



LEMO's Remote Handling Connectors ●

N Series Connectors

for Robotic and

Telemanipulator Applications



● N Series Connectors

- LEMO quality, reliability and safety for remote handling applications
- Superior push-pull self-latching system offers unparalleled ease-of use, simplifying robotic connection
- Levered action for low-power manipulators
- 5N Series specifically designed for high-force power manipulators
- Precision construction from stainless steel, for harsh environments
- Chemical and radiation resistant



LEMO®

LEMO's N Series connectors are designed for safety and reliability in small to large-scale remote manipulation applications. This series is ideal for glove box and hot cell applications, and has a wide range of contact configurations including electronic, fiber optic, and hybrid inserts.

- Remote-handling push-pull latching
- Strong cylindrical shells designed for forceful manipulator grips
- Straight, 90°, or 120° Plugs
- Fixed or free sockets
- Multiple keying options
- Lanyard options for unlatching
- High contrast visible band on plug and receptacle
- Hybrid types (multicontact, single-contact, coaxial, triaxial, high voltage & fiber optic)
- Multicontact types 2-64 contacts
- Up to 50A / 8000V
- IP66/68 sealing when mated (IEC60529)
- Gold plated brass/bronze contacts
- Solder or crimp contacts
- MIL-C-22520F 4 point crimp contacts
- Cable diameters from 7.6mm - 28.5mm (.299 - 1.122")
- Adaptors / Couplers: N Series to K and E Series¹⁾
- AISI 304 Stainless-Steel shell

Model Description

ASG	Fixed adapter to K/E series plug, vacuum tight, nut fixing	FMY	Elbow plug (120°) for lever, with cable clamp
ASY	Fixed adapter to K/E series plug, vacuum tight, nut fixing, with lever	FZG	Straight plug with cable clamp
BZG	Cap for receptacle	FZY	Straight plug for lever, with cable clamp
BZY	Cap for receptacle with lever	HSG	Fixed receptacle, vacuum tight, nut fixing
EDG	Fixed receptacle, square flange, 4 screw fixing	HSY	Fixed receptacle, vacuum tight, nut fixing, with lever
EDY	Fixed receptacle, square flange, with lever, 4 screw fixing	PBG	Fixed receptacle, square flange, 4 screw fixing, with cable clamp
FMG	Elbow plug (120°) with cable clamp		

Shell Material and Treatment

Component	Material (Standard)	Code		Surface treatment (µm)	
		T	U	Cu	Ni
Outer shell, collet clamp, pre-positioning sleeve, washer	AISI 304 / 304L	●	●	Without treatment	
Latch sleeve	Special stainless steel	●	●	Without treatment	
Pin, screw	Stainless steel	●	●	Without treatment	
Other metallic parts	Brass (UNS C 38500)	●		0.5	3
	AISI 304		●	Without treatment	
O-ring and gasket	EPDM	●	●	Without treatment	
Sealing Resin	Epoxy	●	●	Without treatment	
Insulator	PEEK	●	●	without treatment	

Cable Range

Series	Cable
2N	7.6 - 10mm
3N	6.1 - 12mm
4N	9.1 - 17mm
5N	9.1 - 28.5mm

Note:
the surface treatment standard is as follows:
– nickel FS-QQ-N-290A

Types

Multiple Low Voltage	Hybrid Low Voltage / Coaxial
Coaxial	Hybrid Low Voltage/Fiber Optic
Fiber Optic	Multiple High Voltage
Fluidic / Pneumatic	Thermocouple
Hybrid Low / High Voltage	Custom Designs

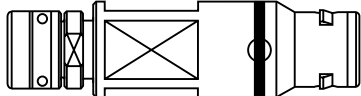
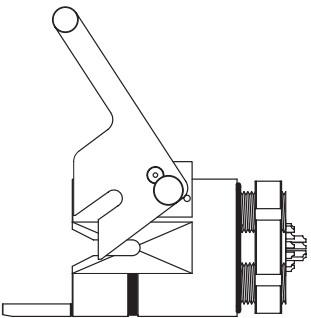
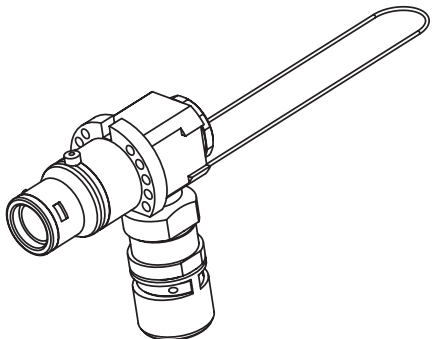
Note:
Contact LEMO for electrical details

LEMO's 5N Series connectors are designed with robust customer-configurable keying, minimizing the chance of misconnections. A total of 32 keying options provide connection safety, reduced cost for spares.

The 5N Series also offers an increased jaw grip face (1 inch), for use with large power manipulators.

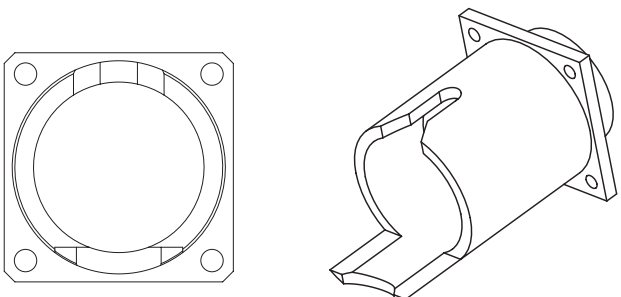
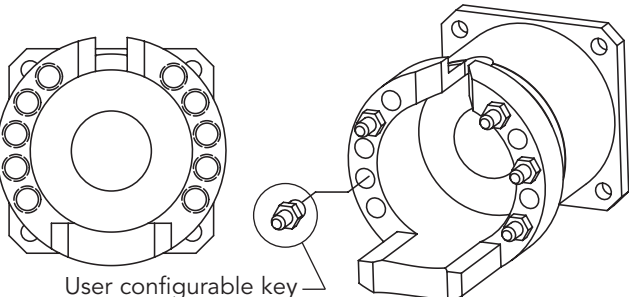
Latching

Available in 3 options for varying robotic strength and dexterity.

Flat Grip Textured Surface (Standard) - 2N-5N	Lever - 2N-5N	Lanyard - 2N-5N
<ul style="list-style-type: none"> • Standard shell style with flat grip textured surface for remote handling • Jaw grip compliance in mating process • Ideal for high power manipulators 	<ul style="list-style-type: none"> • Receptacle lever assists in reduced force mating and unmating (ex. 5N series: Standard latching is 40 - 50lbf insertion*. Lever latching is 3 - 17 lbf insertion*.) • Plug provides 2 lever gripped lateral pins • Ideal for low power manipulators  <p style="text-align: right; font-size: small;">*Without contacts</p>	<ul style="list-style-type: none"> • Ease in unlatching and grip retention in all manipulators 

Positioning

Standard positioning offers landing tray and notched entry for self-correcting alignment in robotic applications. Optional user configurable version provides further flexibility.

G-Positioning (Standard) - 2N-5N	U-Keying ²⁾ (Robust) - 5N only
<ul style="list-style-type: none"> • Standard alignment & positioning for 2N to 5N Series 	<ul style="list-style-type: none"> • Same features as the standard G-positioning, plus: • 32 user configurable keying options  <p style="text-align: center; font-size: small;">User configurable key</p>

Note:

- 1) N Series to K Series adapters accommodate multiple low voltage contacts; N Series to E Series adapters accommodate coax, triax and unipole contacts. Remote handling connectors also available in other series. Contact LEMO for details.
- 2) Patent Pending



Located 50 miles north of San Francisco, LEMO USA offers a nationwide network of product specialists, sales consultants and distributors, who work closely with customers in offering sales and technical support.



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