

The UST construction is designed for those applications where the existing threaded process connection is too small to use a flush diaphragm seal. The UST consists of an upper and lower housing, the upper is the actual seal part with a diaphragm size that allows for measurement of relatively low ranges (200 mbar 2 seals attached (dP); 800 mbar single seal attached). The lower housing creates the transition from the diaphragm size to the actual small process connection. UST is typically used in combination with (differential) pressure transmitters for applications such as level, flow and pressure measurement; also the UST is often combined with pressure gauges.



STANDARD EXECUTION

DIAPHRAGM	BODY	MOUNTING CONNECTION
AISI 316(L)	AISI 316(L)	top (axial)
GASKET	BOLTS	
PTFE	3/8" UNF – A2-70	

THREADED PROCESS CONNECTIONS

NPT

size		dD
1/4"	Male or female	50.0mm
1/2"	Male or female	50.0mm
3/4"	Male or female	50.0mm
1"	Male or female	50.0mm
1.5"	Male or female	50.0mm
2"	Male or female	50.0mm

BSP

size		dD
1/4"	Male or female	50.0mm
1/2"	Male or female	50.0mm
3/4"	Male or female	50.0mm
1"	Male or female	50.0mm
1.5"	Male or female	50.0mm
2"	Male or female	50.0mm

UPPER AND LOWER PART ASSEMBLY

BOLTING

thread	material	mwp	pcs
3/8" UNF	A2-70	125 bar	4
3/8" UNF	A2-70	250 bar	8
3/8" UNF	8.8	150 bar	4
3/8" UNF	8.8	300 bar	8

GASKET

material	Operating temperature
Virgin PTFE	-200 / +260°C
Garfite N	-73 / +343°C
Camprofile ¹	-200 / + 500°C

¹ for steam applications

Note: mwp (maximum working pressure) at 20 °C with AISI 316(L) body material

WETTED PARTS, BODY MATERIALS, AND THREADS

upper part material	lower part material	diaphragm material	threads	norms
AISI 316(L)	AISI 316(L)	AISI 316(L)	NPT	ANSI B1.20.1
		AISI 304(L)	BSP	ISO 228
		AISI 316 UG	BSPT	ISO 7
		AISI 321	UNF	ANSI 131.1
		Hastelloy C-276	METRIC	ISO 965
AISI 316(L)	AISI 310 MoLn	25-22-2 LMN		
AISI 316(L)	Duplex F44	254 SMO (6Mo)		
AISI 316(L)	Duplex F51/F60	Duplex 2205		
AISI 316(L)	Duplex F53	Super Duplex 2507		
AISI 316(L)	Duplex F55	Super Duplex 2507		
AISI 316(L)	Hastelloy B2	Hastelloy B2		
AISI 316(L)	Hastelloy C-276	Hastelloy C-276		
AISI 316(L)	Alloy 20	Alloy 20		
AISI 316(L)	Inconel 600	Inconel 600		
AISI 316(L)	Inconel 625	Inconel 625		
AISI 316(L)	Inconel 825	Inconel 825		
AISI 316(L)	Monel 400	Monel 400		
AISI 316(L)	Nickel 201	Nickel 201		
AISI 316(L)	Tantalum ¹	Tantalum		
Titanium Gr.2	Titanium Gr.2	Titanium Gr.1		

¹ material AISI316(L) with tantalum treatment

COATING AND OTHER OPTIONS

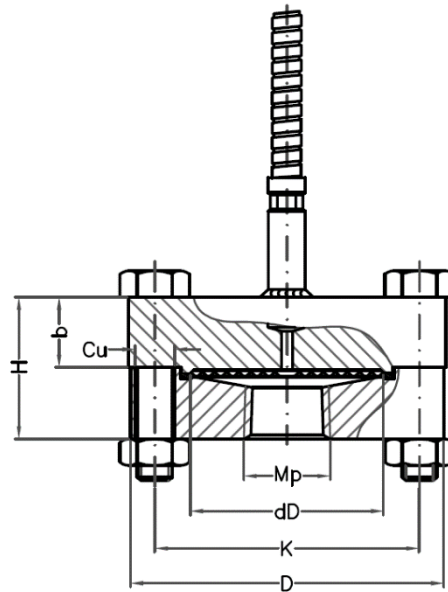
COATINGS

- gold: 25 μm / 40 μm chemical resistance and/or hydrogen permeation protection (facing and/or diaphragm – page 120)
- PTFE / ECTFE for anti stick purpose only (upper part)
- FEP / PFA (upper part)
- Tantaline lower part
- PTFE lining (lower part; BSP male only)

OTHER OPTIONS

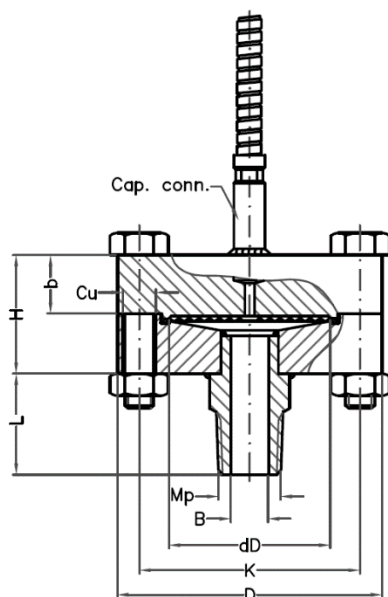
- heavy duty capillary tube page 113/123
- TR - temperature reducer page 114
- PTFE sheet for anti-stick purpose only (no vacuum)
- flushing ports in lower part (not in combination with lining)
- degreasing of wetted parts

DRAWING AND DIMENSIONS STANDARD EXECUTIONS



Mp	dD	b	D	H	K	Cu
1/4" NPT-f	50.0	18.5	85.0	37.5	70.0	3/8"UNC / 4x
1/2" NPT-f	50.0	18.5	85.0	37.5	70.0	3/8"UNC / 4x
3/4" NPT-f	50.0	18.5	85.0	43.5	70.0	3/8"UNC / 4x
1" NPT-f	50.0	18.5	85.0	43.5	70.0	3/8"UNC / 4x
1.5" NPT-f	50.0	18.5	85.0	59.1	70.0	3/8"UNC / 4x
2" NPT-f	50.0	18.5	85.0	67.7	70.0	3/8"UNC / 4x
1" BSP-f	50.0	18.5	85.0	43.5	70.0	3/8"UNC / 4x
2" BSP-f	50.0	18.5	85.0	76.5	70.0	3/8"UNC / 4x

All dimensions in mm



Mp	dD	B	b	D	H	K	L	Cu	
1/4" NPT-m	50.0	6.0	18.5	85.0	37.5	70.0	28.0	3/8"UNC / 4x	hex 22
3/8" NPT-m	50.0	6.0	18.5	85.0	37.5	70.0	28.0	3/8"UNC / 4x	hex 27
1/2" NPT-m	50.0	12.0	18.5	85.0	37.5	70.0	31.0	3/8"UNC / 4x	hex 22
3/4" NPT-m	50.0	8.0	18.5	85.0	37.5	70.0	34.0	3/8"UNC / 4x	hex 27
1" NPT-m	50.0	12.0	18.5	85.0	37.5	70.0	50.0	3/8"UNC / 4x	hex 36
1.5" NPT-m	50.0	8.0	18.5	85.0	37.5	70.0	51.0	3/8"UNC / 4x	SW 50
1/4" BSP-m	50.0	6.0	18.5	85.0	37.5	70.0	24.0	3/8"UNC / 4x	hex 22
1/2" BSP-m	50.0	12.0	18.5	85.0	37.5	70.0	31.0	3/8"UNC / 4x	hex 22
3/8" BSP-m	50.0	6.0	18.5	85.0	37.5	70.0	25.0	3/8"UNC / 4x	hex 27
3/4" BSP-m	50.0	8.0	18.5	85.0	37.5	70.0	34.0	3/8"UNC / 4x	hex 27
M20 x 1,5	50.0	8.0	18.5	85.0	37.5	70.0	31.0	3/8"UNC / 4x	hex 22

All dimensions in mm



Holland – United Kingdom – Romania – India – Thailand – Dubai – USA

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