



Replace up to 3 individual sensors with 1 Modbus Multivariable

The 266 Modbus multivariable provides precise and reliable measurement of differential pressure, static pressure, temperature (from an external RTD) and diagnostic information once every second, to flow computers and RTUs. Individual device Modbus addresses can easily be configured using the optional keypad/display or using the XMV Interface application in ABB's Totalflow flow computers or RTUs. This application creates a "plug and play" interface to the multivariable sensor and indicates any active alarms that may be present in easily understood text. The combination of ABB's Totalflow flow computer or RTU and one or more ABB 266 Modbus multivariables makes an ideal solution when multi-tube measurement is required and/or when the transmitters must be located in a Class I, Division 1 hazardous location.



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Specifications¹

- Two wire RS 485 Modbus communications link
- Requires two additional wires for power
- Input voltage: 10.5 to 30 VDC

| Operational | | |
|-------------------------------|--|---|
| Temperature limits | Compensated Transmitter (ambient) LCD display Process Temperature Limits | -40°F to 160°F -60°F to 185°F -4°F to 158°F -60°F to 230°F |
| Analog to digital resolution | 24 Bit maximum resolution | |
| Electromagnetic compatibility | Emissions: EN55022 and FCC: Class B, (Radiated and conducted) Immunity: Meets or Exceeds EN61326-1, (Criteria A) for : ESD : 8kV/6Kv, RFI: 10V/m EFT: 2kV, Lightning Surge 2kV/1kV Cond: 10Vrms, Mag: 100A/m | |
| Low voltage directive | Meets 73/23/EC | |
| Humidity | Up to 100%; condensation, icing permitted | |
| Mounting | Wall, pipe or direct mount | |
| Certifications | Explosion Proof: Class I, Div 1, Groups ABCD, T5 Ta = -50°C to +85°C (Canada: Class I, Div 1, Groups BCD, T5) (approved Div 1 RTD available) Flame Proof (US & CA): Class I, Zone 1, (A)Ex d, IIC, T4 Dust Ignition Proof (US & CA): Class II,III, Div 1, Groups EFG, T5 Non Incendive: Class I, Div 2, Groups ABCD, T4....T6 (Energy and Tamb dependant) Non Sparking: Class I, Zone 2 (A)Ex nA IIC T4....T6 (Energy and Tamb dependant) Flame Proof: ATEX II 1/2 G Ex d IIC T6; IECEx Ex d, IIC T6 Ta = -50°C to +75°C Dust Protected Encl: ATEX II 1/2 D Ex tD A21 IP67 T85°C; IECEx Ex tD A21 IP67 T85°C, Ta = -50°C to +75°C Non Sparking: ATEX II 3 G Ex nA IIC T4/T5/T6; IECEx Ex nA IIC T6 Dust Protected Encl: ATEX II 3 D Ex tD A22 IP67 T85°C; IECEx Ex tD A22 IP67 T85°C Ta = -50°C to +75°C | |

¹Specifications are based on current testing data and subject to change
²FCS is Factory Calibrated Span. This is the range over which the factory thermally calibrated the sensor.

| Static pressure | |
|---|--|
| Accuracy (including linearity, hysteresis, & repeatability at reference conditions) | User calibrate spans of 10:1 range down ±0.05% (266JST) ±0.075% (266JSH) |
| Long term stability | ±0.15% of FCS ² over a 24 month period |
| Ambient temperature effect | Between the temperature of -35°F to +185°F ±0.05% of FCS ² ±0.02% of reading |
| Vibration effect | ±0.05 PSI (0.00345 bar) according to IEC 61298-3 "Field with general application or pipeline with low vibration" |

| Differential pressure | |
|--|---|
| Accuracy (including Linearity, hysteresis, & repeatability at reference conditions) | user calibrate spans of 10:1 range down ±0.04% (266JST) ±0.075% (266JSH) |
| Static pressure effect (SPE) to DP Zero (zero errors can be calibrated out at line Pressure) | Up to 1450 psi: 0.02% of FCS ² >1450 psi: 0.02% of FCS ² per 1450 psi |
| Long term stability | ±0.15% of FCS ² over a 24 month period |
| Ambient temperature effect | Between the temperature of -35°F to +185°F ±0.04% of FCS ² ±0.02% of Reading |
| Static pressure effect (SPE) to DP span | Up to 1450 psi: 0.02% of reading. >1450 psi: 0.02% of reading per 1450 psi |
| Vibration effect | ±1.5 INH2O (3.74 mbar) according to IEC 61298-3 "Field with general application or pipeline with low vibration" |

| Process temperature RTD interface (RTD uncertainty is not included) | |
|---|--|
| Accuracy (including linearity, hysteresis, & repeatability at reference conditions) | ±0.27°F Typical ±0.65°F Maximum Over operating range of: -54°F to 765°F |
| Measurement range | -80 to +1500°F |

| Ranges | |
|-----------------------|-----------------|
| Differential pressure | Static pressure |
| 250" H2O | 500 psia |
| 250" H2O | 1500 psia |
| 800" H2O | 500 psia |
| 800" H2O | 1500 psia |
| 800" H2O | 3000 psia |