

Gigabit Ethernet connectors GigaDock

DuraDock ready | Connectors for Automatic Systems



Introduction

Robots, efficient assembly technology and image processing are groundbreaking for Industry 4.0 and key technologies in many industries such as automotive engineering. Stäubli delivers suitable Gigabit Ethernet connectors for advanced automation technology.

The connectors guarantee safe and reliable transmission of signals, data and fieldbuses. DuraDock – the brand for connectors for the highest demands and applications with very high mating cycles.

With up to one million mating cycles, they can easily meet all the requirements of auto-

mated industry sectors such as automotive, electronics, testing and many more.

Areas of application:

- Automatic Tool changer
- Automatic (multi) couplings
- Test benches

DuraDock ready

“ready” – the name says it all. All connectors in this series are plug-and-play, i.e. suitable for immediate use. You save time and effort for wiring and connecting cables including stripping, crimping, soldering, etc.

The installation in docking plates or machine parts takes place after:

- Performing the drilling plan
- Inserting anti-rotation grooved pin
- Fixing the retaining ring
- Screwing on the M12 connecting cable

GigaDock

GigaDock connectors for signal and data transmission for use in applications with docked camera systems:

Automotive:

- In press-shops for crack detection after stamping
- In body shops for gap detection, etc.
- In paint shops for quality control

General assembly:

- Pick-and-Place

Quality control and testing systems:

- Automatic and manual docking systems in test benches for transmission, engines or turbines

Image processing:

- Digital image processing and the required GigE-Vision interface

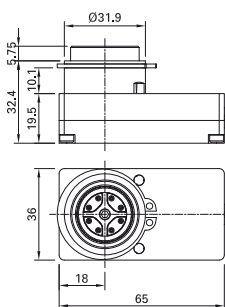
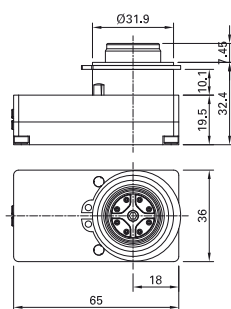
GigaDock10 connector

Extremely compact connectors for the highest demands up to 10 GBit/s. All 8 poles of the Ethernet are available.

For mounting in docking plates with 6.6 mm and 13 mm spacing.

Note

- Degree of protection IP65



Order No.	Type	Description	Plug connection	Suitable for
18.6667	GigaDock10-S90-S-M12X	Pre-assembled and tested connector	M12 socket x-coded	Network cable, Ethernet, CAT6A, 8 pin (10 GBit/s)
18.6666	GigaDock10-S90-B-M12X			



Assembly instructions MA203

www.staubli.com/electrical

GigaDock1 connectors

Robots, assembly technology and image processing are key technologies in modern vehicle manufacturing. Stäubli provides the appropriate gigabit Ethernet plug connectors for future-oriented automation technology.

Applications

- Automatic tool changing on the robot
- Docking systems on transmission or engine test benches
- Digital image processing using the GigE Vision interface

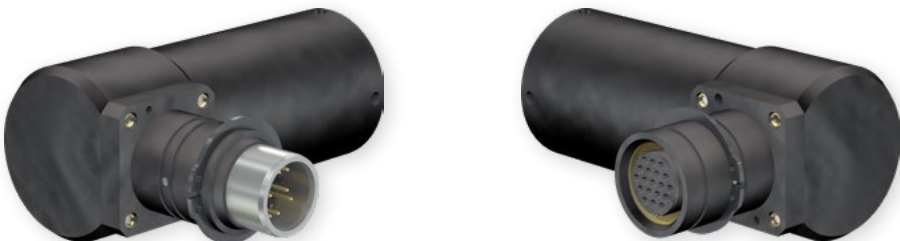
Note

- Degree of protection IP65

GigaDock1-IS...



GigaDock1-IS90...



Order No.	Type	Description	Plug termination	Fits	Cable outlet	
					Axial	90°
18.0184	GigaDock1-IS-S-M12X	Pre-wired connectors	M12 x-coded	Network cable, Ethernet, 8 pin min. CAT5e (1 GBit/s)	x	
18.0185	GigaDock1-IS-B-M12X					
18.0386	GigaDock1-IS90-S-M12X					x
18.0387	GigaDock1-IS90-B-M12X					



Assembly instructions MA203

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Connecting lead

Stäubli GigaDock1 connectors are supplied ready for use for fitting into docking plates. Once assembled, they are easy to connect using the M12 8-pole Ethernet CAT6A net-

work cable (e.g. Metz Connect M12 Ethernet connecting lead, CAT6, 8-pole, x-coded or M12 SPEEDCON /IP67/X).

Note:

The patch cable must be x-coded and is not included in the Stäubli delivery.

GigaDock1-...

min. CAT5e (1 GBit/s)



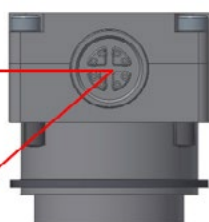
GigaDock10-...

Orientation of the M12 socket at 45°

min. CAT6A (10 GBit/s)

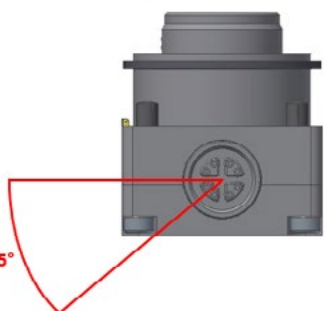
Socket side

45°



Pin side

45°

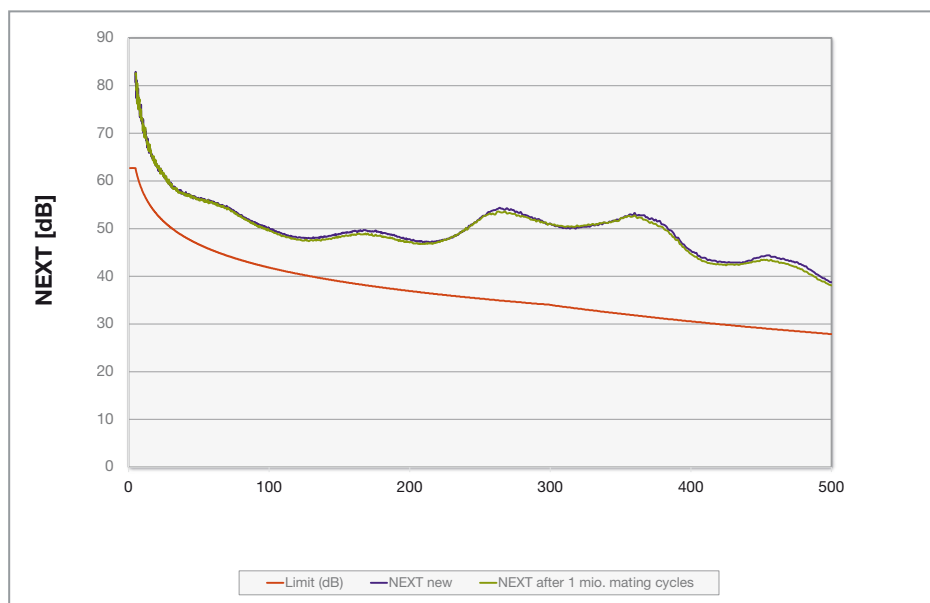


M12 connector
IEC 61076-2-109, Ethernet, CAT6A,
CAT6, min. 1 or 10 GBit/s

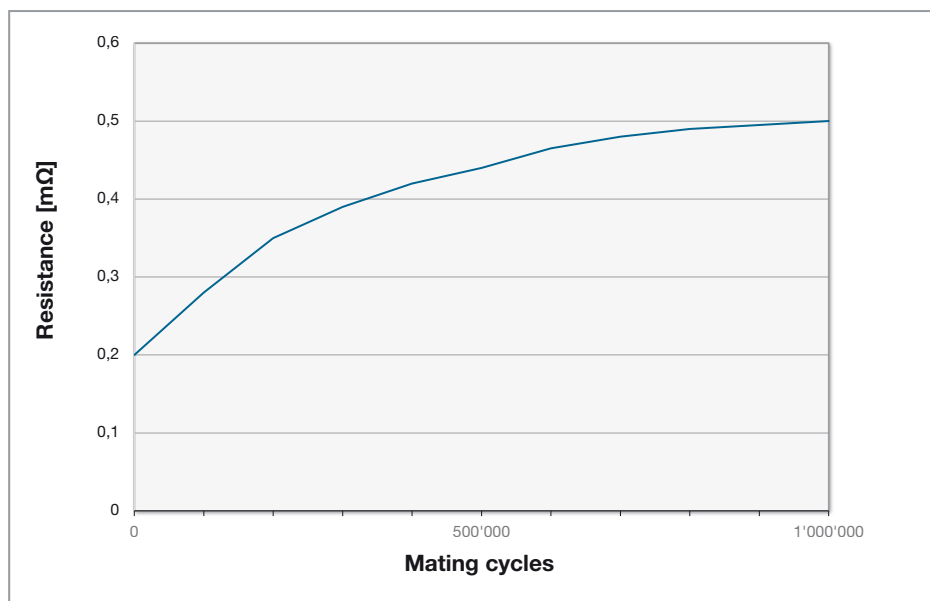
GigaDock10

Excellent transfer performance and long-term stability

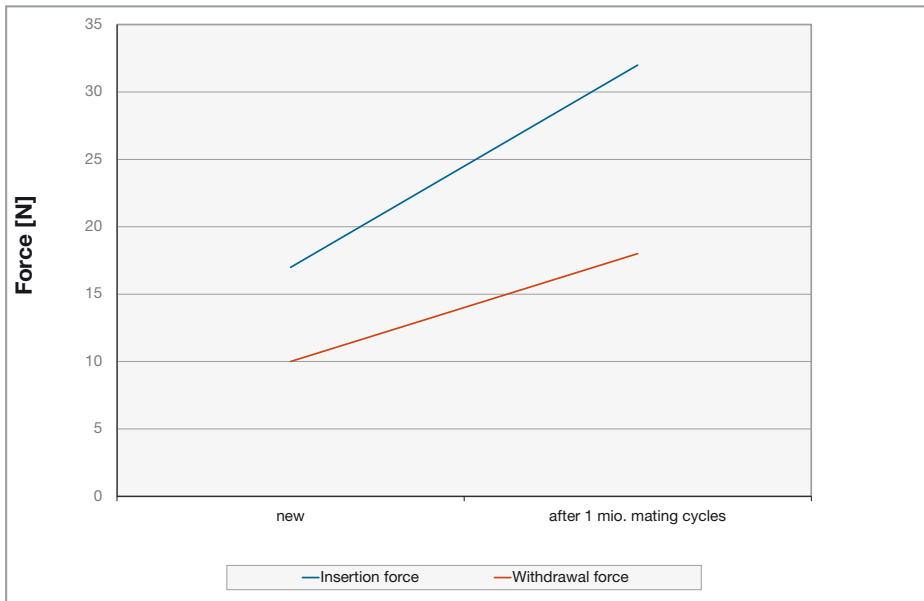
New signal transmission and after 1 million cycles, for example NEXT



Change in resistance during cycles



Insertion and pull-out forces during mating cycles





■ Stäubli Units ○ Agents

Global presence of the Stäubli Group

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