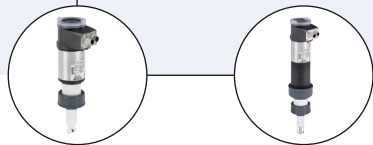




Type S022 can be combined with...



Type 8222
Conductivity meter

Type 8202
pH/ORP meter

Insertion adaptor/fitting for ELEMENT analytical measurement devices

- Universal adaptor/fitting for Type 8202 and 8222 ELEMENT measuring devices in pure, aggressive or contaminated liquids
- Adaptation into standard piping systems or conversion of Bürkert S020 fittings into S022 fittings
- Pipe diameters from DN06 (with reduction) up to DN110 (plastic) or bigger (stainless steel)

The adaptor/fitting or measuring chamber is used to connect the compact analytical ELEMENT measuring device into piping systems or vessel.

Different versions of adaptors/fittings are available:

Adaptors:

- PVC-U adaptor to stick into equal or reduced standard metric or ASTM Tee fitting
- PP adaptor to weld into equal d32 standard metric Tee fitting
- Stainless steel adaptor to weld
- PVC threaded adaptor to screw on vessel or pipe
- PVC, PP, stainless steel adaptor for conversion of S020 Bürkert fitting into S022 fitting.

Fittings in PVC:

- metric or ASTM Tee fitting
 - True union connection
 - weld end connection
- saddle.

General data	
Pipe diameter	DN06 (with reduction) to DN110 (plastic) or bigger (stainless steel)
Process connection	
Adaptor	Solvent, fusion, welding, threaded and to connect with screws
Fitting	Metric or ASTM true union or weld ends; saddle
Materials	
Adaptor	PVC, PP, stainless steel (delivered with 2 seals, 1 FKM and EPDM)
Fitting	
Seal	FKM, EPDM
Body & adaptor	PVC&PVC, PP&PVC
Fluid data	
Fluid temperature	See pressure/temperature chart on next page (Temperature limits may depend on inserted measuring device ¹⁾).
Fluid pressure (max.)	PN10 (plastic) or PN16 (metal) (Pressure limits may depend on inserted measuring device ¹⁾)
Environment	
Ambient temperature	Temperature limits may depend on inserted measuring device ¹⁾
Standards, directives and certifications	
Directives C€ - Pressure	Complying with article 4, §1 of 2014/68/EU directive*

¹⁾ Please refer to appropriate instruction manual or data sheet for more details.

* For the 2014/68/EU pressure directive, the device can only be used under the following conditions:

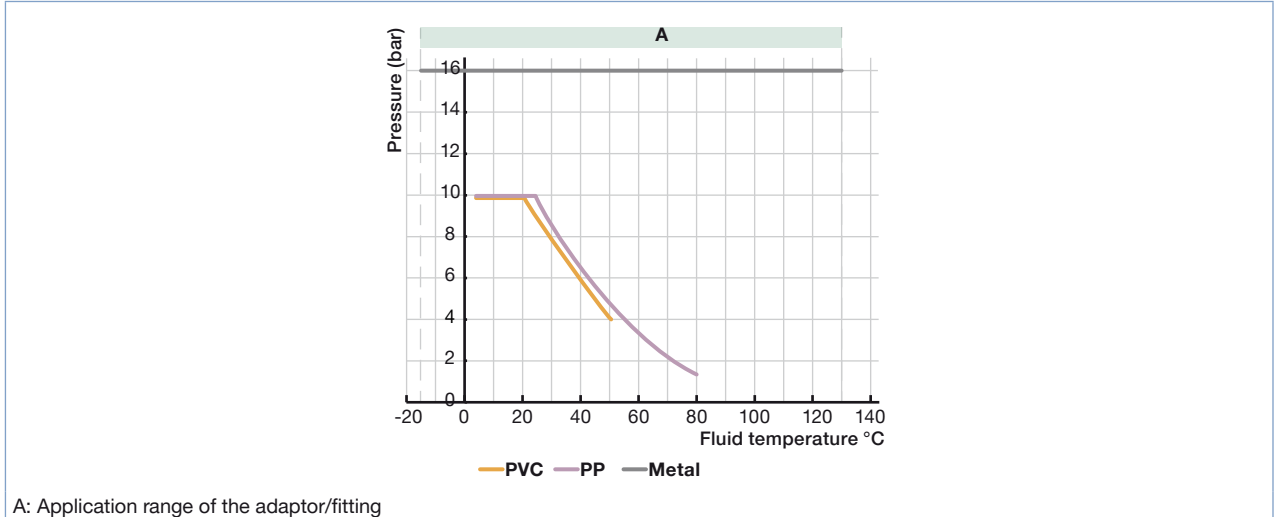
used on a pipe (depends on max. pressure, pipe diameter and fluid)

Type of fluid	Conditions
Fluid group 1, article 4, §1.c.i	DN ≤ 25
Fluid group 2, article 4, §1.c.i	DN ≤ 32 or PS*DN ≤ 1000
Fluid group 1, article 4, §1.c.ii	DN ≤ 25 or PS*DN ≤ 2000
Fluid group 2, article 4, §1.c.ii	DN ≤ 200 or PS ≤ 10 or PS*DN ≤ 5000

used on a vessel (depends on max. pressure, and fluid).

Type of fluid	Conditions
Fluid group 1, article 4, §1.a.i	PS ≤ 200 bar
Fluid group 2, article 4, §1.a.i	PS ≤ 1000 bar
Fluid group 1, article 4, §1.a.ii	PS ≤ 500 bar
Fluid group 2, article 4, §1.a.ii	PS ≤ 1000 bar

Pressure/temperature chart



Adaptation overview

Adaptors

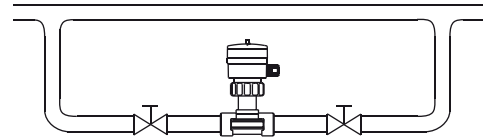
Adaptor S022	 PVC-U, PP metric or ASTM	 Stainless steel	 PVC-U, G or NPT 1/4 screw-on	 PVC-U, PP, stainless steel
For connection on piping systems	 Fitting and reduction not supplied			 Bürkert fitting body S020
Final products				
DN	32...110 (06...25 with reduction)	Respect recommendations of installation	Respect recommendations of installation	For Bürkert fitting body \geq DN32 or analytical true union fitting (DN15...DN25)

Fittings

Fitting S022	 PVC / FKM, metric or ASTM	 PVC / FKM, metric or ASTM	 PP Body & PVC adapter / EPDM
For connection on piping systems			
DN	10...100	15...50	50...110

Installation and recommendations

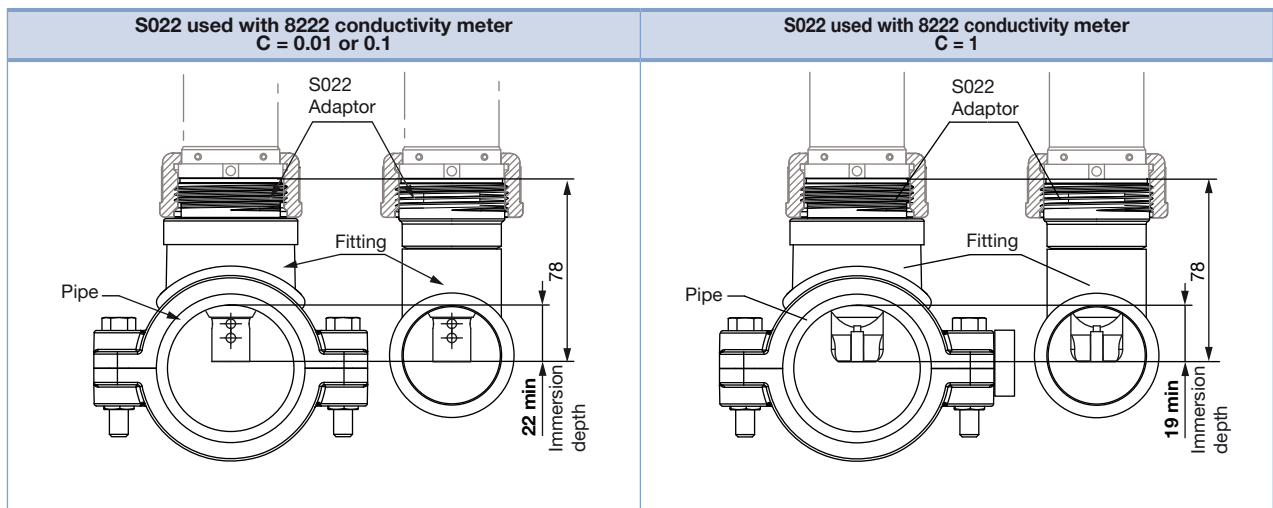
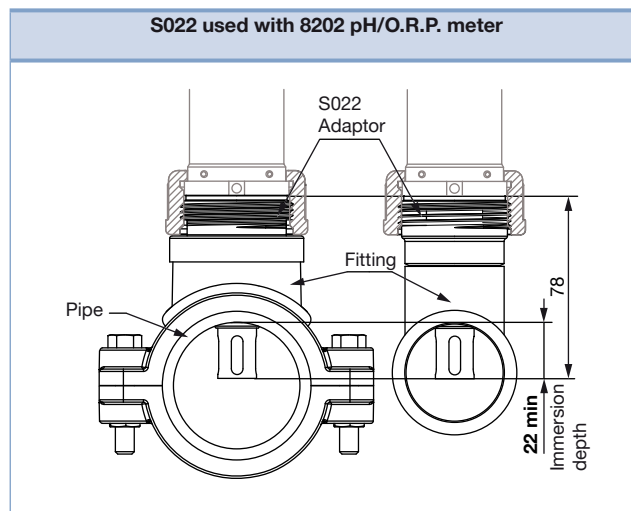
For pH and ORP measurements, we recommend a “U”- form bypass installation to ensure that the electrode is maintained in a wet condition and enable the customer to calibrate the unit without stopping the whole process or to use the special designed measuring chamber.



The specially designed measuring chamber enables to install the measuring device in all pipe systems, either directly in the main stream or in a by-pass line. Additionally it enables to keep the electrode always wet and isolates it easily from the main stream for calibration purposes.

Pressure and temperature ratings must be respected according to the selected adapter material. Be sure that the sensor element is completely covered with liquid. Avoid dead legs which interfere the local fluid exchange.

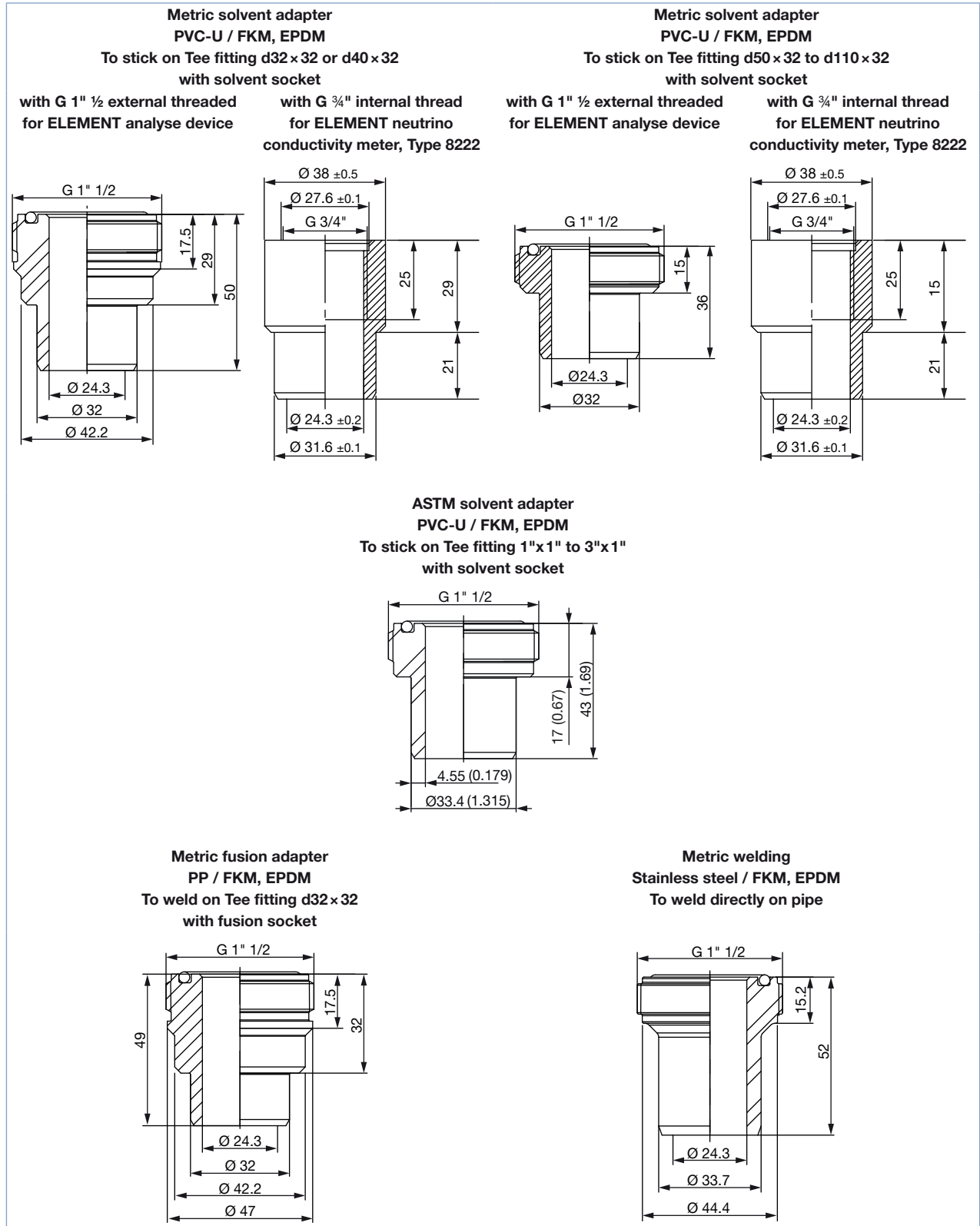
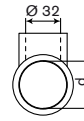
When mounting the adapter into a T-fitting, a tank or directly into a pipe, please ensure that the minimum immersion depth of the electrode is respected (refer to the under drawing).



Dimensions for adapter/fitting S022

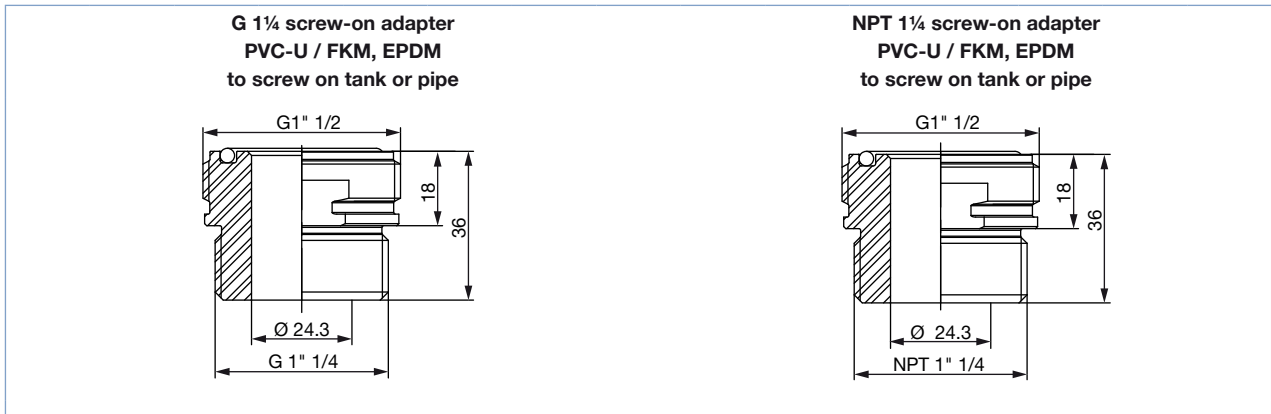
Insertion adapter for connection into T-fitting or pipe

Note: T-fitting to use for mounting the S022, shown in the opposite drawing



Dimensions for adapter/fitting S022

Insertion adapter for connection on tank or pipe



Insertion fitting

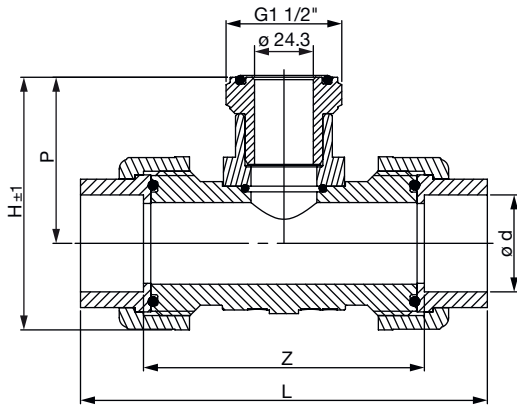
Fitting with metric solvent ends connection in PVC

Fitting with ASTM solvent ends connection in PVC

DN [mm]	P [mm]	H [mm]	Standard	L [mm]	L1 [mm]	Z [mm]	Z1 [mm]	Ø d [mm] [inch]	Ø d1 [mm] [inch]
10	68	87	Metric	122	78	94	34	16	32
	-	-	ASTM	-	-	-	-	-	-
15	68	87	Metric	126	78	94	34	20	32
	68	89	ASTM	213	102	168	44	½"	1"
20	68	87	Metric	132	78	94	34	25	32
	68	89	ASTM	224	102	175	44	¾"	1"
25	68	87	Metric	-	78	-	34	-	32
	68	89	ASTM	-	102	-	44	-	1"
32	70	99	Metric	-	98	-	46	-	40
	71	98	ASTM	-	108	-	44	-	1¼"
40	65	96	Metric	-	118	-	56	-	50
	74	104	ASTM	-	114	-	44	-	1½"
50	71	110	Metric	-	146	-	70	-	63
	77	114	ASTM	-	121	-	44	-	2"
65	78	124	Metric	-	168	-	80	-	75
	84	128	ASTM	-	133	-	44	-	2½"
80	92	147	Metric	-	194	-	92	-	90
	87	140	ASTM	-	140	-	44	-	3"
100	104	171	Metric	-	234	-	112	-	110
	-	-	ASTM	-	-	-	-	-	-

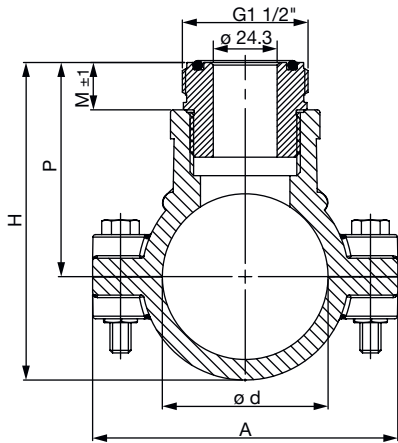
Dimensions for adapter/fitting S022

Fitting with metric or ASTM true union connection
with spigot and nut in PVC



DN [mm]	P [mm]	H [mm]	Standard	L [mm]	Z [mm]	Ø d [mm] [inch]
15	69	104	Metric	148	116	20
			ASTM	162	116	½"
20	69	104	Metric	154	116	25
			ASTM	168	116	¾"
25	69	104	Metric	160	116	32
			ASTM	174	116	1"
32	69	104	Metric	168	116	40
			ASTM	170	116	1¼"
40	72	113	Metric	188	126	50
			ASTM	190	126	1½"
50	79	129	Metric	212	136	63
			ASTM	214	136	2"

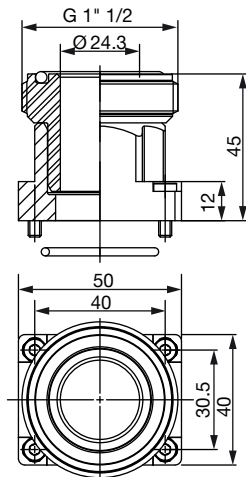
Fitting with saddle
PP Body material & PVC adapter
EPDM seal material



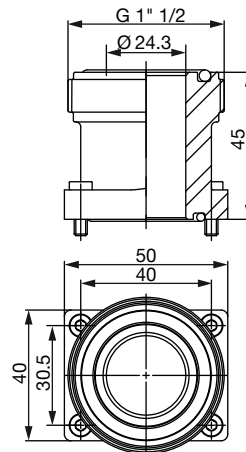
DN [mm]	M [mm]	P [mm]	H [mm]	A [mm]	Ø D [mm]
50	18	82	121	116	63
65	18	89	134	129	75
80	18	96	148	144	90
100	18	107	170	166	110
110	18	113	184	181	125

Adapter to convert S020 T-fitting to S022

Adapter
PVC-U or PP/ FKM, EPDM
For Bürkert fitting body - DN32 or bigger

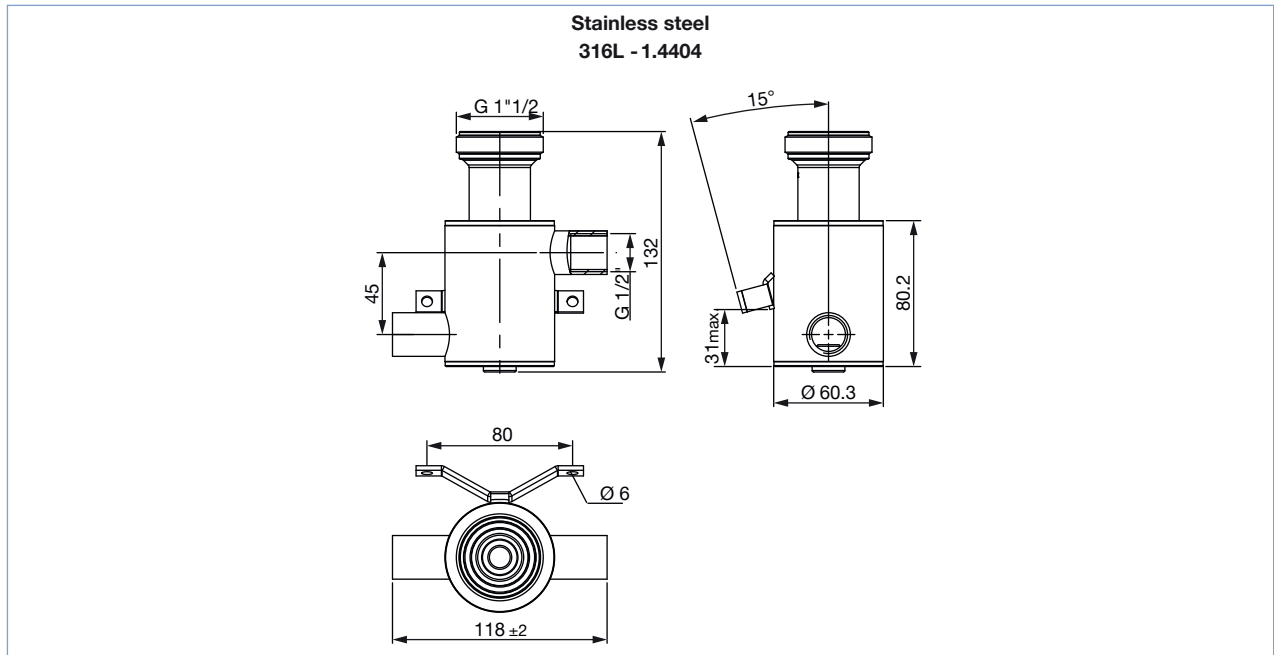


Adapter
Stainless steel / FKM, EPDM
For Bürkert fitting body - DN32 or bigger







Dimensions for adapter/fitting S022

Measuring chamber






Ordering chart for adapter/fitting S022

	Description	Materials Body / Seal ¹⁾	Type of installation or DN	Article no.		
Insertion adapter for connection into T-fitting or pipe						
	Metric solvent adapter with G 1 1/2 external threaded for ELEMENT measuring device connection	PVC-U / FKM, EPDM	To stick on Tee fitting d32 x 32 or d40 x 32 with solvent socket	560705 		
	Metric solvent adapter with G 3/4 internal threaded for ELEMENT neutrino conductivity meter, Type 8222, connection	PVC-U / FKM, EPDM	To stick on Tee fitting d32 x 32 or d40 x 32 with solvent socket	568931 		
	Metric solvent adapter with G 1 1/2 external threaded for ELEMENT measuring device connection	PVC-U / FKM, EPDM	To stick on Tee fitting d50 x 32 to d50 - 110 x 32 with solvent socket	560706 		
	Metric solvent adapter with G 3/4 internal threaded for ELEMENT neutrino conductivity meter, Type 8222, connection	PVC-U / FKM, EPDM	To stick on Tee fitting d50 x 32 to d50 - 110 x 32 with solvent socket	568932 		
	ASTM solvent adapter with G 1 1/2 external threaded for ELEMENT measuring device connection	PVC-U / FKM, EPDM	To stick on Tee fitting 1" x 1" to 3" x 1" with solvent socket	561227 		
	Metric fusion adapter with G 1 1/2 external threaded for ELEMENT measuring device connection	PP / FKM, EPDM	To weld on Tee fitting d32 x 32 with fusion socket	561229 		
	Metric welding adapter Ø 33.7 with G 1 1/2 external threaded for ELEMENT measuring device connection	Stainless steel / FKM, EPDM	To weld directly on pipe	561232 		
Insertion adapter for connection into T-fitting or pipe						
	G 1 1/4 screw-on adapter with G 1 1/2 external threaded for ELEMENT measuring device connection	PVC-U / FKM, EPDM	To screw on tank or pipe	560707 		
	NPT 1 1/4 screw-on adapter with G 1 1/2 external threaded for ELEMENT measuring device connection	PVC-U / FKM, EPDM	To screw on tank or pipe	561228 		
Adapter for conversion of S020 T-fitting to S022 T-fitting						
	Adapter with G 1 1/2 external threaded for ELEMENT measuring device connection	PVC-U / FKM, EPDM	For Bürkert fitting body ≥ DN32 ²⁾	560854 		
	Adapter with G 1 1/2 external threaded for ELEMENT measuring device connection	PP / FKM, EPDM	For Bürkert fitting body ≥ DN32 ²⁾	561230 		
	Adapter with G 1 1/2 external threaded for ELEMENT measuring device connection	Stainless steel / FKM, EPDM	For Bürkert fitting body ≥ DN32 ²⁾	561233 		
Insertion fitting for connection on pipe						
	Fitting with metric solvent ends connection with G 1 1/2 external threaded for ELEMENT measuring device connection	PVC / FKM	10	559640 		
			15	559641 		
			20	559642 		
			25	559643 		
			32	559644 		
			40	559645 		
			50	559646 		
			65	559647 		
			80	559648 		
			100	559649 		
			Fitting with ASTM solvent ends connection with G 1 1/2 external threaded for ELEMENT measuring device connection	PVC / FKM	15	560815 
					20	560816 
					25	560817 
					32	560818 
40	560819 					
50	560820 					
65	560821 					
80	560822 					

¹⁾ 1 FKM and 1 EPDM seals for the measuring device connection are supplied with each adapter.

²⁾ or analytical true union fitting (DN15...DN25)

Ordering chart for adapter/fitting S022

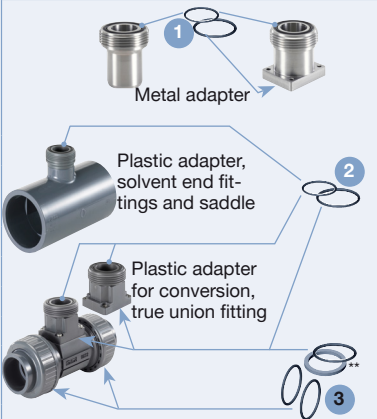
	Description	Materials Body / Seal ¹⁾	Type of installation or DN	Article no.
Insertion fitting for connection on pipe				
	Fitting with metric true union connection with spigot and nut for pipe connection and with G 1½ external threaded for ELEMENT measuring device connection	PVC / FKM	15	560671
			20	560672
			25	560673
			32	560674
			40	560675
			50	560676
	Fitting with ASTM true union connection with spigot and nut for pipe connection and with G 1½ external threaded for ELEMENT measuring device connection	PVC / FKM	15	560691
			20	560692
			25	560693
			32	560694
			40	560695
			50	560696
	Fitting with saddle with G 1½ external threaded for ELEMENT measuring device connection	PP Body & PVC adapter / EPDM	50	560700
			65	560701
			80	560702
			100	560703
			110	560704
Measuring chamber				
	Measuring chamber with G 1½ external threaded for ELEMENT measuring device connection	Stainless steel 316L - 1.4404	Pipe connection: G ½"	563552

¹⁾ 1 FKM and 1 EPDM seals for the measuring device connection are supplied with each adapter.

i Further versions on request

Materials
PVC-C, PVDF with FKM or EPDM seal

Ordering chart - accessories for adapter/fitting S022 (has to be ordered separately)

	Number on drawing	Description	Article no.
 <p>1 Metal adapter</p> <p>2 Plastic adapter, solvent end fittings and saddle</p> <p>3 Plastic adapter for conversion, true union fitting</p> <p>** O-ring to use for holder with lug, Flat seal to use for holder with groove (old version)</p>		Stopper in stainless steel with union nut and O-ring (EPDM and FKM)	562625
		Stopper in PVC with union nut and O-ring (EPDM and FKM)	562541
	1	FKM O-ring set - for metal adapter	561654
	1	EPDM O-ring set - for metal adapter	561653
	2	FKM O-ring set - for plastic adapter, solvent end fittings and saddle	561399
	2	EPDM O-ring set - for plastic adapter, solvent end fittings and saddle	561398
	3	FKM O-ring set - for plastic adapter or true union fitting DN15 up DN32	431558
	3	FKM O-ring set - for plastic adapter or true union fitting DN40	431559
	3	FKM O-ring set - for plastic adapter or true union fitting DN50	431560
	3	EPDM O-ring set - for plastic adapter or true union fitting DN15 up DN32	431564
	3	EPDM O-ring set - for plastic adapter or true union fitting DN40	431565
	3	EPDM O-ring set - for plastic adapter or true union fitting DN50	431566

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