

PCG55x

INFICON 皮拉尼电容膜片真空计 (PCG55x) 集 INFICON 皮拉尼技术和陶瓷电容膜片传感器的优势于一体。

在 10 毫巴和大气压力之间的测量范围内，电容膜片技术不受气体类型限制，能够提供高精度的可靠压力测量值。PCG55x 功能丰富，提供多种配置，可满足您的特定应用要求。



益处

- 在 10 毫巴以上压力下不受气体类型限制 – 能够安全排放任何气体混合物
- 在大气压力下具有高度的准确性和再现性 – 能够进行可靠的大气压力检测
- 快速大气检测功能 – 能够消除等待时间并缩短过程周期
- 灵活的安装方向 – 提供自由的工具设计
- 可配备钨丝 (PCG550)、镍丝 (PCG552) 或全陶瓷涂层 (PCG554) 传感器装置用于高腐蚀性应用
- 易于更换的即插即用式传感器元件与板载校准数据 – 确保高度再现性和低拥有成本
- 便于集成的可选输出信号
- 可选大气开关、显示屏和数字接口

规格

| 类型 | | PCG550 Tungsten | PCG552 Nickel | PCG554 ceramic coated |
|--|------------------|-------------------------------|-------------------------------|-------------------------------|
| 测量范围 | mbar | 5×10 ⁻⁵ ... 1500 | 5×10 ⁻⁵ ... 1500 | 5×10 ⁻⁵ ... 1500 |
| 测量范围 | Torr | 3.8×10 ⁻⁵ ... 1125 | 3.8×10 ⁻⁵ ... 1125 | 3.8×10 ⁻⁵ ... 1125 |
| 精度 | | | | |
| 5×10 ⁻⁴ ... 1×10 ⁻³ 毫巴 (N ₂) | % of reading | ±50 | ±50 | ±50 |
| 1×10 ⁻³ ... 100 毫巴 (N ₂) | % of reading | ±15 | ±15 | ±15 |
| 100 ... 950 毫巴 | % of reading | ±5 | ±5 | ±5 |
| 950 ... 1050 毫巴 | % of reading | ±2.5 | ±2.5 | ±2.5 |
| 可重复性 | | | | |
| 1×10 ⁻³ ... 1100 毫巴 (N ₂) | % of reading | ±2 | ±2 | ±2 |
| 容许压力 | bar (absolute) | ≤5 | ≤5 | ≤5 |
| 压力, 最大 | bar (absolute) | ≥10 | ≥10 | ≥10 |
| 容许温度 | | | | |
| 运行 (环境) | °C | +10 ... +50 | +10 ... +50 | +10 ... +50 |
| 贮存 | °C | -20 ... +65 | -20 ... +65 | -20 ... +65 |
| 在法兰处烘烤 | °C | ≤80 | ≤80 | ≤80 |
| 在长管法兰处烘烤 | °C | ≤250 | ≤250 | ≤250 |
| 电源电压 | V (dc) | +15 ... +30 | +15 ... +30 | +15 ... +30 |
| 功耗 | | | | |
| 无现场总线 | W | ≤2.5 | ≤2.5 | ≤2.5 |
| DeviceNet™ | W | ≤3 | ≤3 | ≤3 |
| Profibus | W | ≤3 | ≤3 | ≤3 |
| 输出信号模拟 3PCx-0xx-xxx0 V | | 0 ... +10.23 | 0 ... +10.23 | 0 ... +10.23 |
| 输出信号模拟 3PCx-0xx-xxx1 V | | 0 ... +8.68 | 0 ... +8.68 | 0 ... +8.68 |
| 输出信号模拟 3PCx-0xx-xxx2 V | | 0 ... +5.659 | 0 ... +5.659 | 0 ... +5.659 |
| 输出信号模拟 3PCx-0xx-xxx3 V | | 0 ... +9.05 | 0 ... +9.05 | 0 ... +9.05 |
| 测量范围 3PCx-0xx-xxx0 V | | +0.61 ... +10.23 | +0.61 ... +10.23 | +0.61 ... +10.23 |
| 测量范围 3PCx-0xx-xxx1 V | | +1.2 ... +8.68 | +1.2 ... +8.68 | +1.2 ... +8.68 |
| 测量范围 3PCx-0xx-xxx2 V | | +0.375 ... +5.659 | +0.375 ... +5.659 | +0.375 ... +5.659 |
| 测量范围 3PCx-0xx-xxx3 V | | +1.57 ... +9.05 | +1.57 ... +9.05 | +1.57 ... +9.05 |
| 电压与压强 | | | | |
| 3PCx-0xx-xxx0 | volts per decade | 1.286 | 1.286 | 1.286 |
| 3PCx-0xx-xxx1 / -xxx2 / -xxx3 | volts per decade | 1 | 1 | 1 |

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|----------------------|-----------------|--|---|--|
| 负载电阻 | kΩ | >10 | >10 | >10 |
| 设定继电器 | | | | |
| 设定点数量 | | 2 | 2 | 2 |
| 继电器触点 | | n.o., potential free | n.o., potential free | n.o., potential free |
| 设定继电器 | | | | |
| 范围 (N ₂) | mbar | 5×10 ⁻⁵ ... 1000 | 5×10 ⁻⁵ ... 1000 | 5×10 ⁻⁵ ... 1000 |
| 设定继电器 | | | | |
| 滞后 | % of threshold | 10 | 10 | 10 |
| 设定继电器 | | | | |
| 触点额定固态继电器 | V (dc) | ≤30 | ≤30 | ≤30 |
| 触点额定机械继电器 | V (dc) | ≤30 | ≤30 | ≤30 |
| 设定继电器 | | | | |
| 触点额定固态继电器 | A (dc) | ≤0.3 | ≤0.3 | ≤0.3 |
| 触点额定机械继电器 | A (dc) | ≤1 | ≤1 | ≤1 |
| 设定继电器 | | | | |
| 转换时间 | ms | ≤30 | ≤30 | ≤30 |
| 接口 (数字) | | RS232C | RS232C | RS232C |
| 电气连接 | | | | |
| 3PCx-0xx-x0xx | | FCC, 8-pin | FCC, 8-pin | FCC, 8-pin |
| 3PCx-0xx-x1xx | | D-Sub, 9-pin, male | D-Sub, 9-pin, male | D-Sub, 9-pin, male |
| 3PCx-0xx-x2xx | | D-Sub, 15-pin HD, male | D-Sub, 15-pin HD, male | D-Sub, 15-pin HD, male |
| 3PCx-0xx-x4xx | | D-Sub, 15-pin HD, with RS485, male | D-Sub, 15-pin HD, with RS485, male | D-Sub, 15-pin HD, with RS485, male |
| 电缆长度 | m (ft.) | ≤100 (≤330) | ≤100 (≤330) | ≤100 (≤330) |
| RS232C 运行 | m (ft.) | ≤30 (≤100) | ≤30 (≤100) | ≤30 (≤100) |
| 暴露于真空的材料 | | W, Ni, NiFe, Al ₂ O ₃ , SnAg, stainless steel, glass | Ni, NiFe, Al ₂ O ₃ , SnAg, stainless steel, glass | Al ₂ O ₃ , stainless steel |
| 内部容积 | | | | |
| DN 16 ISO-KF | cm ³ | 4.7 | 4.7 | 4.7 |
| DN 16 ISO-KF 长管 | cm ³ | 14.5 | 14.5 | 14.5 |
| DN 16 CF-F | cm ³ | 8 | 8 | 8 |
| DN 16 CF-R 长管 | cm ³ | 14 | 14 | 14 |

规格

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|------------------------|-----------------|--|--|--|
| DN 25 ISO-KF , 4 VCR | cm ³ | 5.5 | 5.5 | 5.5 |
| 8 VCR | cm ³ | 7 | 7 | 7 |
| 1/8" NPT , 7/16-20 UNF | cm ³ | 5.2 | 5.2 | 5.2 |
| 表面贴装 29 毫米/1.15 英寸 | cm ³ | 4.9 | 4.9 | 4.9 |
| 4 VCR 90° | cm ³ | 7.9 | 7.9 | 7.9 |
| 重量 | | | | |
| 无现场总线接口 | g | 115 ... 130 | 115 ... 130 | 115 ... 130 |
| 带现场总线接口 | g | 230 ... 250 | 230 ... 250 | 230 ... 250 |
| 保护等级 | | IP 40 | IP 40 | IP 40 |
| 标准 | | | | |
| CE 合规 | | EN 61000-6-2/-6-3, EN 61010 | EN 61000-6-2/-6-3, EN 61010 | EN 61000-6-2/-6-3, EN 61010 |
| ETL 认证 | | UL 61010-1, CSA 22.2 No.61010-1 | UL 61010-1, CSA 22.2 No.61010-1 | UL 61010-1, CSA 22.2 No.61010-1 |
| DeviceNet™ | | | | |
| 协议 | | DeviceNet™, group 2 slave only | DeviceNet™, group 2 slave only | DeviceNet™, group 2 slave only |
| MAC ID | | 2 switches (address 00 - 63) or network programmable | 2 switches (address 00 - 63) or network programmable | 2 switches (address 00 - 63) or network programmable |
| 数字功能 | | read pressure, select units: Torr, mbar, Pa, micron, counts; monitor gauge status, detailed alarm and warning information, safe state allows definition of behavior in case of error | read pressure, select units: Torr, mbar, Pa, micron, counts; monitor gauge status, detailed alarm and warning information, safe state allows definition of behavior in case of error | read pressure, select units: Torr, mbar, Pa, micron, counts; monitor gauge status, detailed alarm and warning information, safe state allows definition of behavior in case of error |
| 技术规格 | | DeviceNet™ "Vacuum Gauge Device Profile" | DeviceNet™ "Vacuum Gauge Device Profile" | DeviceNet™ "Vacuum Gauge Device Profile" |
| 设备类型 | | "CG" for combination gauge | "CG" for combination gauge | "CG" for combination gauge |
| I / O 从属传讯 | | polling only | polling only | polling only |
| DeviceNet 连接器 | | Micro-Style, 5-pin, male | Micro-Style, 5-pin, male | Micro-Style, 5-pin, male |
| DeviceNet™ | | | | |
| 数据率开关 | kBaud | 125, 250, 500 or network programmable | 125, 250, 500 or network programmable | 125, 250, 500 or network programmable |

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|---|---------|---|---|---|
| DeviceNet™ | | | | |
| 电缆长度 125 kbps | m (ft.) | 500 (1650) | 500 (1650) | 500 (1650) |
| 电缆长度 250 kbps | m (ft.) | 250 (825) | 250 (825) | 250 (825) |
| 电缆长度 500 kbps | m (ft.) | 100 (330) | 100 (330) | 100 (330) |
| DeviceNet™ | | | | |
| DeviceNet™ 的电源电压 3PI6- / 3PI7- / 3PI8-0xx- xxxx | V (dc) | +15 ... +30 | +15 ... +30 | +15 ... +30 |
| DeviceNet™ | | | | |
| 功耗 3PI6- / 3PI7- / 3PI8- 0xx-xxxx | W | ≤3 | ≤3 | ≤3 |
| Profibus DP | | | | |
| 波特率 | kBaud | 9.6 / 19.2 / 93.75 / 187.5 / 500 | 9.6 / 19.2 / 93.75 / 187.5 / 500 | 9.6 / 19.2 / 93.75 / 187.5 / 500 |
| Profibus DP | | | | |
| 波特率 | Mbaud | 1.5 / 12 | 1.5 / 12 | 1.5 / 12 |
| Profibus DP | | | | |
| 地址 | | 2 switches (address 00 - 127) or network programmable | 2 switches (address 00 - 127) or network programmable | 2 switches (address 00 - 127) or network programmable |
| 数字功能 | | read pressure, select units: Torr, mbar, Pa, micron, counts ; monitor gauge status, detailed alarm and warning information, safe state allows definition of behavior in case of error | read pressure, select units: Torr, mbar, Pa, micron, counts ; monitor gauge status, detailed alarm and warning information, safe state allows definition of behavior in case of error | read pressure, select units: Torr, mbar, Pa, micron, counts ; monitor gauge status, detailed alarm and warning information, safe state allows definition of behavior in case of error |
| Profibus DP 连接器 | | D-Sub, 9-pin, female | D-Sub, 9-pin, female | D-Sub, 9-pin, female |
| RS485C | | | | |
| 波特率 | kBaud | 9.6 / 19.2 / 38.4 /57.6 | 9.6 / 19.2 / 38.4 /57.6 | 9.6 / 19.2 / 38.4 /57.6 |
| RS485C | | | | |
| 地址 | | 2 switches (address 00 - 255) | 2 switches (address 00 - 255) | 2 switches (address 00 - 255) |

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|--------------|---|---|---|
| 数字功能 | read pressure, select units: Torr, mbar, Pa, micron, counts ; monitor gauge status, detailed alarm and warning information, safe state allows definition of behavior in case of error | read pressure, select units: Torr, mbar, Pa, micron, counts ; monitor gauge status, detailed alarm and warning information, safe state allows definition of behavior in case of error | read pressure, select units: Torr, mbar, Pa, micron, counts ; monitor gauge status, detailed alarm and warning information, safe state allows definition of behavior in case of error |
| RS485 连接器 | D-Sub, 15-pin HD, male | D-Sub, 15-pin HD, male | D-Sub, 15-pin HD, male |
| EtherCAT | | | |
| 协议 EtherCAT | protocol specialized for EtherCAT | protocol specialized for EtherCAT | protocol specialized for EtherCAT |
| 通讯标准 | ETG.5003 Part 1 "Semiconductor Device Profile" ETG.5003 Part 2080 "Specific Device Profile: Vacuum Pressure Gauge" | ETG.5003 Part 1 "Semiconductor Device Profile" ETG.5003 Part 2080 "Specific Device Profile: Vacuum Pressure Gauge" | ETG.5003 Part 1 "Semiconductor Device Profile" ETG.5003 Part 2080 "Specific Device Profile: Vacuum Pressure Gauge" |
| 节点地址 | Explicit Device Identification | Explicit Device Identification | Explicit Device Identification |
| 物理层 | 100BASE-Tx (IEEE 802.3) | 100BASE-Tx (IEEE 802.3) | 100BASE-Tx (IEEE 802.3) |
| EtherCAT 连接器 | RJ45, 8-pin (socket), IN and OUT | RJ45, 8-pin (socket), IN and OUT | RJ45, 8-pin (socket), IN and OUT |
| 电缆 | shielded Ethernet CAT5e or higher | shielded Ethernet CAT5e or higher | shielded Ethernet CAT5e or higher |
| 过程数据 | Fixed PDO mapping and configurable PDO mapping | Fixed PDO mapping and configurable PDO mapping | Fixed PDO mapping and configurable PDO mapping |
| 邮箱 (CoE) | SDO requests, responses and information | SDO requests, responses and information | SDO requests, responses and information |
| EtherCAT | | | |
| 电缆长度 | m (ft.) | ≤100 (330) | ≤100 (330) |

备件

| | PCG550 Tungsten | PCG552 Nickel | PCG554 ceramic coated |
|-------------|-----------------|---------------|-----------------------|
| PCG550备用传感器 | 357-925 | - | - |
| PCG552备用传感器 | - | 357-936 | - |
| PCG554备用传感器 | - | - | 357-947 |

附件

| | PCG550 Tungsten | PCG552 Nickel | PCG554 ceramic coated |
|----------------------------|-----------------|---------------|-----------------------|
| Diagnostic cable 1.9m (P3) | 303-333 | 303-333 | 303-333 |
| 卡箍 DN 10-16 ISO-KF | 211-001 | 211-001 | 211-001 |
| 细目过滤中心环组件DN 16 ISO-KF | 211-097 | 211-097 | 211-097 |

尺寸

