

# **SafeConnect-Line**

## Quick Connect Couplings for High-Safety Standards

Compressed air is a media with great potential risks. In case of improper use and when safety regulations are not being followed, huge forces can be released and put the operator in a dangerous situation.



Whiplash-effect: high risk of injury when using compressed air - avoided through products from the **LUDECKE SafeConnect-Line**.

### Common problems:

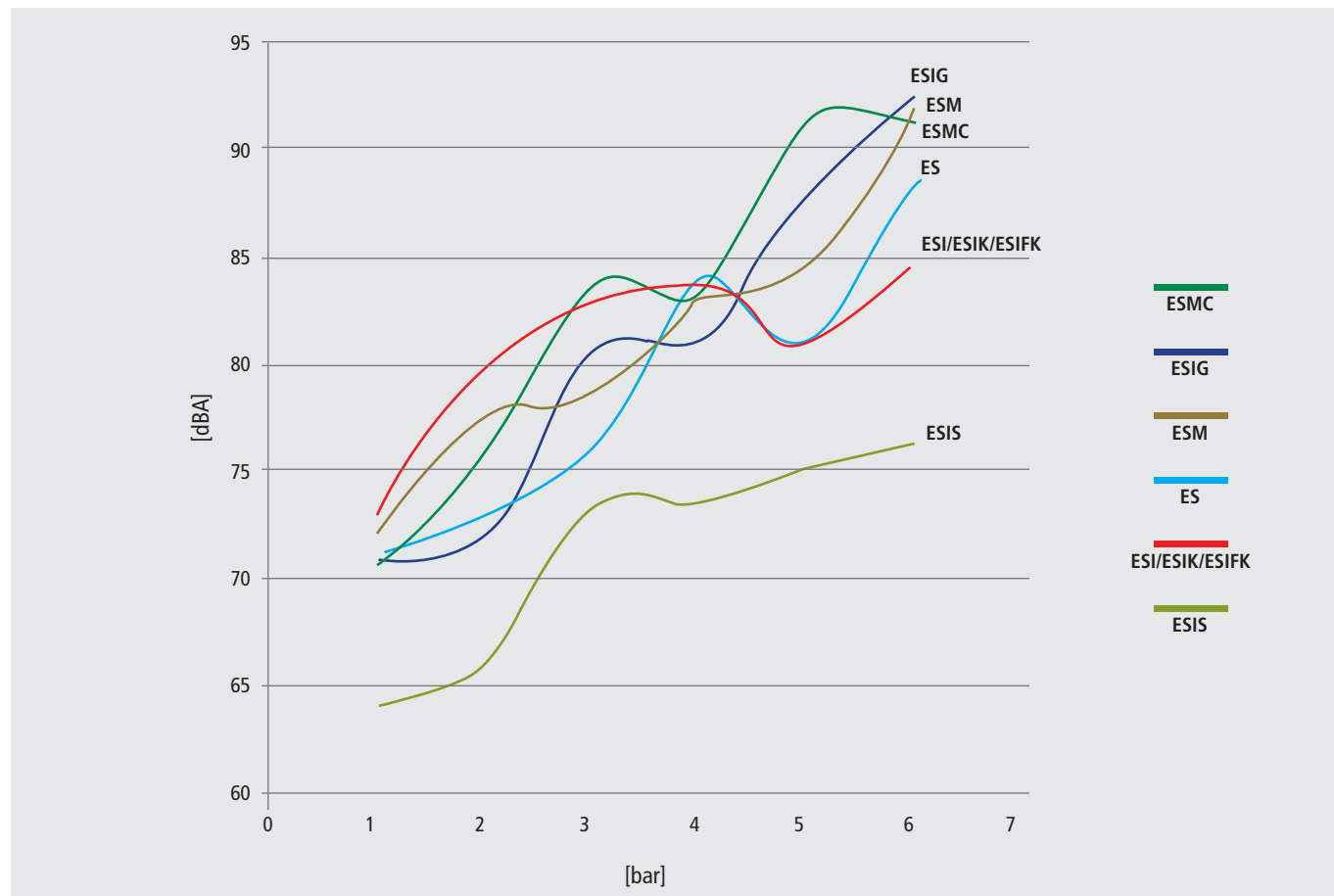
- Accidental disconnection of the couplings leading uncoupled flexible hose lines to whip uncontrollably under pressure (whiplash-effect),
- Unnecessary stress caused by high noise levels when decoupling as well as
- False coupling while using different media simultaneously



The **LUDECKE SafeConnect-Line** offers various coupling systems with a reliable protection against these problems. This is how we guarantee maximum reliability and safety at work.








# Noise Levels of Different Quick Connect Coupling Series When Decoupling

The ESIS series can be decoupled in a pressure range from 1 to 6 bar at a noise level with less than 80 db(A). Non-venting couplings exceed this noise level at an operating pressure of 4 bar. In this case, we strongly recommend using ear protection.



## Different Sizes and Versions

The products of the **LUDECKE SafeConnect-Line** are available in different sizes, connection and valve types as well as materials.

Quick Connect Couplings with Self-Venting	Quick Connect Couplings with Sleeve Lock Mechanism				Quick Connect Couplings with Visual Identification	
Pressure relief and anti-hose whip reduce noise levels and prevent whiplash-effect	Various security mechanisms prevent accidental disconnection of the coupling				Colour and shape coded couplings and plugs prevent false coupling	
Sleeve concept	Locking nut	Locking nut	Locking nut + plug coding	Two-hand operation	Plug and colour coding	Plug and colour coding
Series: ESIS DN 7.8	Series: ES DN 7.2	Series: ESI DN 7.8	Series: ESIK DN 7.8	Series: ESI1A DN 7.4 ESI2A DN 7.4	Series: ESMK DN 5	Series: ESIFK DN 7.8
						

# Self-Venting



Quick connect couplings with self-venting prevent the whiplash-effect due to their special construction and at the same time reduce noise levels when decoupling.

The series ESIS DN 7.8 is disconnected in two steps by pushing and pulling the sleeve (sleeve concept). This means the connection may only be separated when the residual pressure has dropped to a safe value after having pushed the sleeve of the coupling.



One-hand operation: To connect, push the plug into the coupling



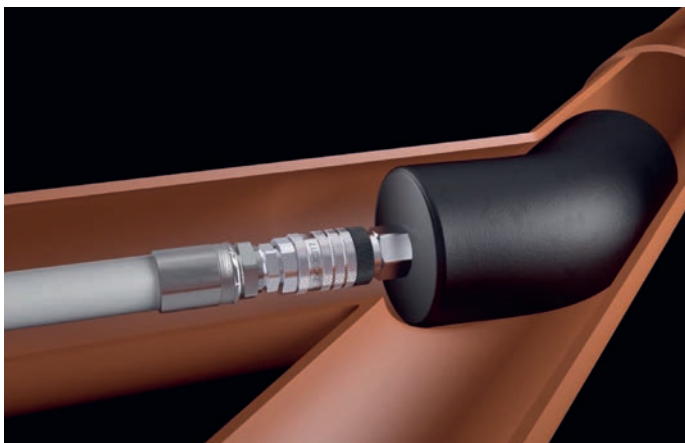
Disconnection - first step: Automatic venting



Disconnection - second step: Safe decoupling

# Sleeve Lock Mechanism

## Locking Nut



The quick connect couplings with sleeve lock mechanism via locking nut offer simple and effective protection against unintentional disconnection. To set up, the locking nut needs to be screwed manually against the sleeve after coupling.

Moreover, the series ESIK has coded plugs (only couplings and plugs with the same coding can be connected). This prevents twisting of the plug in the coupling; at the same time a torsional moment can be transferred. As a result, the Series ESIK DN 7.8 is especially suited for sewer cleaning and reconstruction.



One-hand operation: To connect, push the plug into the coupling



Tighten the locking nut to secure the sleeve



Disconnection: Separate the coupling from the plug after loosening the locking nut

# Two-Hand Operation



The breathing air quick connect couplings series ESI1A and ESI2A DN 7.4 guarantee special safety aspects due to their extraordinary design. This allows them to be used in extreme situations (e.g. for respiratory masks of firefighters).

Both systems can only be combined under certain conditions. Furthermore, the two-hand operation ensures high safety when disconnecting coupling and plug. In this way, they provide reliable protection against accidental decoupling.

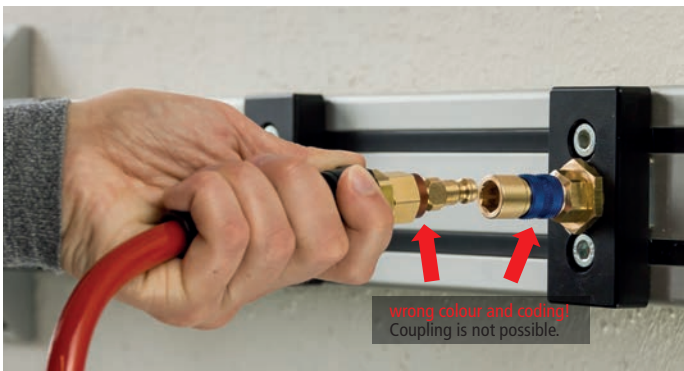


One-hand operation: To connect push the plug into the coupling.



Two-hand operation: To disconnect, push the plug while pulling back the sleeve

## Visual Identification



The series ESMK DN 5 and ESIFK DN 7.8 allow for easy identification of different media circuits and prevent false coupling. This is due to coloured anodized knurled aluminium sleeves on the coupling as well as coloured anodized aluminium rings on the plug and various codes at the coupling and plug.



One-hand operation: To connect, push the plug into the coupling. (The colours of the aluminium sleeve of the coupling and the aluminium ring of the plug as well as the plug-coding have to be identical.)



To disconnect, pull back the coupling sleeve.