

PSG55x-Messgerät für den Bereich von Atmosphärendruck bis mittelhohes Vakuum

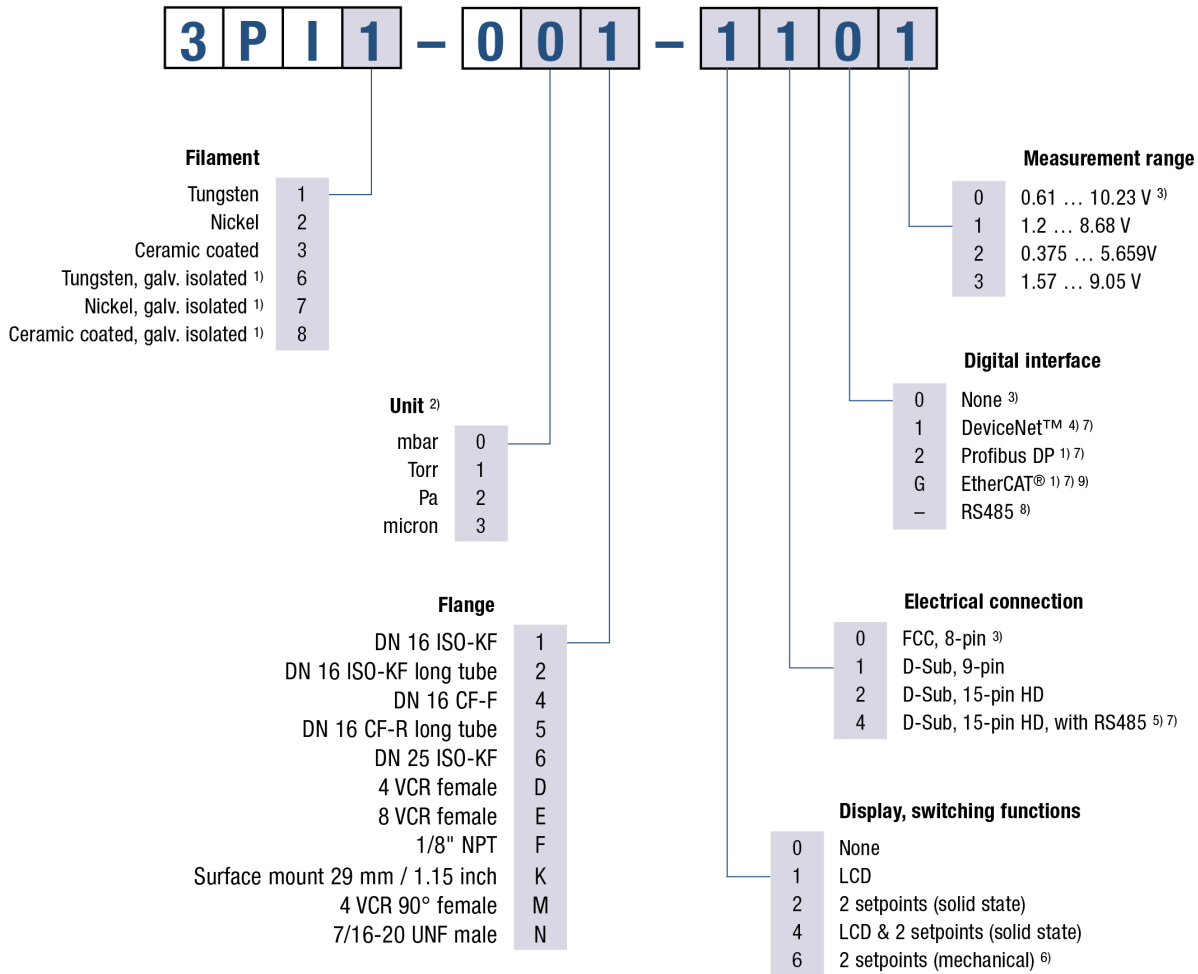
Das Pirani-Standard-Messgerät PSG55x von INFICON arbeitet wie seine Verwandten aus der PCG55x und PSG5xx-Serie mit der fortschrittlichsten digitalen Pirani-Technologie, die auf dem Markt erhältlich ist. Der robuste Sensor mit seiner kompakten Größe und seinen vielseitigen Funktionsmerkmalen prädestiniert dieses Produkt für Messungen im Nieder- bis Hochvakuumbereich.



VORTEILE

- Mit Wolfram (PCG550)- oder Nickelfilament (PCG552) oder mit vollbeschichtetem (PCG554) Keramiksensoren für hochkorrosive Anwendungen erhältlich
- Optionales Display, Sollwerte und digitale Schnittstellen
- Latest EtherCAT protocol Standard ETG.5003.2080 S (R) V1.3.0
- Leicht auswechselbares Plug-and-Play-Sensorelement mit integrierten Kalibrierungsdaten - sorgt für hohe Reproduzierbarkeit und niedrige Betriebskosten
- Wählbares Ausgangssignal und verschiedene Steckerversionen zur leichten Integration
- Gestaltungsfreiheit beim Werkzeugdesign durch Montage in beliebiger Position
- Diagnoseanschluss bei allen Versionen
- Compliance und Standards: CE, EN, UL, CSA, RoHS

BESTELLINFORMATIONEN



¹⁾ Only with D-Sub 9-pin connector available

²⁾ When selecting LCD (liquid crystal display) choose desired pressure unit

³⁾ Choose these settings when using an INFICON VGC50x or PGD400 / PGD500 controller or when choosing "4" under "Electrical connection"

⁴⁾ Only with D-Sub 9-pin connector and galvanically isolated available

⁵⁾ Only without additional digital interface available

⁶⁾ Only with D-Sub 9-pin connector without LCD available

⁷⁾ Fieldbus options only available together with switching functions (select number "2" or "4" from table "Display, switching functions")

⁸⁾ Just selectable via number "4" from table "Electrical connection"

⁹⁾ Communication standard ETG.5003.2080 S (R) V1.3.0; old version V1.0.0 still available on request

TECHNISCHE DATEN

| Typ | | PSG550 Tungsten | PSG552 Nickel | PSG554 ceramic coated |
|--|----------------|------------------------------|------------------------------|------------------------------|
| Messbereich | mbar | 5×10 ⁻⁵ ... 1000 | 5×10 ⁻⁵ ... 1000 | 5×10 ⁻⁵ ... 1000 |
| Messbereich | Torr | 3.8×10 ⁻⁵ ... 750 | 3.8×10 ⁻⁵ ... 750 | 3.8×10 ⁻⁵ ... 750 |
| Genauigkeit (N ₂) | | | | |
| 5×10 ⁻⁴ ... 1×10 ⁻³ mbar | % of reading | ±50 | ±50 | ±50 |
| 1×10 ⁻³ ... 100 mbar | % of reading | ±15 | ±15 | ±15 |
| 100 ... 1000 mbar | % of reading | ±50 | ±50 | ±50 |
| Wiederholbarkeit (N ₂) | | | | |
| 1×10 ⁻³ ... 100 mbar | % of reading | ±2 | ±2 | ±2 |
| Zulässiger Druck | bar (absolute) | ≤5 | ≤5 | ≤5 |
| Druck, max. | bar (absolute) | 10 | 10 | 10 |
| Zulässige Temperatur | | | | |
| Betrieb (Umgebung) | °C | +10 ... +50 | +10 ... +50 | +10 ... +50 |
| Lagerung | °C | -20 ... +65 | -20 ... +65 | -20 ... +65 |
| Ausheizen am Flansch | °C | ≤80 | ≤80 | ≤80 |
| Ausheizen am Flansch, langes Rohr | °C | ≤250 | ≤250 | ≤250 |
| Versorgungsspannung | V (dc) | +15 ... +30 | +15 ... +30 | +15 ... +30 |
| Leistungsaufnahme | | | | |
| Ohne Feldbus | W | ≤2.5 | ≤2.5 | ≤2.5 |
| DeviceNet™ | W | ≤3 | ≤3 | ≤3 |
| Profibus | W | ≤3 | ≤3 | ≤3 |
| Ausgangssignal analog 3PIx-0xx-xxx0 | V | 0 ... +10 | 0 ... +10 | 0 ... +10 |
| Ausgangssignal analog 3PIx-0xx-xxx1 | V | 0 ... +8.5 | 0 ... +8.5 | 0 ... +8.5 |
| Ausgangssignal analog 3PIx-0xx-xxx2 | V | 0 ... +5.529 | 0 ... +5.529 | 0 ... +5.529 |
| Ausgangssignal analog 3PIx-0xx-xxx3 | V | 0 ... +8.875 | 0 ... +8.875 | 0 ... +8.875 |
| Messbereich 3PIx-0xx-xxx0 | V | +0.61 ... +10 | +0.61 ... +10 | +0.61 ... +10 |
| Messbereich 3PIx-0xx-xxx1 | V | +1.2 ... +8.5 | +1.2 ... +8.5 | +1.2 ... +8.5 |
| Messbereich 3PIx-0xx-xxx2 | V | +0.375 ... +5.529 | +0.375 ... +5.529 | +0.375 ... +5.529 |
| Messbereich 3PIx-0xx-xxx3 | V | +1.57 ... +8.875 | +1.57 ... +8.875 | +1.57 ... +8.875 |
| Spannung vs. Druck | | | | |

TECHNISCHE DATEN

| Typ | | PSG550 Tungsten | PSG552 Nickel | PSG554 ceramic coated |
|--------------------------------------|------------------|---|--|--|
| 3PIx-0xx-xxx0 | volts per decade | 1.286 | 1.286 | 1.286 |
| 3PIx-0xx-xxx1/-xxx2/-xxx3 | volts per decade | 1 | 1 | 1 |
| Lastimpedanz | k Ω | >10 | >10 | >10 |
| Schaltpunktrelais | | | | |
| Anzahl Schaltpunkte | | 2 | 2 | 2 |
| Relaiskontakt | | n.o., potential free | n.o., potential free | n.o., potential free |
| Schaltpunktrelais | | | | |
| Bereich (N ₂) | mbar | 5×10 ⁻⁵ ... 1000 | 5×10 ⁻⁵ ... 1000 | 5×10 ⁻⁵ ... 1000 |
| Schaltpunktrelais | | | | |
| Hysterese | % of threshold | 10 | 10 | 10 |
| Schaltpunktrelais | | | | |
| Kontaktbelastung, Halbleiterrelais | V (dc) | ≤30 | ≤30 | ≤30 |
| Kontaktbelastung, mechanische Relais | V (dc) | ≤30 | ≤30 | ≤30 |
| Schaltpunktrelais | | | | |
| Kontaktbelastung, Halbleiterrelais | A (dc) | ≤0.3 | ≤0.3 | ≤0.3 |
| Kontaktbelastung, mechanische Relais | A (dc) | ≤1 | ≤1 | ≤1 |
| Schaltpunktrelais | | | | |
| Schaltzeit | ms | ≤30 | ≤30 | ≤30 |
| Schnittstelle (digital) | | | | |
| | | RS232C | RS232C | RS232C |
| Elektrischer Anschluss | | | | |
| 3PIx-0xx-x0xx | | FCC, 8-pin | FCC, 8-pin | FCC, 8-pin |
| 3PIx-0xx-x1xx | | D-Sub, 9-pin, male | D-Sub, 9-pin, male | D-Sub, 9-pin, male |
| 3PIx-0xx-x2xx | | D-Sub, 15-pin HD, male | D-Sub, 15-pin HD, male | D-Sub, 15-pin HD, male |
| 3PIx-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 |
| Kabellänge | m (ft.) | ≤100 (≤330) | ≤100 (≤330) | ≤100 (≤330) |
| RS232C-Betrieb | m (ft.) | ≤30 (≤100) | ≤30 (≤100) | ≤30 (≤100) |
| Werkstoffe gegen Vakuum | | | | |
| | | W, Ni, NiFe, glass, SnAg, stainless steel | Ni, NiFe, glass, SnAg, stainless steel | Al ₂ O ₃ , stainless steel |
| Inneres Volumen | | | | |
| DN 16 ISO-KF | cm ³ | 4.7 | 4.7 | 4.7 |

TECHNISCHE DATEN

| Typ | PSG550 Tungsten | PSG552 Nickel | PSG554 ceramic coated |
|---|--|--|--|
| DN 16 ISO-KF langes Rohr cm ³ | 14.5 | 14.5 | 14.5 |
| DN 16 CF-F cm ³ | 8 | 8 | 8 |
| DN 16 CF-R langes Rohr cm ³ | 14 | 14 | 14 |
| 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 |
| Surface mount 29 mm/1,15 Zoll cm ³ | 4.9 | 4.9 | 4.9 |
| 4 VCR 90° cm ³ | 7.9 | 7.9 | 7.9 |
| Gewicht | | | |
| Ohne Feldbus-Schnittstelle g | 115 ... 130 | 115 ... 130 | 115 ... 130 |
| Mit Feldbus-Schnittstelle g | 230 ... 250 | 230 ... 250 | 230 ... 250 |
| Schutzart | | | |
| | IP 40 | IP 40 | IP 40 |
| Normen | | | |
| CE-Konformität | 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-Zertifizierung | 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™ | | | |
| Protokoll | 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 |
| Digitale Funktionen | 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 |
| Spezifikation | DeviceNet™ "Vacuum Gauge Device Profile" | DeviceNet™ "Vacuum Gauge Device Profile" | DeviceNet™ "Vacuum Gauge Device Profile" |
| Gerätetyp | "CG" for combination gauge | "CG" for combination gauge | "CG" for combination gauge |
| I/O Slave-Messaging | polling only | polling only | polling only |

TECHNISCHE DATEN

| Typ | | PSG550 Tungsten | PSG552 Nickel | PSG554 ceramic coated |
|--|---------|---|---|---|
| Anschluss DeviceNet | | Micro-Style, 5-pin, male | Micro-Style, 5-pin, male | Micro-Style, 5-pin, male |
| DeviceNet™ | | | | |
| Umschaltbare Übertragungsrate | kBaud | 125, 250, 500 or network programmable | 125, 250, 500 or network programmable | 125, 250, 500 or network programmable |
| DeviceNet™ | | | | |
| Kabellänge 125 kbps | m (ft.) | 500 (1650) | 500 (1650) | 500 (1650) |
| Kabellänge 250 kbps | m (ft.) | 250 (825) | 250 (825) | 250 (825) |
| Kabellänge 500 kbps | m (ft.) | 100 (330) | 100 (330) | 100 (330) |
| DeviceNet™ | | | | |
| Versorgungsspannung DeviceNet™ 3PI6-/3PI7-/3PI8-0xx-xxxx | V (dc) | +15 ... +30 | +15 ... +30 | +15 ... +30 |
| DeviceNet™ | | | | |
| Leistungsaufnahme 3PI6-/3PI7-/3PI8-0xx-xxxx | W | ≤3 | ≤3 | ≤3 |
| Profibus DP | | | | |
| Übertragungsraten | 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 | | | | |
| Übertragungsraten | Mbaud | 1.5 / 12 | 1.5 / 12 | 1.5 / 12 |
| Profibus DP | | | | |
| Adresse | | 2 switches (address 00 - 127) or network programmable | 2 switches (address 00 - 127) or network programmable | 2 switches (address 00 - 127) or network programmable |
| Digitale Funktionen | | 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 |
| Anschluss Profibus DP | | D-Sub, 9-pin, female | D-Sub, 9-pin, female | D-Sub, 9-pin, female |
| RS485C | | | | |
| Übertragungsraten | 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 | | | | |

TECHNISCHE DATEN

| Typ | PSG550 Tungsten | PSG552 Nickel | PSG554 ceramic coated |
|-------------------------|---|---|---|
| Adresse | 2 switches (address 00 - 255) | 2 switches (address 00 - 255) | 2 switches (address 00 - 255) |
| Digitale Funktionen | 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 |
| Anschluss RS485 | D-Sub, 15-pin HD, male | D-Sub, 15-pin HD, male | D-Sub, 15-pin HD, male |
| EtherCAT | | | |
| Protokoll EtherCAT | protocol specialized for EtherCAT | protocol specialized for EtherCAT | protocol specialized for EtherCAT |
| Kommunikationsstandards | ETG.5003.1 S (R) V1.1.0 Common Device Profile ETG.5003.2080 S (R) V1.3.0 Specific Device Profile: Vacuum Gauge | ETG.5003.1 S (R) V1.1.0 Common Device Profile ETG.5003.2080 S (R) V1.3.0 Specific Device Profile: Vacuum Gauge | ETG.5003.1 S (R) V1.1.0 Common Device Profile ETG.5003.2080 S (R) V1.3.0 Specific Device Profile: Vacuum Gauge |
| Knotenpunktadresse | Explicit Device Identification | Explicit Device Identification | Explicit Device Identification |
| Physikalische Schicht | 100BASE-Tx (IEEE 802.3) | 100BASE-Tx (IEEE 802.3) | 100BASE-Tx (IEEE 802.3) |
| EtherCAT-Stecker | RJ45, 8-pin (socket), IN and OUT | RJ45, 8-pin (socket), IN and OUT | RJ45, 8-pin (socket), IN and OUT |
| Kabel | shielded Ethernet CAT5e or higher | shielded Ethernet CAT5e or higher | shielded Ethernet CAT5e or higher |
| Prozessdaten | Fixed PDO mapping and configurable PDO mapping | Fixed PDO mapping and configurable PDO mapping | Fixed PDO mapping and configurable PDO mapping |
| Mailbox (CoE) | SDO requests, responses and information | SDO requests, responses and information | SDO requests, responses and information |
| EtherCAT | | | |
| Kabellänge | m (ft.) | ≤100 (330) | ≤100 (330) |

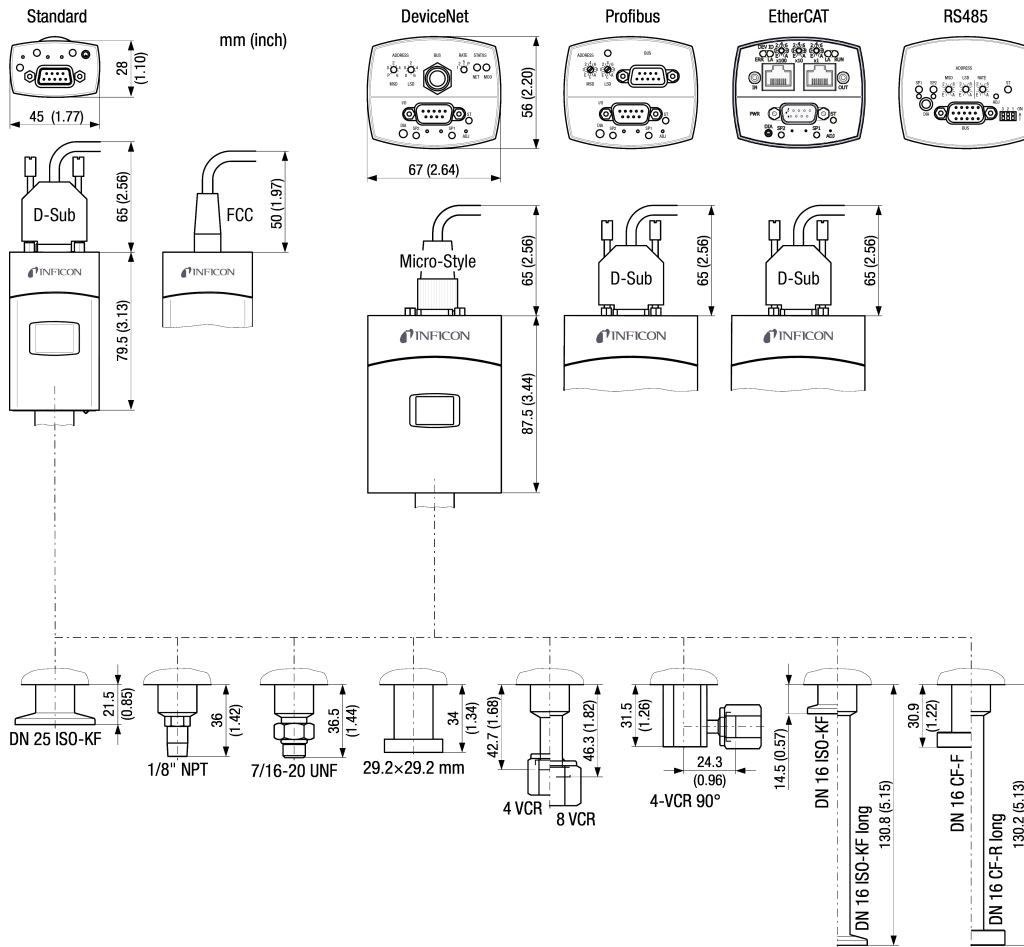
ERSATZTEILE

| | PSG550 Tungsten | PSG552 Nickel | PSG554 ceramic coated |
|---|-----------------|---------------|-----------------------|
| PSG550 Ersatzsensor, 1/8" NPT | 355-930 | - | - |
| PSG550 Ersatzsensor, 29x29mm | 355-934 | - | - |
| PSG550 Ersatzsensor, 4-VCR | 355-932 | - | - |
| PSG550 Ersatzsensor, 4-VCR/90° | 355-935 | - | - |
| PSG550 Ersatzsensor, 7/16-20 UNF | 355-933 | - | - |
| PSG550 Ersatzsensor, 8-VCR | 355-931 | - | - |
| PSG550 Ersatzsensor, DN 16 CF-F | 355-927 | - | - |
| PSG550 Ersatzsensor, DN 16 CF-R, lang | 355-928 | - | - |
| PSG550 Ersatzsensor, DN 16 ISO-KF | 355-925 | - | - |
| PSG550 Ersatzsensor, DN 25 ISO-KF | 355-929 | - | - |
| PSG550 Ersatzsensor, DN16 ISO-KF, lang | 355-926 | - | - |
| PSG552 Ersatzsensor, 1/8" NPT | - | 355-941 | - |
| PSG552 Ersatzsensor, 29 x 29mm | - | 355-945 | - |
| PSG552 Ersatzsensor, 4-VCR | - | 355-943 | - |
| PSG552 Ersatzsensor, 4-VCR/90° | - | 355-946 | - |
| PSG552 Ersatzsensor, 7/16-20 UNF | - | 355-944 | - |
| PSG552 Ersatzsensor, 8-VCR | - | 355-942 | - |
| PSG552 Ersatzsensor, DN 16 CF-F | - | 355-938 | - |
| PSG552 Ersatzsensor, DN 16 CF-R, lang | - | 355-939 | - |
| PSG552 Ersatzsensor, DN 16 ISO-KF | - | 355-936 | - |
| PSG552 Ersatzsensor, DN 25 ISO-KF | - | 355-940 | - |
| PSG552 Ersatzsensor, DN16 ISO-KF, lang | - | 355-937 | - |
| PSG554 Ersatzsensor, 1/8" NPT | - | - | 355-952 |
| PSG554 Ersatzsensor, 29x29mm | - | - | 355-956 |
| PSG554 Ersatzsensor, 4-VCR | - | - | 355-954 |
| PSG554 Ersatzsensor, 4-VCR/90° | - | - | 355-957 |
| PSG554 Ersatzsensor, 7/16-20 UNF | - | - | 355-955 |
| PSG554 Ersatzsensor, 8-VCR | - | - | 355-953 |
| PSG554 Ersatzsensor, DN 16 CF-F | - | - | 355-949 |
| PSG554 Ersatzsensor, DN 16 CF-R, lang | - | - | 355-950 |
| PSG554 Ersatzsensor, DN 16 ISO-KF | - | - | 355-947 |
| PSG554 Ersatzsensor, DN 16 ISO-KF, lang | - | - | 355-948 |
| PSG554 Ersatzsensor, DN 25 ISO-KF | - | - | 355-951 |

ZUBEHÖR

| | PSG550 Tungsten | PSG552 Nickel | PSG554 ceramic coated |
|--------------------------------------|-----------------|---------------|-----------------------|
| Diagnosekabel 1.9m (P3) | 303-333 | 303-333 | 303-333 |
| Spannring DN 10-16 ISO-KF | 211-001 | 211-001 | 211-001 |
| Zentrierring mit Feinfilter DN 16 KF | 211-097 | 211-097 | 211-097 |

ABMESSUNGEN



www.inficon.com reachus@inficon.com

Aufgrund laufender Produktverbesserungen können sich Spezifikationen ohne vorherige Bekanntmachung ändern.
RateWatcher ist eine eingetragene Marke von INFICON. Alle anderen Marken sind das Eigentum ihrer jeweiligen Eigentümer.

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