

Distance Converter (4–20 mA to RS-232)

Model Number: THRSLDCON1001

Overview

The **Distance Converter** is a rugged signal conditioning module that converts **4–20 mA sensor input** into a digital **RS-232 output**, enabling seamless integration of distance or displacement sensors with controllers and monitoring systems.

Designed for harsh environments, the converter ensures reliable performance with high accuracy and stable data transmission. It has been **supplied to DRDO Pune R&DE and Indian Air Force (IAF)**, proving its effectiveness in mission-critical deployments.

Technical Specifications

Parameter	Specifications
Input Signal	4–20 mA (sensor current loop)
Input Range	Configurable for distance/displacement sensors
Output Interface	RS-232
Baud Rate	9600 bps (default, configurable)
Resolution	12-bit equivalent
Accuracy	±0.5% of full scale
Isolation	Optical/electrical isolation for safety
Power Supply	24V DC nominal
Indicators	Power and communication status LEDs
Dimensions	(Insert actual size if available)
Weight	(Insert actual weight if available)

Operating Temperature	-20°C to +55°C
Protection Standard	IP65

Key Features

- Converts **analog 4–20 mA sensor signals** to **RS-232 digital output**
- High accuracy and stable performance across full operating range
- Rugged design with **optical/electrical isolation** for safety
- Compact, IP65-protected enclosure for harsh environments
- Simple integration with controllers, PLCs, or rugged computers
- Proven in **defense applications at DRDO Pune R&DE and IAF**

Applications

- Distance and displacement sensor interfacing
- Defense vehicle and robotics sensor systems
- Industrial process monitoring and automation
- Data acquisition and control systems



Note

The **Distance Converter (4–20 mA to RS-232)** is part of **THRSL's standard technology suite**, designed for **plug-and-play deployment** across industries. Its supply to **DRDO Pune R&DE and Indian Air Force (IAF)** demonstrates proven reliability in demanding environments.

Custom configurations are available for alternate signal ranges, communication interfaces, or specialized integration requirements.

