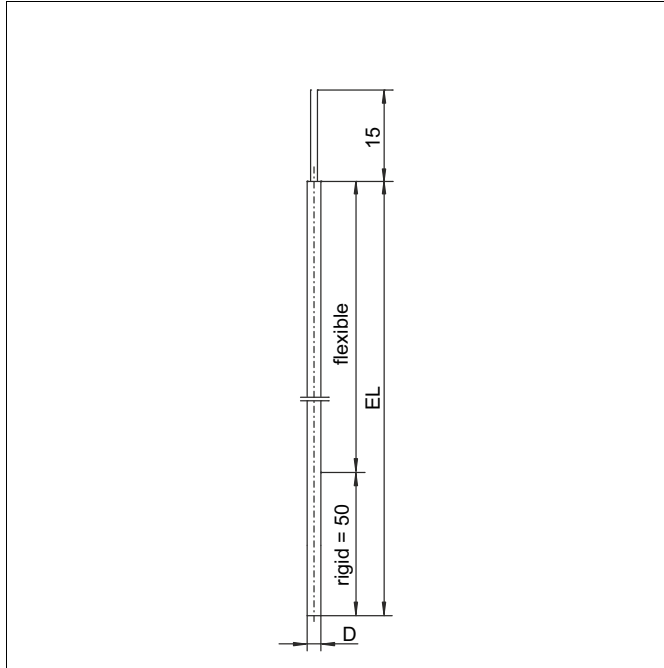


## Dimensions

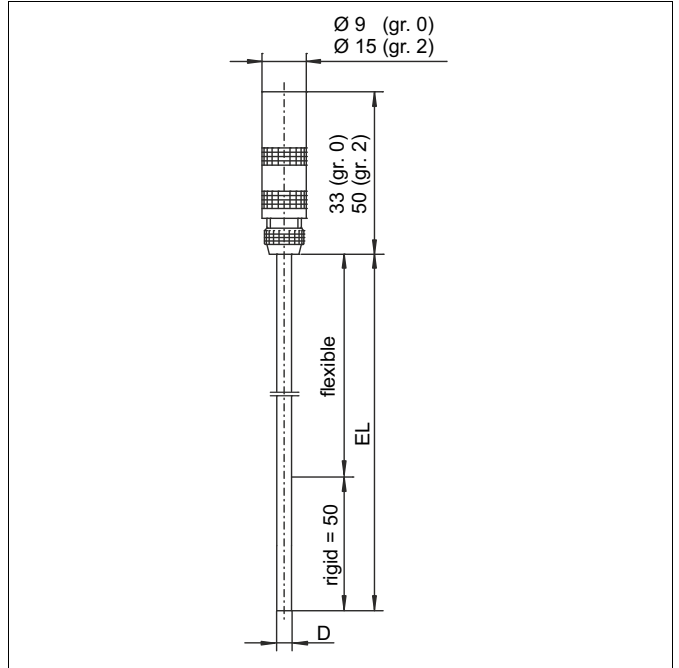
### Devices

**Type 902210/10**

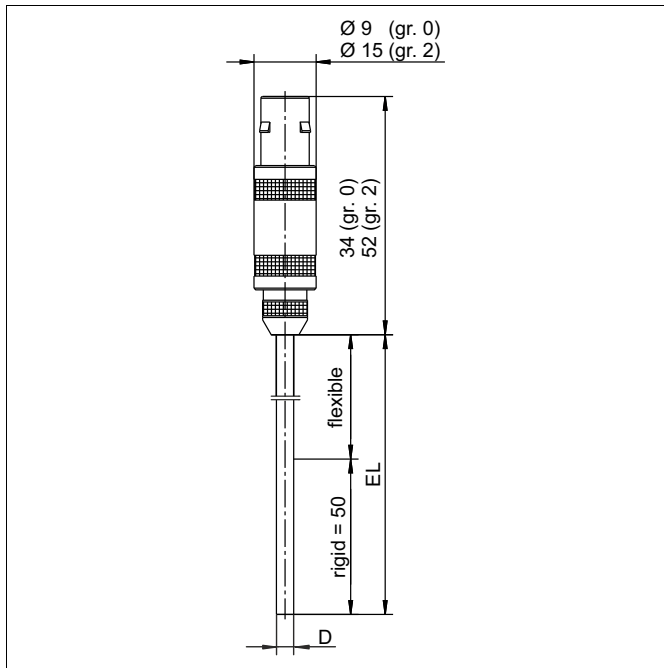
Mineral-insulated RTD temperature probe with  
bare connection wires

**Type 902240/20**

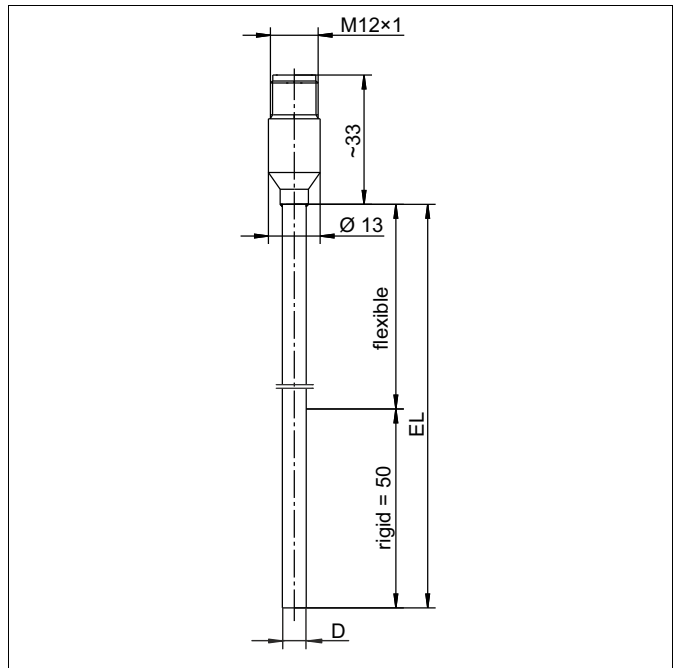
Mineral-insulated RTD temperature probe with  
LEMO coupling

**Type 902240/21**

Mineral-insulated RTD temperature probe with  
LEMO connector

**Type 902240/50**

Mineral-insulated RTD temperature probe with  
M12 plug connector



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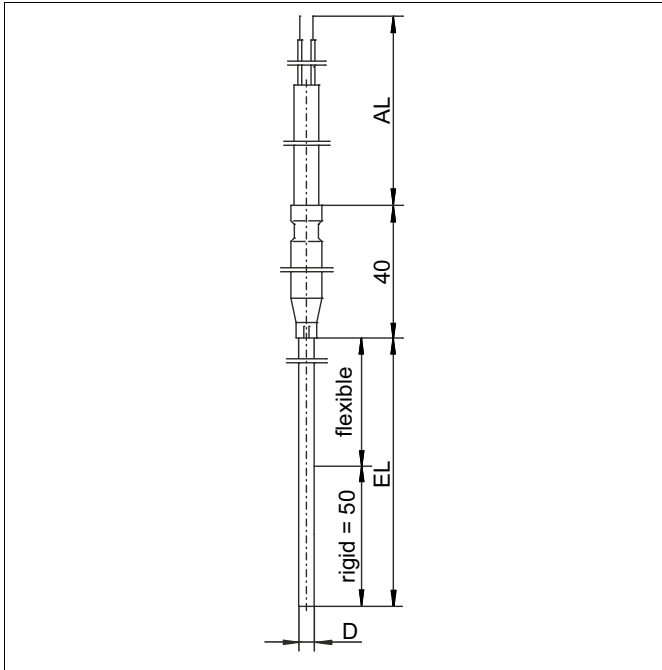
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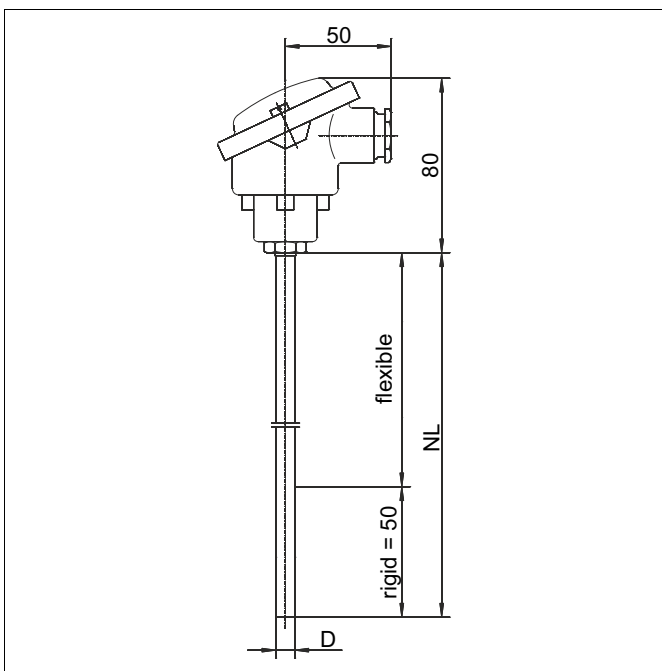
Type 902250/30, /32, /33, /34, /35

Mineral-insulated RTD temperature probe with  
PVC/silicone/PTFE/metal braiding connection line

**Device versions for pushing in**

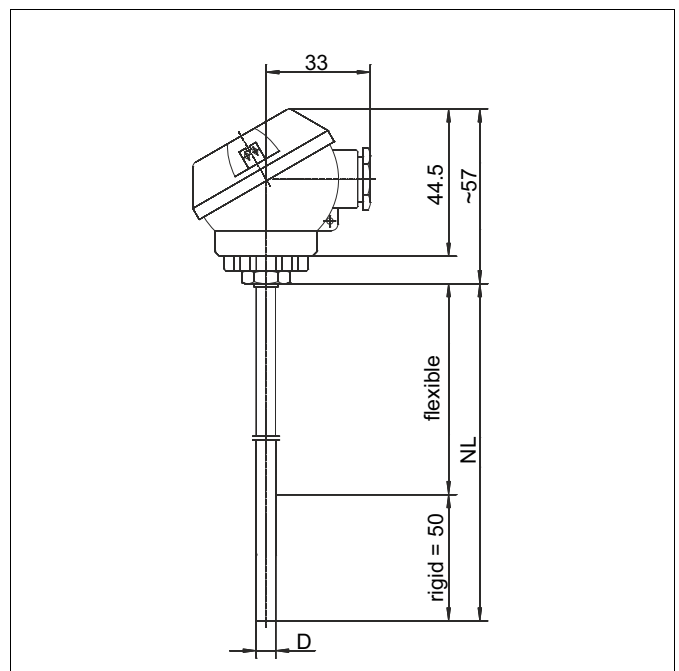
Type 902220/41

Push-in mineral-insulated RTD temperature probe with  
terminal head form B



Type 902230/41

Push-in mineral-insulated RTD temperature probe with  
terminal head form J



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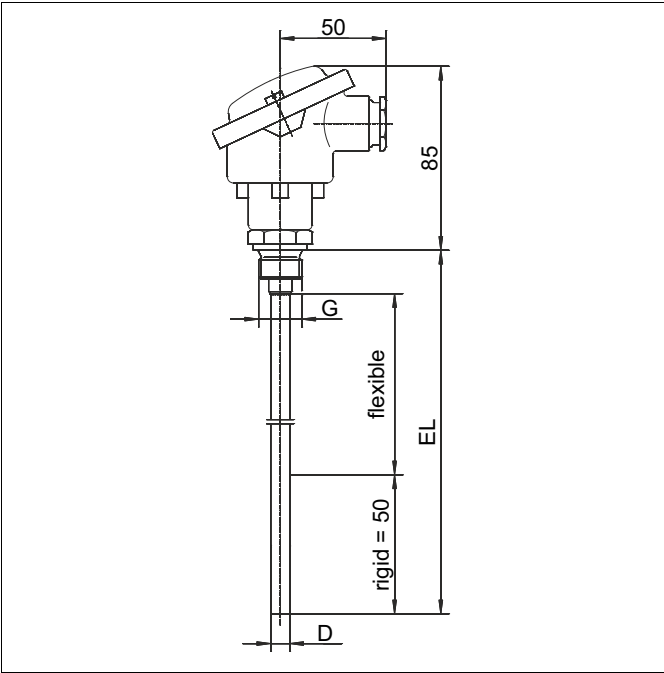
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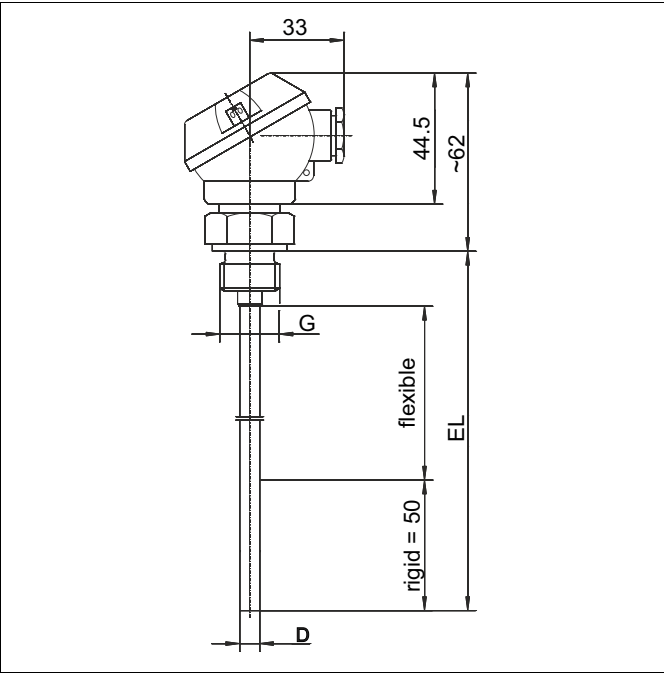


Device versions for screwing in

Type 902220/40  
Screw-in mineral-insulated RTD temperature probe with terminal head form B



Type 902230/40  
Screw-in mineral-insulated RTD temperature probe with terminal head form J



Insofar as the design type allows it, yellow terminal heads are used for SIL and PL applications (extra code 658, 659, or 665). Exceptions to this are probes for use in alkaline environments and probes that are strictly required to be PWIS-free.

Connection elements

The connection elements in the data sheet provide information on product selection.  
For the electrical connection, only use the installation instructions or the operating manual.

|  | Electrical connection                                  | Connection assignment |
|--|--------------------------------------------------------|-----------------------|
|  | Basic type 902930/50 and 902930/60                     |                       |
|  | RTD temperature probe<br>in three-wire circuit (input) |                       |

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## Order details

|                                                                                     |                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>(1) Basic type</b>                                                               |                                                                                                                                                                                                                  |
| 902210/10                                                                           | Mineral-insulated RTD temperature probe with bare connection wires                                                                                                                                               |
|  |                                                                                                                                                                                                                  |
| <b>(2) Operating temperature</b>                                                    |                                                                                                                                                                                                                  |
| 415                                                                                 | -50 to +600 °C                                                                                                                                                                                                   |
| 150                                                                                 | -200 to +600 °C                                                                                                                                                                                                  |
| <b>(3) Measuring insert</b>                                                         |                                                                                                                                                                                                                  |
| 1003                                                                                | 1× Pt100 in 2-wire circuit                                                                                                                                                                                       |
| 1001                                                                                | 1× Pt100 in 3-wire circuit                                                                                                                                                                                       |
| 1011                                                                                | 1× Pt100 in 4-wire circuit                                                                                                                                                                                       |
| 1005                                                                                | 1× Pt1000 in 2-wire circuit                                                                                                                                                                                      |
| 1006                                                                                | 1× Pt1000 in 3-wire circuit                                                                                                                                                                                      |
| 2003                                                                                | 2× Pt100 in 2-wire circuit                                                                                                                                                                                       |
| 2001                                                                                | 2× Pt100 in 3-wire circuit                                                                                                                                                                                       |
| <b>(4) Tolerance class according to DIN EN IEC 60751</b>                            |                                                                                                                                                                                                                  |
| 1                                                                                   | Class B (standard)                                                                                                                                                                                               |
| 2                                                                                   | Class A                                                                                                                                                                                                          |
| 3                                                                                   | Class AA                                                                                                                                                                                                         |
| <b>(5) Protection tube diameter D</b>                                               |                                                                                                                                                                                                                  |
| 1.9                                                                                 | Ø 1.9 mm                                                                                                                                                                                                         |
| 3                                                                                   | Ø 3 mm                                                                                                                                                                                                           |
| 6                                                                                   | Ø 6 mm                                                                                                                                                                                                           |
| <b>(6) Insertion length EL</b>                                                      |                                                                                                                                                                                                                  |
| ...                                                                                 | Specification in plain text                                                                                                                                                                                      |
| <b>(7) Extra codes</b>                                                              |                                                                                                                                                                                                                  |
| 000                                                                                 | None                                                                                                                                                                                                             |
| 855                                                                                 | High-temperature end closure form 1, up to 300 °C                                                                                                                                                                |
| 366                                                                                 | Inspection certificate 3.1 DIN EN 10204 tolerance/calibration                                                                                                                                                    |
| 775                                                                                 | DAkkS calibration according to ISO/IEC 17025                                                                                                                                                                     |
| 658                                                                                 | SIL and PL-compatible (only in connection with safetyM safety temperature limiter/monitor according to data sheet 701150; not in connection with transmitters)                                                   |
| 659                                                                                 | SIL and PL-compatible (only in conjunction with dTRANS T06 DIN rail according to data sheet 707071; not in conjunction with transmitters)                                                                        |
| 665                                                                                 | SIL and PL-compatible (only in connection with programmable dTRANS T07 T SIL two-channel transmitter with HART® communication and SIL according to data sheet 707080; not in connection with other transmitters) |

Order code                      (1)                      (2)                      (3)                      (4)                      (5)                      (6)                      (7)  
 Order example                      902210/10                      -                      150                      -                      1001                      -                      1                      -                      6                      -                      200                      -                      000                      , ...<sup>a</sup>

<sup>a</sup> List extra codes in sequence, separated by commas.

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| (1) Basic type |                                                                                                                                                                                |  |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 902220/40      | Screw-in mineral-insulated RTD temperature probe with terminal head form B                                                                                                     |  |
| 902220/41      | Push-in mineral-insulated RTD temperature probe with terminal head form B                                                                                                      |  |
|                | (2) Operating temperature                                                                                                                                                      |  |
| x x 415        | -50 to +600 °C                                                                                                                                                                 |  |
| x x 150        | -200 to +600 °C                                                                                                                                                                |  |
|                | (3) Measuring insert                                                                                                                                                           |  |
| x x 1003       | 1× Pt100 in 2-wire circuit                                                                                                                                                     |  |
| x x 1001       | 1× Pt100 in 3-wire circuit                                                                                                                                                     |  |
| x x 1011       | 1× Pt100 in 4-wire circuit                                                                                                                                                     |  |
| x x 1005       | 1× Pt1000 in 2-wire circuit                                                                                                                                                    |  |
| x x 2003       | 2× Pt100 in 2-wire circuit                                                                                                                                                     |  |
| x x 2001       | 2× Pt100 in 3-wire circuit                                                                                                                                                     |  |
|                | (4) Tolerance class according to DIN EN IEC 60751                                                                                                                              |  |
| x x 1          | Class B (standard)                                                                                                                                                             |  |
| x x 2          | Class A                                                                                                                                                                        |  |
| x x 3          | Class AA                                                                                                                                                                       |  |
|                | (5) Protection tube diameter D                                                                                                                                                 |  |
| x x 3          | Ø 3 mm                                                                                                                                                                         |  |
| x x 6          | Ø 6 mm                                                                                                                                                                         |  |
|                | (6) Insertion length EL                                                                                                                                                        |  |
| x x ...        | Specification in plain text                                                                                                                                                    |  |
|                | (7) Process connection                                                                                                                                                         |  |
| x 000          | None                                                                                                                                                                           |  |
| x 102          | Screw connection G 1/4"                                                                                                                                                        |  |
| x 103          | Screw connection G 3/8"                                                                                                                                                        |  |
| x 104          | Screw connection G 1/2"                                                                                                                                                        |  |
|                | (8) Extra codes                                                                                                                                                                |  |
| x x 000        | None                                                                                                                                                                           |  |
| x x 320        | Terminal head form BUZ                                                                                                                                                         |  |
| x x 321        | Terminal head form BUZH                                                                                                                                                        |  |
| x x 424        | Form B terminal head with M12 plug connector (not in conjunction with measuring insert 2001)                                                                                   |  |
| x x 331        | 1× programmable dTRANS T01 Junior transmitter according to data sheet 707010 (not in conjunction with extra code 658, 659, or 665)                                             |  |
| x x 335        | 2× programmable dTRANS T01 Junior transmitters according to data sheet 707010 (only in conjunction with extra code 321; not in conjunction with extra code 658, 659, or 665)   |  |
| x x 330        | 1× analog dTRANS T03 B transmitter according to data sheet 707030 (not in conjunction with extra code 658, 659, or 665)                                                        |  |
| x x 334        | 2× analog dTRANS T03 B transmitters according to data sheet 707030 (only in conjunction with extra code 321; not in conjunction with extra code 658, 659, or 665)              |  |
| x x 550        | 1× programmable dTRANS T05 B transmitter according to data sheet 707050 (not in conjunction with measuring insert 2003 or 2001; not in conjunction with extra code 658 or 659) |  |
| x x 366        | Inspection certificate 3.1 DIN EN 10204 tolerance/calibration                                                                                                                  |  |
| x x 775        | DAkkS calibration according to ISO/IEC 17025                                                                                                                                   |  |
| x x 658        | SIL and PL-compatible (only in connection with safetyM safety temperature limiter/monitor according to data sheet 701150; not in connection with transmitters)                 |  |
| x x 659        | SIL and PL-compatible (only in conjunction with dTRANS T06 DIN rail according to data sheet 707071; not in conjunction with transmitters)                                      |  |

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|   |   |     |                                                                                                                                                                                                                  |
|---|---|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| x | x | 665 | SIL and PL-compatible (only in connection with programmable dTRANS T07 T SIL two-channel transmitter with HART® communication and SIL according to data sheet 707080; not in connection with other transmitters) |
|---|---|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                      |                      |     |                      |     |                      |     |                      |     |                                                                |
|----------------------|----------------------|-----|----------------------|-----|----------------------|-----|----------------------|-----|----------------------------------------------------------------|
|                      | (1)                  | (2) | (3)                  | (4) | (5)                  | (6) | (7)                  | (8) |                                                                |
| <b>Order code</b>    | <input type="text"/> | -   | <input type="text"/> | -   | <input type="text"/> | -   | <input type="text"/> | -   | <input type="text"/> / <input type="text"/> , ... <sup>a</sup> |
| <b>Order example</b> | 902220/40            | -   | 150                  | -   | 1003                 | -   | 1                    | -   | 3 - 100 - 104 / 000                                            |

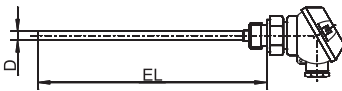
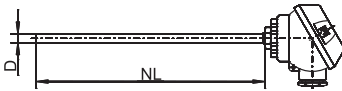
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|     |           | (1) Basic type                                                                                                                                                                                                   |                                                                                     |
|-----|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| x x | 902230/40 | Screw-in mineral-insulated RTD temperature probe with terminal head form J                                                                                                                                       |  |
|     | 902230/41 | Push-in mineral-insulated RTD temperature probe with terminal head form J                                                                                                                                        |  |
|     |           | (2) Operating temperature                                                                                                                                                                                        |                                                                                     |
| x x | 415       | -50 to +600 °C                                                                                                                                                                                                   |                                                                                     |
| x x | 150       | -200 to +600 °C                                                                                                                                                                                                  |                                                                                     |
|     |           | (3) Measuring insert                                                                                                                                                                                             |                                                                                     |
| x x | 1003      | 1× Pt100 in 2-wire circuit                                                                                                                                                                                       |                                                                                     |
| x x | 1001      | 1× Pt100 in 3-wire circuit                                                                                                                                                                                       |                                                                                     |
| x x | 1011      | 1× Pt100 in 4-wire circuit                                                                                                                                                                                       |                                                                                     |
| x x | 2003      | 2× Pt100 in 2-wire circuit                                                                                                                                                                                       |                                                                                     |
|     |           | (4) Tolerance class according to DIN EN IEC 60751                                                                                                                                                                |                                                                                     |
| x x | 1         | Class B (standard)                                                                                                                                                                                               |                                                                                     |
| x x | 2         | Class A                                                                                                                                                                                                          |                                                                                     |
| x x | 3         | Class AA                                                                                                                                                                                                         |                                                                                     |
|     |           | (5) Protection tube diameter D                                                                                                                                                                                   |                                                                                     |
| x x | 3         | Ø 3 mm                                                                                                                                                                                                           |                                                                                     |
| x x | 6         | Ø 6 mm                                                                                                                                                                                                           |                                                                                     |
|     |           | (6) Insertion length EL                                                                                                                                                                                          |                                                                                     |
| x x | ...       | Specification in plain text                                                                                                                                                                                      |                                                                                     |
|     |           | (7) Process connection                                                                                                                                                                                           |                                                                                     |
| x   | 000       | None                                                                                                                                                                                                             |                                                                                     |
| x   | 102       | Screw connection G 1/4"                                                                                                                                                                                          |                                                                                     |
| x   | 104       | Screw connection G 1/2"                                                                                                                                                                                          |                                                                                     |
|     |           | (8) Extra codes                                                                                                                                                                                                  |                                                                                     |
| x x | 000       | None                                                                                                                                                                                                             |                                                                                     |
| x x | 424       | Form B terminal head with M12 plug connector (not in conjunction with measuring insert 2001)                                                                                                                     |                                                                                     |
| x x | 330       | 1× analog transmitter dTRANS T03 J according to data sheet 707030 (not in conjunction with extra code 658, 659, or 665)                                                                                          |                                                                                     |
| x x | 366       | Inspection certificate 3.1 DIN EN 10204 tolerance/calibration                                                                                                                                                    |                                                                                     |
| x x | 775       | DAkkS calibration according to ISO/IEC 17025                                                                                                                                                                     |                                                                                     |
| x x | 658       | SIL and PL-compatible (only in connection with safetyM safety temperature limiter/monitor according to data sheet 701150; not in connection with transmitters)                                                   |                                                                                     |
| x x | 659       | SIL and PL-compatible (only in conjunction with dTRANS T06 DIN rail according to data sheet 707071; not in conjunction with transmitters)                                                                        |                                                                                     |
| x x | 665       | SIL and PL-compatible (only in connection with programmable dTRANS T07 T SIL two-channel transmitter with HART® communication and SIL according to data sheet 707080; not in connection with other transmitters) |                                                                                     |

Order code      (1)      (2)      (3)      (4)      (5)      (6)      (7)      (8)  
 Order example      902230/40   -   415   -   1001   -   1   -   3   -   100   -   104   /   000 , ...<sup>a</sup>

<sup>a</sup> List extra codes in sequence, separated by commas.

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| (1) Basic type                                    |   |                                                                 |                                                                                                                                                                                                                      |
|---------------------------------------------------|---|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 902240/20                                         |   | Mineral-insulated RTD temperature probe with LEMO coupling      |                                                                                                                                                                                                                      |
| 902240/21                                         |   | Mineral-insulated RTD temperature probe with LEMO connector     |                                                                                                                                                                                                                      |
| 902240/50                                         |   | Mineral-insulated RTD temperature probe with M12 plug connector |                                                                                                                                                                                                                      |
| (2) Operating temperature                         |   |                                                                 |                                                                                                                                                                                                                      |
| x                                                 | x | x                                                               | 415 -50 to +600 °C                                                                                                                                                                                                   |
| x                                                 | x | x                                                               | 150 -200 to +600 °C                                                                                                                                                                                                  |
| (3) Measuring insert                              |   |                                                                 |                                                                                                                                                                                                                      |
| x                                                 | x | x                                                               | 1003 1× Pt100 in 2-wire circuit                                                                                                                                                                                      |
| x                                                 | x | x                                                               | 1001 1× Pt100 in 3-wire circuit                                                                                                                                                                                      |
| x                                                 | x | x                                                               | 1011 1× Pt100 in 4-wire circuit                                                                                                                                                                                      |
| x                                                 | x | x                                                               | 1005 1× Pt1000 in 2-wire circuit                                                                                                                                                                                     |
| x                                                 | x | x                                                               | 1006 1× Pt1000 in 3-wire circuit                                                                                                                                                                                     |
| x                                                 | x | x                                                               | 2003 2× Pt100 in 2-wire circuit                                                                                                                                                                                      |
| (4) Tolerance class according to DIN EN IEC 60751 |   |                                                                 |                                                                                                                                                                                                                      |
| x                                                 | x | x                                                               | 1 Class B (standard)                                                                                                                                                                                                 |
| x                                                 | x | x                                                               | 2 Class A                                                                                                                                                                                                            |
| x                                                 | x | x                                                               | 3 Class AA                                                                                                                                                                                                           |
| (5) Protection tube diameter D                    |   |                                                                 |                                                                                                                                                                                                                      |
| x                                                 | x | x                                                               | 1.9 Ø 1.9 mm                                                                                                                                                                                                         |
| x                                                 | x | x                                                               | 3 Ø 3 mm                                                                                                                                                                                                             |
| x                                                 | x | x                                                               | 6 Ø 6 mm                                                                                                                                                                                                             |
| (6) Insertion length EL                           |   |                                                                 |                                                                                                                                                                                                                      |
| x                                                 | x | x                                                               | ... Specification in plain text                                                                                                                                                                                      |
| (7) Extra codes                                   |   |                                                                 |                                                                                                                                                                                                                      |
| x                                                 | x | x                                                               | 000 None                                                                                                                                                                                                             |
| x                                                 | x | x                                                               | 855 High-temperature end closure form 1, up to 300 °C                                                                                                                                                                |
| x                                                 | x | x                                                               | 366 Inspection certificate 3.1 DIN EN 10204 tolerance/calibration                                                                                                                                                    |
| x                                                 | x | x                                                               | 775 DAkkS calibration according to ISO/IEC 17025                                                                                                                                                                     |
| x                                                 | x | x                                                               | 658 SIL and PL-compatible (only in connection with safetyM safety temperature limiter/monitor according to data sheet 701150; not in connection with transmitters)                                                   |
| x                                                 | x | x                                                               | 659 SIL and PL-compatible (only in conjunction with dTRANS T06 DIN rail according to data sheet 707071; not in conjunction with transmitters)                                                                        |
| x                                                 | x | x                                                               | 665 SIL and PL-compatible (only in connection with programmable dTRANS T07 T SIL two-channel transmitter with HART® communication and SIL according to data sheet 707080; not in connection with other transmitters) |

Order code                      (1)                      (2)                      (3)                      (4)                      (5)                      (6)                      (7)  
 Order example                      902240/20                      -                      150                      -                      1001                      -                      1                      -                      6                      -                      200                      -                      000                      , ...<sup>a</sup>

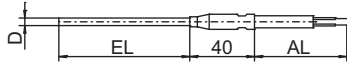
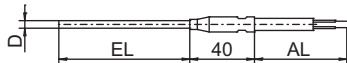
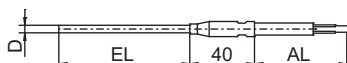
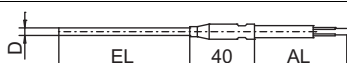
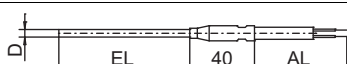
<sup>a</sup> List extra codes in sequence, separated by commas.

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|   |   |   |   |   |      |                                                                                                       |                                                                                                                        |                                                                                     |
|---|---|---|---|---|------|-------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|   |   |   |   |   | (1)  | Basic type                                                                                            |                                                                                                                        |                                                                                     |
|   |   |   |   |   |      | 902250/30                                                                                             | Mineral-insulated RTD temperature probe with PVC connection line<br>(line temperature range -5 to +80 °C)              |  |
|   |   |   |   |   |      | 902250/32                                                                                             | Mineral-insulated RTD temperature probe with silicone connection line<br>(line temperature range -50 to +180 °C)       |  |
|   |   |   |   |   |      | 902250/33                                                                                             | Mineral-insulated RTD temperature probe with PTFE connection line<br>(line temperature range -190 to +260 °C)          |  |
|   |   |   |   |   |      | 902250/34                                                                                             | Mineral-insulated RTD temperature probe with metal braiding connection line<br>(line temperature range -50 to +350 °C) |  |
|   |   |   |   |   |      | 902250/35                                                                                             | Mineral-insulated RTD temperature probe with metal braiding connection line<br>(line temperature range -50 to +260 °C) |  |
|   |   |   |   |   | (2)  | Operating temperature                                                                                 |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 415  | -50 to +600 °C                                                                                        |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 150  | -200 to +600 °C                                                                                       |                                                                                                                        |                                                                                     |
|   |   |   |   |   | (3)  | Measuring insert                                                                                      |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 1003 | 1× Pt100 in 2-wire circuit                                                                            |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 1001 | 1× Pt100 in 3-wire circuit                                                                            |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 1011 | 1× Pt100 in 4-wire circuit                                                                            |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 1005 | 1× Pt1000 in 2-wire circuit                                                                           |                                                                                                                        |                                                                                     |
| x |   | x | x | x | 2001 | 2× Pt100 in 3-wire circuit                                                                            |                                                                                                                        |                                                                                     |
|   |   |   |   |   | (4)  | Tolerance class according to DIN EN IEC 60751                                                         |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 1    | Class B (standard)                                                                                    |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 2    | Class A                                                                                               |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 3    | Class AA                                                                                              |                                                                                                                        |                                                                                     |
|   |   |   |   |   | (5)  | Protection tube diameter D                                                                            |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 1.9  | Ø 1.9 mm                                                                                              |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 3    | Ø 3 mm                                                                                                |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 6    | Ø 6 mm                                                                                                |                                                                                                                        |                                                                                     |
|   |   |   |   |   | (6)  | Insertion length EL                                                                                   |                                                                                                                        |                                                                                     |
| x | x | x | x | x | ...  | Specification in plain text                                                                           |                                                                                                                        |                                                                                     |
|   |   |   |   |   | (7)  | Connection line end                                                                                   |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 03   | Bare connection wires                                                                                 |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 04   | Tin-plated connection wires                                                                           |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 11   | Ferrules according to DIN 46228 Part 4 (standard)                                                     |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 56   | M12 plug connector                                                                                    |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 80   | Multi-pole plug connection (specify type in plain text)                                               |                                                                                                                        |                                                                                     |
|   |   |   |   |   | (8)  | Connection line length AL                                                                             |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 2500 | 2500 mm                                                                                               |                                                                                                                        |                                                                                     |
| x | x | x | x | x | .... | Specification in plain text (500 mm increments)                                                       |                                                                                                                        |                                                                                     |
|   |   |   |   |   | (9)  | Extra codes                                                                                           |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 000  | None                                                                                                  |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 315  | Bend protection spring                                                                                |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 316  | Bend protection tubing                                                                                |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 638  | Adapter sleeve potted                                                                                 |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 317  | Shielded connection line                                                                              |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 093  | Shielding connected with protection tube (only in connection with extra code 317)                     |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 094  | Shielding fed out on the connection side with grounding wire (only in connection with extra code 317) |                                                                                                                        |                                                                                     |
| x | x | x | x | x | 855  | High-temperature end closure form 1, up to 300 °C                                                     |                                                                                                                        |                                                                                     |

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|   |   |   |   |   |      |                                                                                                                                                                                                                  |
|---|---|---|---|---|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| x | x | x | x | x | 366  | Inspection certificate 3.1 DIN EN 10204 tolerance/calibration                                                                                                                                                    |
| x | x | x | x | x | 775  | DAkkS calibration according to ISO/IEC 17025                                                                                                                                                                     |
| x | x | x | x | x | 1150 | Accuracy for temperature probe according to AMS 2750 (except Primary Standard, only in connection with tolerance class A or AA and 4-wire technology)                                                            |
| x | x | x | x | x | 1151 | Accuracy for temperature probe according to CQI-9 (except Primary and Secondary Standard, only in connection with tolerance class A or AA and 4-wire technology)                                                 |
| x | x | x | x | x | 1152 | Accuracy for temperature probe according to ISO 20431 (except Primary and Secondary Standard, nur in Verbindung mit Toleranzklasse A oder AA und 4-Leitertechnik)                                                |
| x | x | x | x | x | 658  | SIL and PL-compatible (only in connection with safetyM safety temperature limiter/monitor according to data sheet 701150; not in connection with transmitters)                                                   |
| x | x | x | x | x | 659  | SIL and PL-compatible (only in conjunction with dTRANS T06 DIN rail according to data sheet 707071; not in conjunction with transmitters)                                                                        |
| x | x | x | x | x | 665  | SIL and PL-compatible (only in connection with programmable dTRANS T07 T SIL two-channel transmitter with HART® communication and SIL according to data sheet 707080; not in connection with other transmitters) |

Order code                      (1)                      (2)                      (3)                      (4)                      (5)                      (6)                      (7)                      (8)                      (9)  
 902250/32 - 150 - 1001 - 1 - 3 - 200 - 11 - 2500 / 000 , ...<sup>a</sup>  
 Order example

<sup>a</sup> List extra codes in sequence, separated by commas.

## Stock versions

| Order code                              | Part no. |
|-----------------------------------------|----------|
| 902250/32-415-1001-1-3-1000-11-2500/000 | 00318581 |
| 902250/32-415-1003-1-3-300-11-2500/000  | 00055763 |
| 902250/32-415-1001-1-3-500-11-2500/000  | 00068248 |
| 902250/32-415-1001-1-6-300-11-2500/000  | 00055767 |
| 902250/32-415-1001-1-6-500-11-2500/000  | 00068250 |
| 902230/40-415-1003-1-6-300-104/000      | 00055775 |
| 902250/32-415-1003-1-3-100-11-2500/000  | 00068243 |
| 902250/32-415-1003-1-3-200-11-2500/000  | 00068244 |
| 902250/32-415-1001-1-3-100-11-2500/000  | 00068247 |
| 902250/32-415-1001-1-3-300-11-2500/000  | 00055764 |

## Accessories

| Designation                                              | Part no.   |
|----------------------------------------------------------|------------|
| Steel sheet flange for protection tube diameter D = 6 mm | 00065062   |
| Designation                                              | Data sheet |
| Compression fittings                                     | 909750     |

### Further information and downloads



[jmo.to/902210-en](https://jmo.to/902210-en)