Head Mounted Temperature Transmitter
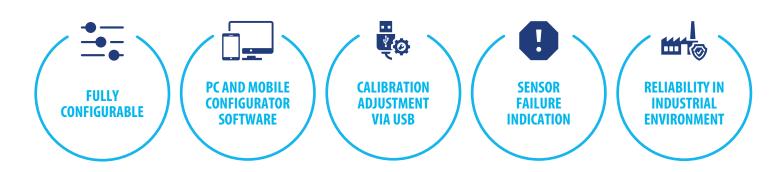
CE · CONFLICT MINERAL FREE · RoHS · REACH COMPLIANCE · CERTIFIED COMPANY ISO 9001:2015 · 3 YEARS WARRANTY · EXPORTED TO MORE THAN 60 COUNTRIES · CONFIGURABLE SigNow

TxBlock-USB

• Compatible with all main sensor types
• Fast commissioning
• Adjustable temperature range
• Great robustness against interferences

| FULLY CONFIGURABLE | PC AND MOBILE CONFIGURATOR SOFTWARE | CALIBRATION ADJUSTMENT VIA USB | SENSOR FAILURE INDICATION | RELIABILITY IN INDUSTRIAL ENVIRONMENT |

TxBlock-USB is an excellent and powerful high-accuracy loop-powered head mounted temperature transmitter.

It accepts several types of sensors – thermocouples, Pt100, Pt1000, NTC and 0-50 mV signal – all-in-one model, with linearized 4-20 mA output and configurable measurement range.

It allows 2 points calibration for field tuning and can be supplied also with accredited calibration certificate according to ILAC recognition, and additionally can be supplied already preconfigured with customer parameters.

As a world class device, **TxBlock-USB** is compliant with the leading standards of electromagnetic compatibility, and is highly immune and reliable device for industrial environment.

The built-in USB port allows configuration, easy commissioning and fine tuning on periodic calibration reviews.

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Accredited Calibration

TxBlock-USB can be provided with accredited certificate of calibration from factory. The customer takes the advantage of a ready-to-use devide with very low uncertainty on the accuracy. The certificate is ILAC recognized, giving to customer assurance of international laboratory accreditation.

Technical Specifications

<table>
<tr><td rowspan="12">Sensor Input</td><td align="center">Sensor Type</td><td colspan="2" align="center">Measurement Range</td></tr>
<tr><td>Thermocouple K</td><td>-150 to 1370 ºC</td><td>(-238 to 2498 ºF)</td></tr>
<tr><td>Thermocouple J</td><td>-100 to 760 ºC</td><td>(-148 to 1400 ºF)</td></tr>
<tr><td>Thermocouple R</td><td>-50 to 1760 ºC</td><td>(-58 to 3200 ºF)</td></tr>
<tr><td>Thermocouple S</td><td>-50 to 1760 ºC</td><td>(-58 to 3200 ºF)</td></tr>
<tr><td>Thermocouple T</td><td>-160 to 400 ºC</td><td>(-256 to 752 ºF)</td></tr>
<tr><td>Thermocouple N</td><td>-270 to 1300 ºC</td><td>(-454 to 2372 ºF)</td></tr>
<tr><td>Thermocouple E</td><td>-90 to 720 ºC</td><td>(-130 to 1328 ºF)</td></tr>
<tr><td>Thermocouple B</td><td>500 to 1820 ºC</td><td>(932 to 3308 ºF)</td></tr>
<tr><td>Pt100 (2-wire, 3-wire and 4-wire)</td><td>-200 to 650 ºC</td><td>(-328 to 1202 ºF)</td></tr>
<tr><td>Pt1000 (3-wire)</td><td>-200 to 650 ºC</td><td>(-328 to 1202 ºF)</td></tr>
<tr><td>NTC (2-wire)</td><td>-30 to 120 ºC</td><td>(-22 to 248 ºF)</td></tr>
<tr><td></td><td align="center">0-50 mV</td><td colspan="2" align="center">0 to 50 mV</td></tr>
<tr><td>Temperature Unit</td><td colspan="3">ºC or ºF, software selectable</td></tr>
<tr><td rowspan="6">Accuracy</td><td align="center">Sensor Type</td><td align="center">Typical</td><td align="center">Minimum</td></tr>
<tr><td>Pt100 / Pt1000 (-150 to 400 ºC) or (-238 to 752 ºF)</td><td>0.10%</td><td>0.12%</td></tr>
<tr><td>Pt100 / Pt1000 (Full Range)</td><td>0.13%</td><td>0.19%</td></tr>
<tr><td>Tc K, J, T, E, N, R, S, B</td><td>0.1% ±1 ºC (±1.8 ºF)</td><td>0.15% ±1 ºC (±1 ºF)</td></tr>
<tr><td>mV</td><td>0.1%</td><td>0.15%</td></tr>
<tr><td>NTC</td><td>0.3%</td><td>0.7%</td></tr>
<tr><td>Measurement Compensation</td><td colspan="3">Thermocouple: Cold junction compensation
Pt100: Cable compensation for 2-wire, 3-wire and 4-wire
Pt1000: Cable compensation for 2-wire and 3-wire</td></tr>
<tr><td>Output</td><td colspan="3">Output Signal: Linearized 4-20 or 20-4 mA current, 2 wire
Resolution: 2 µA</td></tr>
<tr><td>Temperature Effect</td><td colspan="3">± 0.16% / 25 ºC (77 °F)</td></tr>
<tr><td>Response Time</td><td colspan="3">Typical 1.6 sec</td></tr>
<tr><td>Power Supply</td><td colspan="3">10 to 35 Vdc</td></tr>
<tr><td>Operating Conditions</td><td colspan="3">Temperature: -40 to 85 ºC (-40 to 185 °F)
Humidity: 0 to 90% RH</td></tr>
<tr><td>Approvals / Standards</td><td colspan="3">CE
NAMUR NE43 compliant
RoHS compliant
EN 61326-1: 2006 conformity</td></tr>
<tr><td>Protection</td><td colspan="3">Internal protection against reverse polarity</td></tr>
<tr><td>Isolation</td><td colspan="3">No electrical isolation between input and output</td></tr>
<tr><td>Dimensions</td><td colspan="3">43.5 mm (diameter) x 20.5 mm (height) | 1.71 in (diameter) x 0.80 in (height)</td></tr>
<tr><td>Wire Cross Section</td><td colspan="3">0.14 to 1.5 mm² (26 AWG to 15 AWG)</td></tr>
<tr><td>Housing Material</td><td colspan="3">ABS UL94-HB (standard impact strength, flaming resistance and antistatic)</td></tr>
<tr><td>Mounting</td><td colspan="3">DIN form B sensor head</td></tr>
<tr><td>Interface Communication</td><td colspan="3">USB micro-B type, with silicon cover protection</td></tr>
<tr><td>Configuration</td><td colspan="3">SigNow for Windows: Avaiable on www.novusautomation.com/en/signow
SigNow for Android: Avaiable on Google Play</td></tr>
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