

Pneumatic Retractable Fittings

Ceramat® WA 150

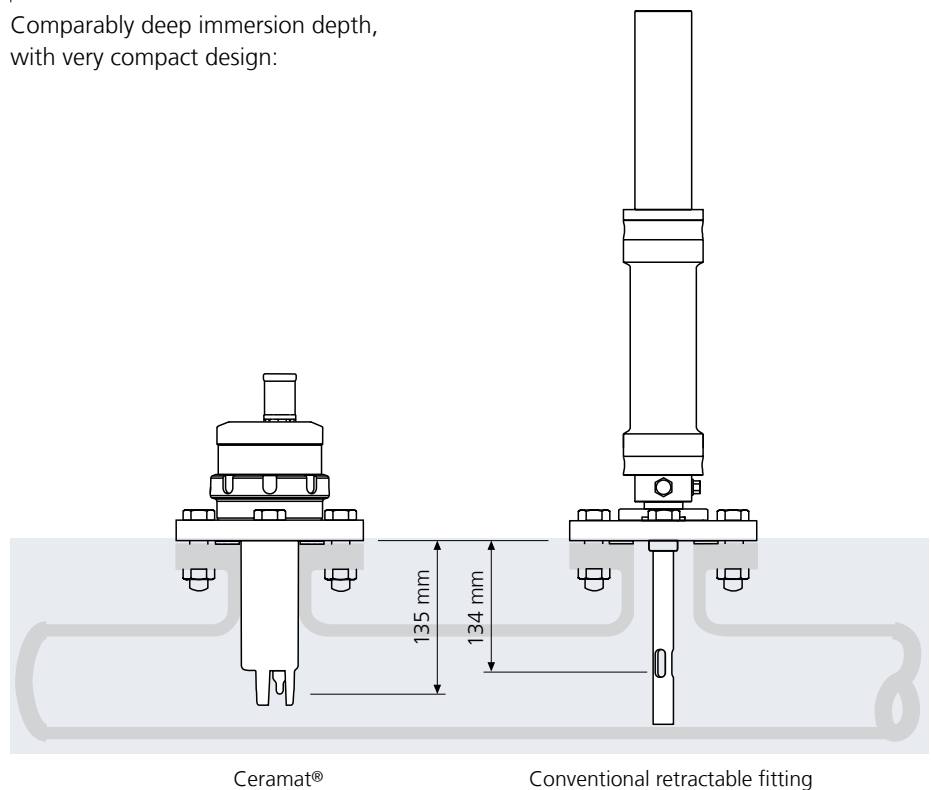
Rugged pneumatic retractable fitting for use with Unical 9000 and Uniclean 900 automated control systems

Facts

- Extreme applications
- 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
- Smooth, buildup resistant design
- 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 Uniclean® 900/Unical® 9000
- Superior sensor immersion depth
- Standard sensor length (225 mm)
- Special version for electrodes with pressurized liquid electrolyte (for 250 mm electrodes with electrolyte reservoir)
- Process-wetted outer body, PVDF or PEEK, carbon-fiber reinforced

Immersion Depth

Comparably deep immersion depth, with very compact design:



Ceramat® WA 150

Specifications

| | |
|--|--|
| Permitted process temp | 41 ... 248°F (5 ... 120°C), for sterilization 266 ... 284°F (130 ... 140 °C) |
| Permitted process pressure | 87 psi (6 bars) gauge pressure at 248°F (120 °C) |
| Sensors | 225 mm, Pg 13.5 coupling, 250 mm for pressurized liquid-electrolyte sensors |
| Air supply | (4) 5*) ... 7 bars, filtered 10 ... 25 µm, oil- and condensate-free |
| Immersion depth | approx. 135 mm, measured from lower edge of flange to sensor tip |
| Process adaptations | flanges: DN 50/DN 65/DN 80/DN 100 flanges: ANSI 2", 2-1/2", 3" flange, DN 65/80, EPDM pneumatic deposit remover (see page 285) dairy-pipe screw joint DN 50/DN 65/DN 80/DN 100 Varivent DN 50 ... 125 mm |
| Outlet | connection for hose grommet with coupling (Unical® 9000/Uniclean® 900) internal shut-off by ceramic disks |
| Inlet | multi-plug connection for Unical®/Uniclean® internal shut-off by ceramic disks |
| Special functions | rinsing of inner cavities |
| Process-wetted materials | PEEK, carbon-fiber reinforced, or PVDF, carbon-fiber reinforced; ceramic (aluminum oxide); O-rings made of EPDM, FKM, or FFKM |
| Enclosure | stainless steel 316 SS |
| Ingress protection | IP 66 |
| Connection to Uniclean® 900/ Unical® 9000 | compact multi-plug connection |
| Sensor protection in the process | integrated sensor protection made of PVDF (carbon-fiber reinforced) or PEEK (carbon-fiber reinforced) |
| Limit switches | noncontacting electrical limit position control in conjunction with Unical® 9000/Uniclean® 900 or ZU 0631 Standard Media Interface |
| Certificates | 3.1 Material Certificate (optional) ATEX II 1 GD c II |

*) with sticky media containing particles

Pneumatic Retractable Fittings

Product Line

Order No.

| Basic unit | | WA 150 / | <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 0 without | X N | | | | | | | | | | |
| Sensor | solid electrolyte liquid electrolyte (pressurization possible) | 0 1 | | | | | | | | | | |
| Gasket material (see table on page 286) | Set A FKM (Viton) Set B EPDM Set C FFKM (Kalrez) Set E (EPDM FDA) | A B C E | | | | | | | | | | |
| Material of probe housing and sensor socket | PEEK with integrated sensor protection | A | | | | | | | | | | |
| | PVDF with integrated sensor protection | B | | | | | | | | | | |
| | PEEK without integrated sensor protection | C | | | | | | | | | | |
| | PVDF without integrated sensor protection | D | | | | | | | | | | |
| | PEEK, sensor socket, long, 316 SS, without integr. sensor protection | H | | | | | | | | | | |
| | PEEK, sensor socket, long, C22, without integr. sensor protection | J | | | | | | | | | | |
| | PVDF, sensor socket, long, 316 SS, without integr. sensor protection | K | | | | | | | | | | |
| | PVDF, sensor socket, long, C22, without integr. sensor protection | L | | | | | | | | | | |
| | PEEK, without sensor protection (socket with scraper ring) | M | | | | | | | | | | |
| | PEEK, sensor socket, full sensor protection, 316 SS, without integrated sensor protection | N | | | | | | | | | | |
| PVDF, sensor socket, full sensor protection, 316 SS, without integrated sensor protection | O | | | | | | | | | | | |
| PEEK, sensor socket, full sensor protection, C22, without integrated sensor protection | P | | | | | | | | | | | |
| PVDF, sensor socket, full sensor protection, C22, without integrated sensor protection | Q | | | | | | | | | | | |
| Process adaptation | steel flange, 316 SS, DN 50, fixed | A 1 | | | | | | | | | | |
| | flange, 316 SS steel, DN 50, loose | B 1 | | | | | | | | | | |
| | flange, 316 SS steel, DN 65, loose | B 2 | | | | | | | | | | |
| | flange, 316 SS steel, DN 80, loose | B 3 | | | | | | | | | | |
| | (flange protector DN 80 required | | | | | | | | | | | |
| | flange, 316 SS steel, DN 100, loose | B 4 | | | | | | | | | | |
| | (flange protector DN 100 required | | | | | | | | | | | |
| | dairy pipe DN 50 | C 1 | | | | | | | | | | |
| | dairy pipe DN 65 | C 2 | | | | | | | | | | |
| | dairy pipe DN 80 | C 3 | | | | | | | | | | |
| | dairy pipe DN 100 | C 4 | | | | | | | | | | |
| | flange: ANSI 316, 2 inches, Class 150 | D 1 | | | | | | | | | | |
| | flange: ANSI 316, 2-1/2 inches, Class 150 | D 2 | | | | | | | | | | |
| | flange: ANSI 316, 3 inches, Class 150 | D 3 | | | | | | | | | | |
| | flange, 316 SS steel, DN 65, loose, EPDM pneumatic deposit remover | F 2 | | | | | | | | | | |
| flange, 316 SS steel, DN 80, loose, EPDM pneumatic deposit remover | F 3 | | | | | | | | | | | |
| flange, 316 SS steel, DN 65, loose, FKM pneumatic deposit remover | G 2 | | | | | | | | | | | |
| flange, 316 SS steel, DN 80, loose, FKM pneumatic deposit remover | G 3 | | | | | | | | | | | |
| Varivent DN 50 ... 125 | V 1 | | | | | | | | | | | |
| Special version | none | | | | | | | | | 0 0 0 | | |

Sensor with solid electrolyte, 225 mm



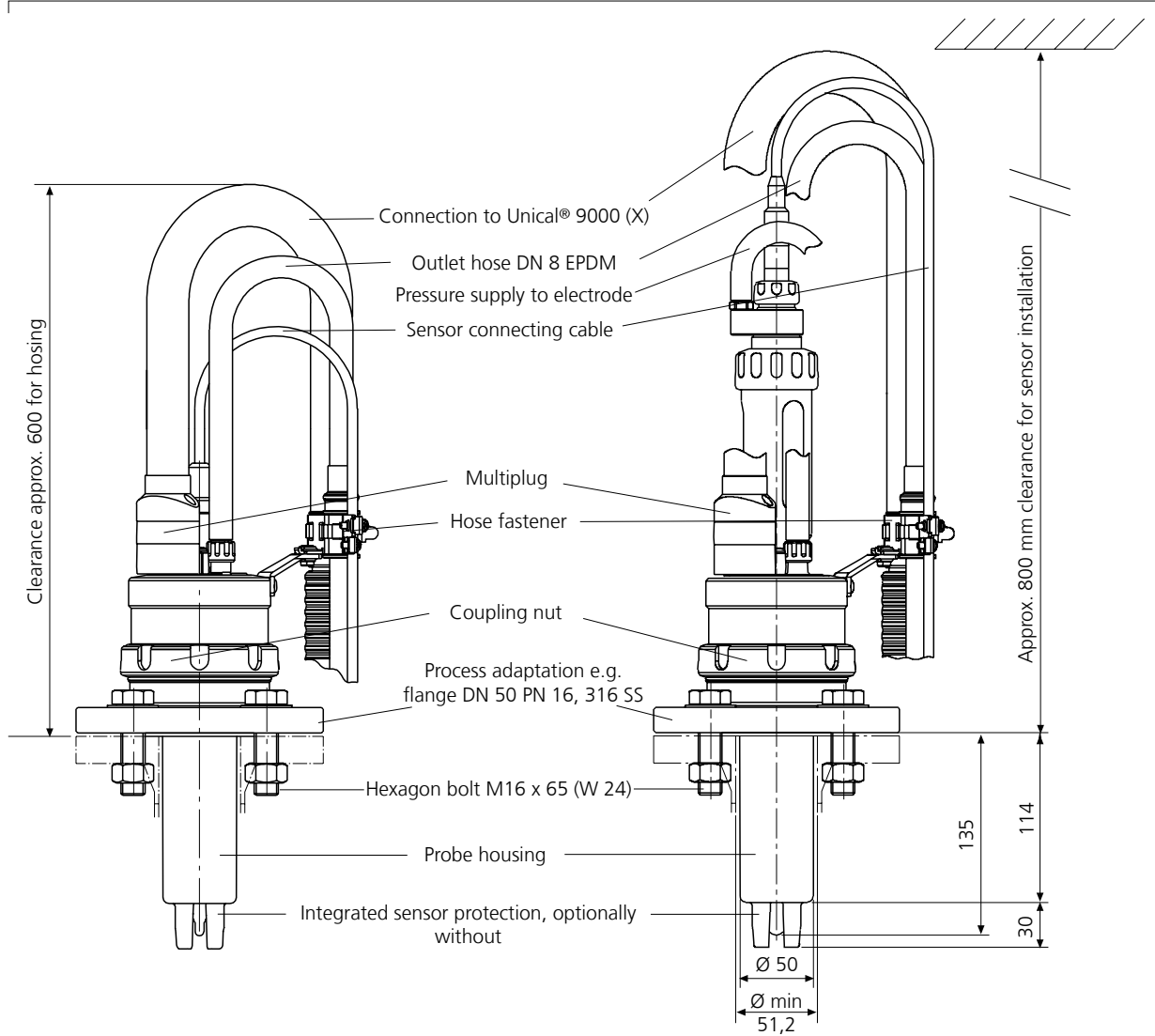
Sensor with liquid electrolyte, pressurizable, 250 mm



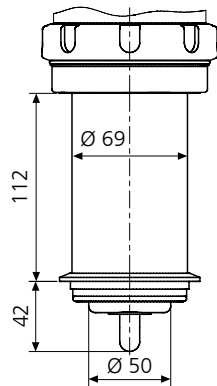
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Cerammat® WA 150

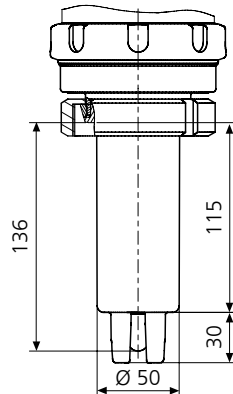
Dimensional Drawings



Varivent process adaptation



Dairy-pipe process adaptation



Typical Variants of Process Adaptation

Flange process adaptation

DN 50 ... DN 100
ANSI 2" ... ANSI 3"



Flange process adaptation with pneumatic deposit remover

for removing buildup (e.g. lime) without interrupting the process.

Function principle: pneumatic elastomeric bellows



Specifications

Air connection (drive)

hose grommet DN 6

Pressure-relief valve

factory-set according to process pressure

Recommended accessories

pressure reducer with ZU 0670 pressure gauge, ZU 0672 or ZU 0673 sensor socket, long

Operation with Unical® 9000/ Uniclean® 900

"Supplementary ext. valve control kit" required (see page 312)

Process-wetted materials

EPDM or FKM

Process connection

DN 65 or DN 80 flange

Dairy-pipe process adaptation

DN 50 ... DN 100



Varivent process adaptation

DN 50



Pneumatic Retractable Fittings

Ceramat® WA 150

Accessories for Ceramat® WA 150

Order No.

| | |
|---|------------------|
| Sensor mounting wrench, 19 mm | ZU 0647 |
| Ceramat® mounting wrench | ZU 0648 |
| 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 |
| Flange protector DN 80, PEEK | ZU 0595 |
| Flange protector DN 80, PVDF | ZU 0596 |
| Flange protector DN 100, PEEK | ZU 0597 |
| Flange protector DN 100, PVDF | ZU 0598 |
| Air supply for pressurized sensors, 0.5 ... 4 bars | ZU 0670/1 |
| Air supply for pressurized sensors, 1 ... 7 bars | ZU 0670/2 |
| Hose, 20 m (extension for ZU 0670) | ZU 0713 |

Gaskets for Ceramat® WA 150

Order No.

| Gaskets | Set | process-wetted material | |
|----------------------|-----|-------------------------|----------------|
| Flange or dairy pipe | A | FKM | ZU 0624 |
| | B | EPDM | ZU 0625 |
| | C | FFKM | ZU 0626 |
| | E | EPDM FDA | ZU 0661 |

Sensor Sockets for Ceramat® WA 150

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 |

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