

Pneumatic Retractable Fittings

Ceramat® WA 150

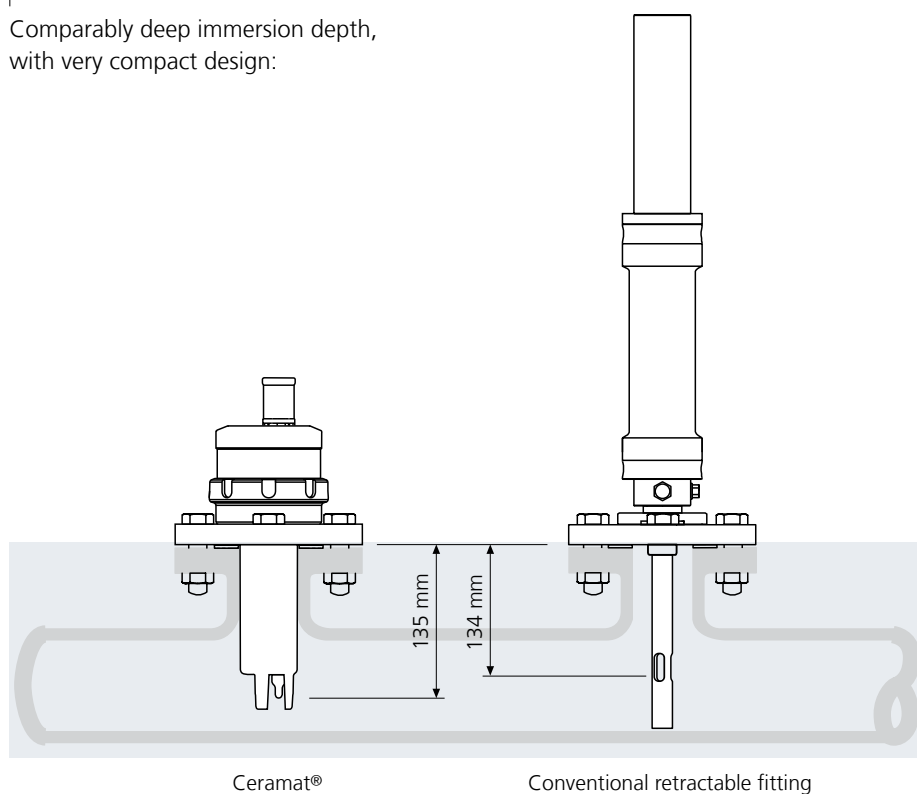
Rugged pneumatic retractable fitting for use with Unical 9000 and Uniclean 900 automated control systems

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									
Process adaptation	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									
	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

Typical Variants

Sensor with solid electrolyte, 225 mm



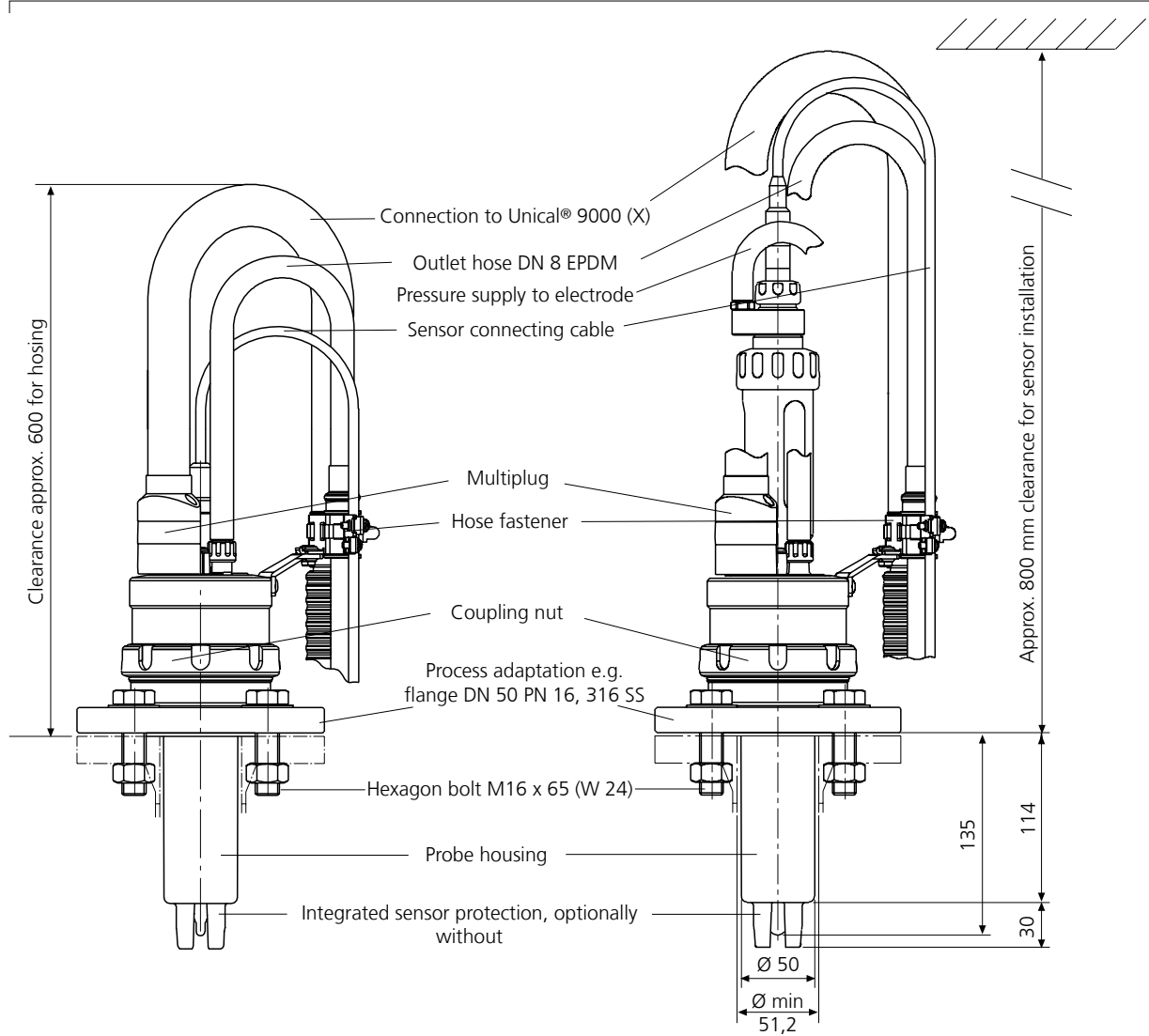
Sensor with liquid electrolyte, pressurizable, 250 mm



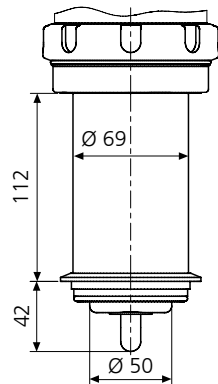
Pneumatic Retractable Fittings

Ceramat® WA 150

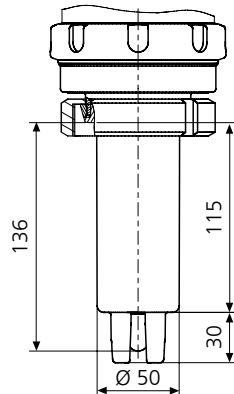
Dimensional Drawings



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