TECNOFLUID
REGULACIÓN Y TECNOLOGÍA PARA FLUIDOS

M-Zert
Zertifiziertes QM-System
DIN EN ISO 9001
Zertifikat-Nr. 01017

Industrial Resistance Thermometers according to DIN

KOBOLD

measuring
•
monitoring
•
analysing

MWD

Fieldbus

HART COMMUNICATION FOUNDATION

PROFI PROCESS FIELD BUS BUS



- Measuring range: -198 ... +600 °C
- Pt100 sensor: class A, class B, class 1/3, class 1/10, or cryogenic
- Output: resistance or analogue 4 ... 20 mA
- Option: head transmitter with HART® -protocol or Profibus® /Fieldbus®, display
- Protection tube / measuring insert material: stainless steel 1.4404, others on request

T2

KOBOLD companies worldwide:
AUSTRALIA, AUSTRIA, BELGIUM, BULGARIA, CANADA, CHINA, CZECHIA, FRANCE, GERMANY, GREAT BRITAIN, HUNGARY, INDIA, INDONESIA, ITALY, MALAYSIA, MEXICO, NETHERLANDS, PERU, POLAND, REPUBLIC OF KOREA, RUSSIA, SPAIN, SWITZERLAND, THAILAND, TUNISIA, TURKEY, USA, VIETNAM

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1/07 - 2022

KOBOLD

Industrial Resistance Thermometers according to DIN Model MWD



Description

KOBOLD temperature assemblies comprise a rugged installation fitting made of stainless steel with thread, flange or weld-on process connection, a connection head and a measuring element.

A Pt100 temperature sensor according to IEC 751, class A, B, $^1/_3$ DIN or $^1/_{10}$ is fitted in the measuring element. On request, the measuring element can be removable, thus, allowing to remove the measuring element without interrupting the process as the customised thermowell remains in the installation and seals the process.

Alternatively these sensors can be designed as single or double resistance thermometers, except the 4-wire version, which can only be built with one Pt100 due to lack of space.

As an option the resistance thermometers can be supplied with a head transmitter. Transmitter with a standard 4-20 mA signal, with HART® protocol or with Profibus®/Fieldbus® are there to choose from.

Head Transmitter

Resistance thermometers with head transmitter are used whenever a measuring signal must be transported long distance without any disturbance.

The head transmitter which is encapsulated in epoxies' resin is located right in the connection head and delivers a temperature-linear output signal of 4-20 mA. The head transmitter is available with standardised communication systems just like HART® protocol or Profibus®/Fieldbus®.

Applications

- HVAC
- Machinery
- Chemical and petrochemical industries
- Heating/cooling processes
- Industrial uses in general

The resistance thermometers with thread and flange connection are favourably used for the temperature measurement in liquids, solids and gaseous media. The reliable water tightness of these installation methods for gauge pressure and vacuum is an important criteria for selection.

Technical Details

Measuring principle:	temperature depending resistor
Measuring range:	-70...+250 °C -70…+400 °C -70…+600 °C -198…+100 °C
Sensor:	Pt100 single or double sensor (1 x Pt100 or 2 x Pt100) IEC 751
Accuracy:	class A, class B, $^1/_3$ DIN, $^1/_{10}$ DIN
Ambient temperature:	-40...+150 °C with ceramic terminal block (without transmitter) -40...+85 °C (with transmitter) -20...+70 °C (with LCD display) -20...+80 °C (with LED display)
Connection head:	BR screwed cover, with chain, DIN B cover with two screws, BUZ, hinged cover BUZ-H, high model hinged cover and others
Electrical connection:	M20 x 1.5 standard (others on request)
Materials:	
Sensor:	stainless steel 1.4404
Connection head:	aluminium, painted, stainless steel, and PP (others on request)
Terminal block:	ceramic (without transmitter)
Process connection:	
Thread:	G ¼, G ½, G ¾, G 1 male, ¼" NPT, ½" NPT, ¾" NPT, 1" NPT male
DIN-flange:	DN 15, 20, 25, 32, 40, 50 PN 10, 16, 40
ANSI flange:	½", ¾", 1", 1½", 2" class 150, class 300
Max. pressure:	30 bar
Sensor wiring:	2, 3 or 4-wire
Output:	resistance value
Protection:	connection head IP 54 ... 68 depending on cable gland

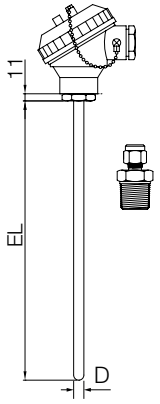
Model	Measuring insert exchangeable	Protection tube / P_{max}
MWD-C, E, D	yes	yes / 30 bar
MWD-F, G, W[1)]	yes	no / P_{atm}
MWD-A, B, L	no	yes / 30 bar

[1)] Model F/G/W only with thermowell TWL-0

No responsibility taken for errors;
subject to change without prior notice.

1/07 - 2022

Industrial Resistance Thermometers according to DIN Model MWD



Model MWD-A compact compression fitting

Specifications:

Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
Electrical connection:	M20x1.5
Max. pressure:	30 bar (at 20 °C)
Protection tube:	according to DIN 43772, filled with magnesium oxide (MgO)
Material:	stainless steel 1.4404 (316L)

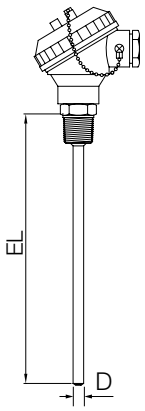
Model	Protection tube diameter (D)	Process connection	Sensor type / category	RTD wiring	Terminal head	Head transmitter	Options
MWD-A	**4** = tube Ø4 **5** = tube Ø5 **6** = tube Ø6 **8** = tube Ø8 **9** = tube Ø9 **A** = tube Ø10 **C** = tube Ø12 **X** = special options	**000** = none **K15** = compression fitting G½-M **C15** = compression fitting ½" NPT-M **XXX** = special options	**A** = 1 x Pt100 class B (-70…+250 °C) **B** = 2 x Pt100 class B (-70…+250 °C) **C** = 1 x Pt100 class A (-70…+250 °C) **D** = 2 x Pt100 class A (-70…+250 °C) **E** = 1 x Pt100 class B (-70…+400 °C) **F** = 2 x Pt100 class B (-70…+400 °C) **G** = 1 x Pt100 class A (-70…+400 °C) **H** = 2 x Pt100 class A (-70…+400 °C) **I** = 1 x Pt100 class B (-70…+600 °C) **J** = 2 x Pt100 class B (-70…+600 °C) **K** = 1 x Pt100 class A (-70…+600 °C) **L** = 2 x Pt100 class A (-70…+600 °C) **M** = 1 x Pt100 class 1/3 DIN (-70…+250 °C) **N** = 1 x Pt100 class 1/10 DIN (-70…+250 °C) **O** = 1 x Pt100 class 1/3 DIN (-70…+400 °C) **P** = 1 x Pt100 class 1/10 DIN (-70…+400 °C) **Q** = 1 x Pt100 class cryogenic (-198…+100 °C) **X** = special options	**2** = 2-wire **3** = 3-wire **4**[3] = 4-wire	**2** = Without head, M16x1,5 male thread, EL: 250 mm **G** = screw-cap with chain, aluminium **I** = screw-cap with chain, stainless steel 1.4401 **P** = screw-cap with chain, PP **M**[1] = mini head screw-cap with chain, aluminium **K** = head screw-cap, stainless steel 1.4401 **B** = DIN B screwed cover, aluminium **Z** = BUZ hinged cover, aluminium **H** = BUZ-H high model with hinged cover, aluminium **E**[1] = aluminium head with LCD display and HART® transmitter included **X** = special options	**0** = without, only with ceramic terminal **A**[2][4] = 5333D transmitter 4 - 20 mA 2-wire **B**[2][4] = 5337D transmitter 4 - 20 mA with HART® protocol 2-wire **C**[2][4] = 5350A transmitter Profibus®/ Fieldbus® **D**[4] = prepared for subsequent mounting of transmitter, 150 mm flying leads	**0** = without **Y** = acc. to specifications

[1] Only with head transmitter option 0 [2] Please specify the measuring range in clear text, while ordering [3] With 1 x Pt100 only
[4] For options A, B, C, D choose RTD wiring code »3«

Note: *Please specify length »EL« in clear text, while ordering*

No responsibility taken for errors;
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Industrial Resistance Thermometers according to DIN Model MWD



Model MWD-L compact fixed thread

Specifications:

Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
Electrical connection:	M20x1.5
Max. pressure:	30 bar (at 20 °C)
Protection tube:	according to DIN 43772, filled with magnesium oxide (MgO)
Material:	stainless steel 1.4404 (316L)

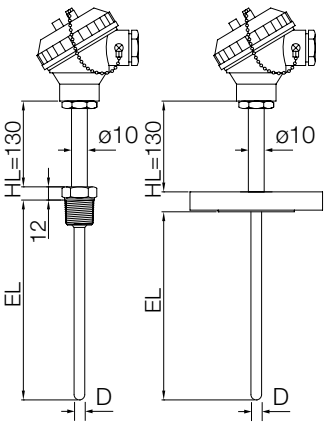
Model	Protection tube diameter (D)	Process connection	Sensor type / category	RTD wiring	Terminal head	Head transmitter	Options
MWD-L	**3** = tube Ø3 **4** = tube Ø4 **5** = tube Ø5 **6** = tube Ø6 **8** = tube Ø8 **9** = tube Ø9 **A** = tube Ø10 **C** = tube Ø12 **X** = special options	**G08** = G ¼-M **G15** = G ½-M **G20** = G ¾-M **G25** = G1-M **N08** = ¼" NPT-M **N15** = ½" NPT-M **N20** = ¾" NPT-M **N25** = 1" NPT-M **XXX** = special options	**A** = 1 x Pt100 class B (-70…+250 °C) **B** = 2 x Pt100 class B (-70…+250 °C) **C** = 1 x Pt100 class A (-70…+250 °C) **D** = 2 x Pt100 class A (-70…+250 °C) **E** = 1 x Pt100 class B (-70…+400 °C) **F** = 2 x Pt100 class B (-70…+400 °C) **G** = 1 x Pt100 class A (-70…+400 °C) **H** = 2 x Pt100 class A (-70…+400 °C) **I** = 1 x Pt100 class B (-70…+600 °C) **J** = 2 x Pt100 class B (-70…+600 °C) **K** = 1 x Pt100 class A (-70…+600 °C) **L** = 2 x Pt100 class A (-70…+600 °C) **M** = 1 x Pt100 class 1/3 DIN (-70…+250 °C) **N** = 1 x Pt100 class 1/10 DIN (-70…+250 °C) **O** = 1 x Pt100 class 1/3 DIN (-70…+400 °C) **P** = 1 x Pt100 class 1/10 DIN (-70…+400 °C) **Q** = 1 x Pt100 class cryogenic (-198…+100 °C) **X** = special options	**2** = 2-wire **3** = 3-wire **4**[3] = 4-wire	**G** = screw-cap with chain, aluminium **I** = screw-cap with chain, stainless steel 1.4401 **P** = screw-cap with chain, PP **M**[1] = mini head screw-cap with chain, aluminium **K** = head screw-cap, stainless steel 1.4401 **B** = DIN B screwed cover, aluminium **Z** = BUZ hinged cover, aluminium **H** = BUZ-H high model with hinged cover, aluminium **E**[1] = aluminium head with LCD display and HART® transmitter included **X** = special options	**0** = without, only with ceramic terminal **A**[2][4] = 5333D transmitter 4 - 20 mA 2-wire **B**[2][4] = 5337D transmitter 4 - 20 mA with HART® protocol 2-wire **C**[2][4] = 5350A transmitter Profibus®/ Fieldbus® **D**[4] = prepared for subsequent mounting of transmitter, 150 mm flying leads	**0** = without **Y** = acc. to specifications

[1] Only with head transmitter option 0 [2] Please specify the measuring range in clear text, while ordering
[3] With 1 x Pt100 only [4] For options A, B, C, D choose RTD wiring code '3'

Note: *Please specify length 'EL' in clear text, while ordering*

No responsibility taken for errors; subject to change without prior notice.
1/07 - 2022

Industrial Resistance Thermometers according to DIN Model MWD



Model MWD-B compact threaded or flanged with neck pipe

Specifications:

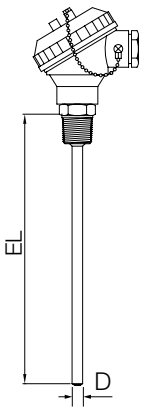
Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
Neck pipe HL:	130 mm
Electrical connection:	M20x1.5
Max. pressure:	30 bar (at 20 °C)
Protection tube:	according to DIN 43772, filled with magnesium oxide (MgO)
Material:	stainless steel 1.4404 (316L)

Model	Protection tube diameter (D)	Process connection	Sensor type/ category	RTD wiring	Terminal head	Head transmitter	Options
MWD-B	**4** = tube Ø4 **5** = tube Ø5 **6** = tube Ø6 **8** = tube Ø8 **9** = tube Ø9 **A** = tube Ø10 **C** = tube Ø12 **X** = special options	**G08** = G ¼-M **G15** = G ½-M **G20** = G ¾-M **G25** = G 1-M **N08** = ¼" NPT-M **N15** = ½" NPT-M **N20** = ¾" NPT-M **N25** = 1" NPT-M **F15** = DN15 PN16 **F20** = DN20 PN16 **F25** = DN25 PN16 **F32** = DN32 PN16 **F40** = DN40 PN16 **F50** = DN50 PN16 **H15** = DN15 PN40 **H20** = DN20 PN40 **H25** = DN25 PN40 **H32** = DN32 PN40 **H40** = DN40 PN40 **H50** = DN50 PN40 **A15** = ½"CL150 RF **A20** = ¾" CL150 RF **A25** = 1" CL150 RF **A40** = 1 ½" CL150 RF **A50** = 2" CL150 RF **B15** = ½" CL300 RF **B20** = ¾" CL300 RF **B25** = 1" CL300 RF **B40** = 1 ½" CL300 RF **B50** = 2" CL300 RF **XXX** = special options	**A** = 1 x Pt100 class B (-70…+250 °C) **B** = 2 x Pt100 class B (-70…+250 °C) **C** = 1 x Pt100 class A (-70…+250 °C) **D** = 2 x Pt100 class A (-70…+250 °C) **E** = 1 x Pt100 class B (-70…+400 °C) **F** = 2 x Pt100 class B (-70…+400 °C) **G** = 1 x Pt100 class A (-70…+400 °C) **H** = 2 x Pt100 class A (-70…+400 °C) **I** = 1 x Pt100 class B (-70…+600 °C) **J** = 2 x Pt100 class B (-70…+600 °C) **K** = 1 x Pt100 class A (-70…+600 °C) **L** = 2 x Pt100 class A (-70…+600 °C) **M** = 1 x Pt100 class 1/3 DIN (-70…+250 °C) **N** = 1 x Pt100 class 1/10 DIN (-70…+250 °C) **O** = 1 x Pt100 class 1/3 DIN (-70…+400 °C) **P** = 1 x Pt100 class 1/10 DIN (-70…+400 °C) **Q** = 1 x Pt100 class cryogenic (-198…+100 °C) **X** = special options	**2** = 2-wire **3** = 3-wire **4**[3] = 4-wire	**G** = screw-cap with chain, aluminium **I** = screw-cap with chain, stainless steel 1.4401 **P** = screw-cap with chain, PP **M**[1] = mini head screw-cap with chain, aluminium **K** = head screw-cap, stainless steel 1.4401 **B** = DIN B screwed cover, aluminium **Z** = BUZ hinged cover, aluminium **H** = BUZ-H high model with hinged cover, aluminium **E**[1] = aluminium head with LCD display and HART® transmitter included **X** = special options	**0** = without, only with ceramic terminal **A**[2)4)] = 5333D transmitter 4 - 20 mA 2-wire **B**[2)4)] = 5337D transmitter 4 - 20 mA with HART® protocol 2-wire **C**[2)4)] = 5350A transmitter Profibus®/ Fieldbus® **D**[4)] = prepared for subsequent mounting of transmitter, 150 mm flying leads	**0** = without **Y** = acc. to specifications

[1)] Only with head transmitter option 0 [2)] Please specify the measuring range in clear text, while ordering [3)] With 1x Pt100 only
[4)] For options A, B, C, D choose RTD wiring code '3'

Note: *Please specify length 'EL' in clear text, while ordering*

No responsibility taken for errors;
subject to change without prior notice.



Model MWD-C compact with removable measuring insert

Specifications:

Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
Electrical connection:	M20x1.5
Max. pressure:	30 bar (at 20 °C)
Protection tube:	according to DIN 43772
Material:	stainless steel 1.4404 (316L)
Measuring insert:	filled with magnesium oxide (MgO)

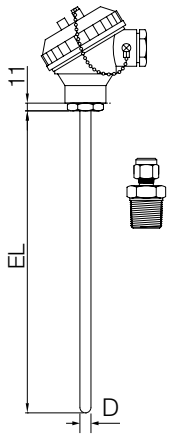
Model	Protection tube diameter (D)	Process connection	Sensor type/ category	RTD wiring	Terminal head	Head transmitter	Options
MWD-C	**5** = tube Ø5 **6** = tube Ø6 **8** = tube Ø8 **9** = tube Ø9 **A** = tube Ø10 **C** = tube Ø12 **X** = special options	**G08** = G ¼-M **G15** = G ½-M **G20** = G ¾-M **G25** = G1-M **N08** = ¼" NPT-M **N15** = ½" NPT-M **N20** = ¾" NPT-M **N25** = 1" NPT-M **XXX** = special options	**A** = 1 x Pt100 class B (-70…+250 °C) **B** = 2 x Pt100 class B (-70…+250 °C) **C** = 1 x Pt100 class A (-70…+250 °C) **D** = 2 x Pt100 class A (-70…+250 °C) **E** = 1 x Pt100 class B (-70…+400 °C) **F** = 2 x Pt100 class B (-70…+400 °C) **G** = 1 x Pt100 class A (-70…+400 °C) **H** = 2 x Pt100 class A (-70…+400 °C) **I** = 1 x Pt100 class B (-70…+600 °C) **J** = 2 x Pt100 class B (-70…+600 °C) **K** = 1 x Pt100 class A (-70…+600 °C) **L** = 2 x Pt100 class A (-70…+600 °C) **M** = 1 x Pt100 class 1/3 DIN (-70…+250 °C) **N** = 1 x Pt100 class 1/10 DIN (-70…+250 °C) **O** = 1 x Pt100 class 1/3 DIN (-70…+400 °C) **P** = 1 x Pt100 class 1/10 DIN (-70…+400 °C) **Q** = 1 x Pt100 class cryogenic (-198…+100 °C) **X** = special options	**2** = 2-wire **3** = 3-wire **4**[3] = 4-wire	**G** = screw-cap with chain, aluminium **I** = screw-cap with chain, stainless steel 1.4401 **P** = screw-cap with chain, PP **M**[1] = mini head screw-cap with chain, aluminium **K** = head screw-cap, stainless steel 1.4401 **B** = DIN B screwed cover, aluminium **Z** = BUZ hinged cover, aluminium **H** = BUZ-H high model with hinged cover, aluminium **E**[1] = aluminium head with LCD display and HART® transmitter included **X** = special options	**0** = without, only with ceramic terminal **A**[2][4] = 5333D transmitter 4 - 20 mA 2-wire **B**[2][4] = 5337D transmitter 4 - 20 mA with HART® protocol 2-wire **C**[2][4] = 5350A transmitter Profibus®/ Fieldbus® **D**[4] = prepared for subsequent mounting of transmitter, 150 mm flying leads	**0** = without **Y** = acc. to specifications

[1] Only with head transmitter option 0 [2] Please specify the measuring range in clear text, while ordering
[3] With 1 x Pt100 only [4] For options A, B, C, D choose RTD wiring code '3'

Note: *Please specify length 'EL' in clear text, while ordering*

No responsibility taken for errors; subject to change without prior notice.

Industrial Resistance Thermometers according to DIN Model MWD



Model MWD-E compact with removable measuring insert and compressing fitting

Specifications:

Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
Electrical connection:	M20x1.5
Max. pressure:	30 bar (at 20 °C)
Protection tube:	according to DIN 43772
Material:	stainless steel 1.4404 (316L)
Measuring insert:	filled with magnesium oxide (MgO)

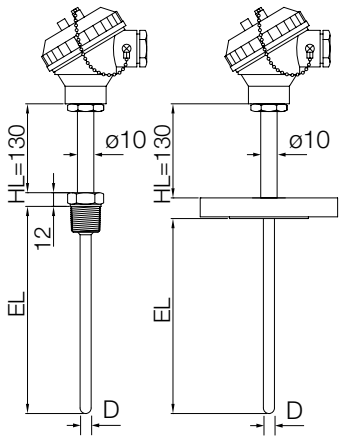
Model	Protection tube diameter (D)	Process connection	Sensor type/ category	RTD wiring	Terminal head	Head transmitter	Options
MWD-E	**5** = tube Ø5 **6** = tube Ø6 **8** = tube Ø8 **9** = tube Ø9 **A** = tube Ø10 **C** = tube Ø12 **X** = special options	**000** = none **K15** = compression fitting G½-M **C15** = compression fitting ½" NPT-M **XXX** = special options	**A** = 1 x Pt100 class B (-70…+250 °C) **B** = 2 x Pt100 class B (-70…+250 °C) **C** = 1 x Pt100 class A (-70…+250 °C) **D** = 2 x Pt100 class A (-70…+250 °C) **E** = 1 x Pt100 class B (-70…+400 °C) **F** = 2 x Pt100 class B (-70…+400 °C) **G** = 1 x Pt100 class A (-70…+400 °C) **H** = 2 x Pt100 class A (-70…+400 °C) **I** = 1 x Pt100 class B (-70…+600 °C) **J** = 2 x Pt100 class B (-70…+600 °C) **K** = 1 x Pt100 class A (-70…+600 °C) **L** = 2 x Pt100 class A (-70…+600 °C) **M** = 1 x Pt100 class 1/3 DIN (-70…+250 °C) **N** = 1 x Pt100 class 1/10 DIN (-70…+250 °C) **O** = 1 x Pt100 class 1/3 DIN (-70…+400 °C) **P** = 1 x Pt100 class 1/10 DIN (-70…+400 °C) **Q** = 1 x Pt100 class cryogenic (-198…+100 °C) **X** = special options	**2** = 2-wire **3** = 3-wire **4**[3] = 4-wire	**G** = screw-cap with chain, aluminium **I** = screw-cap with chain, stainless steel 1.4401 **P** = screw-cap with chain, PP **M**[1] = mini head screw-cap with chain, aluminium **K** = head screw-cap, stainless steel 1.4401 **B** = DIN B screwed cover, aluminium **Z** = BUZ hinged cover, aluminium **H** = BUZ-H high model with hinged cover, aluminium **E**[1] = aluminium head with LCD display and HART® transmitter included **X** = special options	**0** = without, only with ceramic terminal **A**[2][4] = 5333D transmitter 4 - 20 mA 2-wire **B**[2][4] = 5337D transmitter 4 - 20 mA with HART® protocol 2-wire **C**[2][4] = 5350A transmitter Profibus®/ Fieldbus® **D**[4] = prepared for subsequent mounting of transmitter, 150 mm flying leads	**0** = without **Y** = acc. to specifications

[1] Only with head transmitter option 0 [2] Please specify the measuring range in clear text, while ordering [3] With 1 x Pt100 only
[4] For options A, B, C, D choose RTD wiring code '3'

Note: *Please specify length 'EL' in clear text, while ordering*

No responsibility taken for errors;
subject to change without prior notice.

Industrial Resistance Thermometers according to DIN Model MWD



Model MWD-D compact with removable measuring insert and extension neck pipe

Specifications:

Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
Neck pipe HL:	130 mm
Electrical connection:	M20x1.5
Max. pressure:	30 bar (at 20 °C)
Protection tube:	according to DIN 43772
Material:	stainless steel 1.4404 (316L)
Measuring insert:	filled with magnesium oxide (MgO)

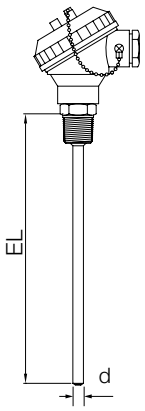
Model	Protection tube diameter (D)	Process connection	Sensor type / category	RTD wiring	Terminal head	Head transmitter	Options
MWD-D	**6** = tube Ø6 **8** = tube Ø8 **9** = tube Ø9 **A** = tube Ø10 **C** = tube Ø12 **X** = special options	**G08** = G ¼-M **G15** = G ½-M **G20** = G ¾-M **G25** = G 1-M **N08** = ¼" NPT-M **N15** = ½" NPT-M **N20** = ¾" NPT-M **N25** = 1" NPT-M **F15** = DN15 PN16 **F20** = DN20 PN16 **F25** = DN25 PN16 **F32** = DN32 PN16 **F40** = DN40 PN16 **F50** = DN50 PN16 **H15** = DN15 PN40 **H20** = DN20 PN40 **H25** = DN25 PN40 **H32** = DN32 PN40 **H40** = DN40 PN40 **H50** = DN50 PN40 **A15** = ½" CL150 RF **A20** = ¾" CL150 RF **A25** = 1" CL150 RF **A40** = 1 ½" CL150 RF **A50** = 2" CL150 RF **B15** = ½" CL300 RF **B20** = ¾" CL300 RF **B25** = 1" CL 300 RF **B40** = 1 ½" CL 300 RF **B50** = 2" CL 300RF **XXX** = special options	**A** = 1 x Pt100 class B (-70…+250 °C) **B** = 2 x Pt100 class B (-70…+250 °C) **C** = 1 x Pt100 class A (-70…+250 °C) **D** = 2 x Pt100 class A (-70…+250 °C) **E** = 1 x Pt100 class B (-70…+400 °C) **F** = 2 x Pt100 class B (-70…+400 °C) **G** = 1 x Pt100 class A (-70…+400 °C) **H** = 2 x Pt100 class A (-70…+400 °C) **I** = 1 x Pt100 class B (-70…+600 °C) **J** = 2 x Pt100 class B (-70…+600 °C) **K** = 1 x Pt100 class A (-70…+600 °C) **L** = 2 x Pt100 class A (-70…+600 °C) **M** = 1 x Pt100 class 1/3 DIN (-70…+250 °C) **N** = 1 x Pt100 class 1/10 DIN (-70…+250 °C) **O** = 1 x Pt100 class 1/3 DIN (-70…+400 °C) **P** = 1 x Pt100 class 1/10 DIN (-70…+400 °C) **Q** = 1 x Pt100 class cryogenic (-198…+100 °C) **X** = special options	**2** = 2-wire **3** = 3-wire **4**[3] = 4-wire	**G** = screw-cap with chain, aluminium **I** = screw-cap with chain, stainless steel 1.4401 **P** = screw-cap with chain, PP **M**[1] = mini head screw-cap with chain, aluminium **K** = head screw-cap, stainless steel 1.4401 **B** = DIN B screwed cover, aluminium **Z** = BUZ hinged cover, aluminium **H** = BUZ-H high model with hinged cover, aluminium **E**[1] = aluminium head with LCD display and HART® transmitter included **X** = special options	**0** = without, only with ceramic terminal **A**[2)4)] = 5333D transmitter 4 - 20 mA 2-wire **B**[2)4)] = 5337D transmitter 4 - 20 mA with HART® protocol 2-wire **C**[2)4)] = 5350A transmitter Profibus®/ Fieldbus® **D**[4] = prepared for subsequent mounting of transmitter, 150 mm flying leads	**0** = without **Y** = acc. to specifications

[1] Only with head transmitter option 0 [2] Please specify the measuring range in clear text, while ordering
[3] With 1 x Pt100 only [4] For options A, B, C, D choose RTD wiring code '3'

Note: *Please specify length 'EL' in clear text, while ordering*

No responsibility taken for errors; subject to change without prior notice.
1/07 - 2022

Industrial Resistance Thermometers according to DIN Model MWD



Model MWD-F compact fixed thread with removable measuring insert[1], for mounting in thermowell
Specifications:

Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
Process connection:	threaded
Electrical connection:	M20x1.5
Max. pressure:	P_{atm} only with thermowell TWL-0
Measuring insert:	according to DIN 43772, filled with magnesium oxide (MgO)
Material:	stainless steel 1.4404 (316L)

Note: *For order details of the thermowell see datasheet TWL-0. Without thermowell atmospheric pressure.*

[1] Without protection tube

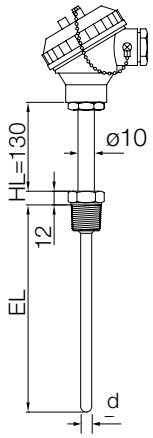
Model	Measuring insert diameter (d)	Process connection	Sensor type / category	RTD wiring	Terminal head	Head transmitter	Options
MWD-F	**3** = tube Ø3 **4** = tube Ø4 **5** = tube Ø5 **6** = tube Ø6 **8** = tube Ø8 **X** = special options	**G08** = G ¼-M **G15** = G ½-M **G20** = G ¾-M **G25** = G 1-M **N08** = ¼" NPT-M **N15** = ½" NPT-M **N20** = ¾" NPT-M **N25** = 1" NPT-M **XXX** = special options	**A** = 1 x Pt100 class B (-70…+250 °C) **B** = 2 x Pt100 class B (-70…+250 °C) **C** = 1 x Pt100 class A (-70…+250 °C) **D** = 2 x Pt100 class A (-70…+250 °C) **E** = 1 x Pt100 class B (-70…+400 °C) **F** = 2 x Pt100 class B (-70…+400 °C) **G** = 1 x Pt100 class A (-70…+400 °C) **H** = 2 x Pt100 class A (-70…+400 °C) **I** = 1 x Pt100 class B (-70…+600 °C) **J** = 2 x Pt100 class B (-70…+600 °C) **K** = 1 x Pt100 class A (-70…+600 °C) **L** = 2 x Pt100 class A (-70…+600 °C) **M** = 1 x Pt100 class 1/3 DIN (-70…+250 °C) **N** = 1 x Pt100 class 1/10 DIN (-70…+250 °C) **O** = 1 x Pt100 class 1/3 DIN (-70…+400 °C) **P** = 1 x Pt100 class 1/10 DIN (-70…+400 °C) **Q** = 1 x Pt100 class cryogenic (-198…+100 °C) **X** = special options	**2** = 2-wire **3** = 3-wire **4**[3] = 4-wire	**G** = screw-cap with chain, aluminium **I** = screw-cap with chain, stainless steel 1.4401 **P** = screw-cap with chain, PP **M**[1] = mini head screw-cap with chain, aluminium **K** = head screw-cap, stainless steel 1.4401 **B** = DIN B screwed cover, aluminium **Z** = BUZ hinged cover, aluminium **H** = BUZ-H high model with hinged cover, aluminium **E**[1] = aluminium head with LCD display and HART® transmitter included **X** = special options	**0** = without, only with ceramic terminal **A**[2][4] = 5333D transmitter 4 - 20 mA 2-wire **B**[2][4] = 5337D transmitter 4 - 20 mA with HART® protocol 2-wire **C**[2][4] = 5350A transmitter Profibus®/ Fieldbus® **D**[4] = prepared for subsequent mounting of transmitter, 150 mm flying leads	**0** = without **Y** = acc. to specifications

[1] Only with head transmitter option 0 [2] Please specify the measuring range in clear text, while ordering [3] With 1 x Pt100 only
[4] For options A, B, C, D choose RTD wiring code '3'

Note: *Please specify length 'EL' in clear text, while ordering*

No responsibility taken for errors;
subject to change without prior notice.

Industrial Resistance Thermometers according to DIN Model MWD



Model MWD-G compact with removable measuring insert[1] and neck pipe, for mounting in thermowell

Specifications:

Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
Neck pipe HL:	130 mm
Electrical connection:	M20x1.5
Max. pressure:	P_{atm} only with thermowell TWL-0
Measuring insert:	according to DIN 43772, filled with magnesium oxide (MgO)
Material:	stainless steel 1.4404 (316L)

Note: *For order details of the thermowell see datasheet TWL-0. Without thermowell atmospheric pressure.*

[1] Without protection tube

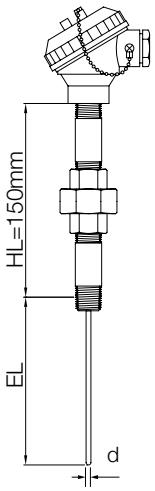
Model	Measuring insert diameter (d)	Process connection	Sensor type / category	RTD wiring	Terminal head	Head transmitter	Options
MWD-G	**3** = tube Ø3 **4** = tube Ø4 **5** = tube Ø5 **6** = tube Ø6 **8** = tube Ø8 **X** = special options	**G08** = G ¼-M **G15** = G ½-M **G20** = G ¾-M **G25** = G 1-M **N08** = ¼" NPT-M **N15** = ½" NPT-M **N20** = ¾" NPT-M **N25** = 1" NPT-M **XXX** = special options	**A** = 1 x Pt100 class B (-70…+250 °C) **B** = 2 x Pt100 class B (-70…+250 °C) **C** = 1 x Pt100 class A (-70…+250 °C) **D** = 2 x Pt100 class A (-70…+250 °C) **E** = 1 x Pt100 class B (-70…+400 °C) **F** = 2 x Pt100 class B (-70…+400 °C) **G** = 1 x Pt100 class A (-70…+400 °C) **H** = 2 x Pt100 class A (-70…+400 °C) **I** = 1 x Pt100 class B (-70…+600 °C) **J** = 2 x Pt100 class B (-70…+600 °C) **K** = 1 x Pt100 class A (-70…+600 °C) **L** = 2 x Pt100 class A (-70…+600 °C) **M** = 1 x Pt100 class 1/3 DIN (-70…+250 °C) **N** = 1 x Pt100 class 1/10 DIN (-70…+250 °C) **O** = 1 x Pt100 class 1/3 DIN (-70…+400 °C) **P** = 1 x Pt100 class 1/10 DIN (-70…+400 °C) **Q** = 1 x Pt100 class cryogenic (-198…+100 °C) **X** = special options	**2** = 2-wire **3** = 3-wire **4**[3] = 4-wire	**G** = screw-cap with chain, aluminium **I** = screw-cap with chain, stainless steel 1.4401 **P** = screw-cap with chain, PP **M**[1] = mini head screw-cap with chain, aluminium **K** = head screw-cap, stainless steel 1.4401 **B** = DIN B screwed cover, aluminium **Z** = BUZ hinged cover, aluminium **H** = BUZ-H high model with hinged cover, aluminium **E**[1] = aluminium head with LCD display and HART® transmitter included **X** = special options	**0** = without, only with ceramic terminal **A**[2][4] = 5333D transmitter 4 - 20 mA 2-wire **B**[2][4] = 5337D transmitter 4 - 20 mA with HART® protocol 2-wire **C**[2][4] = 5350A transmitter Profibus®/ Fieldbus® **D**[4] = prepared for subsequent mounting of transmitter, 150 mm flying leads	**0** = without **Y** = acc. to specifications

[1] Only with head transmitter option 0 [2] Please specify the measuring range in clear text, while ordering [3] With 1 x Pt100 only
[4] For options A, B, C, D choose RTD wiring code '3'

Note: *Please specify length 'EL' in clear text, while ordering*

No responsibility taken for errors; subject to change without prior notice.
1/07 - 2022

Industrial Resistance Thermometers according to DIN Model MWD



Model MWD-W compact with removable measuring insert[1] and neck pipe (nipple union nipple), for mounting in thermowell

Specifications:

Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
Neck pipe HL:	150 mm, (nipple union nipple)
Electrical connection:	M20x1.5
Max. pressure:	P_{atm} only with thermowell TWL-0
Measuring insert:	according to DIN 43772, filled with magnesium oxide (MgO)
Material:	stainless steel 1.4404 (316L)

Note: *For order details of the thermowell see datasheet TWL-0. Without thermowell atmospheric pressure.*

[1] Without protection tube

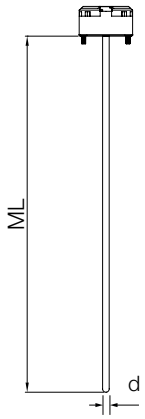
Model	Measuring insert diameter (d)	Process connection	Sensor type / category	RTD wiring	Terminal head	Head transmitter	Options
MWD-W	**3** = tube Ø3 **4** = tube Ø4 **5** = tube Ø5 **6** = tube Ø6 **8** = tube Ø8 **X** = special options	**N15** = ½" NPT-M **XXX** = special options	**A** = 1 x Pt100 class B (-70…+250°C) **B** = 2 x Pt100 class B (-70…+250°C) **C** = 1 x Pt100 class A (-70…+250°C) **D** = 2 x Pt100 class A (-70…+250°C) **E** = 1 x Pt100 class B (-70…+400°C) **F** = 2 x Pt100 class B (-70…+400°C) **G** = 1 x Pt100 class A (-70…+400°C) **H** = 2 x Pt100 class A (-70…+400°C) **I** = 1 x Pt100 class B (-70…+600°C) **J** = 2 x Pt100 class B (-70…+600°C) **K** = 1 x Pt100 class A (-70…+600°C) **L** = 2 x Pt100 class A (-70…+600°C) **M** = 1 x Pt100 class 1/3 DIN (-70…+250°C) **N** = 1 x Pt100 class 1/10 DIN (-70…+250°C) **O** = 1 x Pt100 class 1/3 DIN (-70…+400°C) **P** = 1 x Pt100 class 1/10 DIN (-70…+400°C) **Q** = 1 x Pt100 class cryogenic (-198…+100°C) **X** = special options	**2** = 2-wire **3** = 3-wire **4**[3] = 4-wire	**G** = screw-cap with chain, aluminium **I** = screw-cap with chain, stainless steel 1.4401 **P** = screw-cap with chain, PP **M**[1] = mini head screw-cap with chain, aluminium **K** = head screw-cap, stainless steel 1.4401 **B** = DIN B screwed cover, aluminium **Z** = BUZ hinged cover, aluminium **H** = BUZ-H high model with hinged cover, aluminium **E**[1] = aluminium head with LCD display and HART® transmitter included **X** = special options	**0** = without, only with ceramic terminal **A**[2][4] = 5333D transmitter 4 - 20 mA 2-wire **B**[2][4] = 5337D transmitter 4 - 20 mA with HART® protocol 2-wire **C**[2][4] = 5350A transmitter Profibus®/ Fieldbus® **D**[4] = prepared for subsequent mounting of transmitter, 150 mm flying leads	**0** = without **Y** = acc. to specifications

[1] Only with head transmitter option 0 [2] Please specify the measuring range in clear text, while ordering
[3] With 1 x Pt100 only [4] For options A, B, C, D choose RTD wiring code '3'

Note: *Please specify length 'EL' in clear text, while ordering*

No responsibility taken for errors;
subject to change without prior notice.

Industrial Resistance Thermometers according to DIN Model MWD



Model MWD-M measuring insert

Specifications:

Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
Head transmitter:	ceramic terminal block or transmitter
Max. pressure:	atmospheric pressure
Measuring insert:	according to DIN 43772, filled with magnesium oxide (MgO)
Material:	stainless steel 1.4404 (316L)

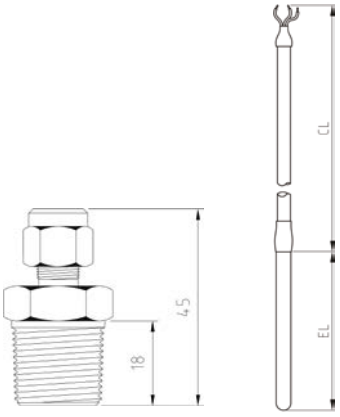
Model	Measuring insert diameter (d)	Process connection	Sensor type / category	RTD wiring	Terminal head	Head transmitter	Options
MWD-M	**3** = tube Ø3 **4** = tube Ø4 **5** = tube Ø5 **6** = tube Ø6 **8** = tube Ø8 **X** = special options	**000** = without	**A** = 1 x Pt100 class B (-70…+250 °C) **B** = 2 x Pt100 class B (-70…+250 °C) **C** = 1 x Pt100 class A (-70…+250 °C) **D** = 2 x Pt100 class A (-70…+250 °C) **E** = 1 x Pt100 class B (-70…+400 °C) **F** = 2 x Pt100 class B (-70…+400 °C) **G** = 1 x Pt100 class A (-70…+400 °C) **H** = 2 x Pt100 class A (-70…+400 °C) **I** = 1 x Pt100 class B (-70…+600 °C) **J** = 2 x Pt100 class B (-70…+600 °C) **K** = 1 x Pt100 class A (-70…+600 °C) **L** = 2 x Pt100 class A (-70…+600 °C) **M** = 1 x Pt100 class 1/3 DIN (-70…+250 °C) **N** = 1 x Pt100 class 1/10 DIN (-70…+250 °C) **O** = 1 x Pt100 class 1/3 DIN (-70…+400 °C) **P** = 1 x Pt100 class 1/10 DIN (-70…+400 °C) **Q** = 1 x Pt100 class cryogenic (-198…+100 °C) **X** = special options	**2** = 2-wire **3** = 3-wire **4**[1] = 4-wire	**0** = without	**0** = without, only with ceramic terminal **A**[2)3)] = 5333D transmitter 4 - 20 mA 2-wire **B**[2)3)] = 5337D transmitter 4 - 20 mA with HART® protocol 2-wire **C**[2)3)] = 5350A transmitter Profibus®/Field-bus® **D**[3)] = prepared for subsequent mounting of transmitter, 150 mm flying leads	**0** = without **Y** = acc. to specifications

[1)] With 1 x Pt100 only [2)] Please specify measuring range in clear text while ordering. Only possible for wiring code '3'
[3)] For options A, B, C, D choose RTD wiring code '3'

Note: *Please specify length 'ML' in clear text*

No responsibility taken for errors;
subject to change without prior notice.
1/07 - 2022

Industrial Resistance Thermometers according to DIN Model MWD



Model MWD-S

Specifications:

Limited temperature depending on the selected cable

Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
Max. pressure:	30 bar (at 20 °C) only metallic immersion
Protection tube:	according to DIN 43763
Material:	stainless steel 1.4404 (SS316L)
Max. temp. cable:	PVC max. 80 °C silicone max. 200 °C PTFE max. 220 °C fibreglass 350 °C

Model	Protection tube diameter[2]	Process connection	Sensor type / category	RTD wiring	Cable[2]	Terminal	Options
MWD-S	**3** = tube Ø3[1] **4** = tube Ø4[1] **5** = tube Ø5 **6** = tube Ø6 **8** = tube Ø8 **X** = special options	**000** = without **K15** = compression fitting G ½-M **C15** = compression fitting ½" NPT-M **XXX** = special options	**A** = 1 x Pt100 class B (-70…+250 °C) **B** = 2 x Pt100 class B (-70…+250 °C) **C** = 1 x Pt100 class A (-70…+250 °C) **D** = 2 x Pt100 class A (-70…+250 °C) **E** = 1 x Pt100 class B (-70…+400 °C) **F** = 2 x Pt100 class B (-70…+400 °C) **G** = 1 x Pt100 class A (-70…+400 °C) **H** = 2 x Pt100 class A (-70…+400 °C) **M** = 1 x Pt100 class 1/3 DIN (-70…+250 °C) **N** = 1 x Pt100 class 1/10 DIN (-70…+250 °C) **O** = 1 x Pt100 class 1/3 DIN (-70…+400 °C) **P** = 1 x Pt100 class 1/10 DIN (-70…+400 °C) **Q** = 1 x Pt100 class cryogenic (-200…+100 °C) **X** = special options	**2** = 2-wire **3** = 3-wire **4** = 4-wire	**S** = silicone **T** = teflon **P** = PVC **F** = fibreglass with steel braid	**8** = M16x1.5 male thread, with 150 mm flying leads **0** = without **X** = special connector	**0** = without **1** = with spring strain relief **Y** = according to specifications

[1] With pot seal Ø6 x 40 for crimping cable

[2] Please specify protection tube fitting length »EL« and cable length »CL« in clear text

No responsibility taken for errors;
subject to change without prior notice.

Industrial Resistance Thermometers according to DIN Model MWD



Model MWD-N

Specifications:

Limited temperature depending on the selected cable

Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
Max. pressure:	30 bar (at 20 °C) only metallic immersion
Protection tube:	according to DIN 43763
Process connection:	thread
Material:	stainless steel 1.4404 (SS316L)
Max. temp. cable:	PVC max. 80 °C, silicone max. 200 °C PTFE max. 220 °C, fibreglass 350 °C

Model	Protection tube diameter[1)]	Process connection	Sensor type / category	RTD wiring	Cable[1)]	Terminal	Options
MWD-N	**3** = tube Ø3 **4** = tube Ø4 **5** = tube Ø5 **6** = tube Ø6 **8** = tube Ø8 **X** = special options	**G08** = G ¼ M **G15** = G ½ M **G20** = G ¾ M **G25** = G 1 M **N08** = ¼" NPT-M **N15** = ½" NPT-M **N20** = ¾" NPT-M **N25** = 1" NPT-M **XXX** = special options	**A** = 1 x Pt100 class B (-70…+250 °C) **B** = 2 x Pt100 class B (-70…+250 °C) **C** = 1 x Pt100 class A (-70…+250 °C) **D** = 2 x Pt100 class A (-70…+250 °C) **E** = 1 x Pt100 class B (-70…+400 °C) **F** = 2 x Pt100 class B (-70…+400 °C) **G** = 1 x Pt100 class A (-70…+400 °C) **H** = 2 x Pt100 class A (-70…+400 °C) **M** = 1 x Pt100 class 1/3 DIN (-70…+250 °C) **N** = 1 x Pt100 class 1/10 DIN (-70…+250 °C) **O** = 1 x Pt100 class 1/3 DIN (-70…+400 °C) **P** = 1 x Pt100 class 1/10 DIN (-70…+400 °C) **Q** = 1 x Pt100 class cryogenic (-200…+100 °C) **X** = special options	**2** = 2-wire **3** = 3-wire **4** = 4-wire	**S** = silicone **T** = teflon **P** = PVC **F** = fibreglass with steel braid	**0** = without **X** = special connector	**0** = without **1** = with spring strain relief **Y** = according to specifications

[1)] Please specify protection tube fitting length »EL« and cable length »CL« in clear text

No responsibility taken for errors;
subject to change without prior notice.
1/07 - 2022



Model MWD-I

Specifications:

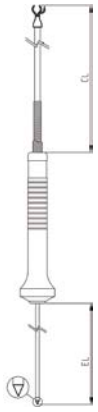
Limited temperature depending on the selected cable

Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
Max. pressure:	atmospheric pressure
Handle:	PVC material max. 80°C
Protection tube:	according to DIN 43763
Material:	stainless steel 1.4404 (SS316L)
Max. temp. cable:	PVC max. 80°C silicone max. 200°C PTFE max. 220°C fibreglass 350°C

Model	Protection tube diameter[1)]	Process connection	Sensor type/ category	RTD wiring	Cable[1)]	Terminal	Options
MWD-I	**3** = tube Ø3 **4** = tube Ø4 **5** = tube Ø5 **6** = tube Ø6 **8** = tube Ø8 **X** = special options	**000** = PVC handle **XXX** = special options	**A** = 1 x Pt100 class B (-70…+250°C) **B** = 2 x Pt100 class B (-70…+250°C) **C** = 1 x Pt100 class A (-70…+250°C) **D** = 2 x Pt100 class A (-70…+250°C) **E** = 1 x Pt100 class B (-70…+400°C) **F** = 2 x Pt100 class B (-70…+400°C) **G** = 1 x Pt100 class A (-70…+400°C) **H** = 2 x Pt100 class A (-70…+400°C) **M** = 1 x Pt100 class 1/3 DIN (-70…+250°C) **N** = 1 x Pt100 class 1/10 DIN (-70…+250°C) **O** = 1 x Pt100 class 1/3 DIN (-70…+400°C) **P** = 1 x Pt100 class 1/10 DIN (-70…+400°C) **Q** = 1 x Pt100 class cryogenic (-200…+100°C) **X** = special options	**2** = 2-wire **3** = 3-wire **4** = 4-wire	**S** = silicone **T** = teflon **P** = PVC **F** = fibreglass with steel braid	**0** = without **X** = special connector	**0** = without **Y** = according to specifications

[1)] Please specify protection tube fitting length »EL« and cable length »CL« in clear text

No responsibility taken for errors;
subject to change without prior notice.



Model MWD-P

Specifications:

Limited temperature depending on the selected cable

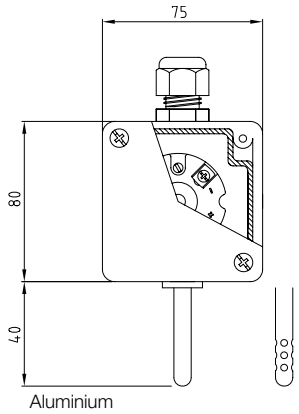
Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10, cryogenic, and others
Max. pressure:	atmospheric pressure
Handle:	PVC material max. 80°C
Protection tube:	according to DIN 43763
Material:	stainless steel 1.4404 (SS316L)
Max. temp. cable:	PVC max. 80°C silicone max. 200°C PTFE max. 220°C fibreglass 350°C

Model	Protection tube diameter[1)]	Process connection	Sensor type / category	RTD wiring	Cable[1)]	Terminal	Options
MWD-P	**3** = tube Ø3 **4** = tube Ø4 **5** = tube Ø5 **6** = tube Ø6 **8** = tube Ø8 **X** = special options	**000** = PVC handle **XXX** = special options	**A** = 1 x Pt100 class B (-70…+250°C) **B** = 2 x Pt100 class B (-70…+250°C) **C** = 1 x Pt100 class A (-70…+250°C) **D** = 2 x Pt100 class A (-70…+250°C) **E** = 1 x Pt100 class B (-70…+400°C) **F** = 2 x Pt100 class B (-70…+400°C) **G** = 1 x Pt100 class A (-70…+400°C) **H** = 2 x Pt100 class A (-70…+400°C) **M** = 1 x Pt100 class 1/3 DIN (-70…+250°C) **N** = 1 x Pt100 class 1/10 DIN (-70…+250°C) **O** = 1 x Pt100 class 1/3 DIN (-70…+400°C) **P** = 1 x Pt100 class 1/10 DIN (-70…+400°C) **Q** = 1 x Pt100 class cryogenic (-200…+100°C) **X** = special options	**2** = 2-wire **3** = 3-wire **4** = 4-wire	**S** = silicone **T** = teflon **P** = PVC **F** = fibreglass with steel braid	**0** = without **X** = special connector	**0** = without **Y** = according to specifications

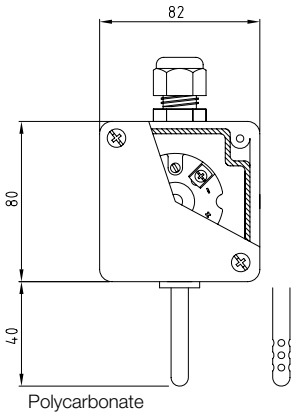
[1)] Please specify protection tube fitting length »EL« and cable length »CL« in clear text

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1/07 - 2022



Aluminium



Polycarbonate

Model MWD-T

Specifications:

Sensor element:	Pt100 3-wire class B, A, 1/3, 1/10
Max. pressure:	atmospheric pressure
Connection head:	aluminium box or polycarbonate box
Protection type:	without holes outdoor installation with holes indoor installation
Protection tube:	according to DIN 43763
Max. temper. box:	aluminium max. 80 °C polycarbonate max. 80 °C

Model	Protection tube diameter	Process connection	Sensor type/ category	RTD wiring	Terminal head	Head transmitter	Options
MWD-T	**6** = tube Ø6 **H** = Ø6 with holes **X** = special options	**000** = without	**A** = 1 x Pt100 class B (-40…+80 °C) **B** = 2 x Pt100 class B (-40…+80 °C) **C** = 1 x Pt100 class A (-40…+80 °C) **D** = 2 x Pt100 class A (-40…+80 °C) **X** = special options	**2** = 2-wire **3** = 3-wire **4** = 4-wire	**A** = aluminium **P** = polycar-bonate **X** = special options	**0** = ceramic terminal **A** = 5333D transmitter 4…20 mA 2-wire **B** = 5337D transmitter 4…20 mA with HART® protocol 2-wire **C** = 5350A transmitter 4…20 mA Profibus®/ Fieldbus® **D**[1)] = prepared for subsequent mounting of transmitter, 150 mm flying leads	**0** = without **Y** = according to specifications

[1)] For options A, B, C, D choose RTD wiring code »3«

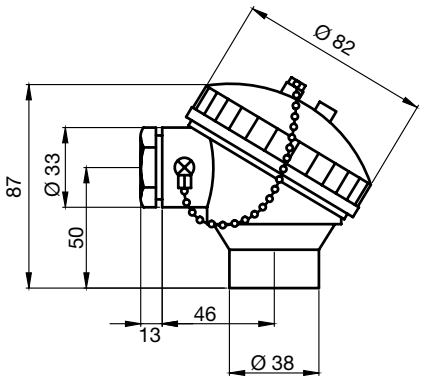
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Accessories / Options

Model	Description
DOK-FR05	3-point calibration report (additional points possible)
DOK-FR03	Inspection certificate 3.1

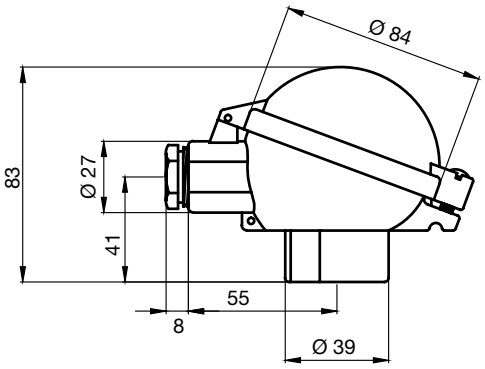
Terminal Heads

Option G Housing material: aluminium
I Housing material: stainless steel 1.4401
P Housing material: PP
Protection: IP65

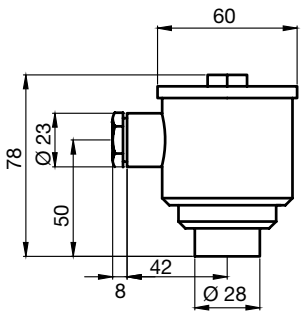


Option Z Housing material: Aluminium
Protection: IP65

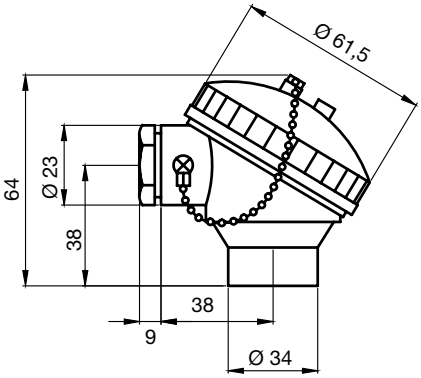
Note: *IP protection depends on cable gland. Higher IP on request.*



Option K Housing material: stainless steel 1.4401
Protection: IP65



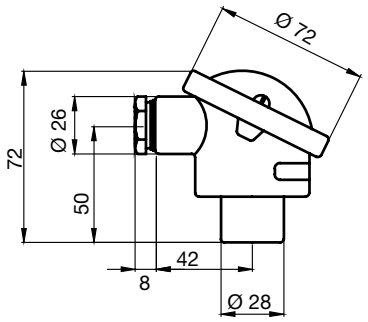
Option M Housing material: aluminium
Protection: IP65



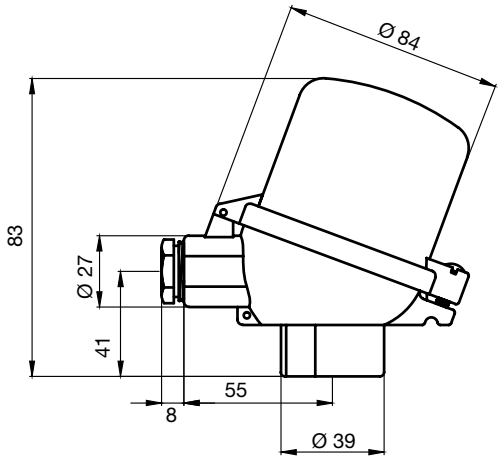
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Terminal Heads (continuation)

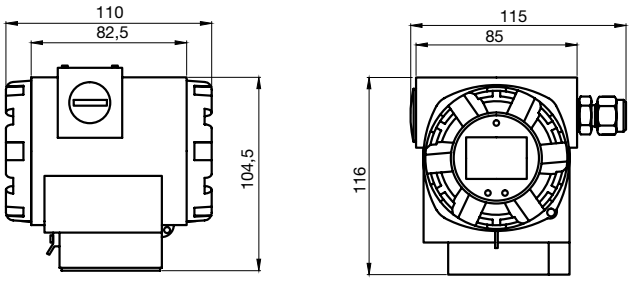
Option B Housing material: aluminium
Protection: IP 54



Option H Housing material: aluminium
Protection: IP 65



Option E



Main features

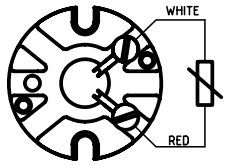
- High accuracy 0.02% of span for Pt100 sensor
- Sensor error detection according to the guidelines in NAMUR NE 89
- Backlight LCD-Display

Technical Details

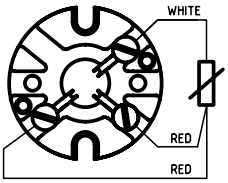
Housing material:	aluminium
Supply voltage:	7.5 ... 45 V_{DC}
Output signal:	4 ... 20 mA
Load:	max. (V_{supply} 7.5 V)/0.022 A
Signal on alarm:	underranging: linear drop to 3.8 mA overranging: linear rise to 20.5 mA sensor break, sensor open-circuit: 3.6 mA or 22 mA
Galvanic isolation:	2000 V_{AC} (input/output)
Response time:	1 s
Long term stability:	RTDs ±0.1% of reading or 0.1 °C
Switch delay:	≤5 s
Influence of ambient:	negligible
Load influence:	negligible
Power supply influence:	negligible
Filter configurating:	0 ... 160 µA
Resolution:	0.3 µA
Cable entry:	M20 internal thread
Ambient temperature:	-40 ... +85 °C (-40 ... 185 °F)
Storage temperature:	-40 ... +100 °C (-40 ... 212 °F)
Condensation:	allowable
Protection:	IP 65
Shock and vibration resistance:	4g / 2 to 150 Hz as per IEC 60068-26
LCD-Display, with backlight:	visible range 32.5 x 22.5 mm; main display: 5-digit, 7-segment, digit height 8 mm, range: -19999 ... 99999 additional display: 8-digit 14 segment, digit height 5 mm for sensor type and units

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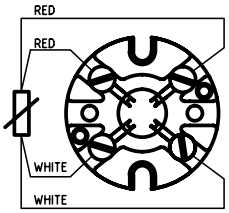
Electrical Connection



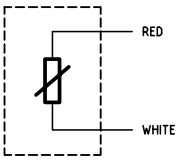
1 x Pt100, 2-wire

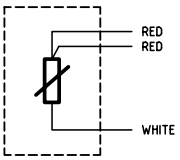


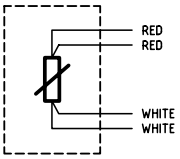
1 x Pt100, 3-wire

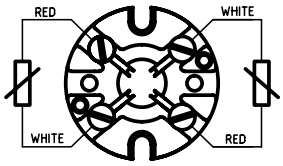


1 x Pt100, 4-wire

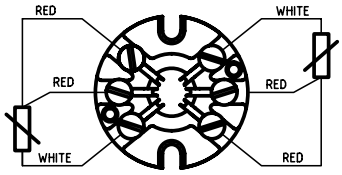




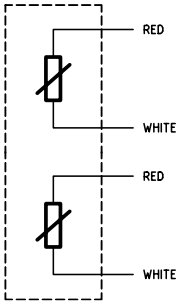


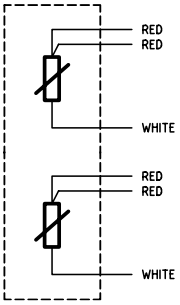


2 x Pt100, 2-wire



2 x Pt100, 3-wire





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