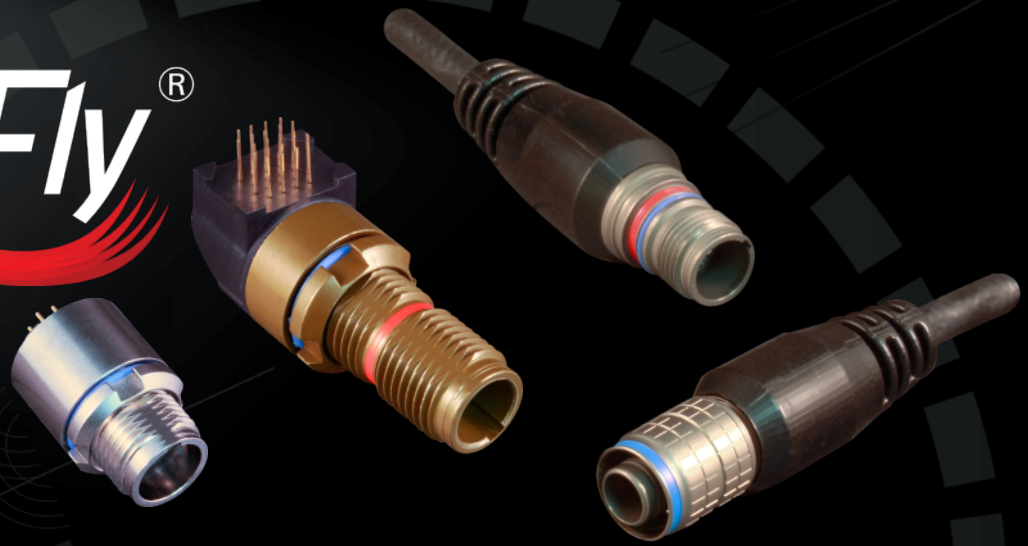
The widest range of mission-critical interconnect technologies in the world

SuperFly®



Glenair®

Series 88 SuperFly
Nanominiature Tactical Connectors

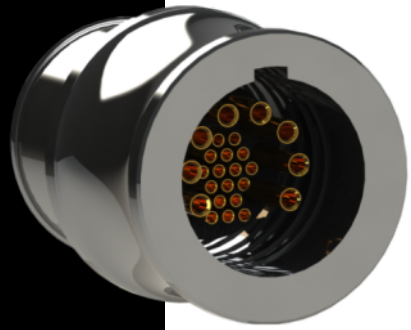
Series 88 SuperFly

Nanominiature tactical connector series with hybrid contact arrangements

- Push-pull version with high/low force release option
- Threaded version for secure mating
- Hybrid contact system
- First mate/last break power contacts
- Layouts and contact spacing optimized for high-speed

Series 88 SuperFly Contact System

Combining the industry's smallest contact technologies



#24
Micro
TwistPin

#30
Nano
TwistPin

#23 39029
Pin and
Socket
Contacts

Series 88 SuperFly Contacts

Basic electrical specifications

Nano Twistpin
M32139
1AMP
28-32AWG

Micro Twistpin
M83513
3AMP
24-30AWG

Size 23 Pin
M39029
5AMP
22-28AWG

Series 88 SuperFly Insert Configurations

ABOUT SHROUDED AND UNSHROUDED SUPERFLY® CONFIGURATIONS

Shrouded contacts are recessed within the insulator. Unshrouded contacts extend from the insert face. Figure 1 shows a shrouded insert, and figure 2 illustrates an unshrouded insert. Shrouded inserts contain 1 amp and 3 amp pin contacts along with 5 amp socket contact. Unshrouded inserts contain 1 amp and 3 amp sockets and 5 amp twistpins.

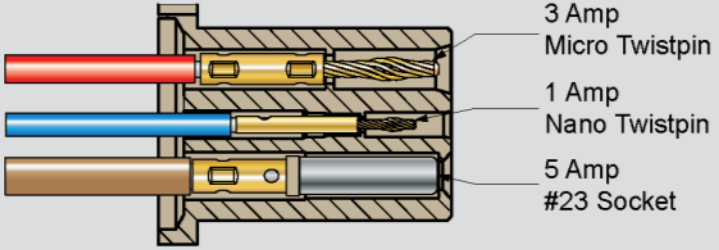


Figure 1
Shrouded Type B Insert

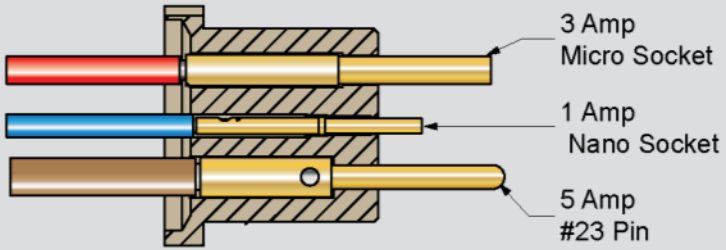
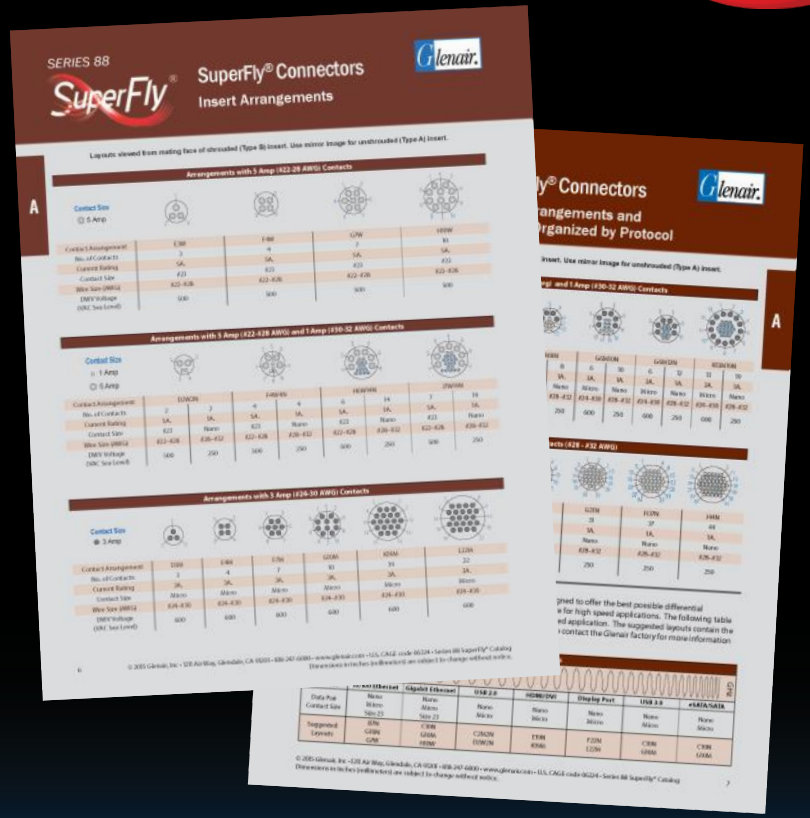


Figure 2
Unshrouded Type A Insert

Connectors are reverse-genderable;
A or B inserts can be on either plug or receptacle

Series 88 SuperFly Diversity of Layouts

- 27 Layouts utilizing 1A, 3A and 5A contacts
- Maximum design flexibility
- 22-32 AWG wire
- Optimized contact spacing for high speed applications
- All layouts fully tooled



Series 88 SuperFly Performance Specs

Mechanical and Environmental Specifications		
Description	Requirement	Standard
Water Immersion, mated	1 meter, 1 hour	MIL-STD-810F Method 512.4
Ingress Protection, mated	IP67 rating	IEC-60529
Vibration, Sine	30 g's	EIA-364-28
Vibration, Random	37.8 g's	EIA-364-28 Test Condition V IEC-60512-6-4
Gunfire Vibration	No discontinuity	MIL-STD-810 Method 519
Mechanical Shock	300g's	EIA-364-27 Condition D IEC-60512-6-3
Corrosion (Salt Mist)	Nickel-plated aluminum: 48 hours Other finishes: 500 hours	EIA-364-26 IEC 60512-11-6
Fluid Immersion	No damage from immersion in various fuels and oils.	EIA-364-10
Magnetic Permeability	2 µ maximum.	EIA-364-54
Durability (mating cycles)	2000	EIA-364-09

Series 88 SuperFly for High-Speed Applications

Parameter	Results
Insertion Loss – Nano Contacts	-3dB @ 3.9 GHz
Electrical Bandwidth*	8Gbps
Insertion Loss –Micro Contacts	-3dB @ 2.9 GHz
Electrical Bandwidth*	6Gbps
Insertion Loss – Size 23 Contacts	-3dB @ 2.1GHz
Electrical Bandwidth*	5Gbps

Series 88 SuperFly Layouts for High-Speed Applications

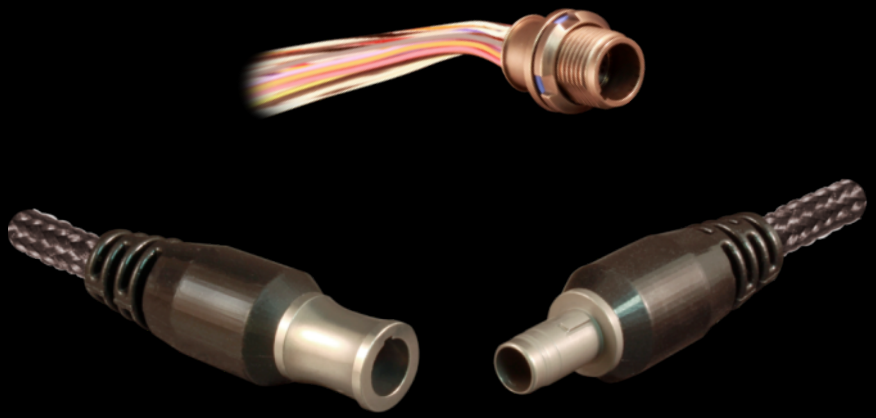
LAYOUTS ORGANIZED BY PROTOCOL

The geometries of SuperFly® nano and micro contact cavities were designed to offer the best possible differential impedance match for a contact pair. This makes SuperFly® a great choice for high speed applications. The following table is provided as a starting-point when selecting a layout for your high speed application. The suggested layouts contain the minimum number of contacts required for the specified protocol. Please contact the Glenair factory for more information including other supported protocols and high speed test data.

High Speed Applications							
Frequency	MHZ  GHZ						
Protocol	**10/100 Ethernet**	**Gigabit Ethernet**	**USB 2.0**	**HDMI/DVI**	**Display Port**	**USB 3.0**	**eSATA/SATA**
Data Pair Contact Size	Nano Micro Size 23	Nano Micro Size 23	Nano Micro	Nano Micro	Nano Micro	Nano Micro	Nano Micro
Suggested Layouts	B7N G10M G7W	C10N G10M H10W	C2M2N D2W2N	E19N K19M	F22N L22M	C10N G10M	C10N G10M

Series 88 SuperFly Mating Styles

Quick-Disconnect



Threaded

Series 88 SuperFly Shell Configurations

- Multiple connector configurations
  - Flying leads
  - Front and rear panel mount, inline
- PC tails (straight and right angle)
- Solder cups
- Fully jacketed cordsets

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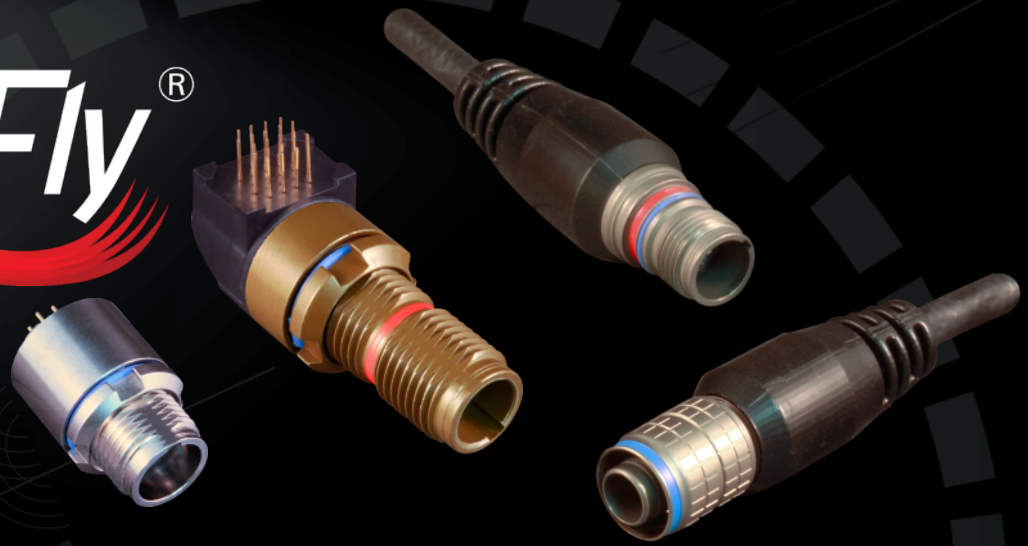

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