



856 Series – Industrial Pressure Transducers

- ▶ 0-2 to 0-10,000 psi Pressure Ranges
- ▶ Voltage or Current Output
- ▶ NEMA 4/IP65 with Zero and Span Adjustments

The 856 Series is specifically designed for NEMA4/IP65 service and features a die-cast aluminum enclosure. Their robust capacitive design is resistant to environmental effects, such as shock, vibration, temperature and EMI/RFI. A 17-4 PH stainless steel sensing element does not require isolation from corrosive media. A 1/2" threaded conduit is provided for electrical termination and a removable cover provides easy access to the internal wiring terminal strip.

Common Specifications

Input	
Pressure Range	0 to 10,000 psig (0 to 700 bar)
Proof Pressure	See ordering chart
Burst Pressure	See ordering chart
Fatigue Life	>1 million cycles
Performance	
Supply Voltage (Vs)	9-30 VDC
Long Term Drift	0.5% FS/year
Accuracy	
<25 psi	±0.25% FS
≥25 psi	±0.13% FS
Thermal Error Zero	
<25 psi	±0.02% FS/°F (±0.036% FS/°C)
≥25 psi	±0.01% FS/°F (±0.018% FS/°C)
Thermal Error Span	±0.015% FS/°F (±0.027% FS/°C)
Compensated Temperatures	-4°F to +176°F (-20°C to +80°C)
Operating Temperatures	-40°F to +260°F (-40°C to +125°C)
Storage Temperatures	-40°F to +260°F (-40°C to +125°C)
Zero Tolerance	0.5% of span (adjustable)
Span Tolerance	1% of span (adjustable)
Mechanical Configuration	
Pressure Port	see ordering chart
Wetted Parts	17-4 PH Stainless Steel
Electrical Connection	Two 1/2" Internal Threaded Ports, Screw Terminal Strip
Enclosure	Die-Cast Aluminum, NEMA 4/IP65
Vibration	20g (MIL STD 202, Method 204, Condition C)
Shock	200g (MIL STD 202, Method 213B, Condition C)
Approvals	CE
Weight	13.4 oz

Individual Specifications

Voltage Output Units	
Output	0.1-5.1 VDC (3 wire)
Current Consumption	6 mA
Min. Load Resistance	5000 ohms
Current Output Units	
Output	4-20 mA (2 wire)
Max. Loop Resistance	(Vs-9) x 50 ohms



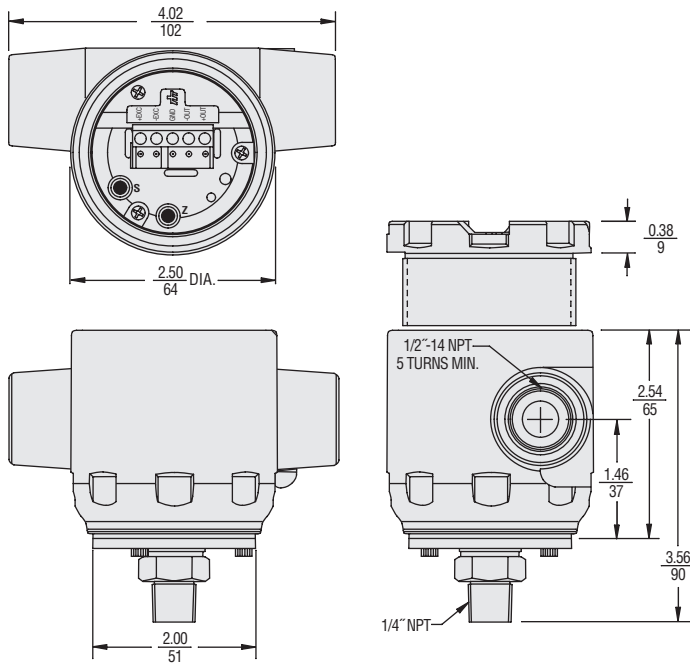
Applications

- Process Control
- Chemical Processing
- Agricultural Irrigation
- Natural Gas Pipeline
- Grain Processing
- Industrial Pressure Monitoring

How They Operate

Gems' patented variable capacitance sensor features an insulated electrode plate fastened to the center of the sensor diaphragm, which forms a variable capacitor. As pressure increases or decreases, the capacitance changes. This change in capacitance is detected and converted to a linear analog signal by Gems' custom ASIC-based circuit, producing an output signal proportional to applied pressure.

Dimensions



How to Order

Use the **bold** characters from the chart below to construct a product code.

SELECT

1. Series **8561** - 856 Series

2. Pressure Range Code

Pressures – psi			
Code	Range	Proof	Burst
002P	0 - 2	4	250
005P	0 - 5	10	250
010P	0 - 10	20	500
015P	0 - 15	30	500
025P	0 - 25	100	500
050P	0 - 50	150	750
100P	0 - 100	300	1000
150P	0 - 150	300	1000
200P	0 - 200	450	2000
250P	0 - 250	500	2000
500P	0 - 500	1000	3000
600P	0 - 600	1200	3000
10CP	0 - 1000	2000	5000
30CP	0 - 3000	4500	7500
50CP	0 - 5000	7500	10000
10KP	0 - 10000	12000	12500

Pressures – bar			
Code	Range	Proof	Burst
1R6B	0 - 1.6	6	40
004B	0 - 4	10	50
006B	0 - 6	18	60
010B	0 - 10	30	80
016B	0 - 16	32	130
025B	0 - 25	50	170
040B	0 - 40	80	240
060B	0 - 60	120	300
100B	0 - 100	200	400
160B	0 - 160	320	500
250B	0 - 250	380	550
400B	0 - 400	600	800
700B	0 - 700	800	1350

8561 - 025P - G - 4M - 11 - C

- 6. Optional **C** - Calibration Certificate
- 5. Output **11** - 4-20 mA
22 - 0.1-5.1 Vdc (≥25 psi ranges)
- 4. Pressure Port **2M** - 1/4" NPT (M)
4M - 1/2" NPT (M) (≥25 psi ranges)
2F - 1/4" NPTF (≥25 psi ranges)
1M - 1/8" NPTM (<25 psi ranges)
- 3. Pressure Datum **G** - Gauge (standard)