

Hygienic, Elastomer- and Gap Free Process Connections



Range of Applications

Hygienic, elastomer and gap free process connection for use in the breweries, dairy-, food- and pharmaceutical industries as well as in biotechnology and in peripheral applications (water- and waste water treatment etc.)

Function Principle

The cone of the sensor is pressed with a defined power against the sealing angle of the fitting by screwing in the sensor (see the drawings below).

Because of that a gap free and perfect hygienic adaption is achieved without using any further elastomer sealing materials. This is validated by an EHEDG report.

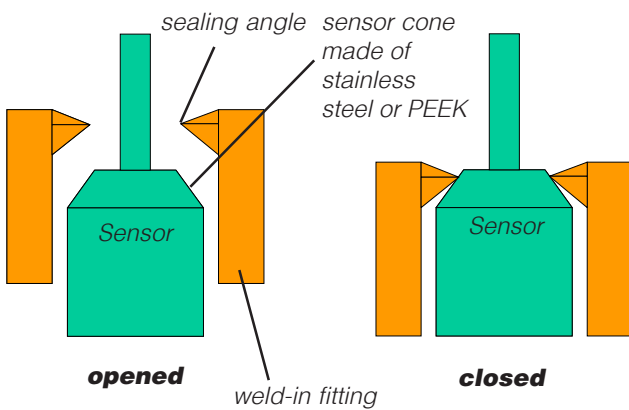
Hygienic Design

- Elastomer- and gap free installation according EHEDG report

Features

- defined position of the cable entry
- only 3 thread sizes for all sensors (M12; G1/2"; G1")
- modular adaption concept for all established process connections: TriClamp, Dairy flange, DRD, Varivent, APV-Inline, BioControl, vibration switch adapter, SMS, RJT, IDF, flanges according to DIN and ISO

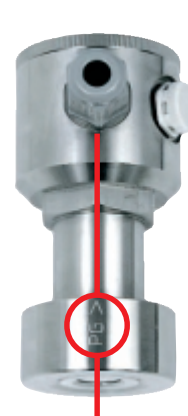
Schematical description of CLEANadapt system of Negele



sealing metal to PEEK



sealing metal to metal



defined position of the cable entry



build- in system EHG for orbital welding into pipes

Specification

Process connection	thread	M12, G1/2", G1"
	torque	see table page 3
Material		SS (316L)
	option	2.2 certificate
	on request	3.1.B certificate
Temperature	sealing metal-metal	max. 250°C
	sealing metal-PEEK	max. 150°C
Pressure	sealing metal-metal	max. 50bar
	sealing metal-PEEK	max. 10bar

Attention: Use only Negele weld-in systems to ensure a save function of the measurement point!

Cylindrical weld-in fitting

Cyl. fitting with weld-on ring


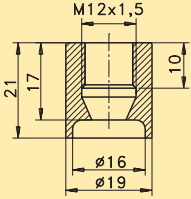

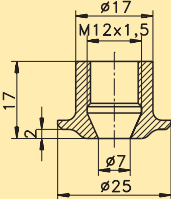

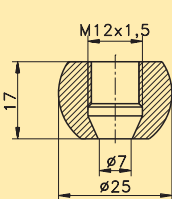

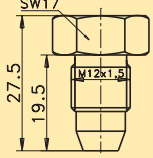
Cylindrical fitting with control-holes

Collar weld-in fitting


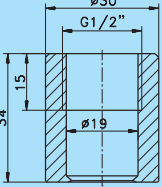

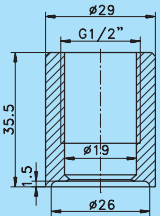

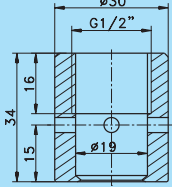

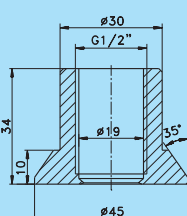

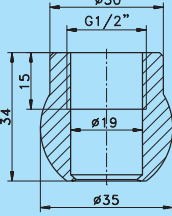

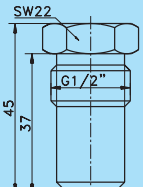
Weld-in ball

Dummy flange BST


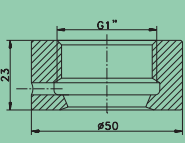
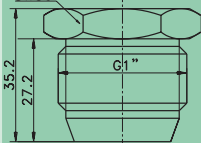
Process connection CLEANadapt M12 hygienic

	suitable for installation in pulled-out pipes		for vessels thick / thin	for sloped installation	to close existing measurement points
not available	 	not available	 	 	 
	EMS-032		EMK-032	KEM-032	BST-030

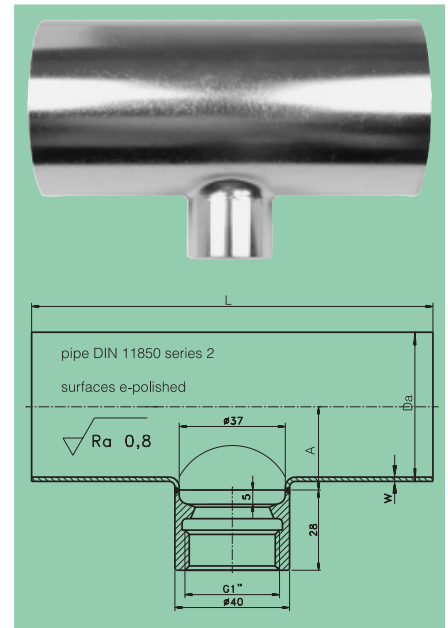
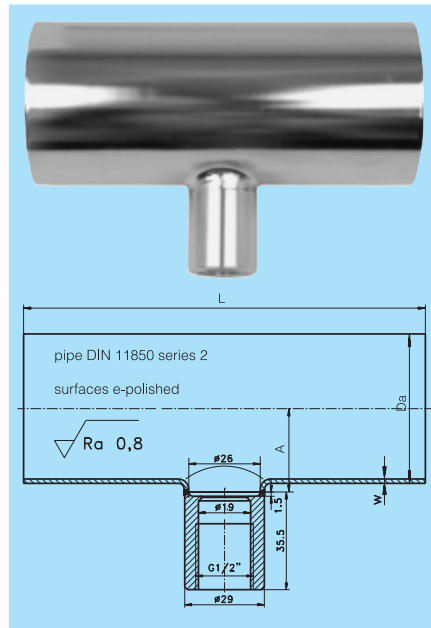
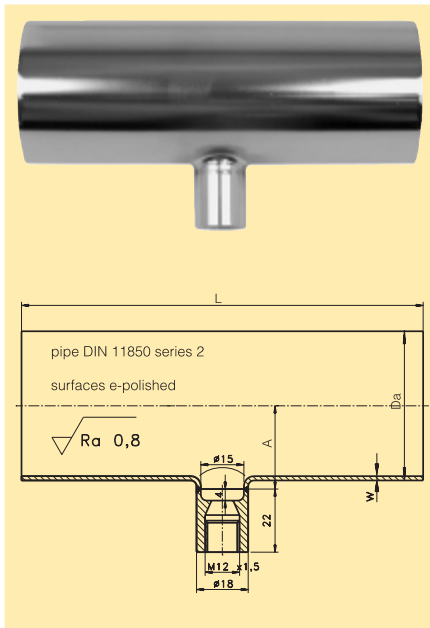
Process connection CLEANadapt G1/2" hygienic

for vessels	suitable for installation in pulled-out pipes	for vessels, with leakage detection	for vessels with thick walls	for sloped installation	to close existing measurement points
 	 	 	 	 	 
EMZ-132	EMS-132	EMZ-131	EMK-132	KEM-132	BST-130

Process connection CLEANadapt G1" hygienic

for vessels thick / thin	suitable for installation in pulled-out pipes	for vessels, with leakage detection	not available	not available	to close existing measurement points
 	 	 			 
EMZ-352	EMS-352	EMZ-351			BST-350

Hygienic build-in systems EHG



Dim. table EHG-DIN2-... / M12

Type	DN	L	A	Daxw
EHG-15 / M12	15	70	10	19x1,5
EHG-25 / M12	25	100	15	29x1,5
EHG-40 / M12	40	120	22	41x1,5
EHG-50 / M12	50	140	29	53x1,5
EHG-65 / M12	65	160	38	70x2,0
EHG-80 / M12	80	180	46	85x2,0

Dim. table EHG-DIN2-... / 1/2"

Type	DN	L	A	Daxw
EHG-25 / 1/2"	25	100	15	29x1,5
EHG-40 / 1/2"	40	120	22	41x1,5
EHG-50 / 1/2"	50	140	29	53x1,5
EHG-65 / 1/2"	65	160	38	70x2,0
EHG-80 / 1/2"	80	180	46	85x2,0
EHG-100 / 1/2"	100	200	55	104x2,0

Dim. table EHG-DIN2-... / 1"

Type	DN	L	A	Daxw
EHG-40 / 1"	40	120	22	41x1,5
EHG-50 / 1"	50	140	29	53x1,5
EHG-65 / 1"	65	160	38	70x2,0
EHG-80 / 1"	80	180	46	85x2,0
EHG-100 / 1"	100	200	55	104x2,0

All dimensions are in millimeter [mm]. Other pipe standards (e.g. ASME, ISO) on request. The technical specification of pipes is according to DIN 11865 if no other is defined.

Weld-in and installation details

Weld into vessels

Please use our fittings:

EMZ-..., EMK-... or KEM-...

1. Drill a hole with the external diameter of the fitting, max. tolerance: +0,2mm
2. Fix the fitting with 4 points (see fig. 1)
3. Screw in the welding mandrel (fig. 3)
4. Weld the sections between the points (see fig. 2)
 - 4 sections if M12 or G1/2"
 - 8 sections if G1"

Weld into pipes

Please use our fittings:

EMZ-... or KEM-...;

if the pipe is pulled-out use **EMS-...**

1. Drill a hole with the external diameter of the fitting, max. tolerance: +0,2mm
2. Fix the fitting with 4 points (see fig. 1)
3. Screw in the welding mandrel (fig. 3)
4. Weld the sections between the points (see fig. 2)
 - 4 sections if M12 or G1/2"
 - 8 sections if G1"

fig. 1

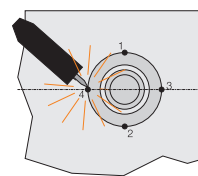


fig. 2

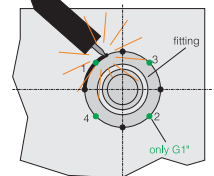
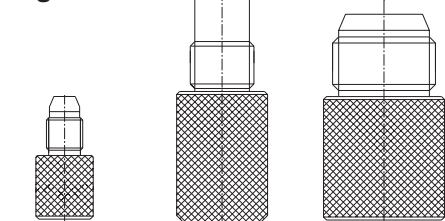


fig. 3



M12x1,5
ESD-030

G 1/2"
ESD-130

G 1"
ESD-350

Important

To prevent a deformation of the fitting the pauses between the sections should be as long as the fitting needs to cool down again.

Order example: **Welding mandrel G 1/2"**

ESD-130

Table Torques

Thread size	Sealing system	Torque min. [Nm]	Torque max. [Nm]
M12x1,5	PEEK, VA	5	10
G1/2"	PEEK	5	10
G1/2"	VA	5	20
G1"	PEEK, VA	10	20

Overview of all deliverable process connections



Thread size	TriClamp	Diary flange (DIN 11851)	DRD (press ring optional deliverable)	Varivent-Inline	APV-Inline	SMS	BioControl	Adapter-sleeve	Vibration switch adapter
M12 adapter									
diameter									
DN10	AMC-032/10	-		AMV-032/10	-	-	not available	not available	not available
DN15	AMC-032/10	AMK-032/15		AMV-032/10	-	-			
DN25	-	AMK-032/25		AMV-032/25	-	-			
DN40	-	AMK-032/40		AMV-032/40	AMA-032	AMK-032/40			
DN50	-	AMK-032/50	AMK-032/50	AMV-032/40	AMA-032	AMK-032/50			
DN65	-	AMK-032/65		AMV-032/40	AMA-032	-			
DN80	-	AMK-032/80	(only one size)	AMV-032/40	AMA-032	-			
DN100	-	AMK-032/100		AMV-032/40	AMA-032	-			
G1/2" adapter									
diameter									
DN25	AMC-132/1"-1,5"	AMK-132/25		AMV-132/25	-	-	-	AMG-1	AMG-132
DN40	AMC-132/1"-1,5"	AMK-132/40		AMV-132/40	AMA-132	AMK-132/40	AMB-50/1/2"	(adapter	AMG-132 / 3/4"
DN50	AMC-132/2"	AMK-132/50	AMK-132/50	AMV-132/40	AMA-132	AMK-132/50	and	G1" hygienic >	(G1" > G1/2" hyg.
DN65	AMC-132/3"	AMK-132/65		AMV-132/40	AMA-132	-	AMB-65/1/2"	G1/2"	G3/4" > G1/2"
DN80	AMC-132/80	AMK-132/80	(only one size)	AMV-132/40	AMA-132	-	from DN40 up	hygienic)	hygienic)
DN100	AMC-132/4"	AMK-132/100		AMV-132/40	AMA-132	-	to DN100		
G1" adapter									
diameter									
DN25	AMC-352/1"-1,5"	AMK-352/25		-	-	-	-	not available	AMG-352/
DN40	AMC-352/1"-1,5"	AMK-352/40		AMV-352/40	AMA-352	AMK-352/40	AMB-352/50		G1,5"
DN50	AMC-352/2"	AMK-352/50	AMK-352/50	AMV-352/40	AMA-352	AMK-352/50	and		(adapter
DN65	AMC-352/3"	AMK-352/65		AMV-352/40	AMA-352	-	AMB-352/65		G1 1/2" > G1"
DN80	AMC-352/80	AMK-352/80	(only one size)	AMV-352/40	AMA-352	-	from DN40 up		hygienic)
DN100	AMC-352/4"	AMK-352/100		AMV-352/40	AMA-352	-	to DN100		

Order example: **Adapter: G1" to APV-Inline DN100:**

AMA-352

Further process connections on request: RJT, IDF, flanges acc. to DIN and ISO