



# Hygienic Installation Systems

EHEDG certified



measuring  
•  
monitoring  
•  
analysing



- Hygienic mounting, confirmed by EHEDG reports
- Elastomer-free seal system
- $p_{max}$ : 10 bar;  $t_{max}$ : 250°C
- Material: stainless steel 1.4404
- Variable mounting with spherical sleeves
- also suited for small pipe cross-section
- $R_a$  max medium side 0.8  $\mu m$   
 $R_a$  max external side 1.6  $\mu m$



Weld-in sleeves LZE



N1

KOBOLD companies worldwide:

ARGENTINA, AUSTRIA, BELGIUM, CANADA, CHILE, CHINA, COLOMBIA, CZECHIA, FRANCE, GERMANY, GREAT BRITAIN, INDIA, IRAN, INDONESIA, ITALY, MALAYSIA, MEXICO, NETHERLANDS, PERU, POLAND, SINGAPORE, SLOVAKIA, SPAIN, SWITZERLAND, THAILAND, USA, VENEZUELA, VIETNAM

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Model:  
LZE

**Description**

The KOBOLD mounting system for hygienic measuring points is characterized by a dead space and elastomer-free seal system of the mounting sleeve with the measuring unit. An EHEDG-assessment verifies the hygienic design of the systems. The materials used are safe for use in the food and pharmacy industry.

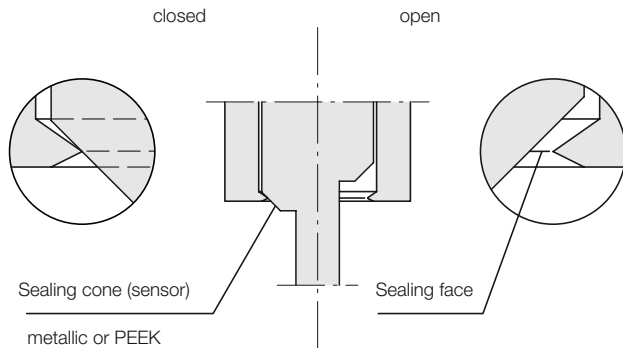
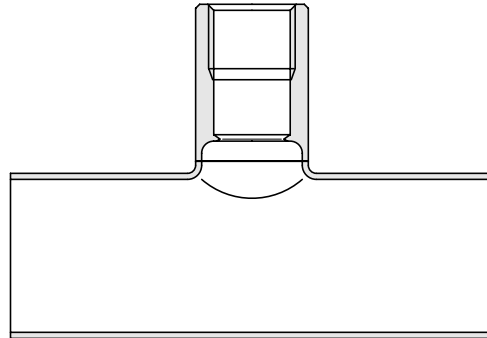
In order to make it possible to install it in existing pipe systems with common food screw connections, a number of adapters (e.g. Tri-Clamp, Varivent, conical connection DIN 11851) are available.

The sleeves are equipped with measuring unit connections in three different sizes (M12 x 1.5, G 1/2 and G 1). The measuring unit you have selected determines the necessary size of the weld-in sleeve.

**Function**

The KOBOLD measuring units for applications in the area of hygiene have a seal cone on the threaded connection, which is pressed against the seal edge of the weld-in sleeve when screwed into the sleeve. The seal edge is deformed slightly and presses against the cone of the measuring unit with the spring force of the metal. This ensures hygienic installation of the measuring units – without elastomer seals.

Welding in prefabricated fittings is much simpler in many cases than the precise and dead space-free attachment of sleeves in pipeline systems. For this reason, KOBOLD offers weld-in fittings (LZE-R) in various pipe diameters and with the matching connections for the Kobold measuring units.



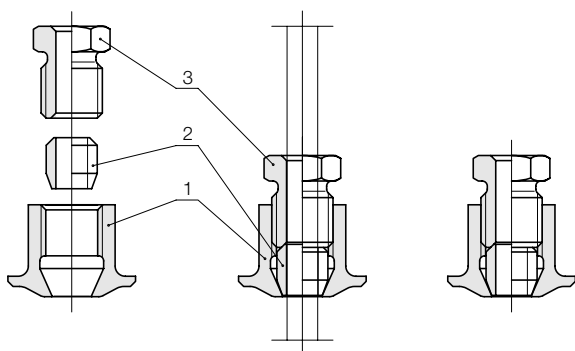
Two compression fittings with a PEEK-seal are available for the installation of a temperature sensor at a variable height. The sensor is sealed by means of a conically-shaped seal ring made of highly heat-resistant PEEK. By tightening the clamping screw, the gap between the sensor and sleeve is completely filled on one hand and the seal ring is pressed against the sensor on the other.

**Area of application**

- Food industry, e. g. dairies and breweries
- Pharmaceutical industry
- Biotechnology
- Chemical industry
- CIP/SIP-processes

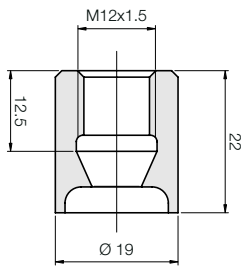
**Technical Data**

Material:	stainless steel, 1.4404 PEEK for compression fitting
Measuring unit connection:	M12 x 1.5 G 1/2 G 1
Temperature range:	• Seal metal/metal -20...+250°C • Seal metal/PEEK -20...+150°C
Max. pressure:	• Seal metal/metal 50 bar • Seal metal/PEEK 10 bar
Surfaces:	hygiene class H3 internal: $R_a = 0.8 \mu m$ external: $R_a = 1.6 \mu m$

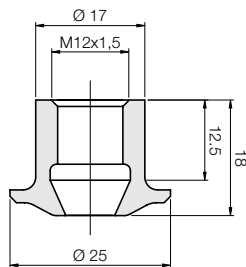


Measuring unit connection M12 x 1.5 for measuring units LNM-\_\_M3... / LTS-\_\_M... / LTS-K-\_\_M...

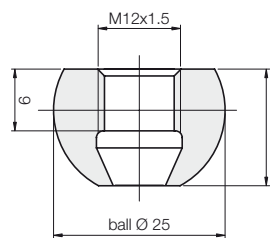
**Model LZE-P1**  
Cylinder sleeve  
with collar  
for pipes  
and flared ends



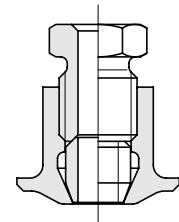
**Model LZE-K1**  
Collar sleeve  
for containers



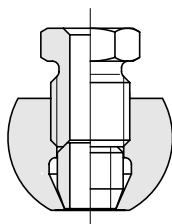
**Model LZE-U1**  
Ball sleeve  
for sloping installation



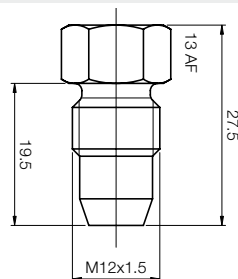
**Model LZE-M1**  
Collar compression  
fitting  
for temperature sensor  
(variable height setting)



**Model LZE-S1**  
Ball compression  
fitting  
for temperature sensor  
(variable height setting)

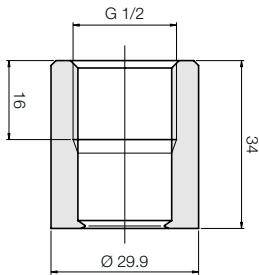


**Model LZE-B1**  
Capped stub  
for welding in and closing  
off the sleeve

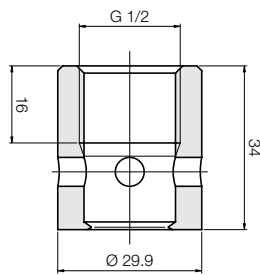


Measuring unit connection G 1/2 for meas. units LNM-\_\_G4... / LNZ-... / LNK-K... / LNK-1... / LTS-\_\_T... / LTS-K\_\_T...

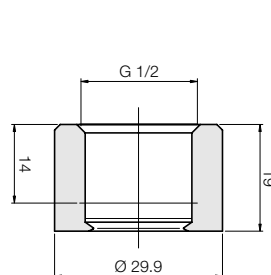
**Model LZE-Z2**  
Cylinder sleeve  
for containers



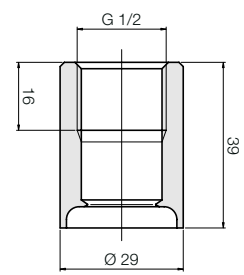
**Model LZE-T2**  
Cylinder sleeve  
with test hole  
for containers,  
with leak monitoring



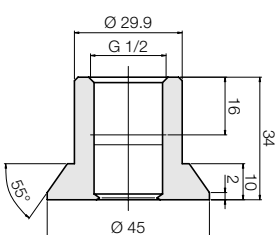
**Model LZE-N2**  
Cylinder sleeve  
low form  
For measuring unit KAL



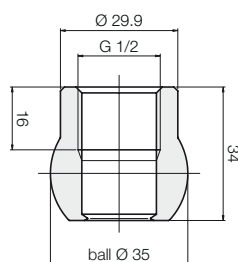
**Model LZE-P2**  
Cylinder sleeve  
with collar  
for pipes  
and flared ends



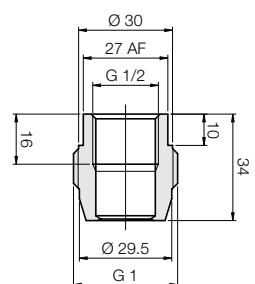
**Model LZE-K2**  
Collar sleeve  
for thick-walled  
containers



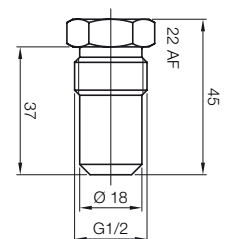
**Model LZE-U2**  
Ball sleeve  
for sloping installation



**Model LZE-D2**  
G1 process adapter  
for adaptation to  
G1 threads



**Model LZE-B2**  
Capped stub  
for welding in and  
closing off the sleeve

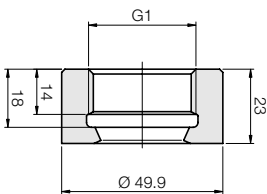


N1

**Measuring unit connection G 1 for measuring units LNK-2, LNK-3, LNK-4 / LNP**

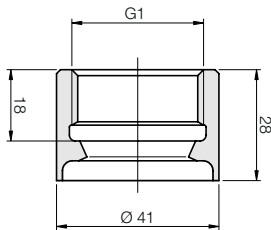
**Model LZE-Z3**  
Cylinder sleeve

for containers



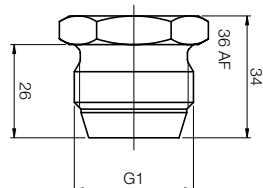
**Model LZE-P3**  
Cylinder sleeve with collar

for pipes and flared ends



**Model LZE-B3**  
Capped stub

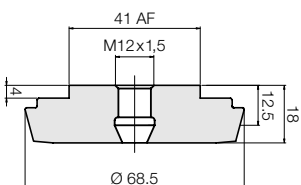
for welding in and closing off the sleeve



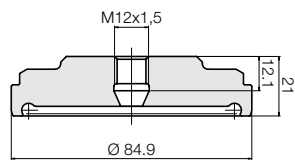
**Adapter for existing process connections**

**Measuring unit connection M12 x 1.5 for measuring units LNM-\_\_M3... / LTS-\_\_M... / LTS-K-\_\_M...**

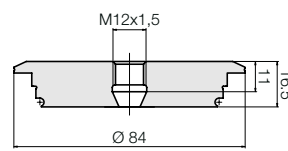
**Model LZE-L1**  
Conical connection  
DIN 11851  
DN 50



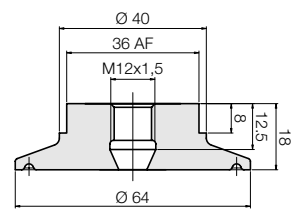
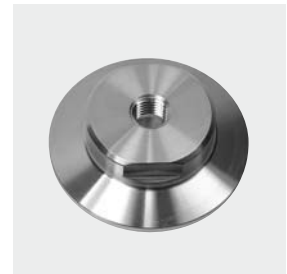
**Model LZE-A1**  
Aseptic lap-joint flange  
DIN 11864  
DN 65



**Model LZE-V1**  
Varivent

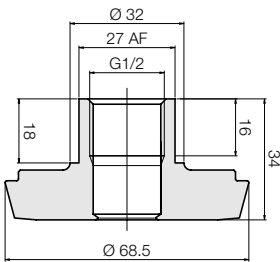


**Model LZE-C1**  
Tri-Clamp  
DN 50

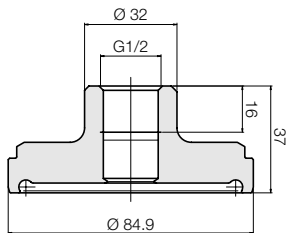
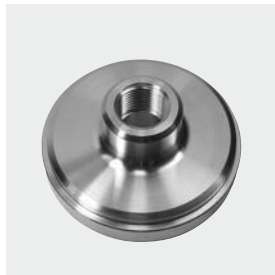


Measuring unit connection G 1/2 for meas. units LNM-\_\_G4... / LNZ-... / LNK-K... / LNK-1... / LTS-\_\_T... / LTS-K\_\_T...

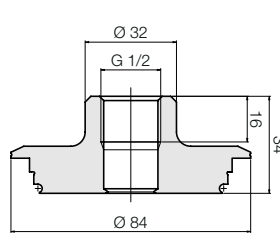
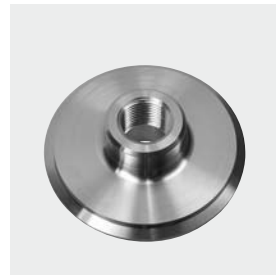
**Model LZE-L2**  
Conical connection  
DIN 11851  
DN 50



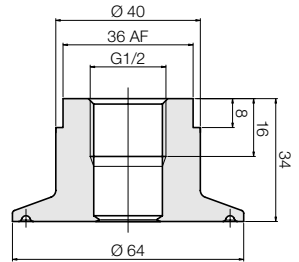
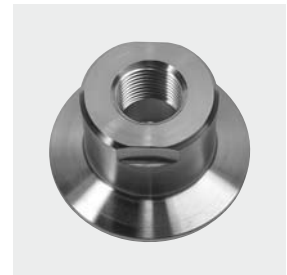
**Model LZE-A2**  
Aseptic lap-joint flange  
DIN 11864  
DN 65



**Model LZE-V2**  
Varivent

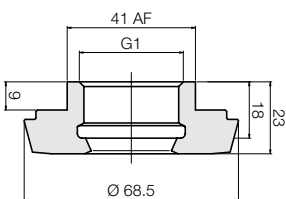
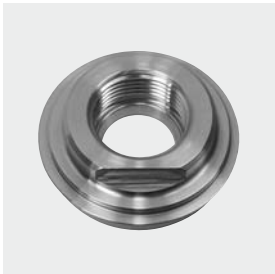


**Model LZE-C2**  
Tri-Clamp  
DN 50

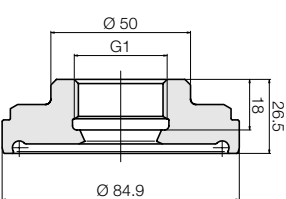
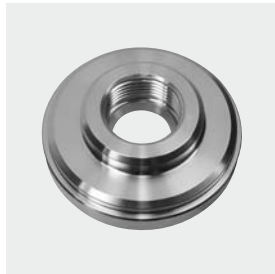


Measuring unit connection G 1 for measuring units LNK-2, LNK-3, LNK-4 / LNP

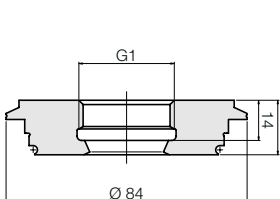
**Model LZE-L3**  
Conical connection  
DIN 11851  
DN 50



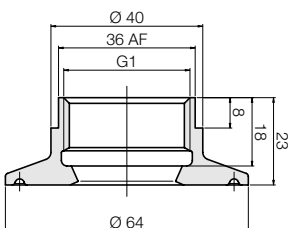
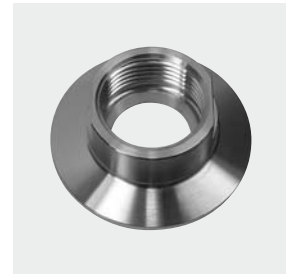
**Model LZE-A3**  
Aseptic lap-joint flange  
DIN 11864  
DN 65



**Model LZE-V3**  
Varivent

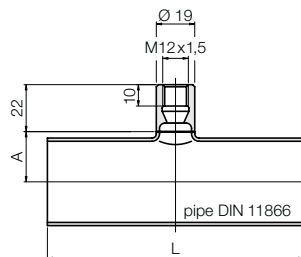


**Model LZE-C3**  
Tri-Clamp  
DN 50



**Measuring unit connection M12 x 1.5** for measuring units  
LNM-\_\_M3... / LTS-\_\_M... / LTS-K-\_\_M...

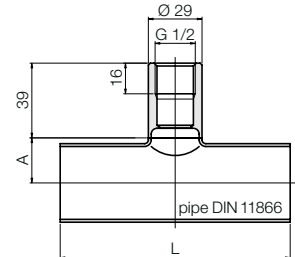
**Model LZE-R1**



Ordering designation	DN	Pipe dimensions	L [mm]	A [mm]
LZE-R1 15	15	19 x 1.5	70	10.5
LZE-R1 25	25	29 x 1.5	100	16.5
LZE-R1 40	40	41 x 1.5	120	23.5
LZE-R1 50	50	53 x 1.5	140	30.5
LZE-R1 65	65	70 x 2.0	160	38.5
LZE-R1 80	80	85 x 2.0	180	47.0

**Measuring unit connection G 1/2** for measuring units  
LNM-\_\_G4... / LNZ-... / LNK-K... / LNK-1... /  
LTS-\_\_T... / LTS-K\_\_T...

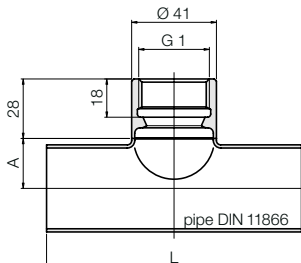
**Model LZE-R2**



Ordering designation	DN	Pipe dimensions	L [mm]	A [mm]
LZE-R2 25	25	29 x 1.5	100	16.5
LZE-R2 40	40	41 x 1.5	120	23
LZE-R2 50	50	53 x 1.5	140	29.5
LZE-R2 65	65	70 x 2.0	160	40
LZE-R2 80	80	85 x 2.0	180	49

**Measuring unit connection G 1** for measuring units  
LNK-2, LNK-3, LNK-4 / LNP

**Model LZE-R3**



Ordering designation	DN	Pipe dimensions	L [mm]	A [mm]
LZE-R3 40	40	41 x 1.5	120	23.5
LZE-R3 50	50	53 x 1.5	140	29.5
LZE-R3 65	65	70 x 2.0	160	39.5
LZE-R3 80	80	85 x 2.0	180	47.5

**Capsule for temperature probe LTS**

**Model LZE-H**



in preparation



N1

**Mounting sleeves, EHEDG certified**

Description	Measuring unit connection		
	M12x1.5	G 1/2	G 1
Cylinder sleeve		LZE-Z2	LZE-Z3
Cylinder sleeve with test hole		LZE-T2	
Cylinder sleeve low form		LZE-N2	
Cylinder sleeve with collar	LZE-P1	LZE-P2	LZE-P3
Collar sleeve	LZE-K1	LZE-K2	
Ball sleeve	LZE-U1	LZE-U2	
Collar compression fitting	LZE-M1		
Ball compression fitting	LZE-S1		
Adapter:			
Conical connection DIN 11851	LZE-L1	LZE-L2	LZE-L3
Aseptic lap-joint flange DIN 11864	LZE-A1	LZE-A2	LZE-A3
Varivent	LZE-V1	LZE-V2	LZE-V3
Tri-Clamp	LZE-C1	LZE-C2	LZE-C3
G 1 Adapter		LZE-D2	
Capped stub*	LZE-B1	LZE-B2	LZE-B3

\*All sleeves must be equipped a capped stub to prevent warping during welding

**Weld-in fittings, EHEDG certified**

Model	Description	Measuring unit connection	Pipe nominal width
LZE-R	Weld-in fittings	1 = M12x1.5 2 = G 1/2 3 = G 1	15 = DN 15 (only with 1 = M12x1.5) 25 = DN 25 (not with 3 = G 1) 40 = DN 40 50 = DN 50 65 = DN 65 80 = DN 80