

REconnect quick coupling device

Safe separation and connection of diaphragm seal systems

Type series MK1000



Application area

- Pharmaceutical industry
- Food industry
- Chemical industry
- Plant and machinery engineering
- Power generation

Features

- For easy and safe separation and connection of diaphragm seal systems
- Replacing measuring devices or calibrating without opening the process
- Leakage-free separation without loss or shifting of filling oil volume or entry of air
- Separation process can be repeated many times
- Quick coupling device, consisting of:
 - coupling element measuring device side
 - coupling element process side
- Use under vacuum possible
- All parts made of high-quality stainless steel
- Suitable for applications in Ex and SIL
- Coupling element process side with protection cap autoclavable (upon request)
- For diaphragm seal systems up to 100 bar, with and without capillary

Options

- Protection caps for coupling elements
- Safety clip as protection against unintentional opening, with sealing option
- Can be combined with a wide range of measuring devices and diaphragm seals from the Labom product portfolio

Application

The REconnect quick coupling is welded between the measuring device and the process connection and enables easy and safe separation and connection of diaphragm seal systems.

Replacing or calibrating measuring devices is thus no longer a time-consuming and costly procedure and the process does not have to be opened. The measuring device and diaphragm seal can be reconnected just as easily and the plant can be put directly back into operation.

This is an advantage especially for hygienic processes and those handling toxic or delicate substances, as is common in the pharmaceutical industries.

In particularly large and complex plants - such as in the chemical industry - the quick coupling also makes it easy to lay and attach capillaries, e.g. via installation pipes. Furthermore, the installation of large flanges can be significantly simplified, as the process connection can be subsequently connected to the measuring device via the REconnect quick coupling.

Technical data

Constructional design

Design:	REconnect quick coupling device, existing of: <ul style="list-style-type: none">■ Coupling element measuring device side■ Coupling element process side■ Coupling bracket mounted
Material:	Coupling elements: stainless steel 316L Coupling bracket: stainless steel 316L Protective caps: stainless steel 316L Gasket: NBR Safety clip: Inserts PA12, clip stainless steel 316L
Max. pressure:	100 bar at T_{amb} -15...60 °C 60 bar at T_{amb} -20...85 °C
Degree of protection:	IP 65 / IP 67 per EN 60529
Weight:	Approx. 260 g
Type plate:	Laser marking

Temperature ranges

Ambient:	-20...85 °C
Media *:	up to 140 °C with temperature decoupler up to 250 °C
Storage:	-40...85 °C

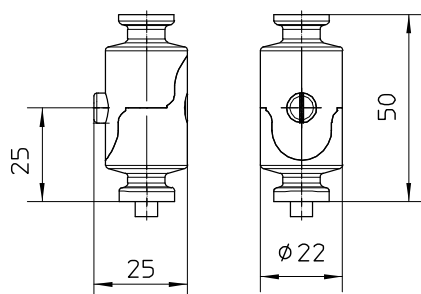
* At ambient temperature ≤ 60 °C

Please refer to the operating instructions BA_086 for further information on commissioning, handling and application limits.

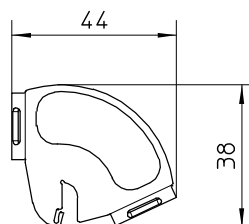
Dimensions

REconnect quick coupling device

Complete system, coupling elements connected
(order details MK1000-A1)



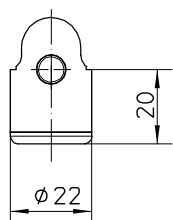
including coupling bracket



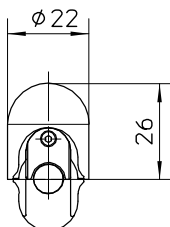
Accessories

Protective cap set for single systems (order details MZ2400-A11) consisting of:

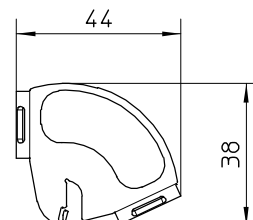
Protective cap measuring device side



Protective cap process side

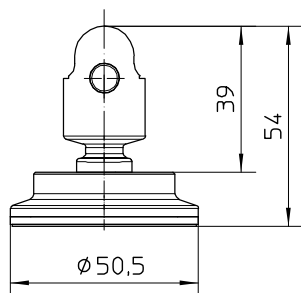


Coupling bracket

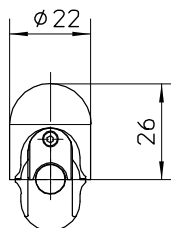


Protective cap for single systems with capillary and/or large volumes (order details MZ2400-B11) consisting of:

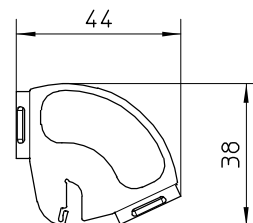
Protective cap measuring device side



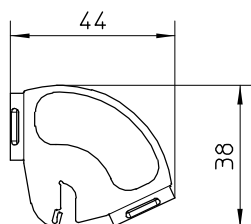
Protective cap process side



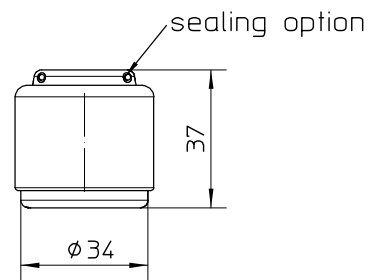
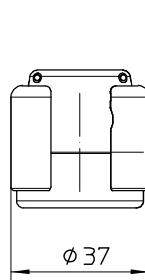
Coupling bracket



Coupling bracket (order details MZ2410)

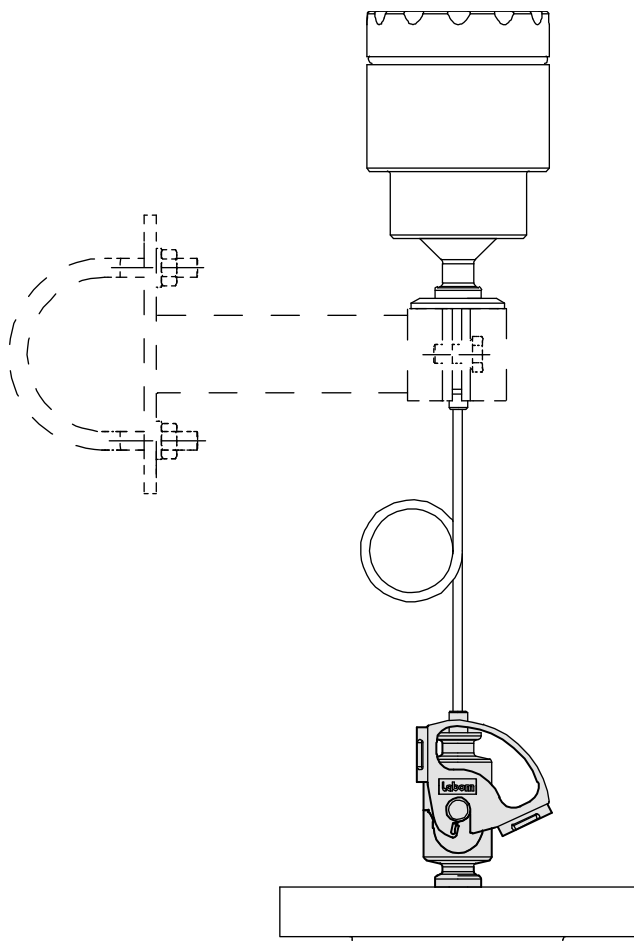


Safety clip (order details MZ2420)

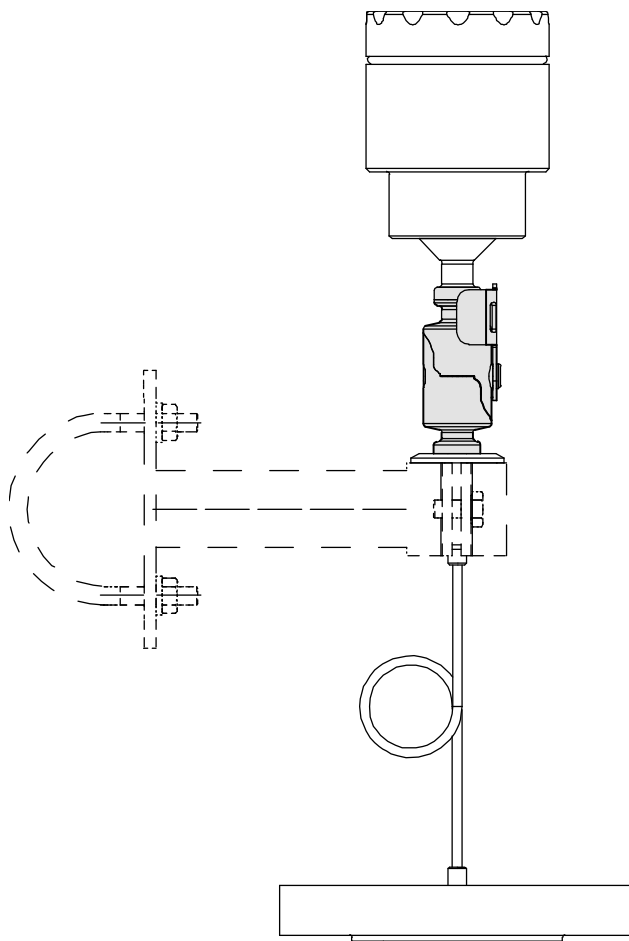


Examples for the positioning of the REconnect quick coupling device

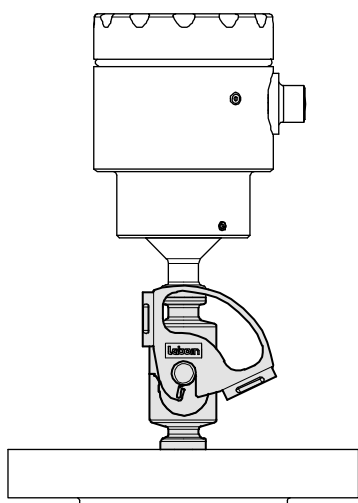
Complete system with capillary, quick coupling at process side (order details MK1000-A2)



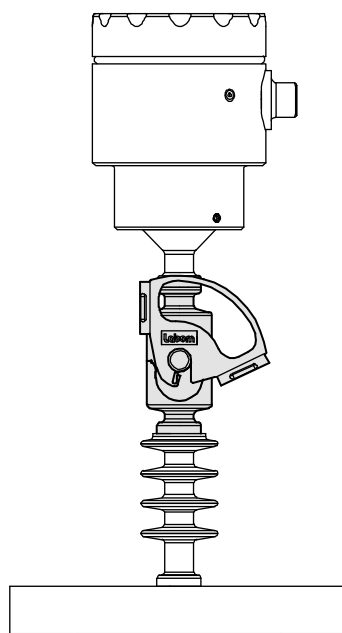
Complete system with capillary, quick coupling at measuring device side (order details MK1000-A3)



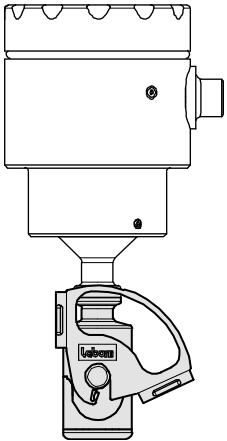
Complete system, without capillary (order details MK1000-A1)



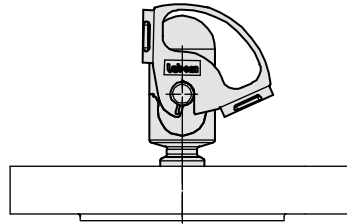
Complete system, without capillary with temperature decoupler for T up to 250°C (order details MK1000-A1)



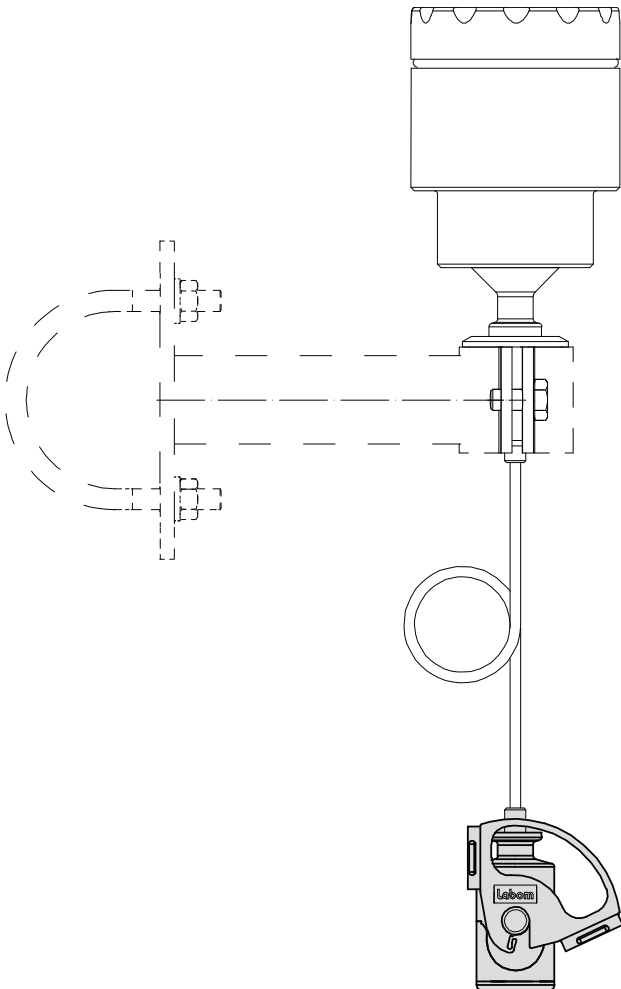
**Single system,
protective cap at coupling element measuring device
side (order details MK1000-B1 + MZ2400-A1)**



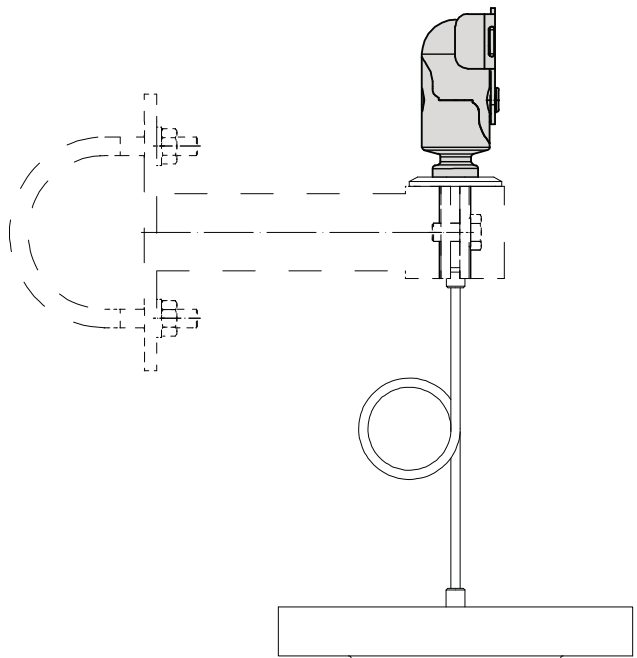
**Single system,
protective cap at coupling element process side
(order details MK1000-C1 + MZ2400-A1)**



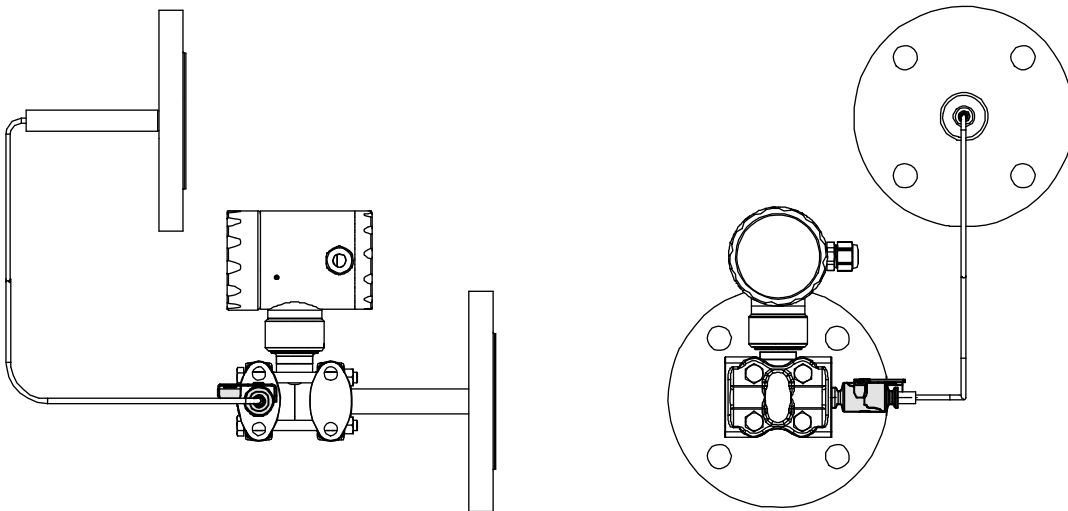
**Single system with capillary,
protective cap at coupling element measuring device
side (order details MK1000-B2 + MZ2400-A1)**



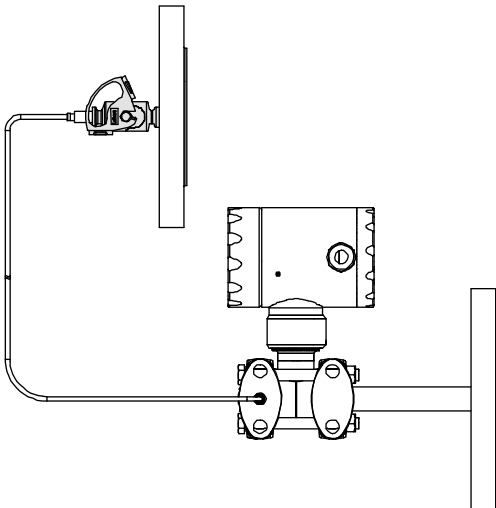
**Single system with capillary,
protective cap at coupling element process side
(order details MK1000-C2 + MZ2400-B1)**



**Example of a differential pressure measurement, quick coupling at measuring device side
(order details MK1000-A3)**



Example of a differential pressure measurement, quick coupling at process side (order details MK1000-A2)



Order details

REconnect quick coupling device			
MK1000	design	REconnect quick coupling device, safe separation and connection of diaphragm seal systems	
A1	complete system	without capillary	coupling elements connected coupling bracket enclosed
A2		with capillary	coupling elements connected to each other on the process side coupling bracket enclosed
A3			coupling elements connected to each other on the measuring device side coupling bracket enclosed
B1	single system (without diaphragm seal)	without capillary	coupling element on measuring device side coupling bracket enclosed labelling with fabrication number of the diaphragm seal as in writing
B2		with capillary	coupling element connected to process side of capillary coupling bracket enclosed labelling with fabrication number of the diaphragm seal as in writing
C1	single system (without measuring device)	without capillary	coupling element on process side coupling bracket enclosed labelling with fabrication number of the mesuring device as in writing
C2		with capillary	coupling element connected to measuring device side of capillary coupling bracket enclosed labelling with fabrication number of the mesuring device as in writing
MZ2400-A1	protective cap	for single systems	
MZ2400-B1		for single systems with capillary and/or large volumes	
Accessories			
MZ2400	protective caps set of stainless steel with integrated compensation volume to protect the measuring device in disconnected state (incl. coupling bracket)		
A11	protective cap	for standard systems	
B11		for systems with capillary and/or large volumes	
L22	system filling	synthetic oil, free of silicone FD1	
L20		silicone oil FM50	
L10		low-temperature oil FM5	
L14		medical white oil FW	
L18		vacuum oil FV1	
L30		halocarbon oil FC	
L32		neobee M20 FNM20	
L34		vacuum oil FV4	
L35		high temperature oil FH	
MZ2410	coupling bracket		
MZ2420	safety clip		

Order code (example): **MK1000-A1** - ...