



TEGAM®

THERMOCOUPLE THERMOMETER

Model 921B / 922B



## Intrinsically Safe Thermocouple Thermometer

The only Intrinsically safe multi-thermocouple handheld thermometers made in the U.S.A that offer superior accuracy, 2000-hour battery life, and a 3-year warranty.



### FEATURES

- Superior Accuracy  
 $\pm(0.04\% |\text{rdg}| + 0.3\text{ }^{\circ}\text{C})$
- Probe Offset
- 2000-Hour Battery Life
- Displays Real-Time Statistical Data
- Creative Ergonomic Design
- 3-Year Warranty
- Made in USA

**TRUST** is an essential feature in any measurement tool and TEGAM's new 900 Series thermometers are instruments you can **rely on every day** with confidence. The **921B** and **922B** are certified to UL, ATEX and IECEx standards. These new models are the most accurate thermometers ever offered by TEGAM to meet the increasing demands of potentially hazardous environments found in Petro Chemical Plants, Fueling Stations, Aircraft Maintenance, Custody Transfer, Semiconductor, Pharmaceutical and Food Facilities where process temperature measurement is critical. Superior instrument accuracy, combined with the "Probe Offset" feature to zero out probe errors, makes their "system" accuracy unmatched in the industry.

The intrinsically safe single channel Model 921B and dual channel 922B boast **2000-hour battery life** using three off-the-shelf AA batteries to provide convenient, dependable, uninterrupted, low-cost portable measurement capability without expensive batteries, AC adapters or chargers.

**Real-time statistical data** increases user productivity, process efficiency and product quality. Displayed on-demand, MIN, MAX, AVG, RANGE and STDEV (standard deviation) provide critical process information and diagnostics that allow the user to analyze manufacturing processes on the fly and make immediate adjustments for maximum efficiency and quality.

**Safety** is the top priority in potentially hazardous environments. The low energy TEGAM intrinsically Safe 921B and 922B will guard against ignition when used in environments where flammable liquids, gases, vapors and dust are present. TEGAM also offers a line of intrinsically safe **probes** for use with the 921B/922B.

Like all TEGAM products, the 900 Series thermometers are designed, assembled and tested in the United States. TEGAM backs this durable instrument with a standard **3-year warranty** to assure you that your investment is sound.

For over 30 years, TEGAM has been building handheld thermometers for challenging applications. TEGAM's 900 Series extends that experience into new thermometers tasked with producing **reliable thermocouple measurements in all types of environments**. They are designed to be durable and easy to use, with advanced features that outmatch your challenges.

**When the Measurement Matters, Be Certain with TEGAM.**



**TEGAM**

THERMOCOUPLE THERMOMETER

Model 921B / 922B



## Specifications

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                    |             |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------|
| Basic Accuracy*               | ±(0.04%  rdg  + 0.3 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                    |             |
| Recommended Calibration Cycle | 2 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                    |             |
| Temperature Ranges            | °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | °F                                                                                                                 | K           |
| K                             | -200 to 1372                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -328 to 2502                                                                                                       | 73 to 1645  |
| J                             | -210 to 1200                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -346 to 2192                                                                                                       | 63 to 1473  |
| T                             | -250 to 400                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -418 to 752                                                                                                        | 23 to 673   |
| E                             | -250 to 1000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -418 to 1832                                                                                                       | 23 to 1273  |
| B                             | 600 to 1820                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 1112 to 3308                                                                                                       | 873 to 2093 |
| N                             | -250 to 1300                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -418 to 2372                                                                                                       | 23 to 1573  |
| R                             | -50 to 1767                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -58 to 3213                                                                                                        | 223 to 2040 |
| S                             | -50 to 1767                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | -58 to 3213                                                                                                        | 223 to 2040 |
| Connector Type                | Mini-TC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                    |             |
| Probe Zero Function           | Resolution 0.1 °C/°F/K                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                    |             |
| Display                       | 4-Digit Auto-Resolution (0.1°<1000°, 1° ≥1000°) with Backlight and Function Annunciators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                    |             |
| Reading Rate                  | 3/sec. for Readings and TREND indicators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                    |             |
| Battery Type                  | 3 AA (IEC LR6, ANSI 15) Alkaline                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                    |             |
| Battery Life                  | 2000 Hours                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                    |             |
| Statistics                    | Min, Max, Avg, Rng, T1-T2 and Std Dev                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                    |             |
| Clock                         | Elapsed Statistics Run Time                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                    |             |
| Operating Environment:        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                    |             |
| Temperature                   | -20 to 50 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | -4 to 122 °F                                                                                                       |             |
| Humidity                      | 5 to 95%, 10 to 30 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 5 to 95%, 50 to 86 °F                                                                                              |             |
| Altitude                      | 0 to 4600 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0 to 15,092 ft.                                                                                                    |             |
| Vibration                     | Random 10-500 Hz, 0.03 g²/Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                    |             |
| Shock                         | 30g Half Sine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                    |             |
| Drop                          | 4 drops from 1 m to concrete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                    |             |
| Dimensions                    | 193 X 84 X 28 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 7.6 X 3.3 X 1.1 in.                                                                                                |             |
| Weight (including batteries)  | 921B: 300.9 g (10.6 oz.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 922B: 303.2 g (10.7 oz.)                                                                                           |             |
| Warranty                      | 3-year Parts & Workmanship                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                    |             |
| Calibration Guarantee         | 2 years                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                    |             |
| Included Accessories          | 3 AA Batteries, Printed Manual, Certificate of Traceability                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                    |             |
| Available Probes              | See <a href="#">TEGAM Temperature Probe Selection Guide</a> for available intrinsically safe probes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                    |             |
| Certifications                | Handheld Thermometer for Hazardous Locations Only as to Intrinsic Safety<br><div><div><div> 0539</div><div> II1G</div></div><div><div> CLASSIFIED</div><div>US</div></div></div> <div>Ex ia IIB T4 Ga<br/>Class I, Division 1, Group C and D, T4<br/>Class I, Zone 0 AEx ia IIB T4<br/>Zone 0 Ex ia IIB T4 Ga<br/>DEMKO 19 ATEX 1970 Rev. 0<br/>IECEx UL 19.0010<br/>-20 °C ≤ Ta ≤ +50 °C</div> |                                                                                                                    |             |
| Ordering Information          | Model                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Description                                                                                                        |             |
| Thermometers                  | 921B<br>922B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Single Input Intrinsically Safe Thermocouple Thermometer<br>Dual Input Intrinsically Safe Thermocouple Thermometer |             |
| Accessories                   | 921B– 900<br>911–912                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Printed Manual<br>User Installed Tilt Stand / magnetic Holder                                                      |             |

\*Accuracy based on recommended calibration cycle.

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