

Applications



Factory Automation



Agricultural/Construction Machinery



Medical Robots



Bayonet



Waterproof



CAT6A

Meet Hirose's LF Series Cat.6A connectors—engineered for high-speed data transmission up to 10Gbps. Featuring a secure bayonet lock and IPx7/IPx8 waterproof ratings, these connectors ensure reliable performance in factory automation, agricultural/construction machinery, medical robotic applications.

Rated to IPX7/IPX8 with a secure bayonet lock, these circular connectors provide incredible functionality and resilience in your most demanding environments.

KEY BENEFITS OF THE LF CAT.6A SERIES INCLUDE:

- Waterproof rated to IPX7/IPX8
- Metal shielding within connector ensures signal integrity at high speeds
- Simple assembly procedure ensures structural and signal integrity regardless of assembler's familiarity with the product
- Bayonet locking system for quick and secure connections
- Compact design saves space when compared to competing circular products



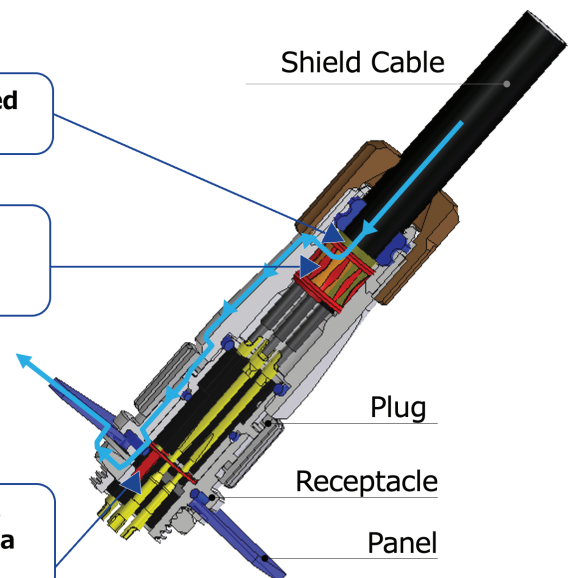
Shielded design enhances EMC

- Shielding in cable is terminated to panel to ensure signal integrity
- Internal shield clamp and spiral shield make assembly quick and easy

1 Braided shield is clamped with ground terminal.

2 Braided shield contacts the plug housing via a contact spring.

3 Tip of the plug contacts the receptacle shell via a contact spring.



[CLICK HERE](#)
FOR MORE INFORMATION

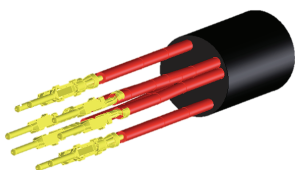
[CLICK HERE TO ORDER](#)
SAMPLE NUMBER:
US-LFCAT6ASAMPLE-24

Easy Assembly

This connector is quick and reliable to assemble. Simply prep and strip the cable, crimp the contacts, attach the molds and spiral shield part, place into shell, and close all the parts together. The spiral shielding enables a very simple termination process.

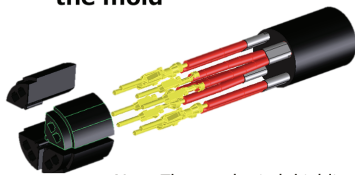
Step 1

Cable strip
Crimp contact



Step 2

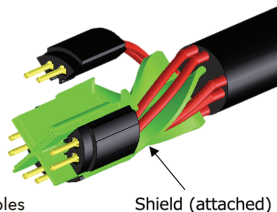
Insert contact into
the mold



Note: The metal spiral shielding (pictured in green for visibility) enables a very simple termination process.

Step 3

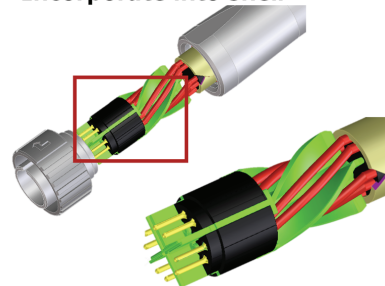
Set in shield



Shield (attached)

Step 4

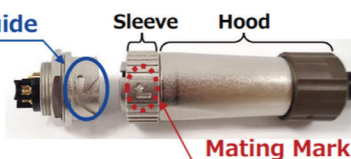
Incorporate into shell



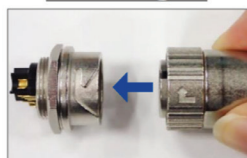
Simple Locking

Bayonet locking is present throughout the LF series of connectors, and allows for much quicker mating and unmating when compared to screw threaded connectors (M12, etc.)

Wide Mating Guide



Mating



Hold the plug hood and match it with the receptacle mating key.

Unmating



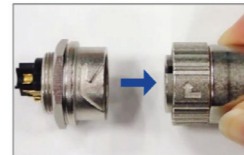
Release the lock by turning the sleeve of the plug counterclockwise.

Click

Excellent Click Mating



Turn the sleeve of the plug in the arrow direction. (Clockwise)
→ Lock completed



Pull the plug.
→ Unmating completed

Compact Design

Compared to other circular ethernet connectors like M12-X coded connectors, the LF Cat.6A has both a shorter length and a smaller diameter, enabling a more compact final product and tighter cable bend radius.

Environmental Resistance

The LF Cat.6a is rated to IPX7/IPX8, or 14 days submersion at 2 meters of water depth. Additionally, the LF Cat.6A series has passed 2,000 hours of sunshine testing, and is suitable for long term outdoor usage.

Specifications

LF10 Cat.6a	
Rated Current	2A / pin
Rated Voltage	50V AC, 60V DC
Operating Temperature	-25 to 85°C
Contact Resistance	30mΩ Max. (1A DC) for Signal Pins 100mΩ Max. (1A DC) for Shield
Withstanding Voltage	1,000V AC for 1 min.
Insulation Resistance	100MΩ Minimum (100V DC)
Mating Durability	1,000 times
Cable Outer Diameter	Ø6.5mm ± 0.2mm (LF10*HB-8*) Ø6.9mm ± 0.2mm (LF10*HA-8*)

Variations available: (Subject to change)

- Male Crimp Plug - LF10WBPHA-8PC(40), LF10WBPHB-8PC(40)
- Female THT Receptacle - LF10WBRBH-8SD(40)
- Inline Crimp Jack - LF10WBJHA-8SC(40), LF10WBJHB-8SC(40)

For additional information please go to
www.hirose.com/product/series/LF

Specifications herein are subject to change without notice.
Contact Hirose for latest specifications, drawings, or availabilities.

STAY CONNECTED

