

# HS Series Product Brief

## Pressure Transmitter Subsystem for HVAC Applications

### Key Features

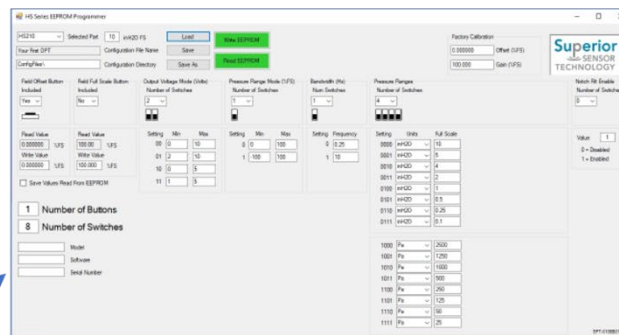
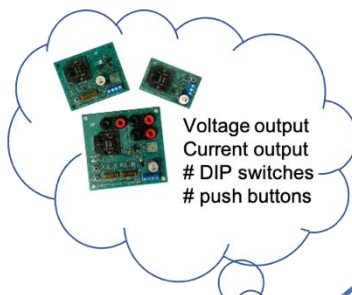
- Supports Full Featured Pressure Transmitter
- Configuration software included
- Hardware reference platform available
- Up to 12 Field DIP Switch Functions Supported
- Up to 2 Push Button Functions Supported
- Factory Programmable Pressure Ranges
- Up to 32 Field Selectable Pressure Ranges
- Up to 4 Field Selectable Bandwidths
- Integrated 50/60Hz Notch Filter
- Very High Accuracy +/- 0.1% of Selected Range
- Supports Bidirectional/ Unidirectional/ Asymmetric Outputs
- Supports 0-5/0-10/1-5/2-10 Volt Outputs
- Highly integrated sensor with ADC, DAC and DSP
- Long Term Stability +/- 0.1% FSS in 1<sup>st</sup> 12 months
- Temperature Compensated 0°C to 50°C

### Develop Your DPT Solution in Minutes via a Simple, but Very Powerful Software Interface

**Step 1:**  
Choose Hardware  
Features & Design

**Step 2:**  
Select DPT Features

**Step 3:**  
Instantly Program  
DPT Features



## Product Summary

Offering the industry's greatest flexibility, the HS Series DPT family easily supports any custom configuration of pressure range, output configuration, bandwidth, etc. via a simple interface where you fully define and implement product features in minutes. With Multi-Range™ technology a single device can be customized to support any of 32 pressure ranges from as low as 0.1" inH2O (Water Column) to 60" inH2O with many field selectable features that can easily be customized at the factory without additional programming or hardware changes.

The HS Series measures dry air and non-aggressive gas pressure with very high accuracy (within 0.10%) and a stable zero point. Industry leading long-term stability is typically better than 0.10% FSS in the first 12 months and Total Error Band (TEB) is typically better than 0.10% FSS.

Analog interfaces have been added with easy-to-use configuration software to greatly accelerate product definition and engineering development efforts while simplifying system calibration testing in manufacturing.

The HS Series family employs Superior's proprietary NimbleSense™ architecture to create the industry's first

generation of "Transmitter Subsystems." This system provides a platform to create a highly flexible and feature rich pressure transmitter while maintaining an overall low BOM and inventory cost.

In addition, the same platform can be used to create a full featured pressure transmitter or a simple/dedicated pressure transmitter while retaining the capability to fully customize the product at the factory.

The incorporation of advanced digital signal processing enables the complete pressure transmitter subsystem to be embedded into the sensor itself by inclusion of the ADC, DAC, advanced compensation and self-calibration features while providing a versatile and flexible pressure transmitter solution.

Constructed with a high reliability plastic enclosure, the HS Series family provides the ideal combination of very high performance, flexibility, ease of development and reliability while ensuring customers have a high volume, cost effective solution optimized for their HVAC pressure transmitter.

## Solution is Very Simple to Manufacture No Calibration Needed



**Step 1:**  
Populate PCB  
(or receive stuffed PCBA)

**Step 2:**  
Instantly Program  
DPT Features

**Step 3:**  
Pack & Ship  
(no calibration required)



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