



Temperature Sensors for Applications in Rubber and Plastic Industries

Product Catalogue



extend your senses



The mission of SENSIT s.r.o. is to develop, manufacture and supply sensors for non-electric quantities.

Our goal is to provide a wide range of quality products, competitive prices and high quality services, including the provision of servicing and consultancy. Our priority commitment is to ensure our offered products and services optimally meet the expectations and requirements of our customers, positively influence their satisfaction and ensure the building of long-term partnerships.

In terms of development, production and utilization of sensors throughout their entire life cycle, we also deal with the issue of minimizing negative impacts on the environment and ensuring safety in production and actual use of these sensors.

To fulfil the specified mission, we rely on the following internal values of the company:

QUALITY

the high quality of processes ensures the flawlessness of the offered products and services

COSTS

by reducing input and operating costs we achieve competitive prices

SPEED

by improving the efficiency of processes we increase the speed of delivery of our products and services

RELIABILITY

by repeatedly verifying and testing basic properties, including compliance with current legislation, we ensure the reliability of our products and services

FLEXIBILITY

by selecting qualified, motivated and loyal employees we create conditions enabling us to respond flexibly to customer requirements

Ing. Petr Brzezina

Executive Head of SENSIT s.r.o.



The company SENSIT s.r.o. was founded in 1991 and it is a purely Czech company.

The products of our company also comprise temperature sensors for the rubber and plastics industry. These are specifically designed for the needs of the measurement of temperature during the preparation of rubber and plastic mixtures. **Temperature sensors are highly resistant to abrasion influence of rubber and plastics mixtures and to vibrations.** Temperature sensors SENSIT are used in various difficult applications. We can adapt our temperature sensors to the requirements of individual devices from different manufacturers.

SENSIT, s.r.o., is also engaged in the manufacture of temperature sensors in various industries. The standard temperature range of the resistance temperature sensors is from **-200 °C to 600 °C** and the diameter of the resistance temperature sensors is from **1,5 mm**. In recent years, company's product range has expanded with humidity sensors and flow sensors. Since 2015, we have been presenting also the inductive sensors and the optical level sensors on our website. As a significant competitive advantage, SENSIT s.r.o. maintains the capability of small series or piece production. High flexibility in relation to the special requirements of customers enables the company to react flexibly to their needs in terms of composition of the custom range, as well as in time performance.














The high level of quality of its products is ensured, among other ways, through the performance of regular and repeat type tests of the properties of products or through the sophisticated operation of cycling 7 to 10 cycles in temperature intervals from -10 °C to 80 °C with the objective of detecting critical manufacturing defects. A standard part of production processes is initial calibration and output inspection. The final products are thus supplied in the guaranteed quality, which is reflected in the low percentage of justified complaints.

SENSIT s.r.o. meets the requirements of standards EN ISO 9001, EN ISO 14001 and OHSAS 18001 for all areas of its activities, as evidenced by valid certificates.



The Authorized Metrology Centre authorized by the Czech Office for Standards, Metrology and Testing has been a part of SENSIT s.r.o. since 2001. SENSIT s.r.o. has its own laboratory carrying out calibrations of company's own products as well as specialist products from other manufacturers.

The competitiveness of the company's products is continuously tested on the Czech market, as well as abroad, with regard to the implementation of long-term supplies to significant manufacturers of technological units and components in the following fields:

-  Paired temperature sensors – qualified meters
-  Temperature sensors for railway vehicles
-  Temperature sensors for heating systems control
-  Temperature sensors for machines and equipment
-  Temperature sensors to electromotor windings
-  Temperature sensors for chemical industry
-  Custom production of temperature sensors
-  Sensors of temperature, humidity and flow in food processing applications
-  Sensors of temperature, humidity and flow for air conditioning equipment
-  Temperature sensors in applications for renewable resources
-  Temperature sensors for applications in rubber and plastic industries
-  Sensors of temperature, humidity and flow in white goods and medici applications
-  Temperature sensors for science and research



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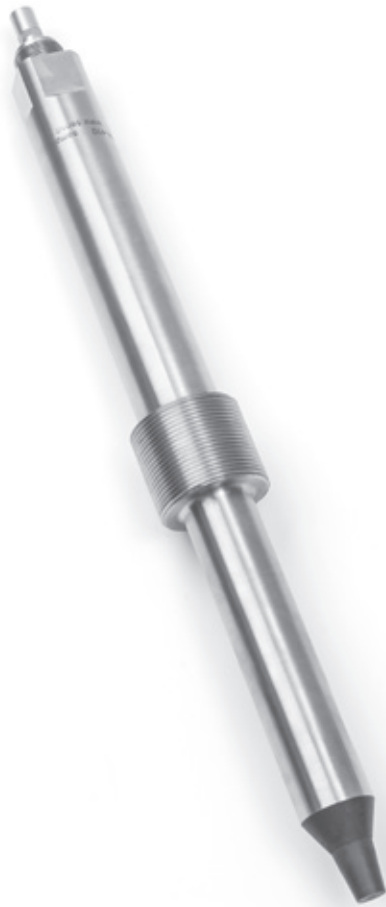
TR 078A

TR 078B

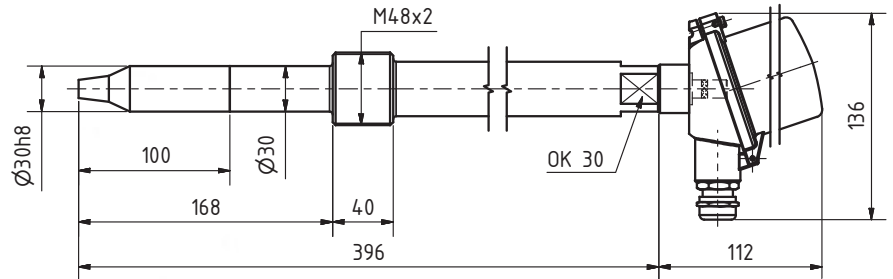
Temperature sensor



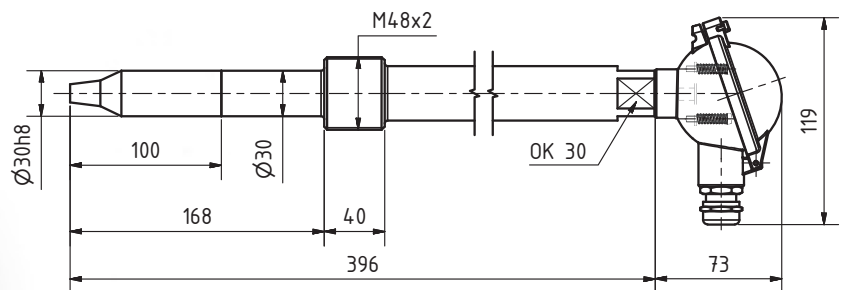
Z064.2a



TR 078A



TR 078B



DESCRIPTION AND APPLICATION ↓

The **TR 078A** and **TR 078B** temperature sensors are designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor of variant A is equipped with the LEMO connector and can be completed by a metal connection head. The temperature sensor of variant B is equipped with a ceramic terminal block placed in a connection head.

The temperature sensors are highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensors can be also used to measure temperature of plastic and bulk materials. The cases of the temperature sensors are made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION ↓

- Manufacturer provides **EU Declaration of Conformity**.
- **Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS ↓

	TR 078A	TR 078B
Sensor type	TR 078A	TR 078B
Type of sensing element	Pt 100, TCK, TCJ, other as requested	
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element	
Measuring range	-30 °C to 200 °C	
Connection	4wire	
Case material	stainless steel, measuring tip made of hardening steel	
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 23$ s, $\tau_{0,9} < 36$ s Continental method*: $\tau_{0,5} < 95$ s, $\tau_{0,9} < 175$ s	
Minimum immersion depth	40 mm	
Connector	LEMO PCA.1S.304.CLLC	—
Terminal block	—	YES
Connection head	DANW4-M2A-4x-NS-CaL as accessory	NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 MΩ at 500 V _{DC} , 25°C ± 3°C, humidity < 80%	
Weight	3.1 kg	

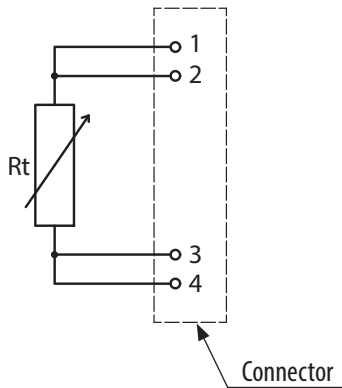
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

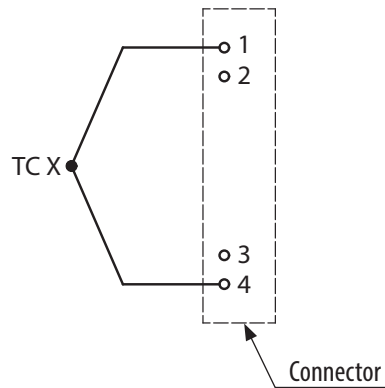
- DANW4-M2A-4x-NS-CaL connection head for the variant A
- Cable connector counterpart for the variant A - LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector for the variant A

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

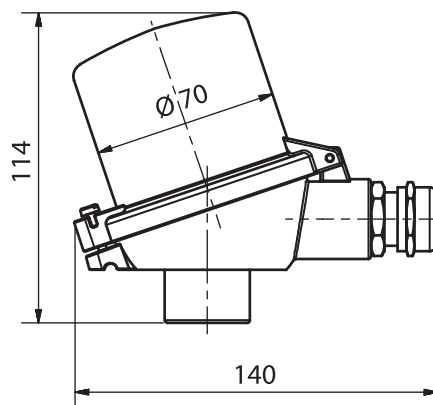


- Thermocouple type K or J



OPTIONAL ACCESSORIES FOR VERSION A ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.1S.304.CLAC62 – for cable $\text{Ø} 5.3\text{--}6.1\text{ mm}$



- Connection cable with the LEMO FFA.1S.304.CLAC62



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SENSIT s.r.o., Skolní 2610, 756 61 Roznov pod Radhostem, Czech Republic
T +420 571 625 571 F +420 571 625 572 E obchod@sensit.cz



Z064.2a | 02/17

Z064.1a

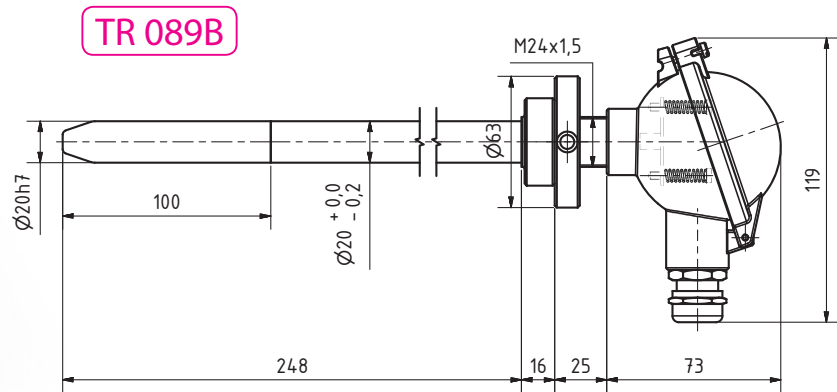
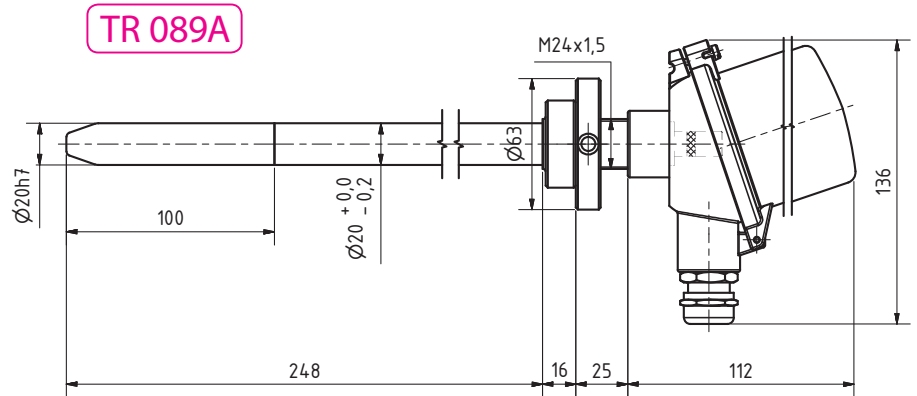



TR 089A
TR 089B

Temperature sensor



Z065.2a



DESCRIPTION AND APPLICATION ↓

The **TR 089A** and **TR 089B** temperature sensors are designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor of variant A is equipped with the LEMO connector and can be completed by a metal connection head. The temperature sensor of variant B is equipped with a ceramic terminal block placed in a connection head.

The temperature sensors are highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensors can be also used to measure temperature of plastic and bulk materials. The cases of the temperature sensors are made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION ↓

- Manufacturer provides **EU Declaration of Conformity**.
- Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS ↓

Sensor type	TR 089A	TR 089B
Type of sensing element	Pt 100, TCK, TCJ, other as requested	
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element	
Measuring range	-30 °C to 200 °C	
Connection	4wire	
Case material	stainless steel, measuring tip made of hardening steel	
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 7$ s, $\tau_{0,9} < 15$ s Continental method*: $\tau_{0,5} < 22$ s, $\tau_{0,9} < 90$ s	
Minimum immersion depth	40 mm	
Connector	LEMO PCA.1S.304.CLLC	—
Terminal block	—	YES
Connection head	DANW4-M2A-4x-NS-CaL as accessory	NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 MΩ at 500 V _{DC} , 25°C ± 3°C, humidity < 80%	
Weight	1.3 kg	

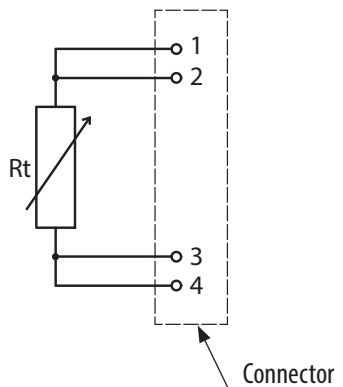
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

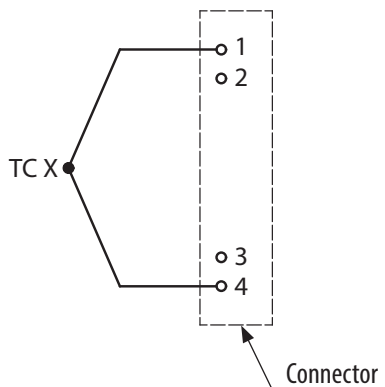
- DANW4-M2A-4x-NS-CaL connection head for the variant A
- Cable connector counterpart for the variant A - LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector for the variant A

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

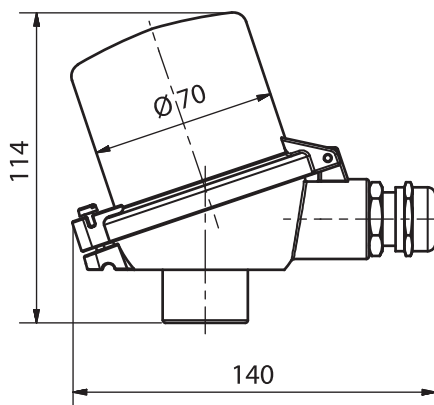


- Thermocouple type K or J



OPTIONAL ACCESSORIES FOR VERSION A ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.1S.304.CLAC62 – for cable \varnothing 5.3–6.1 mm



- Connection cable with the LEMO FFA.1S.304.CLAC62



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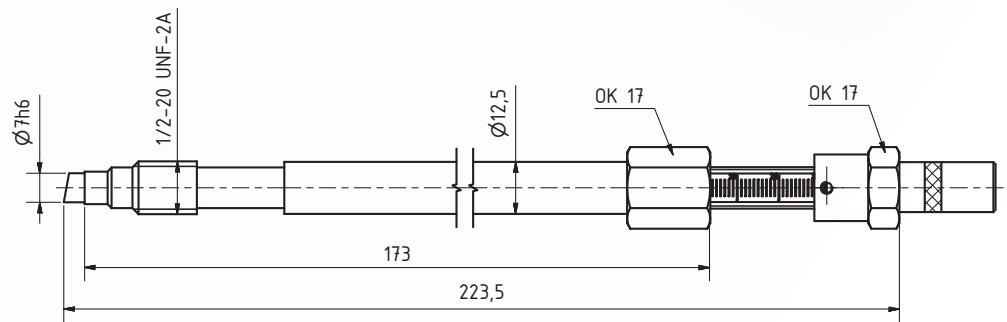
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T +420 571 625 571 F +420 571 625 572 E obchod@sensit.cz



Z065.2a | 02/17

Z065.1a





DESCRIPTION AND APPLICATION ↓

The **TR 090** temperature sensor is designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor is equipped with the LEMO connector and can be completed by a metal connection head.

The temperature sensor is highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensors can be also used to measure temperature of plastic and bulk materials. The case of the temperature sensor is made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION ↓

- Manufacturer provides **EU Declaration of Conformity**.
- **Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS ↓

Sensor type	TR 090
Type of sensing element	Pt 100, TCK, TCI, other as requested
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element
Measuring range	-30 °C to 200 °C
Connection	4wire
Case material	stainless steel, measuring tip made of hardening steel
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 3.5$ s, $\tau_{0,9} < 8$ s Continental method*: $\tau_{0,5} < 10$ s, $\tau_{0,9} < 28$ s
Minimum immersion depth	40 mm
Connector	LEMO PCA.1S.304.CLLC
Insulation resistance	> 200 M Ω at 500 V _{DC} , 25°C ± 3°C, humidity < 80%
Weight	0.2 kg

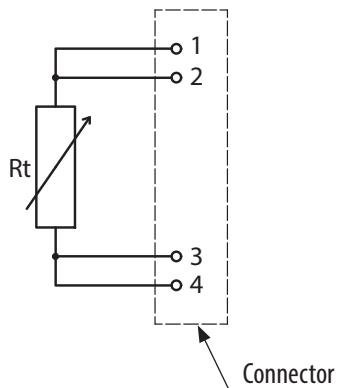
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

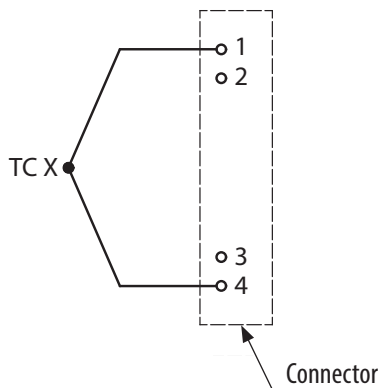
- Cable connector counterpart LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection



- Thermocouple type K or J



OPTIONAL ACCESSORIES ↓

- Connector LEMO FFA.1S.304.CLAC62 – for cable \varnothing 5.3–6.1 mm
- Connection cable with the LEMO FFA.1S.304.CLAC62



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Z066.2a | 02/17

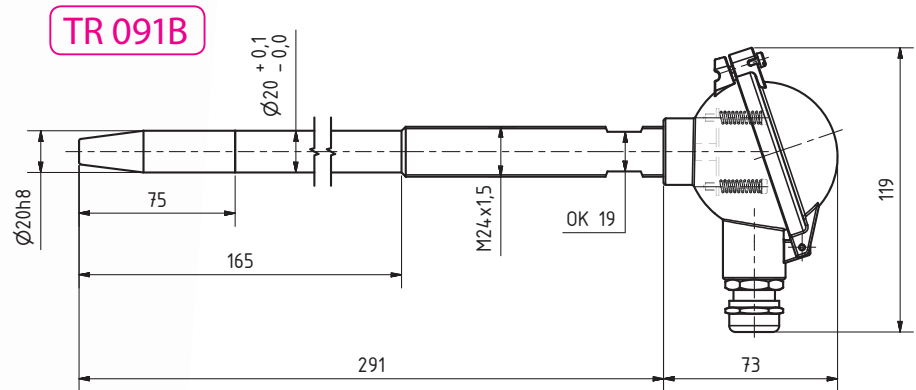
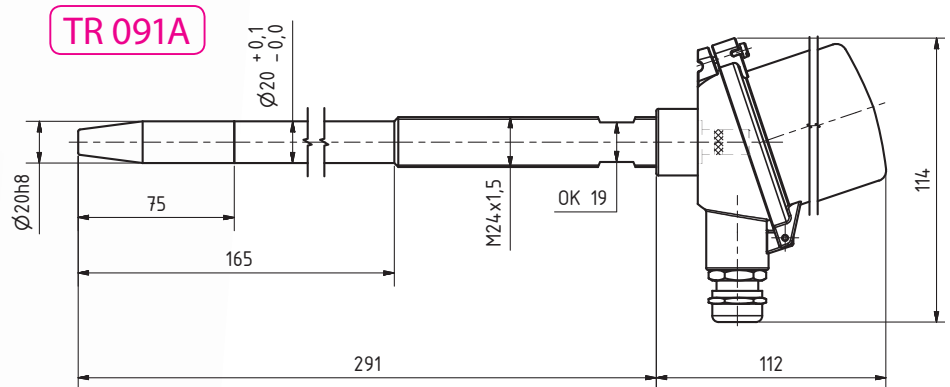
Z066.1a



TR 091A
TR 091B

Temperature sensor

Z027.3a



DESCRIPTION AND APPLICATION ↓

The **TR 091A** and **TR 091B** temperature sensors are designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor of variant A is equipped with the LEMO connector and can be completed by a metal connection head. The temperature sensor of variant B is equipped with a ceramic terminal block placed in a connection head.

The temperature sensors are highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensors can be also used to measure temperature of plastic and bulk materials. The cases of the temperature sensors are made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION ↓

- Manufacturer provides **EU Declaration of Conformity**.
- Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS ↓

Sensor type	TR 091A	TR 091B
Type of sensing element	Pt 100, TCK, TCJ, other as requested	
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element	
Measuring range	-30 °C to 200 °C	
Connection	4wire	
Case material	stainless steel, measuring tip made of hardening steel	
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 7$ s, $\tau_{0,9} < 15$ s Continental method*: $\tau_{0,5} < 22$ s, $\tau_{0,9} < 90$ s	
Minimum immersion depth	40 mm	
Connector	LEMO PCA.1S.304.CLLC	—
Terminal block	—	YES
Connection head	DANW4-M2A-4x-NS-CaL as accessory	NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 MΩ at 500 V _{DC} , 25°C ± 3°C, humidity < 80%	
Weight	1.1 kg	

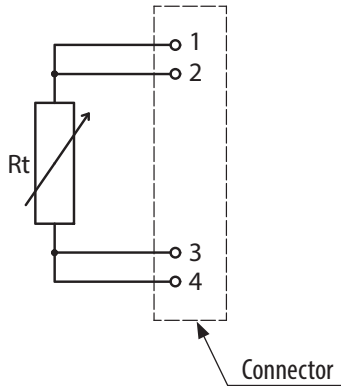
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

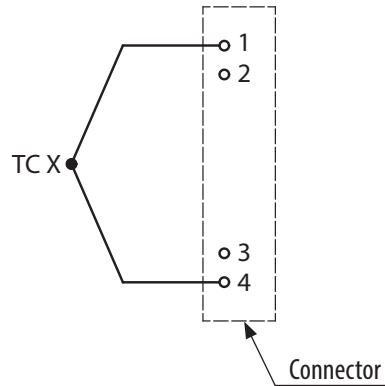
- DANW4-M2A-4x-NS-CaL connection head for the variant A
- Cable connector counterpart for the variant A - LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector for the variant A

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

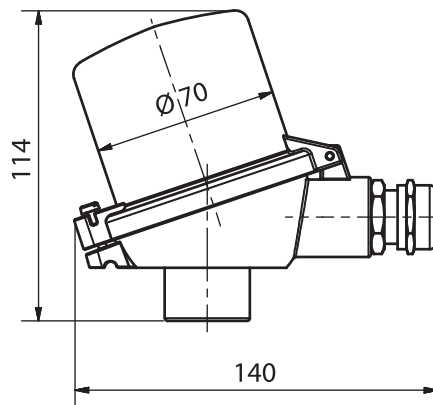


- Thermocouple type K or J



OPTIONAL ACCESSORIES FOR VERSION A ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.1S.304.CLAC62 – for cable \varnothing 5.3–6.1 mm



- Connection cable with the LEMO FFA.1S.304.CLAC62



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Z027.3a | 02/17

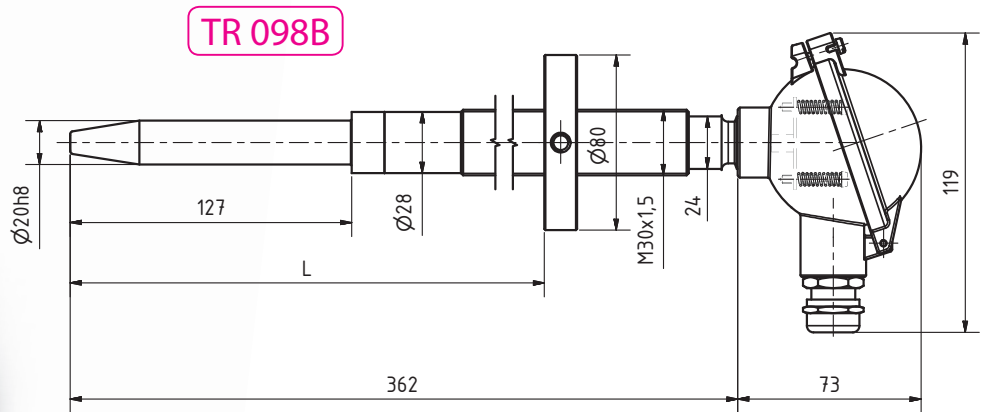
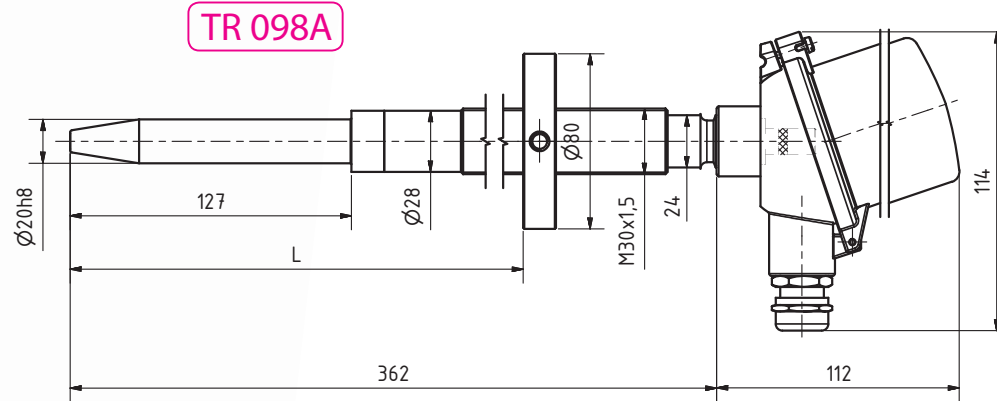
Z027.2a



TR 098A
TR 098B

Temperature sensor

Z001.4a



DESCRIPTION AND APPLICATION

The **TR 098A** and **TR 098B** temperature sensors are designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor of variant A is equipped with the LEMO connector and can be completed by a metal connection head. The temperature sensor of variant B is equipped with a ceramic terminal block placed in a connection head.

The temperature sensors are highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensors can be also used to measure temperature of plastic and bulk materials. The cases of the temperature sensors are made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION

- Manufacturer provides **EU Declaration of Conformity**.
- Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS

Sensor type	TR 098A	TR 098B
Type of sensing element	Pt 100, TCK, TCJ, other as requested	
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element	
Measuring range	-30 °C to 200 °C	
Connection	4wire	
Case material	stainless steel, measuring tip made of hardening steel	
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 6$ s, $\tau_{0,9} < 13$ s Continental method*: $\tau_{0,5} < 16$ s, $\tau_{0,9} < 80$ s	
Minimum immersion depth	40 mm	
Connector	LEMO PCA.15.304.CLLC	—
Terminal block	—	YES
Connection head	DANW4-M2A-4x-NS- CaL as accessory	NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 M Ω at 500 V _{DC} , 25°C \pm 3°C, humidity < 80%	
Weight	1.9 kg	

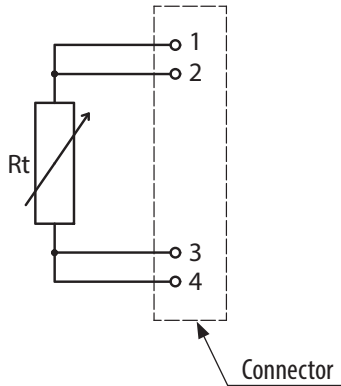
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

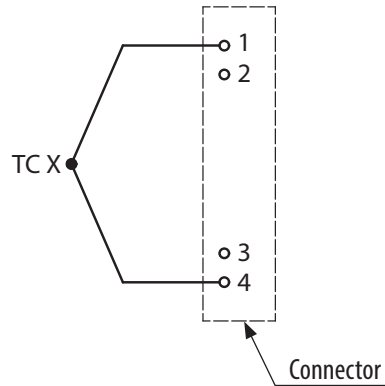
- DANW4-M2A-4x-NS-CaL connection head for the variant A
- Cable connector counterpart for the variant A - LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector for the variant A

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

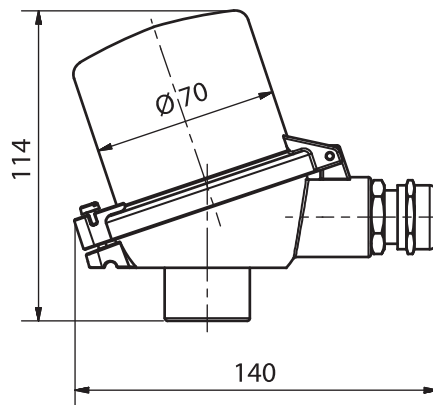


- Thermocouple type K or J



OPTIONAL ACCESSORIES FOR VERSION A ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.1S.304.CLAC62 – for cable $\varnothing 5.3-6.1$ mm



- Connection cable with the LEMO FFA.1S.304.CLAC62



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Z001.4a | 02/17

replace Z001.3a

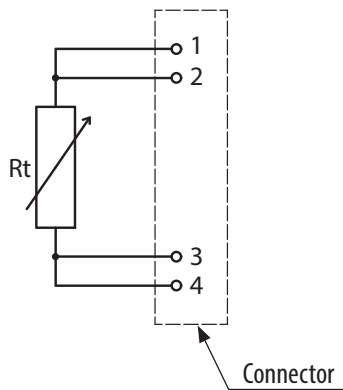


ACCESSORIES ↓

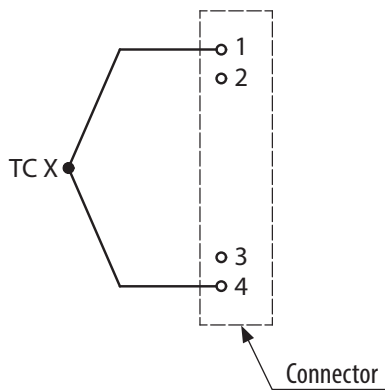
- DANW4-M2A-4x-NS-CaL connection head
- Cable connector counterpart - LEMO FFA.2E.304.CLAC65
- Connection cable with the LEMO FFA.2E.304.CLAC65 connector

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

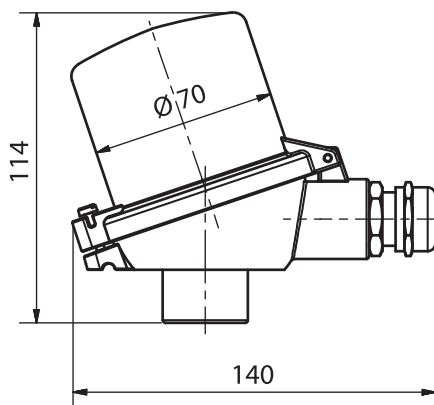


- Thermocouple type K or J



OPTIONAL ACCESSORIES ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.2E.304.CLAC65 – for cable $\varnothing 5.3-6.1$ mm



- Connection cable with the LEMO FFA.2E.304.CLAC65

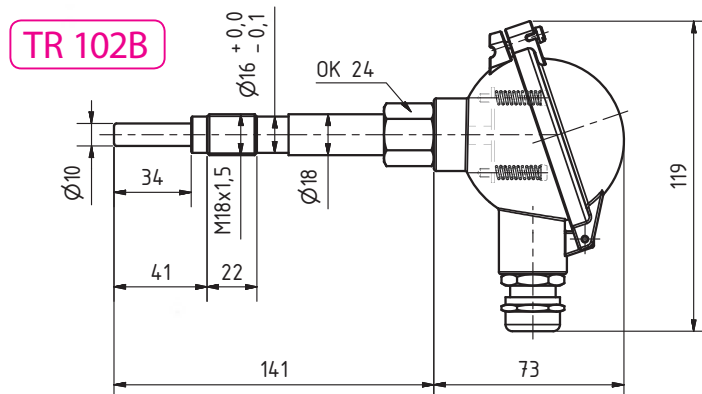
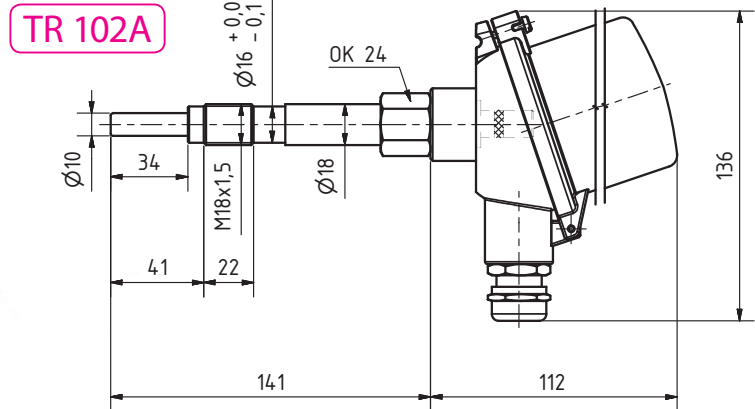


TR 102A

TR 102B

Temperature sensor

Z002.4a



DESCRIPTION AND APPLICATION ↓

The **TR 102A** and **TR 102B** temperature sensors are designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor of variant A is equipped with the LEMO connector and can be completed by a metal connection head. The temperature sensor of variant B is equipped with a ceramic terminal block placed in a connection head.

The temperature sensors are highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensors can be also used to measure temperature of plastic and bulk materials. The cases of the temperature sensors are made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION ↓

- Manufacturer provides **EU Declaration of Conformity**.
- Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS ↓

Sensor type	TR 102A	TR 102B
Type of sensing element	Pt 100, TCK, TCJ, other as requested	
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element	
Measuring range	-30 °C to 200 °C	
Connection	4wire	
Case material	stainless steel, measuring tip made of hardening steel	
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 4$ s, $\tau_{0,9} < 9$ s Continental method*: $\tau_{0,5} < 13$ s, $\tau_{0,9} < 45$ s	
Minimum immersion depth	40 mm	
Connector	LEMO PCA.1S.304.CLLC	—
Terminal block	—	YES
Connection head	DANW4-M2A-4x-NS-CaL as accessory	NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 MΩ at 500 V _{DC} , 25°C ± 3°C, humidity < 80%	
Weight	0.55 kg	

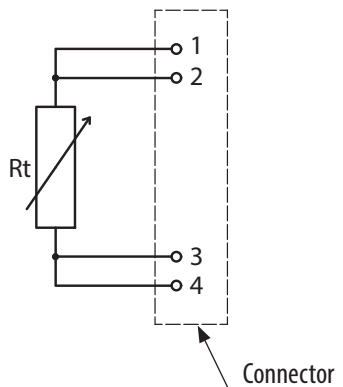
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

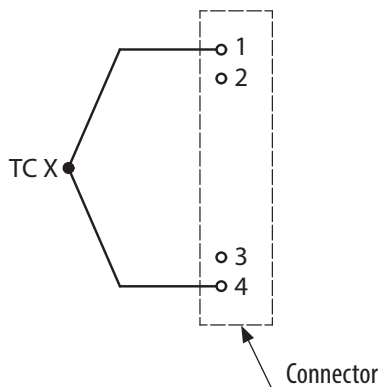
- DANW4-M2A-4x-NS-CaL connection head for the variant A
- Cable connector counterpart for the variant A - LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector for the variant A

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

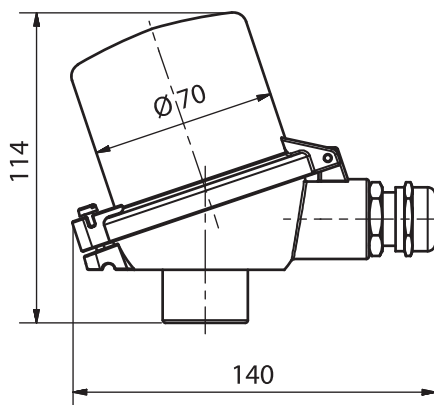


- Thermocouple type K or J



OPTIONAL ACCESSORIES FOR VERSION A ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.1S.304.CLAC62 – for cable \varnothing 5.3–6.1 mm



- Connection cable with the LEMO FFA.1S.304.CLAC62



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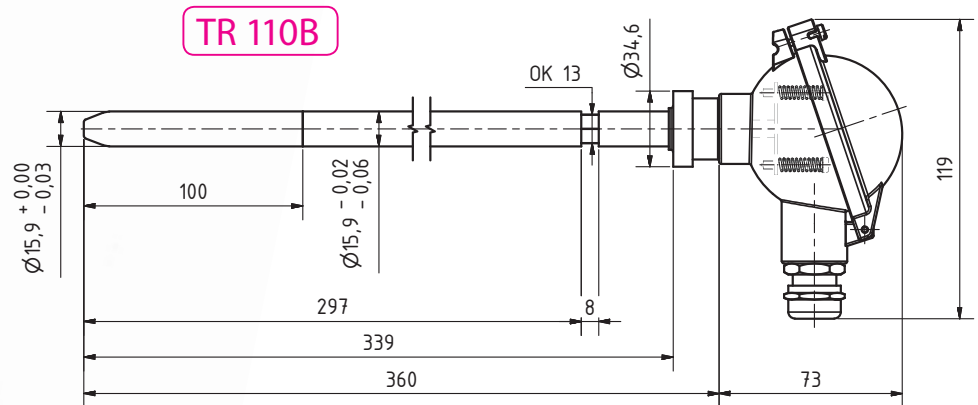
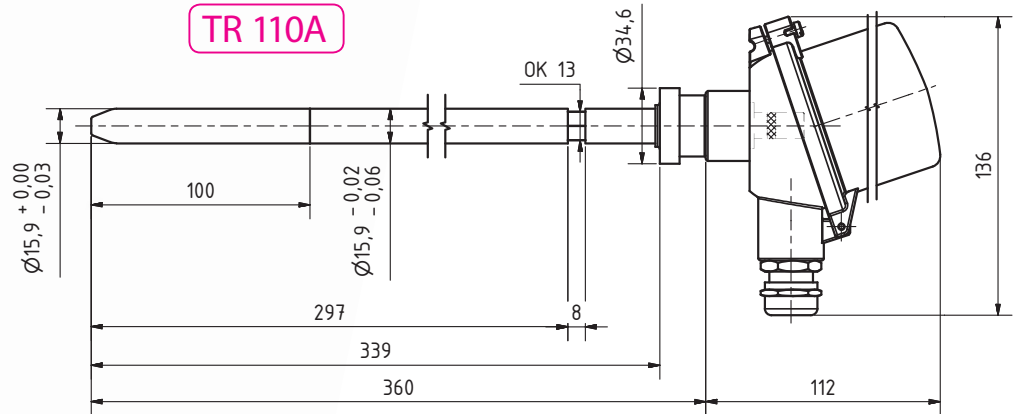
replace Z002.3a



TR 110A
TR 110B

Temperature sensor

Z003.4a



DESCRIPTION AND APPLICATION

The **TR 110A** and **TR 110B** temperature sensors are designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor of variant A is equipped with the LEMO connector and can be completed by a metal connection head. The temperature sensor of variant B is equipped with a ceramic terminal block placed in a connection head.

The temperature sensors are highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensors can be also used to measure temperature of plastic and bulk materials. The cases of the temperature sensors are made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION

- Manufacturer provides **EU Declaration of Conformity**.
- Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS

Sensor type	TR 110A	TR 110B
Type of sensing element	Pt 100, TCK, TCJ, other as requested	
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element	
Measuring range	-30 °C to 200 °C	
Connection	4wire	
Case material	stainless steel, measuring tip made of hardening steel	
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 5$ s, $\tau_{0,9} < 10$ s Continental method*: $\tau_{0,5} < 20$ s, $\tau_{0,9} < 70$ s	
Minimum immersion depth	40 mm	
Connector	LEMO PCA.1S.304.CLLC	—
Terminal block	—	YES
Connection head	DANW4-M2A-4x-NS-CaL as accessory	NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 MΩ at 500 V _{DC} , 25°C ± 3°C, humidity < 80%	
Weight	0.55 kg	

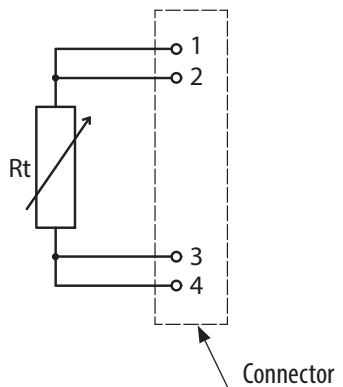
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

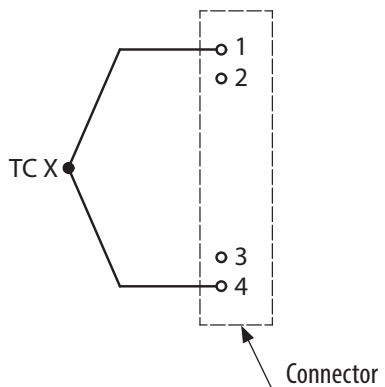
- DANW4-M2A-4x-NS-CaL connection head for the variant A
- Cable connector counterpart for the variant A - LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector for the variant A

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

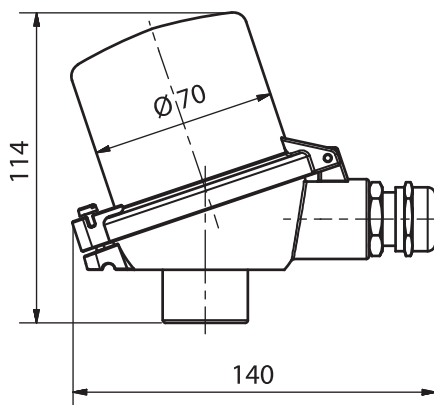


- Thermocouple type K or J



OPTIONAL ACCESSORIES FOR VERSION A ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.1S.304.CLAC62 – for cable Ø 5.3–6.1 mm



- Connection cable with the LEMO FFA.1S.304.CLAC62



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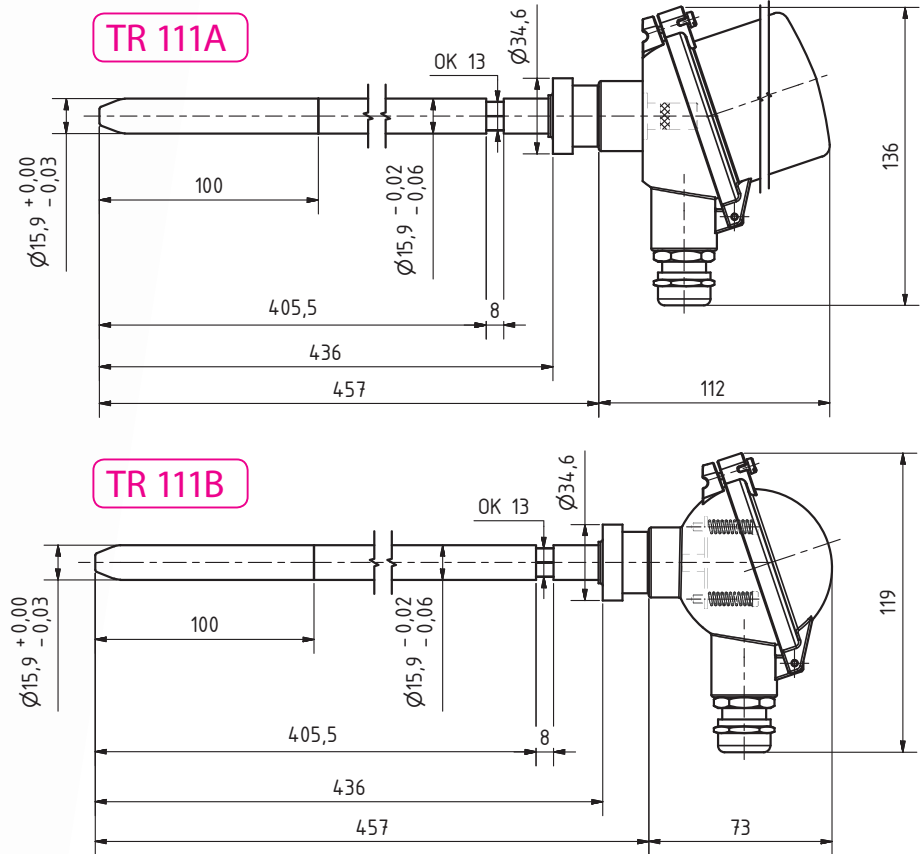
TR 111A

TR 111B

Temperature sensor



Z004.4a



DESCRIPTION AND APPLICATION

The **TR 111A** and **TR 111B** temperature sensors are designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor of variant A is equipped with the LEMO connector and can be completed by a metal connection head. The temperature sensor of variant B is equipped with a ceramic terminal block placed in a connection head.

The temperature sensors are highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensors can be also used to measure temperature of plastic and bulk materials. The cases of the temperature sensors are made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION

- Manufacturer provides **EU Declaration of Conformity**.
- Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS

Sensor type	TR 111A	TR 111B
Type of sensing element	Pt 100, TCK, TCJ, other as requested	
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element	
Measuring range	-30 °C to 200 °C	
Connection	4wire	
Case material	stainless steel, measuring tip made of hardening steel	
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 5$ s, $\tau_{0,9} < 10$ s Continental method*: $\tau_{0,5} < 20$ s, $\tau_{0,9} < 70$ s	
Minimum immersion depth	40 mm	
Connector	LEMO PCA.1S.304.CLLC	—
Terminal block	—	YES
Connection head	DANW4-M2A-4x-NS-CaL as accessory	NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 MΩ at 500 V _{DC} , 25°C ± 3°C, humidity < 80%	
Weight	0.7 kg	

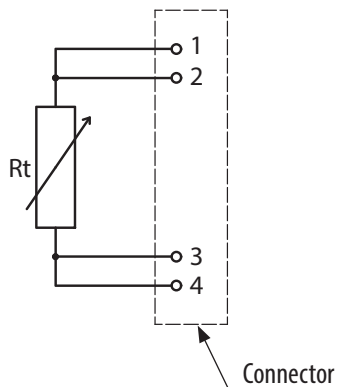
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

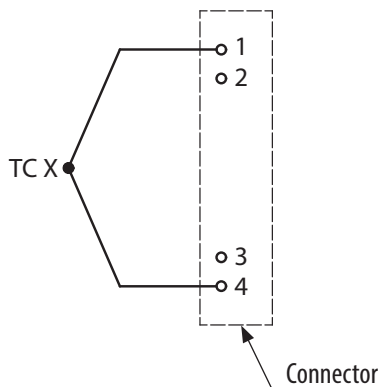
- DANW4-M2A-4x-NS-CaL connection head for the variant A
- Cable connector counterpart for the variant A - LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector for the variant A

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

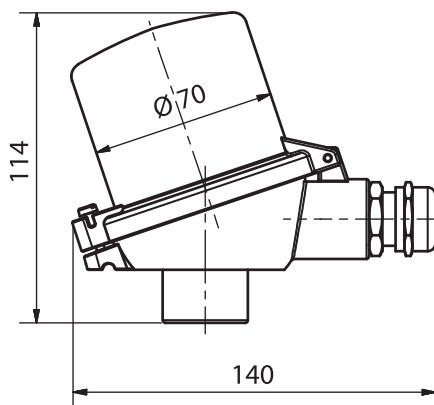


- Thermocouple type K or J



OPTIONAL ACCESSORIES FOR VERSION A ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.1S.304.CLAC62 – for cable Ø 5.3–6.1 mm



- Connection cable with the LEMO FFA.1S.304.CLAC62



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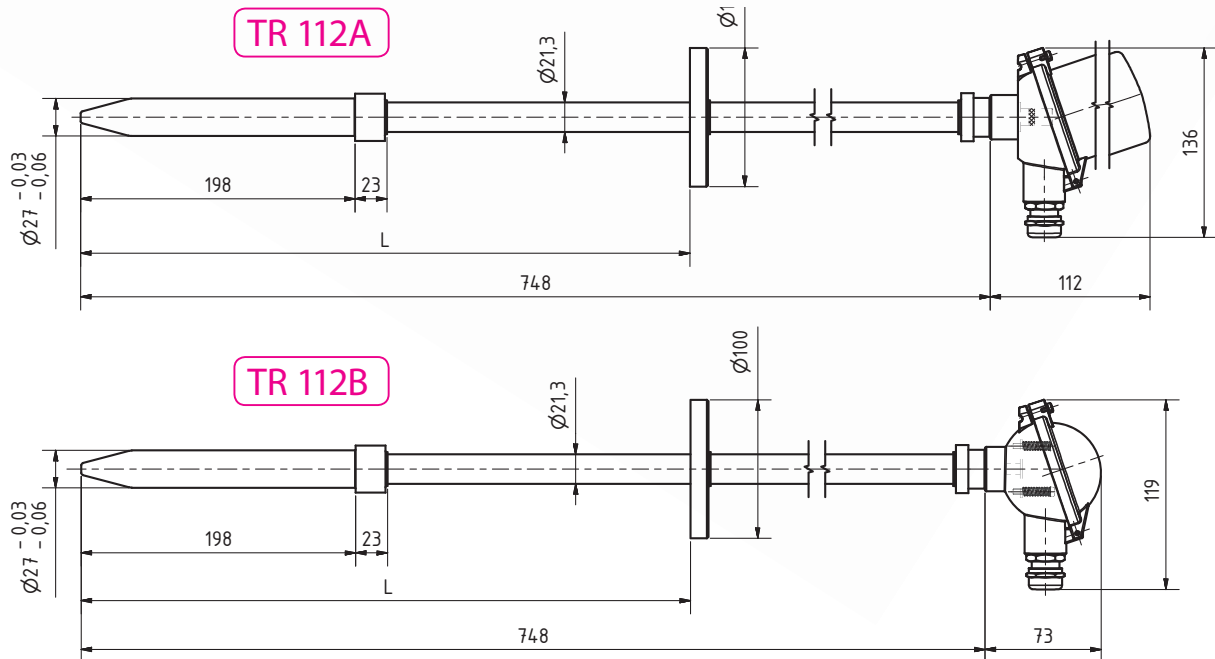
replace Z004.3a



TR 112A
TR 112B

Temperature sensor

Z005.4a



DESCRIPTION AND APPLICATION ↓

The **TR 112A** and **TR 112B** temperature sensors are designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor of variant A is equipped with the LEMO connector and can be completed by a metal connection head. The temperature sensor of variant B is equipped with a ceramic terminal block placed in a connection head.

The temperature sensors are highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensors can be also used to measure temperature of plastic and bulk materials. The cases of the temperature sensors are made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION ↓

- Manufacturer provides **EU Declaration of Conformity**.
- **Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS ↓

Sensor type	TR 112A	TR 112B
Type of sensing element	Pt 100, TCK, TCJ, other as requested	
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element	
Measuring range	-30 °C to 200 °C	
Connection	4wire	
Case material	stainless steel, measuring tip made of hardening steel	
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 5$ s, $\tau_{0,9} < 11$ s Continental method*: $\tau_{0,5} < 20$ s, $\tau_{0,9} < 90$ s	
Minimum immersion depth	40 mm	
Connector	LEMO PCA.1S.304.CLLC	—
Terminal block	—	YES
Connection head	DANW4-M2A-4x-NS-CaL as accessory	NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 MΩ at 500 V _{DC} , 25°C ± 3°C, humidity < 80%	
Weight	2.4 kg	

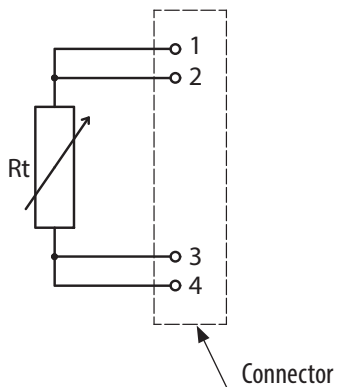
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

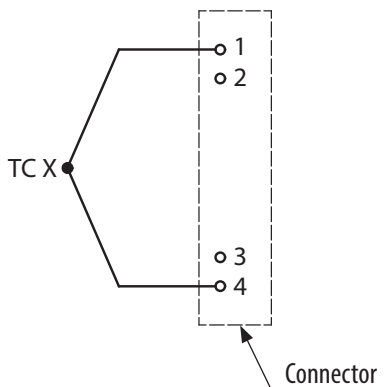
- DANW4-M2A-4x-NS-CaL connection head for the variant A
- Cable connector counterpart for the variant A - LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector for the variant A

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

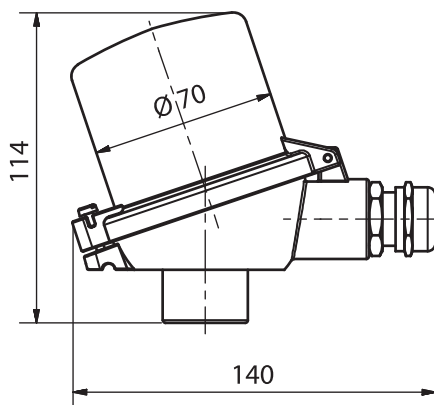


- Thermocouple type K or J



OPTIONAL ACCESSORIES FOR VERSION A ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.1S.304.CLAC62 – for cable ø 5.3–6.1 mm



- Connection cable with the LEMO FFA.1S.304.CLAC62



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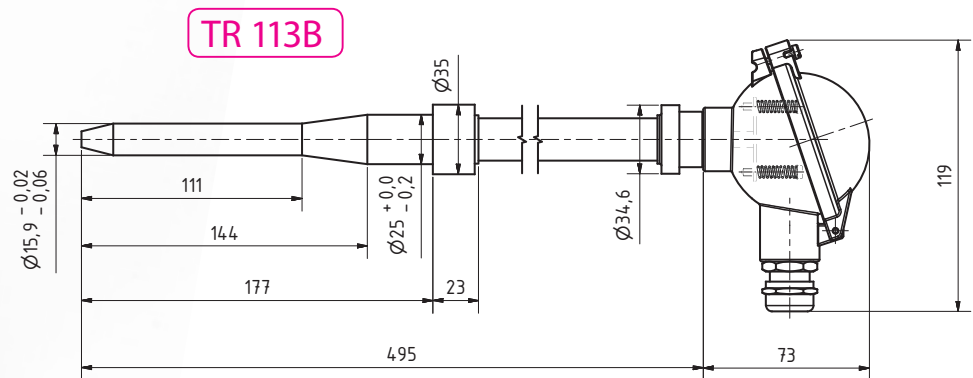
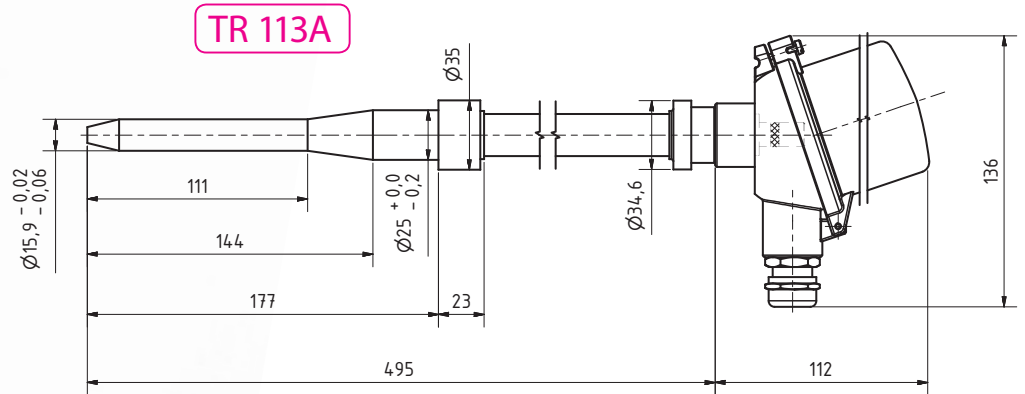


TR 113A

TR 113B

Temperature sensor

Z006.4a



DESCRIPTION AND APPLICATION ↓

The **TR 113A** and **TR 113B** temperature sensors are designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor of variant A is equipped with the LEMO connector and can be completed by a metal connection head. The temperature sensor of variant B is equipped with a ceramic terminal block placed in a connection head.

The temperature sensors are highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensors can be also used to measure temperature of plastic and bulk materials. The cases of the temperature sensors are made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION ↓

- Manufacturer provides **EU Declaration of Conformity**.
- Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS ↓

Sensor type	TR 113A	TR 113B
Type of sensing element	Pt 100, TCK, TCJ, other as requested	
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element	
Measuring range	-30 °C to 200 °C	
Connection	4wire	
Case material	stainless steel, measuring tip made of hardening steel	
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 5$ s, $\tau_{0,9} < 10$ s Continental method*: $\tau_{0,5} < 20$ s, $\tau_{0,9} < 70$ s	
Minimum immersion depth	40 mm	
Connector	LEMO PCA.1S.304.CLLC	—
Terminal block	—	YES
Connection head	DANW4-M2A-4x-NS-CaL as accessory	NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 MΩ at 500 V _{DC} , 25°C ± 3°C, humidity < 80%	
Weight	1 kg	

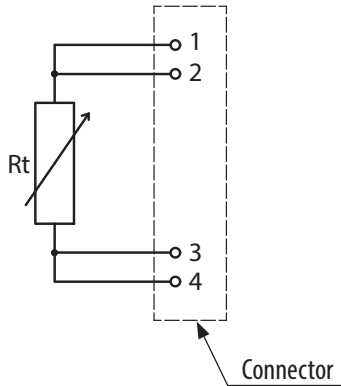
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

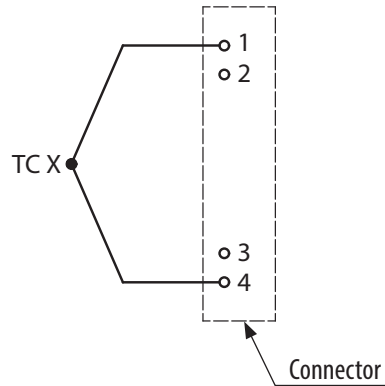
- DANW4-M2A-4x-NS-CaL connection head for the variant A
- Cable connector counterpart for the variant A - LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector for the variant A

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

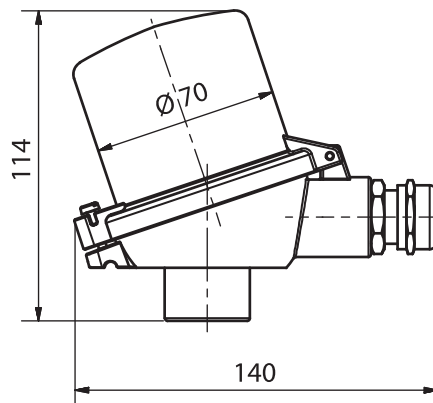


- Thermocouple type K or J



OPTIONAL ACCESSORIES FOR VERSION A ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.1S.304.CLAC62 – for cable \varnothing 5.3–6.1 mm



- Connection cable with the LEMO FFA.1S.304.CLAC62



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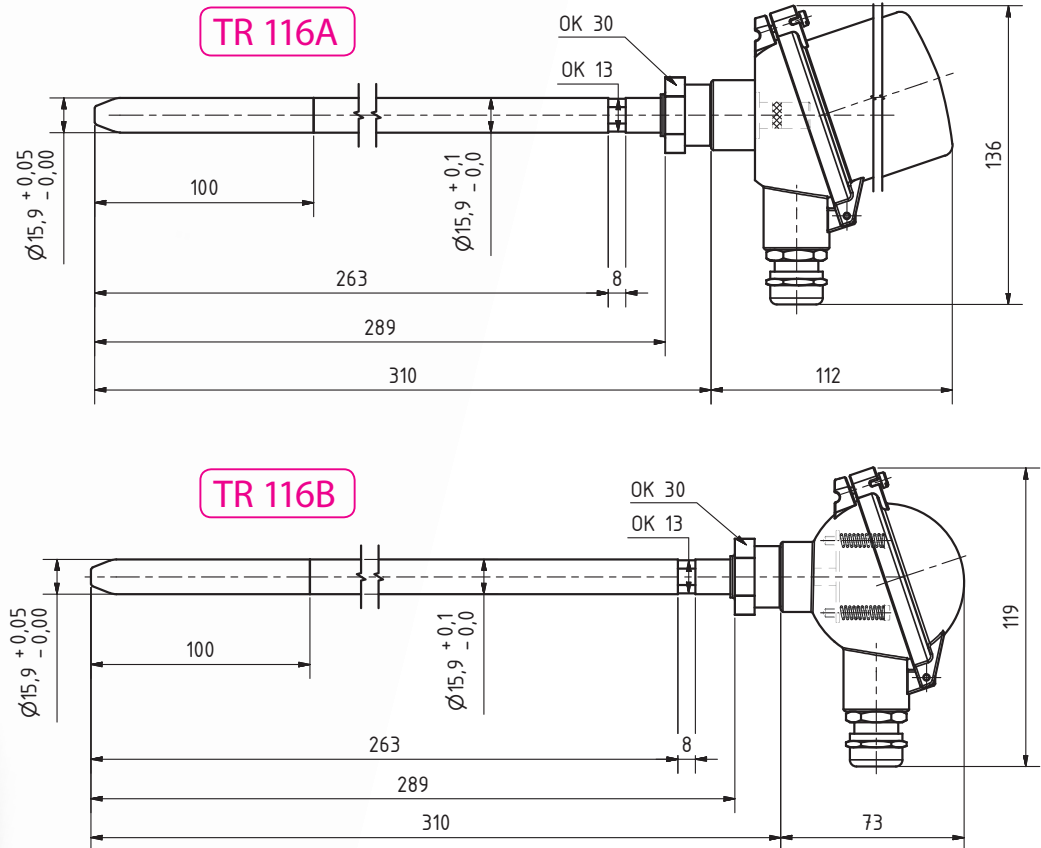
replace Z006.3a



TR 116A
TR 116B

Temperature sensor

Z007.4a



DESCRIPTION AND APPLICATION

The **TR 116A** and **TR 116B** temperature sensors are designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor of variant A is equipped with the LEMO connector and can be completed by a metal connection head. The temperature sensor of variant B is equipped with a ceramic terminal block placed in a connection head.

The temperature sensors are highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensors can be also used to measure temperature of plastic and bulk materials. The cases of the temperature sensors are made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION

- Manufacturer provides **EU Declaration of Conformity**.
- Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS

Sensor type	TR 116A	TR 116B
Type of sensing element	Pt 100, TCK, TCI, other as requested	
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element	
Measuring range	-30 °C to 200 °C	
Connection	4wire	
Case material	stainless steel, measuring tip made of hardening steel	
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 8$ s, $\tau_{0,9} < 16$ s Continental method*: $\tau_{0,5} < 25$ s, $\tau_{0,9} < 95$ s	
Minimum immersion depth	40 mm	
Connector	LEMO PCA.1S.304.CLLC	—
Terminal block	—	YES
Connection head	DANW4-M2A-4x-NS-CaL as accessory	NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 MΩ at 500 V _{DC} , 25°C ± 3°C, humidity < 80%	
Weight	0.9 kg	

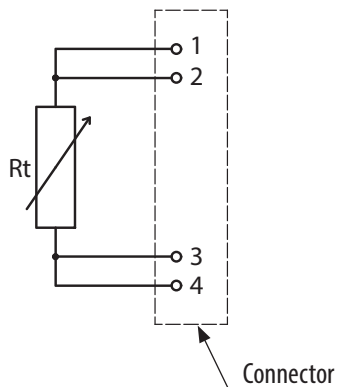
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

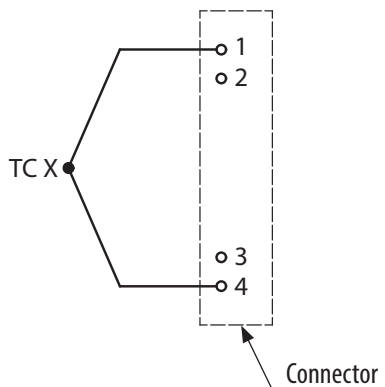
- DANW4-M2A-4x-NS-CaL connection head for the variant A
- Cable connector counterpart for the variant A - LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector for the variant A

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

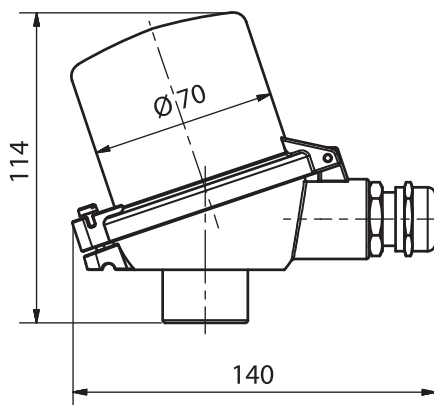


- Thermocouple type K or J



OPTIONAL ACCESSORIES FOR VERSION A ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.1S.304.CLAC62 – for cable Ø 5.3–6.1 mm



- Connection cable with the LEMO FFA.1S.304.CLAC62



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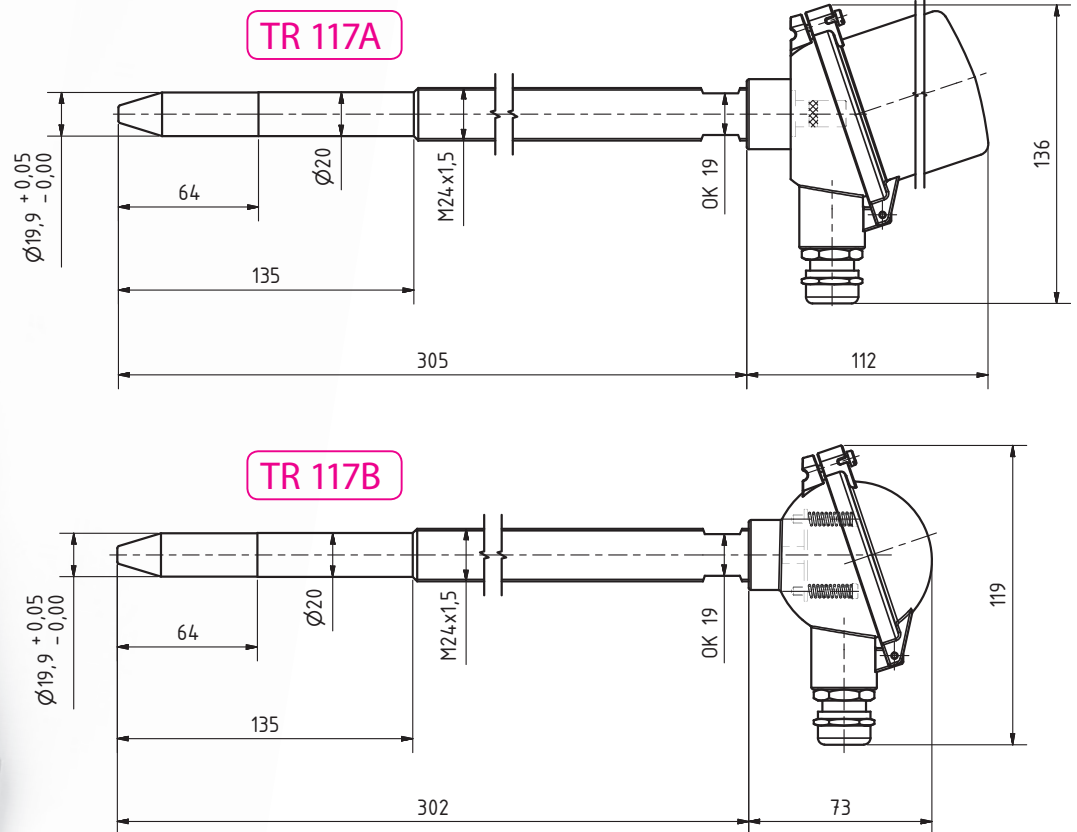
replace Z007.3a



TR 117A
TR 117B

Temperature sensor

Z008.4a



DESCRIPTION AND APPLICATION ↓

The **TR 117A** and **TR 117B** temperature sensors are designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor of variant A is equipped with the LEMO connector and can be completed by a metal connection head. The temperature sensor of variant B is equipped with a ceramic terminal block placed in a connection head.

The temperature sensors are highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensors can be also used to measure temperature of plastic and bulk materials. The cases of the temperature sensors are made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION ↓

- Manufacturer provides **EU Declaration of Conformity**.
- **Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS ↓

Sensor type	TR 117A	TR 117B
Type of sensing element	Pt 100, TCK, TCJ, other as requested	
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element	
Measuring range	-30 °C to 200 °C	
Connection	4wire	
Case material	stainless steel, measuring tip made of hardening steel	
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 7$ s, $\tau_{0,9} < 15$ s Continental method*: $\tau_{0,5} < 22$ s, $\tau_{0,9} < 90$ s	
Minimum immersion depth	40 mm	
Connector	LEMO PCA.1S.304.CLLC	—
Terminal block	—	YES
Connection head	DANW4-M2A-4x-NS-CaL as accessory	NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 MΩ at 500 V _{DC} , 25°C ± 3°C, humidity < 80%	
Weight	1.1 kg	

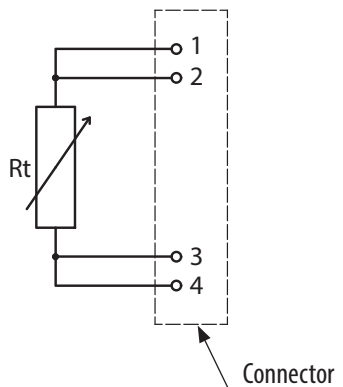
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

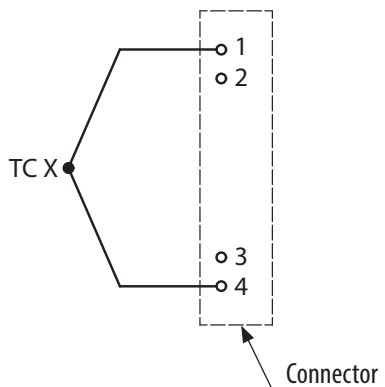
- DANW4-M2A-4x-NS-CaL connection head for the variant A
- Cable connector counterpart for the variant A - LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector for the variant A

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

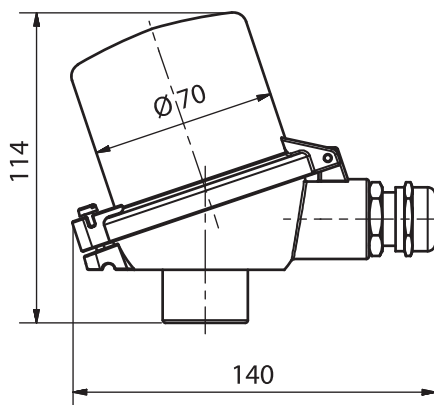


- Thermocouple type K or J



OPTIONAL ACCESSORIES FOR VERSION A ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.1S.304.CLAC62 – for cable $\varnothing 5.3-6.1$ mm



- Connection cable with the LEMO FFA.1S.304.CLAC62



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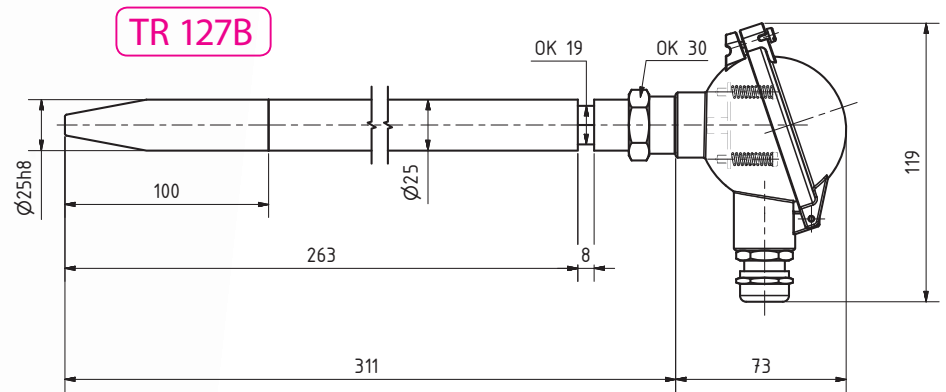
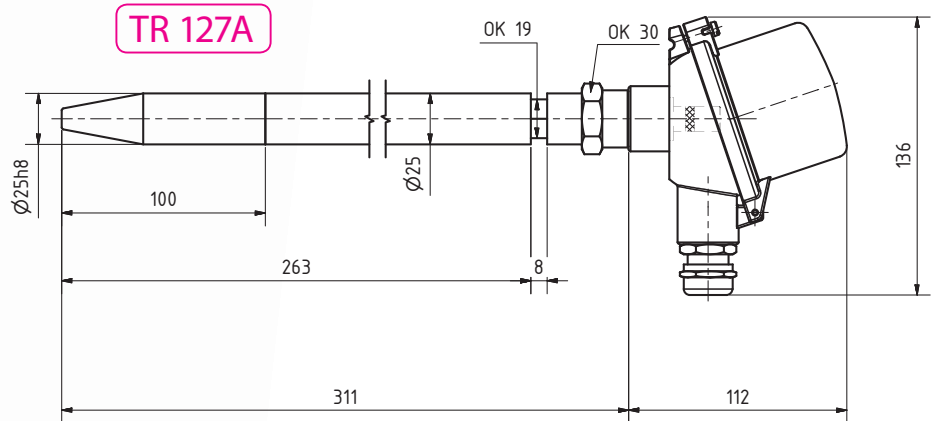
TR 127A

TR 127B

Temperature sensor



Z009.4a



DESCRIPTION AND APPLICATION

The **TR 127A** and **TR 127B** temperature sensors are designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor of variant A is equipped with the LEMO connector and can be completed by a metal connection head. The temperature sensor of variant B is equipped with a ceramic terminal block placed in a connection head.

The temperature sensors are highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensors can be also used to measure temperature of plastic and bulk materials. The cases of the temperature sensors are made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION

- Manufacturer provides **EU Declaration of Conformity**.
- Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS

Sensor type	TR 127A	TR 127B
Type of sensing element	Pt 100, TCK, TCJ, other as requested	
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element	
Measuring range	-30 °C to 200 °C	
Connection	4wire	
Case material	stainless steel, measuring tip made of hardening steel	
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 6$ s, $\tau_{0,9} < 14$ s Continental method*: $\tau_{0,5} < 17$ s, $\tau_{0,9} < 80$ s	
Minimum immersion depth	40 mm	
Connector	LEMO PCA.1S.304.CLLC	—
Terminal block	—	YES
Connection head	DANW4-M2A-4x-NS- CaL as accessory	NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 M Ω at 500 V _{DC} , 25 °C \pm 3 °C, humidity $< 80\%$	
Weight	1.3 kg	

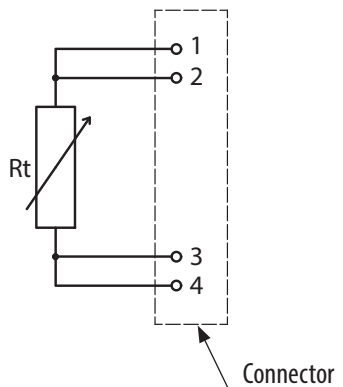
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

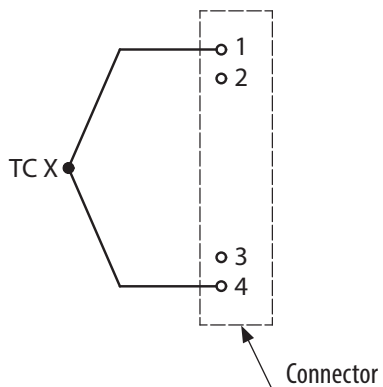
- DANW4-M2A-4x-NS-CaL connection head for the variant A
- Cable connector counterpart for the variant A - LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector for the variant A

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

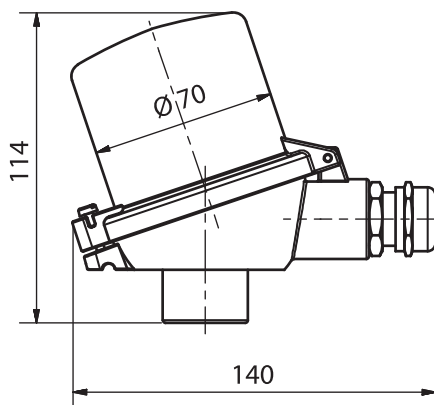


- Thermocouple type K or J



OPTIONAL ACCESSORIES FOR VERSION A ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.1S.304.CLAC62 – for cable $\varnothing 5.3$ –6.1 mm



- Connection cable with the LEMO FFA.1S.304.CLAC62



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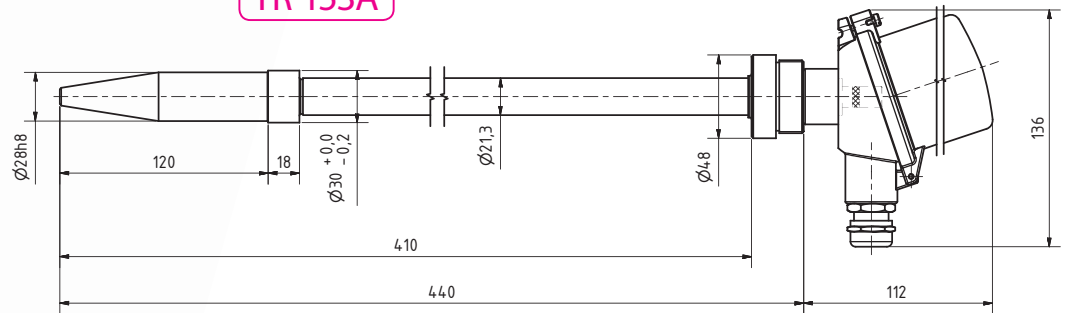
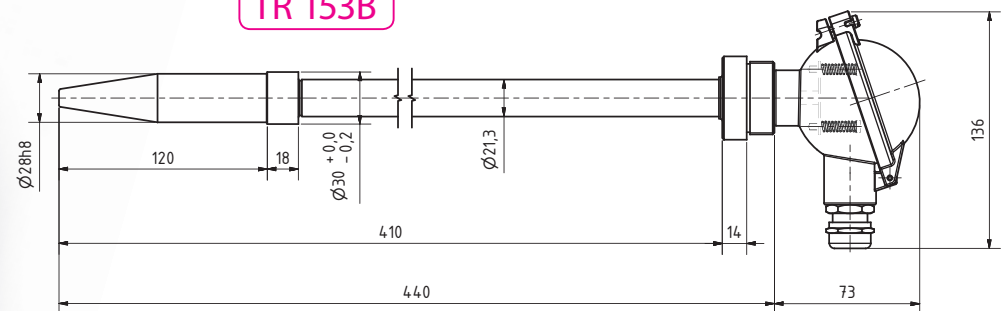


TR 153A
TR 153B

Temperature sensor



Z010.4a


TR 153A

TR 153B


DESCRIPTION AND APPLICATION ↓

The **TR 153A** and **TR 153B** temperature sensors are designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor of variant A is equipped with the LEMO connector and can be completed by a metal connection head. The temperature sensor of variant B is equipped with a ceramic terminal block placed in a connection head.

The temperature sensors are highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensors can be also used to measure temperature of plastic and bulk materials. The cases of the temperature sensors are made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION ↓

- Manufacturer provides **EU Declaration of Conformity**.
- Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS ↓

	TR 153A	TR 153B
Sensor type	TR 153A	TR 153B
Type of sensing element	Pt 100, TCK, TCJ, other as requested	
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element	
Measuring range	-30 °C to 200 °C	
Connection	4wire	
Case material	stainless steel, measuring tip made of hardening steel	
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 6$ s, $\tau_{0,9} < 14$ s Continental method*: $\tau_{0,5} < 14$ s, $\tau_{0,9} < 80$ s	
Minimum immersion depth	40 mm	
Connector	LEMO PCA.1S.304.CLLC	—
Terminal block	—	YES
Connection head	DANW4-M2A-4x-NS-CaL as accessory	NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 MΩ at 500 V _{DC} , 25°C ± 3°C, humidity < 80%	
Weight	1.3 kg	

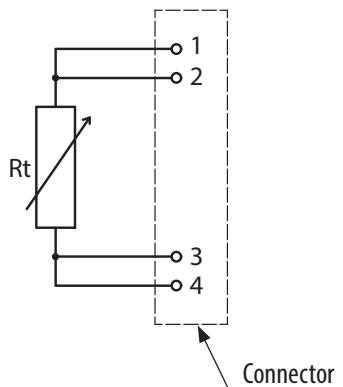
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

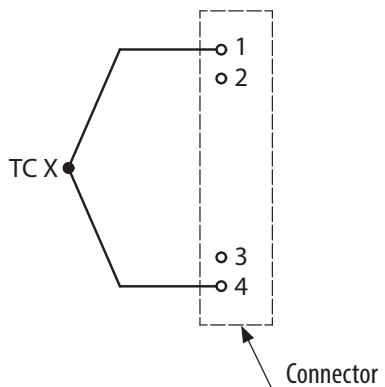
- DANW4-M2A-4x-NS-CaL connection head for the variant A
- Cable connector counterpart for the variant A - LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector for the variant A

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

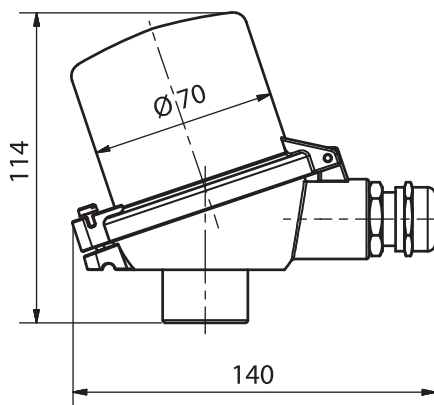


- Thermocouple type K or J



OPTIONAL ACCESSORIES FOR VERSION A ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.1S.304.CLAC62 – for cable Ø 5.3–6.1 mm



- Connection cable with the LEMO FFA.1S.304.CLAC62



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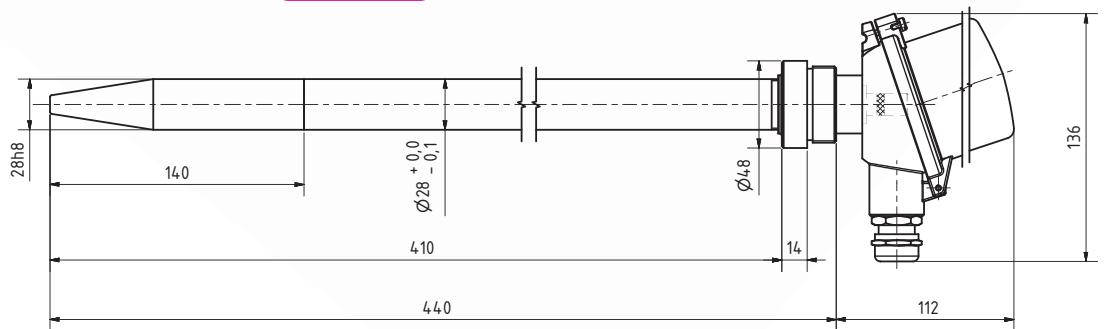


TR 153C

Temperature sensor



Z034.3a


TR 153C


DESCRIPTION AND APPLICATION ↓

The **TR 153C** temperature sensor is designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor is equipped with the LEMO connector and can be completed by a metal connection head.

The temperature sensor is highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensor can be also used to measure temperature of plastic and bulk materials. The case of the temperature sensor is made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION ↓

- Manufacturer provides **EU Declaration of Conformity**.
- **Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS ↓

Sensor type	TR 153C
Type of sensing element	Pt 100, TCK, TCI, other as requested
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element
Measuring range	-30 °C to 200 °C
Connection	4wire
Case material	stainless steel, measuring tip made of hardening steel
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 6$ s, $\tau_{0,9} < 14$ s Continental method*: $\tau_{0,5} < 17$ s, $\tau_{0,9} < 80$ s
Minimum immersion depth	40 mm
Connector	LEMO PCA.15.304.CLLC
Connection head	DANW4-M2A-4x-NS-Cal as accessory, NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 M Ω at 500 V _{DC} , 25°C ± 3°C, humidity < 80%
Weight	1.8 kg

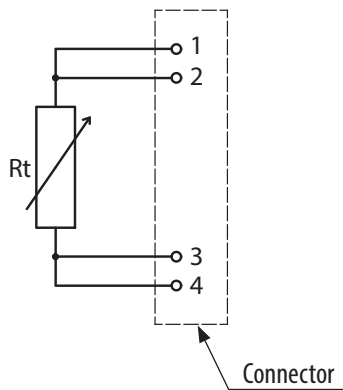
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

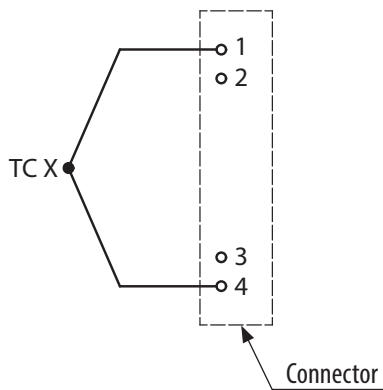
- DANW4-M2A-4x-NS-CaL connection head
- Cable connector counterpart - LEMO FFA.1S.304.CLAC62
- Connection cable with the LEMO FFA.1S.304.CLAC62 connector

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

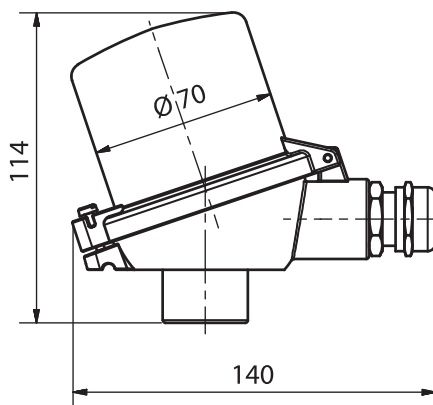


- Thermocouple type K or J



OPTIONAL ACCESSORIES ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.1S.304.CLAC62 – for cable $\varnothing 5.3$ –6.1 mm



- Connection cable with the LEMO FFA.1S.304.CLAC62



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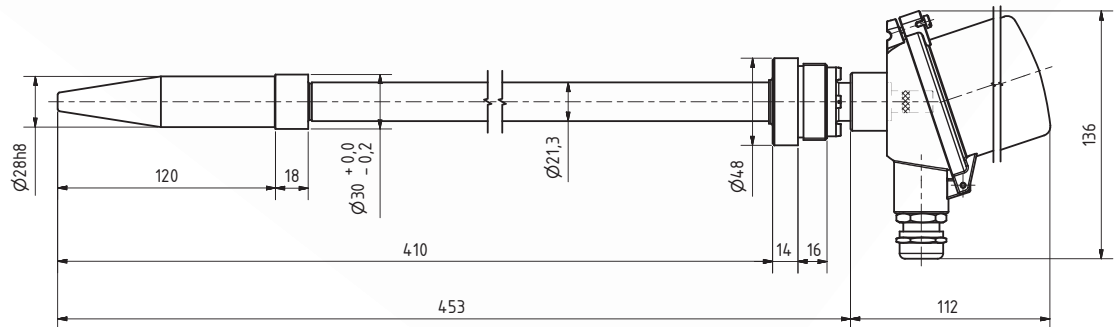


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TR 153D


DESCRIPTION AND APPLICATION ↓

The **TR 153D** temperature sensor is designed taking into account specific needs of temperature measurement of the rubber mixtures processing in the rubber industry. The temperature sensor is equipped with the LEMO connector and can be completed by a metal connection head.

The temperature sensor is highly resistant to abrasion influence of rubber mixtures and to vibrations. The sensor can be also used to measure temperature of plastic and bulk materials. The case of the temperature sensor is made of stainless steel. And with its design, faster time response is achieved compared to sensors installed into a thermowell.

DECLARATION, CERTIFICATION, CALIBRATION ↓

- Manufacturer provides **EU Declaration of Conformity**.
- **Calibration** – The final metrological inspection – comparison with standards or working instruments – is carried out for all the products. Continuity of the standards and working measuring instruments is ensured within the meaning of the Section 5 of Act no.505/1990 on metrology. The manufacturer offers a possibility to supply the sensors calibrated in SENSIT s.r.o.'s laboratory (according to requirements of the EN ISO/IEC 17025 standard) or in an Accredited laboratory.

SPECIFICATIONS ↓

Sensor type	TR 153D
Type of sensing element	Pt 100, TCK, TCJ, other as requested
Recommended measuring current	≤ 3 mA for Pt 100/3850 measuring element
Measuring range	-30 °C to 200 °C
Connection	4wire
Case material	stainless steel, measuring tip made of hardening steel
Time response Immersion depth 100 mm	according to the EN 60751 standard: $\tau_{0,5} < 6$ s, $\tau_{0,9} < 14$ s Continental method*: $\tau_{0,5} < 17$ s, $\tau_{0,9} < 80$ s
Minimum immersion depth	40 mm
Connector	LEMO PCA.2E.304.CLLC
Connection head	DANW4-M2A-4x-NS-Cal as accessory, NAA2-M2X-6x-NS-Cal - fixed component of the sensor
Insulation resistance	> 200 MΩ at 500 V _{DC} , 25°C ± 3°C, humidity < 80%
Weight	1.4 kg

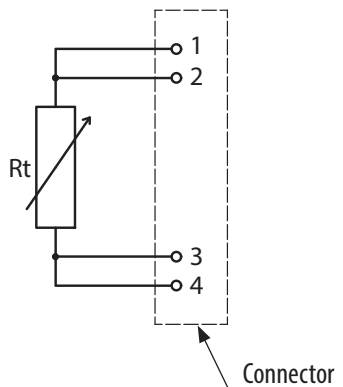
* from 0 °C (crushed ice) to 180 °C (flowing silicon oil 0.4 ms⁻¹)

ACCESSORIES ↓

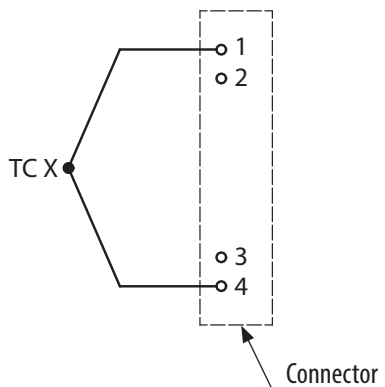
- DANW4-M2A-4x-NS-CaL connection head
- Cable connector counterpart - LEMO FFA.2E.304.CLAC65
- Connection cable with the LEMO FFA.2E.304.CLAC65 connector

WIRING DIAGRAM ↓

- Pt 100 – 4wire connection

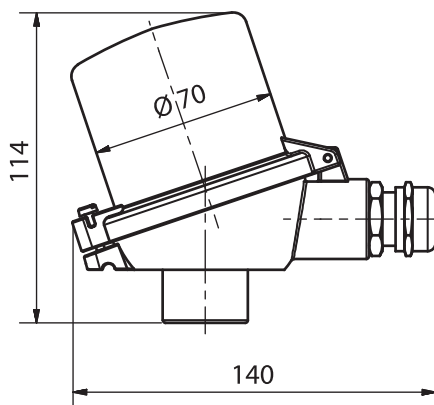


- Thermocouple type K or J



OPTIONAL ACCESSORIES ↓

- Connection head DANW4-M2A-4x-NS-CaL



- Connector LEMO FFA.2E.304.CLAC65 – for cable $\varnothing 5.3-6.1$ mm



- Connection cable with the LEMO FFA.2E.304.CLAC65

