

Stripe® CDG100Dhs

Heated Capacitance Diaphragm Gauge

INFICON Stripe high-speed Capacitance Diaphragm Gauges are the fastest, highly accurate vacuum measurement instruments available. With a less than 2 ms response time combined with the EtherCAT fieldbus interface it opens up a total new field of applications. The proven temperature controlled, corrosion resistant, ultra-pure ceramic sensor provides superior span stability over many years paired with state-of-the-art zero stability. Stripe comes with the INFICON patented unique sensor shield which protects the gauge from undesired process by-products. INFICON Stripe using an innovative heating concept, which provides a cool to the touch surface, and its unique speed capabilities, enabling an unprecedented productivity increase, making it the most advanced vacuum instrument of its kind.



ADVANTAGES

- High productivity - faster than 2 ms response time
- Flexible integration - EtherCAT fieldbus
- Long lifetime - proven ceramic sensor
- Forget recalibration - 90 ppm / year full scale stability

APPLICATIONS

- Atomic layer deposition
- High speed process control
- PVD, CVD, Etch
- General high temperature vacuum applications

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SPECIFICATIONS

| Full scale (FS) | 1000 Torr, 1100 mbar | 500 ... 1 Torr / mbar | 0.5 ... 0.05Torr / mbar |
|-----------------------------------|----------------------|---|-------------------------|
| Accuracy | | 0.2 % of reading | 0.4 % of reading |
| Temperature effect | | | |
| On zero | | 0.0025 % FS / °C | 0.005 % FS / °C |
| On span | | 0.02 % of reading / °C | 0.02 % of reading / °C |
| Pressure, max. | 400 kPa (absolute) | 260 kPa (absolute) | 130 kPa (absolute) |
| Resolution | | 0.003 % FS | |
| Lowest reading | | 0.01 % FS | |
| Lowest suggested reading | | 0.05 % FS | |
| Lowest suggested control pressure | | 0.5 % FS | |
| Temperature | | | |
| Operation (ambient) | | +10 ... +50 °C | |
| Bakeout at flange | | ≤110 °C | |
| Storage | | -20 ... +85 °C | |
| Supply voltage | | +14 ... +30 V (dc) or ±15 V (±5%) | |
| Power consumption | | | |
| During Heat up | | ≤16 W | |
| At operating temperature | | ≤11 W | |
| Output signal (analog) | | 0 ... +10 V (dc) | |
| Response time | | 2 ms | |
| Degree of protection | | IP 30 | |
| Standards | | | |
| CE conformity | | EN 61000-6-2, EN 61000-6-3, EN 61010-1 and RoHS | |
| ETL certification | | UL 61010-1, CSA 22.2 No. 61010-1 | |
| SEMI compliance | | SEMI S2 | |
| Electrical connection | | D-sub, 15-pin, male | |
| Setpoint | | | |
| Number of setpoints | | 2 (SP1, SP2) | |
| Relay contact | | ≤30 V (dc) / ≤0.5 A (dc) | |
| Hysteresis | | 1 % FS | |
| Diagnostic port | | | |
| Protocol | | USB | |
| Read | | pressure, status, ID | |
| Set | | setpoints, filter, zero adjust, factory reset, DC offset | |
| Materials exposed to vacuum | | ceramics (Al ₂ O ₃), stainless steel (AISI 316L) | |
| Internal volume | | ≤6.8 cm ³ | |
| Weight | | 962 ... 1019 g | |

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SPECIFICATION ETHERCAT

EtherCAT®

| | |
|-------------------------|---|
| Protocol | EtherCAT®, firmware generation 2.0 |
| Communication standards | Semiconductor Device Profile ETG.5003 Part 1 Common Device Profile ETG.5003 Part 2080 "Specific Device Profile - Vacuum Pressure Gauge" |
| Process Data | Fixed PDO mapping and configurable PDO mapping |
| EtherCAT connector | RJ45, 8-pin (socket), IN and OUT |
| Cable | Shielded Ethernet CAT5e or higher |
| Cable length | ≤100 m (330 ft.) |
| Data rate | 100000 Kbps |

DIMENSIONS

