



DAVISOL DVS-TS730 Ex

Hazardous Area Digital Temperature Sensor

Engineered for Zone 0/1/2 explosive environments, the DVS-TS730 Ex delivers real-time thermal telemetry across hazardous processing lines. With dynamic RTD and thermocouple options, it feeds critical temperature data directly to your local SCADA, PLC, or safety infrastructure.



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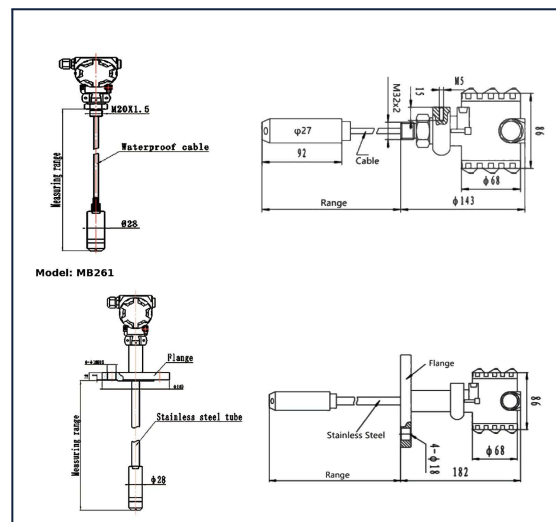


Principle and Characteristics

This Ex-proof digital sensor delivers high-precision temperature monitoring (-50°C to 1600°C) across Zone 0/1/2 explosive atmospheres. Housed in heavy-duty stainless steel with Ex d and Ex ia safety certifications, it features a 330° rotatable backlit display for easy field reading. Powered via 12–24VDC or passive loops, it outputs standardized 4–20mA + HART telemetry with high insulation resistance ($\geq 500\text{ M}\Omega$) and high noise immunity.

Some Product Applications

- Petroleum refining distillation column temperature profiling
- Active pharmaceutical ingredient (API) reactor batch monitoring
- Petrochemical storage tank farm fluid and vapor monitoring
- High-pressure boiler flue and engine exhaust thermal tracking
- Volatile chemical pipeline and process loop surveillance
- Extreme-vibration industrial furnace and incinerator monitoring



Technical Specifications

Category	Parameter	Specification
Sensing & Performance	Thermosensitive Element	RTD (Hot Resistance): -50°C to +300°C Thermocouple: 0°C to +1600°C
	Intrinsic Error (Accuracy)	Options available: ±0.2% F.S, ±0.5% F.S, ±1% F.S
	Insulation Resistance	≥ 500 MΩ (250VDC)
Telemetry & Signals	Output Signal	4–20mA, 1–5V, 4–20mA + HART protocol
	Power Supply	12–24VDC / Passive
	Electrical Connections	Hirschmann, PG7, Aviation plug, Direct Cable, Junction Box
Ex Protection & Housing	Ex Certification Options	Ex d (Flameproof), Ex ia (Intrinsically Safe)
	Housing Options	B1: Integrated Junction Box B2: Monolithic Cylinder B3: Separate Transmitter
	Local Display	330° Rotatable Backlit LCD / OLED
Mechanical & Process	Protective Tube Diameter	Ø6, Ø8, Ø10, Ø12, Ø16, Ø20 mm (Customizable)
	Insertion Depth (L)	0 to 2000 mm (Includes thread/flange dimensions)
	Thread Interfaces	M14x1.5, M16x1.5, M20x1.5, M27x2
	Flange Interfaces	DN20, DN50, DN80 (Fixed or Movable)

A full suite of operational accessories, including solid-drilled stainless steel (316L), Inconel, or Hastelloy thermowells, DIN-rail galvanically isolated IS barriers, armored flame-retardant extension cables, and industrial heat transfer paste, is available through DAVISOL.

R&D and Customization

At **DAVISOL**, we understand that standard off-the-shelf instrumentation cannot solve every complex thermal process topology. Our dedicated R&D software and hardware engineering teams stand ready to deliver bespoke configurations of our DVS-TS730 Ex sensor model tailored to your exact enterprise architecture.

From specialized ceramic protective tubes built to withstand 1600°C furnace environments to non-standard insertion depths exceeding 2000 mm for deep tank monitoring, multipoint thermocouple assemblies for catalyst bed profiling, and customized sanitary flange connections, we engineer solutions to match your strictest requirements.

DAVISOL — Engineering that delivers.