

HIT YOUR TARGET IN ANY ENVIRONMENT



Honeywell

TALIN FAMILY OF LAND NAVIGATORS: PROVIDING PRECISE, RELIABLE INERTIAL NAVIGATION AND POINTING SYSTEMS FOR CRITICAL MISSIONS

TALIN – INDUSTRY LEADER IN NAVIGATION SYSTEMS

Honeywell has been at the forefront of inertial navigation system (INS) technologies for more than three decades. Our INS for land applications provides highly accurate and reliable navigation and pointing capabilities to help users achieve their most critical missions.

TALIN family of land navigation and pointing systems have proven performance with more than 15,000 fielded systems on over 60 land-based platforms. Platforms include tanks, artillery, light vehicles and marine vessels, as well as other military and civilian applications where precision really counts.

By marrying INS and embedded global positioning system capabilities, our TALIN INS/GPS solutions provide unprecedented levels of accuracy, durability and reliability, even in a GPS-denied environment. TALIN systems can hold direction longer than alternative systems, and don't require rotation.

FLEXIBILITY YOU CAN COUNT ON

TALIN systems deliver a flexible solution that can be tailored to your specific mission with performance levels configured to meet your budget and capability requirements. From the high-value TALIN 2000 to the exceptionally accurate TALIN 6000, we offer the right solution for your application. Using Honeywell's next-generation ring laser gyro technology and the highly-capable accelerometers, TALIN is so robust that it eliminates the need for separate vibration isolation. With a range of size and weight options, TALIN is always the right fit.

Most TALIN models can be built with or without an embedded GPS and various receiver types are available. Interface is easy via RS-422 or Ethernet connections and we meet US Army Victory interoperability standards. In addition, we continue to enhance integration capabilities through the planned introduction of the TALIN ACCESS software, which will make it easier than ever for you to use system features and diagnostics.

With proven performance, precision and reliability under the most adverse conditions, TALIN systems provide the best available solution and exceptional value for military and commercial users with a wide range of exacting requirements.



**INERTIAL
NAVIGATION**



**FAR TARGET
DESIGNATION**



SURVEY



**PRECISION
POINTING FOR
FIRE CONTROL**



MILITARY VEHICLE NAVIGATION AND TARGETING

We understand the rigors of ground combat. With the TALIN INS/GPS solution, we've created the preferred choice for armored vehicles like the Akash Army Launcher and M1A1 tank. We designed the TALIN system to provide the highest level of capabilities to ensure that heavy and medium infantry vehicles have what it takes to accomplish their missions and protect soldiers. TALIN technologies provide capabilities that your soldiers need on the battlefield, including heading accuracy to within 0.5 mils on the TALIN 6000 system (see specification chart for details).

TALIN also provides highly-accurate targeting information, giving you the ability to direct fire from other battlefield assets including air support and artillery, to improve accuracy and reduce the risk of collateral damage. Command and control supports Blue Force Tracking capabilities during GPS denied conditions.

Even in the high-vibration world of tracked vehicle operations, TALIN systems exhibit extraordinary reliability, as demonstrated with mean time between failures greater than 50,000 hours.





ARTILLERY TARGETING

Accuracy is essential in artillery operations and few systems rival TALIN when it comes to hitting targets at long distances and minimizing collateral damage, even in a GPS-denied environment. TALIN's INS technologies provide the precision azimuth targeting capabilities you need when the target is out of sight.

TALIN systems are specially designed to withstand the high-shock environments typical of artillery applications, without the use of external shock-stabilizing hardware that other targeting systems require. The TALIN enables first-strike capability and accurate targeting on the battlefield without the need for a survey team.

With industry leading capabilities and reliability, TALIN systems are available to meet the accuracy requirements of your artillery application.

LIGHT-VEHICLE NAVIGATION

Our TALIN technology offers robust navigation solution for armored personnel carriers and other military light-to-medium vehicles, with performance and reliability far superior to traditional magnetic-sensor navigation aids.

The Honeywell TALIN 500 and TALIN 2000 systems are designed specifically to meet the needs of light vehicle operators at a lower price point. They use inertial technology to provide precise multi-axis vehicle positioning and navigation.

TALINs are light, small and power efficient, making them the perfect solution for light and medium vehicles that require navigation capabilities. Honeywell is extending its inertial technology leadership to create even smaller and lighter low-cost navigation systems. Please contact us to learn more about the latest tactical navigation solutions being developed at Honeywell's Advanced Technology Labs.

SPECIAL APPLICATIONS

TALIN technologies are a great solution for any application requiring high-accuracy pointing or navigation, from radar stabilization to satellite communications.

TALIN's new control display unit (CDU) will provide a modern, user-friendly interface for survey applications as part of our Simplified Survey System (SSS) and turnkey artillery applications. The light, tablet-style CDU will soon facilitate improved integration of TALIN units and basic diagnostic capabilities.

In the marine world, TALIN is providing new capabilities with the TALIN MINS for naval applications. For information on the highly-capable TALIN MINS, please see the TALIN MINS literature or go to aerospace.honeywell.com/NAVAL

In the commercial realm, TALIN technology is being used to improve efficiency and safety in mining, manufacturing, robotics and other industries.



Cost-effective system



Works even in GPS denied environments



Dynamic Point-on-The-Move capability – Provides first-strike capability



Flexible installation in any orientation – ideal for vehicles with limited space



Battle proven product with significant installed base



CONFIGURATION OPTIONS

OPTIONS	TALIN OPTIONS AVAILABLE
GPS	- EMBEDDED (SPS OR PPS/SAASM) - NO GPS (CAN CONNECT TO EXTERNAL GPS)
SHOCK STABILIZATION	TWO LEVELS AVAILABLE - HIGH G - ARTILLERY HARDENED ¹ ADDITIONAL TAILORING POSSIBLE DEPENDING ON APPLICATION
PRIMARY INTERFACE	- 1553A&B/RS-422/RS-232 SERIAL HOST INTERFACE - 10/100 ETHERNET
ADDITIONAL INTERFACE OPTIONS	- ADDITIONAL RS-422/RS-232 DATA INTERFACE ² - TURRET ENCODER - LASER RANGE FINDERS
FORM FACTOR	-STANDARD -MINI ³

1. Requires slightly larger form factor and power requirements
2. Available only when RS-422 chosen as primary interface
3. Available only when Ethernet chosen as primary interface

CHARACTERISTICS OF TALIN



INSTALLATION

Can be hard mounted in any orientation



OPTIONAL/EXTERNAL INPUTS:

Vehicle Motion Sensor, PLGR GPS, DAGR GPS



RELIABILITY

MTBF: >50,000 hours (TALIN demonstrated)



SOFTWARE

Modular- partitioned for cost-effective system missionisation. Field upgradable



POWER REQUIREMENTS

18-32Vdc: <26 watts*



WEIGHT

~13 lbs(6kg)*



THERMAL OPERATING RANGE

No cooling required: -46°C to 71°C
(-51°F to 160°F)



FORM FACTOR (EXCLUDING FLANGES & CONNECTORS)

Approx. 5.4 H x 7.6 W x 8.6 L inches*
Approx. 14 H x 19 W x 22 L cm*



NAV SENSORS

3-axis inertial sensors

* Application and configuration specific – numbers above represent the most common configurations.

PRODUCT OPTIONS AVAILABLE

PERFORMANCE	TALIN 2000	TALIN 3000	TALIN 4000	TALIN 5000	TALIN 6000
HORIZONTAL POS					
HORIZONTAL POSITION ERROR CEP WITH VMS AIDING	20 M or 0.15 % DT	15 M or 0.12 % DT	10 M or 0.11 % DT	10 M or 0.11 % DT	10 M or 0.11 % DT
VERTICAL POSITION ERROR PE WITH VMS AIDING	10 M or 0.1 % DT	10 M or 0.1 % DT	10 M or 0.1 % DT	10 M or 0.1 % DT	10 M or 0.1 % DT
HEADING/POINTING ACCURACY					
SECANT LATITUDE RMS	<2.11 MILS	<0.85 MILS	<0.42 MILS	<0.30 MILS	<0.21 MILS
PITCH AND ROLL ACCURACY (RMS)	<1.00 MILS	<1.00 MILS	<0.50 MILS	<0.35 MILS	<0.25 MILS



For more information

aerospace.honeywell.com/TALIN

Honeywell Aerospace

1944 East Sky Harbor Circle

Phoenix, AZ 85034

TALIN@honeywell.com

www.honeywell.com

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**THE
FUTURE
IS
WHAT
WE
MAKE IT**

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