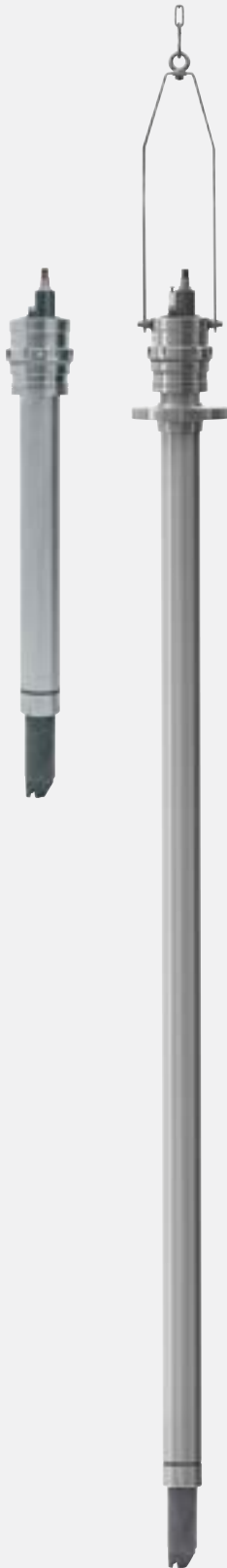


Pneumatic Retractable Fittings



Ceramat® WA 160

Rugged pneumatic retractable immersion fitting for use with Unical 9000 and Unclean 900 automated control systems

Facts

- Automatic cleaning and calibration in an immersion fitting without contaminating the process medium with cleaning or calibration solutions
- Immersion lengths from 600 to 2,000 mm
- Diameter of immersion tube 65 mm and above
- Easy electrode replacement, even with 2,000 mm immersion length and during the running process
- Process-wetted material variants, either:
 - 316 SS
 - Corrosion-resistant, polypropylene (PP), or polyvinylidene fluoride (PVDF)
 - Hygienic, electropolished 316 SS
- Solid-electrolyte sensors (225 mm length)
- Ceramic process seal:
 - Extremely high hardness (rating of 9 on Mohs scale) prevents wear on the sealing surfaces in abrasive media
- Virtually wear-resistant
- Tight seal due to lapped and polished sealing surfaces
- High mechanical strength
- High temperature resistance
- High chemical resistance
- Sterilizable
- Plug & play for all process media using central multi-plug
- All maintenance can be performed on site
- Easily replaceable drive without interrupting the process
- Cyclone cleaning
- Two independent barriers with cavity cleaning
- Sensor guard in conjunction with Unclean® 900/Unical® 9000
- Improved sensor immersion depth
- Standard sensor length (225 mm)
- Ideal for application in tanks, basins, or channels

Versions

Version in plastic, coated PP/PVDF

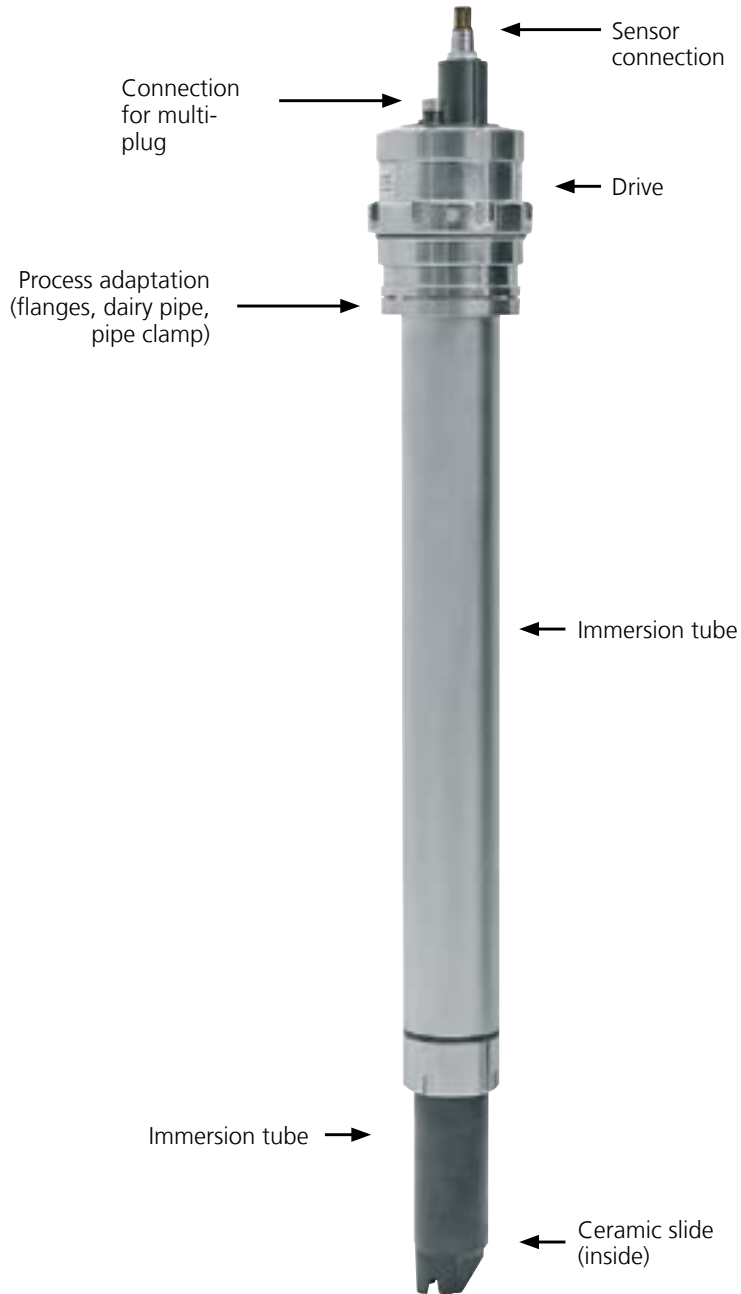
Version in 316 SS

Version in 316 SS polished





Basic Configuration

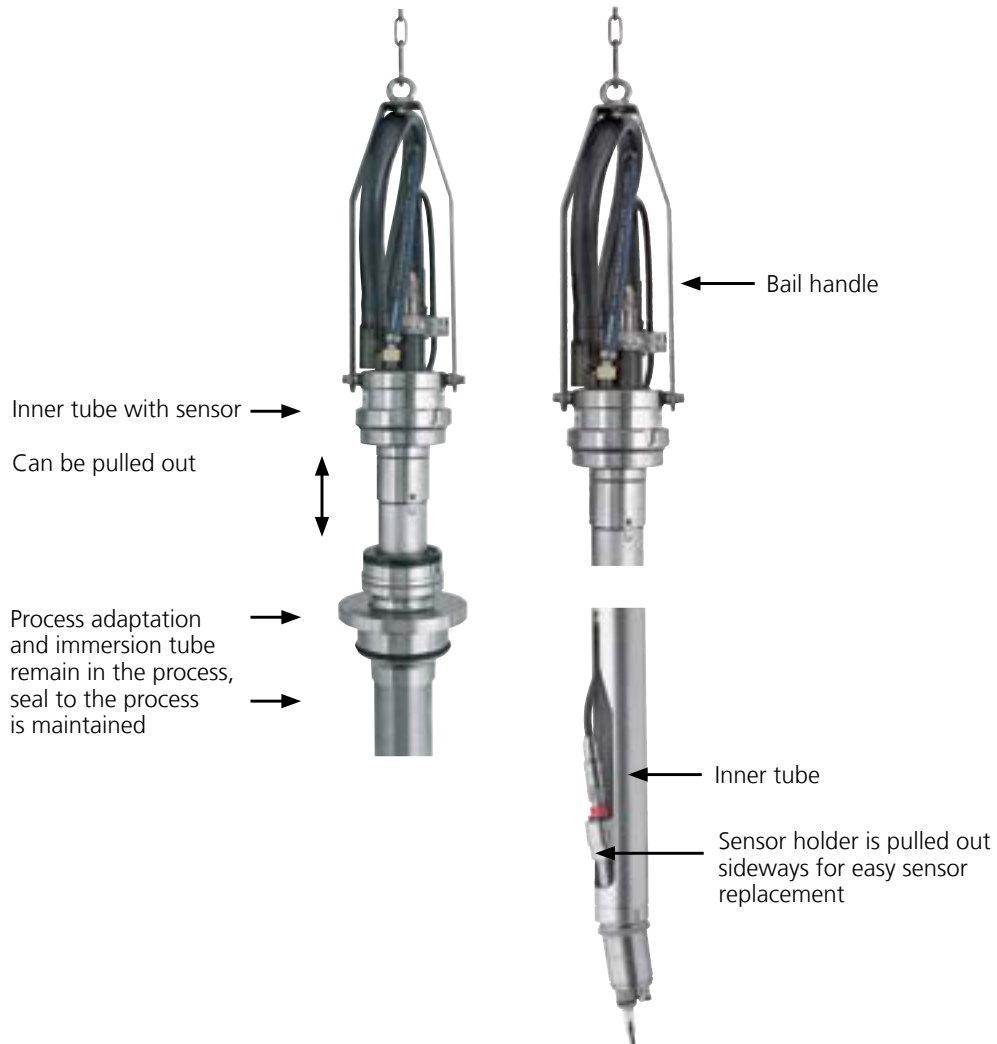


Pneumatic Retractable Fittings

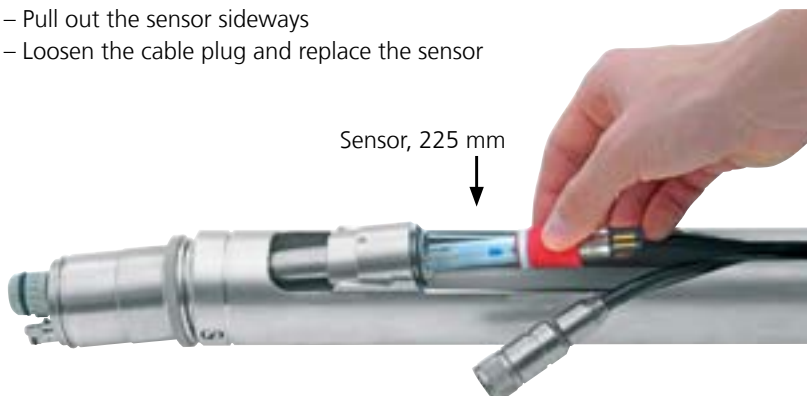
Ceramat® WA 160

Easy Sensor Replacement Under Process Pressure

– Loosen coupling and pull out drive at the bail handle

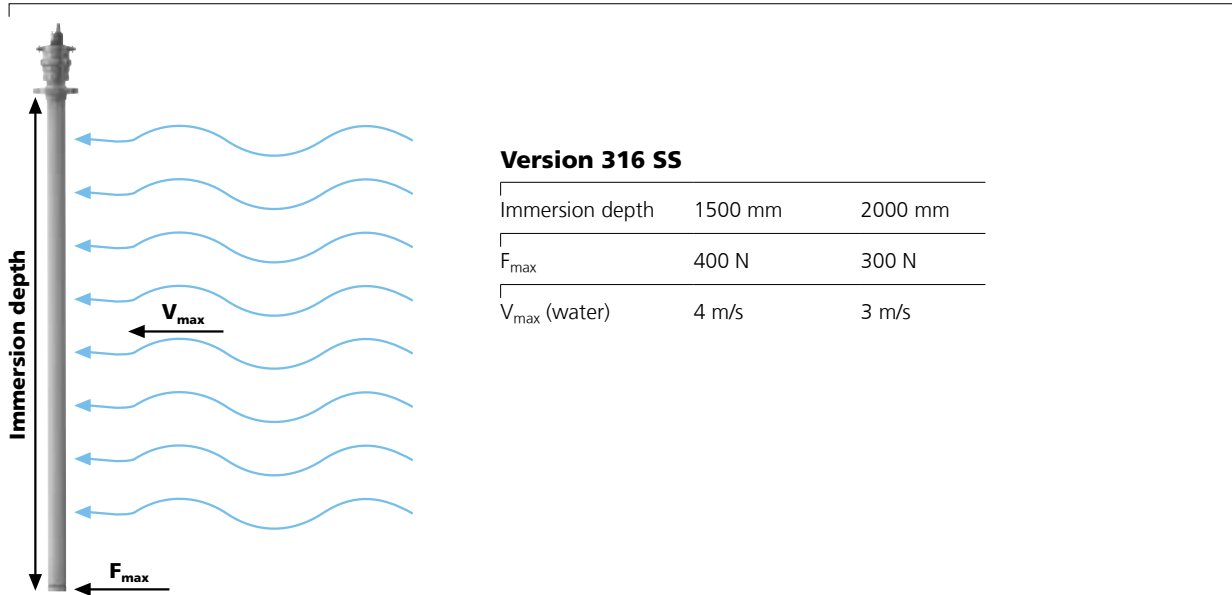


– Pull out the sensor sideways
– Loosen the cable plug and replace the sensor





Permissible Forces and Flow Rates



Pneumatic Retractable Fittings

Specifications

| | |
|--|--|
| Permitted process temp. | 41 ... 248°F (5 ... 120°C) (immersion tube 316 SS, 316 SS, PVDF) 41 ... 194°F (5 ... 90°C) (immersion tube PP) |
| Perm. process pressure | 87 psi (6 bars) gauge pressure |
| Electrodes | length 225 mm, Pg 13.5 coupling |
| Air supply | (4) 5*) ... 7 bars, filtered 10 ... 25 µm, oil- and condensate-free |
| Immersion depth | 600, 1000, 1500, 2000 mm, measured from flange to sensor tip |
| Process adaptations | flanges, loose, DN 65/DN 80/DN 100/DN 125/DN 150/DN 200/special flanges/ dairy pipe DN 80 and above/pipe clamp |
| Rinse medium outlet | connection for hose grommet with coupling (Unical® 9000/Uniclean® 900) internal shut-off by ceramic disks |
| Rinse medium inlet | multi-plug connection for Unical® 9000/Uniclean® 900 internal shut-off by ceramic disks |
| Special functions | rinsing of inner cavities (ceramic) |
| Process-wetted materials | depending on version: PEEK carbon-fiber reinforced, PVDF carbon-fiber reinforced, stainless steel 316 SS/316 SS, PP, PVDF, ceramic (aluminum oxide), O-rings made of EPDM (FDA), FKM, or FFKM |
| Drive housing | stainless steel 316 SS |
| Ingress protection | IP 66 |
| Connection to Uniclean® 900/ Unical® 9000 | compact multiplug connection |
| Sensor protection | integrated and pluggable sensor protection (accessory) |
| Limit position control | noncontacting electrical limit-position control in conjunction with Uniclean® 900/Unical® 9000 or ZU 0631 Standard Media Interface |
| Certificates | 3.1 Material Certificate (optional) ATEX II 1 GD c II |

*) with sticky media containing particles

Product Line

Order No.

| Basic unit | | WA 160 / | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|--|-----------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Explosion protection | for hazardous area Zone 1 without | | X | N | | | | | | | | | | | | | | |
| Sensor connection | VP InduCon® Memosens | | 1 | 2 | 3 | | | | | | | | | | | | | |
| Sealing kit (see Table on page 295) | O-ring set A, FKM (Viton) O-ring set B, EPDM O-ring set C, FFKM (Kalrez) O-ring set E, (EPDM FDA) | | A | B | C | E | | | | | | | | | | | | |
| Probe housing material | PEEK (sensor socket PEEK) PVDF (sensor socket PVDF) | | A | B | | | | | | | | | | | | | | |
| | PEEK without integrated sensor protection PVDF without integrated sensor protection | | C | D | | | | | | | | | | | | | | |
| | 316 SS (sensor socket PEEK) PEEK, without integr. sensor protection (socket with scraper ring) | | E | M | | | | | | | | | | | | | | |
| | PEEK, sensor socket, full sensor protection, 316 SS PVDF, sensor socket, full sensor protection, 316 SS | | N | O | | | | | | | | | | | | | | |
| | PEEK, sensor socket, full sensor protection, C22 PVDF, sensor socket, full sensor protection, C22 | | P | R | | | | | | | | | | | | | | |
| Process adaptation | flange loose, DN 65 flange loose, DN 80 flange loose, DN 100 flange loose, DN 125 flange loose, DN 150 flange loose, DN 200 | | B 2 | B 3 | B 4 | B 5 | B 6 | B 7 | | | | | | | | | | |
| | dairy pipe, DN 80 special flange pipe clamp | | C 3 | S 0 | R 1 | | | | | | | | | | | | | - X X X |
| Immersion depth | 600 1000 1500 2000 | | A | B | C | D | | | | | | | | | | | | |
| Holder tube material | stainless steel, 316 SS stainless steel, 316 SS, polished stainless steel, sheathed with PP stainless steel, sheathed with PVDF | | 1 | 2 | 3 | 4 | | | | | | | | | | | | |
| Special version | none | | | | | | | | | | | | | | | | | 0 0 0 |

Pneumatic Retractable Fittings

Ceramat® WA 160

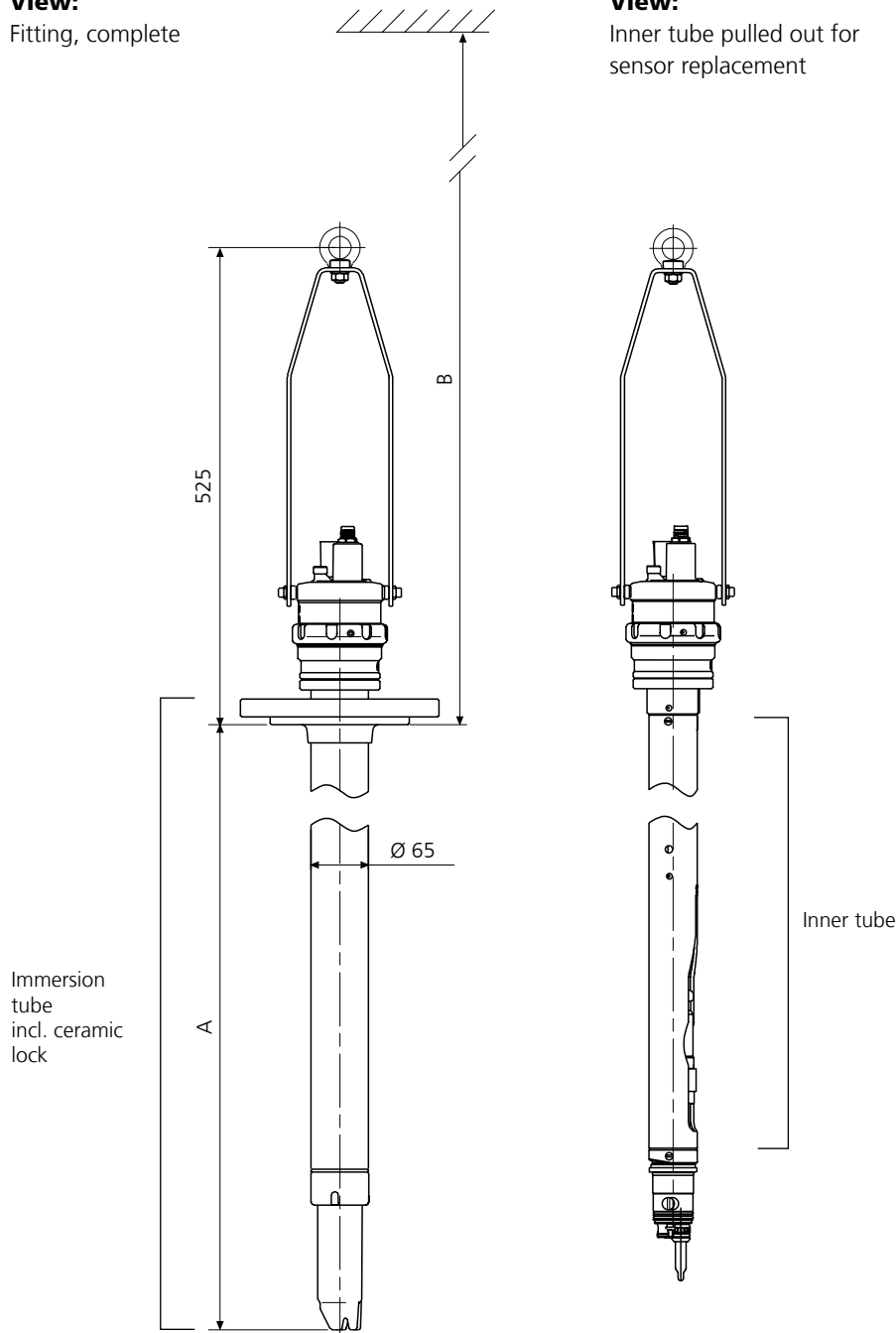
Dimensional Drawings

View:

Fitting, complete

View:

Inner tube pulled out for sensor replacement



Immersion tube incl. ceramic lock

Inner tube

| | A | 600 | 1000 | 1500 | 2000 |
|---------------------------|---|------|------|------|------|
| Immersion depth | A | 600 | 1000 | 1500 | 2000 |
| Clearance for disassembly | B | 1200 | 1600 | 2100 | 2600 |

Accessories

| | Order No. |
|---|------------------|
| Ceramat® mounting wrench | ZU 0648 |
| Sensor mounting wrench, SW 19 | ZU 0647 |
| Standard-media (SM) interface | ZU 0631 |
| Pneumatically operated manual control valve | ZU 0646 |
| Pneumatically controlled 3/8" valve for additional medium | ZU 0669 |
| Adapter for additional medium, PEEK/FKM | ZU 0654/1 |
| Adapter for additional medium, PEEK/EPDM | ZU 0654/2 |
| Adapter for additional medium, PEEK/FFKM | ZU 0654/3 |
| Adapter for additional medium, steel 316 SS/FKM | ZU 0655/1 |
| Adapter for additional medium, steel 316 SS/EPDM | ZU 0655/2 |
| Adapter for additional medium, steel 316 SS/FFKM | ZU 0655/3 |
| Bail handle | ZU 0651 |

Gaskets

| | Set | Process-wetted material | Order No. |
|---------------------------|-------------------------|-------------------------|----------------|
| Holder tube, 316 SS steel | A | FKM | ZU 0662 |
| | B | EPDM | ZU 0663 |
| | C | FFKM | ZU 0664 |
| | E | EPDM FDA | ZU 0665 |
| | Holder tube, PP or PVDF | A | FKM |
| B | | EPDM | ZU 0682 |
| C | | FFKM | ZU 0683 |
| E | | EPDM FDA | ZU 0684 |
| Holder tube, 316 SS steel | | A | FKM |
| | B | EPDM | ZU 0686 |
| | C | FFKM | ZU 0687 |
| | E | EPDM FDA | ZU 0688 |

Pneumatic Retractable Fittings

Ceramat® WA 160

Sensor Sockets for Ceramat® WA 160

Order No.

| | |
|--|------------------|
| Sensor socket PEEK/FKM | ZU 0616 |
| Sensor socket PEEK/EPDM | ZU 0617 |
| Sensor socket PEEK/FFKM | ZU 0618 |
| Sensor socket PEEK/EPDM FDA | ZU 0619 |
| Sensor socket PEEK/FKM (with scraper ring) | ZU 0705 |
| Sensor socket PEEK/EPDM (with scraper ring) | ZU 0706 |
| Sensor socket PEEK/FFKM (with scraper ring) | ZU 0707 |
| Sensor socket PVDF/FKM | ZU 0620 |
| Sensor socket PVDF/EPDM | ZU 0621 |
| Sensor socket PVDF/FFKM | ZU 0622 |
| Sensor socket PVDF/EPDM FDA | ZU 0623 |
| Sensor socket, long, 316 SS/FKM | ZU 0672/A |
| Sensor socket, long, 316 SS/EPDM | ZU 0672/B |
| Sensor socket, long, 316 SS/FFKM | ZU 0672/C |
| Sensor socket, long, Hastelloy/FKM | ZU 0673/A |
| Sensor socket, long, Hastelloy/EPDM | ZU 0673/B |
| Sensor socket, long, Hastelloy/FFKM | ZU 0673/C |
| Sensor socket full sensor protection, Hastelloy C22/FKM | ZU 0808/A |
| Sensor socket full sensor protection, Hastelloy C22/EPDM | ZU 0808/B |
| Sensor socket full sensor protection, Hastelloy C22/FFKM | ZU 0808/C |
| Sensor socket full sensor protection/FKM | ZU 0820/A |
| Sensor socket full sensor protection/EPDM | ZU 0820/B |
| Sensor socket full sensor protection/FFKM | ZU 0820/C |