

Fiber Optic Connector Series

X-BEAM TECH

HXB15 CONNECTOR

FEATURES

RoHS
COMPLIANT



- Advanced expanded beam technology
- Rugged field deployable fiber optic connector
- Hermaphroditic interconnection
- 2, 4, 6, 8, and 10 optical channels
- Singlemode (SM) or Multimode (MM)
- Optical/electric hybrid configurations available
- Custom configurations available
- Environmental sealing (IPX8)
- Very high resistance to vibration, shock, environmental effects, dust, and debris
- Easy clean, no special tools
- No adaptors necessary
- Cables assemblies with plugs and bulkheads



DESCRIPTION

The HXB15 connectors, featuring expanded beam technology, hermaphroditic connections, and rugged construction for field deployment have been designed for harsh environment applications such as military tactical communications, avionics, offshore systems, outside broadcast, mining and plant.

The expanded beam technology uses expanded and collimated beams to couple optical fibers without any contact. It could allow for optics to be used in areas that have been quite restrictive due to the presence of damage or contamination at the fiber end.

The hermaphroditic connector design enables fast deployment by daisy-chaining multiple cable segments. HXB15 connectors also enable the transfer of electrical signals or power using a hybrid insert configuration.

APPLICATIONS

- Military Communications
- Avionics, Marine
- Mining, Oil and Gas
- Rail, Transport
- Broadcast
- Telecommunications
- Medical
- Industrial

SPECIFICATION

Optical Performance

Insertion Loss	Typical 0.8 - 1.8 dB @ 1310, 1550 nm Typical 0.5 - 1.0 dB @ 850, 1300 nm	Singlemode Multimode
Return Loss	> 32 dB	Singlemode only

Mechanical Performance

Durability	3,000 mating cycles
Operating Temperature	-40 °C to 85 °C
Storage Temperature	-55 °C to 85 °C
Water Immersion	Up to 15 m
Free Fall	500 falls @ 1.2 m
Vibration	10 - 500 Hz, 3 axis, 0.75 mm, 10 g
Shock	11 ms, 3 axis, 50 g

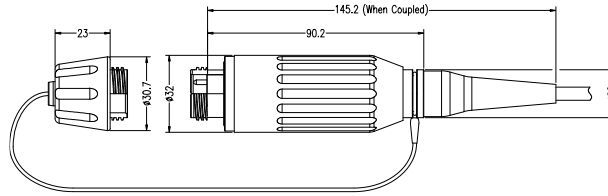
X-BEAM TECH

HXB15 CONNECTOR

DIMENSIONS

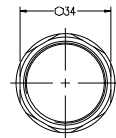
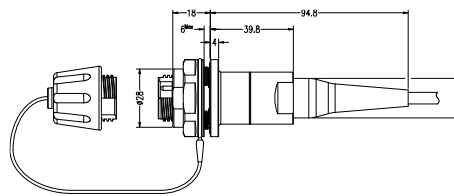
HXB15 Plug Connector

HXB15-PSD
Standard Plug with Dust Cap



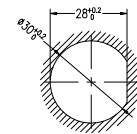
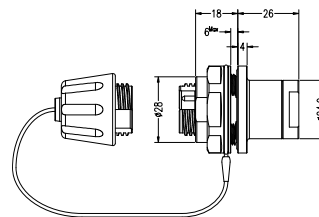
HXB15 Jam Nut Receptacle

HXB15-RJS
Receptacle, Jam Nut,
Standard, Dust Cap



Flange Nut

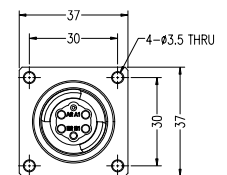
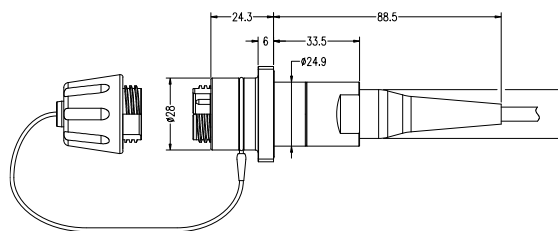
HXB15-RJL
Receptacle, Jam Nut,
Low Profile, Dust Cap



Panel Cut Out
D-Hole Mount Data

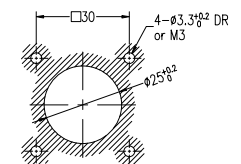
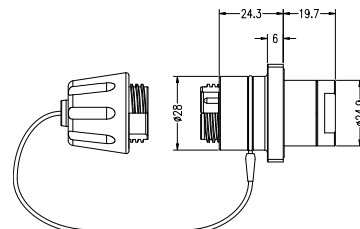
HXB15 Square Flange Receptacle

HXB15-RQS
Receptacle, Square Flange,
Standard, Dust Cap



Square Flange

HXB15-RQL
Receptacle, Square Flange,
Low Profile, Dust Cap

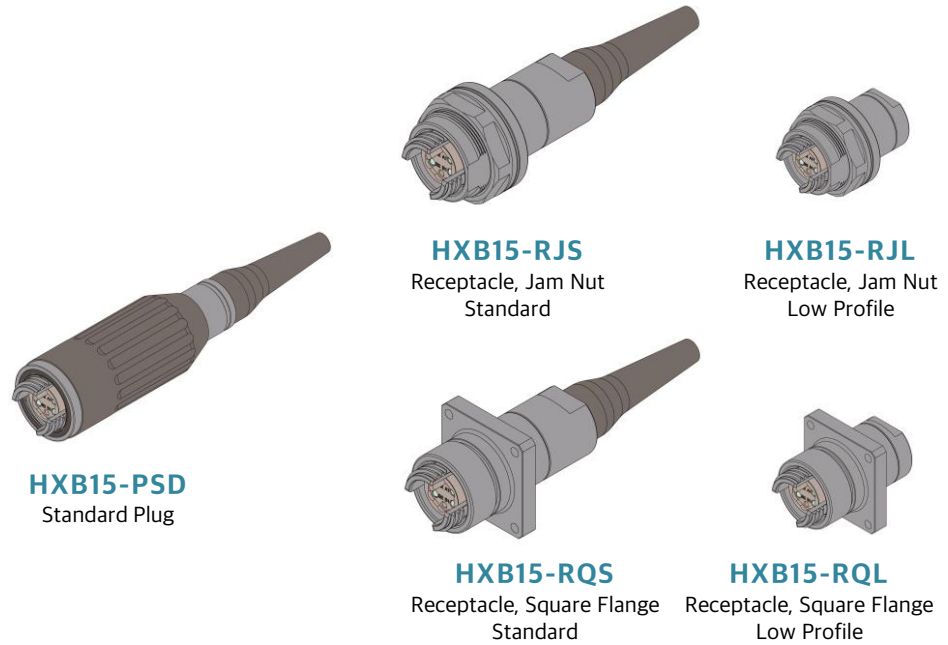


Panel Cut Out
Square Flange Mount Data

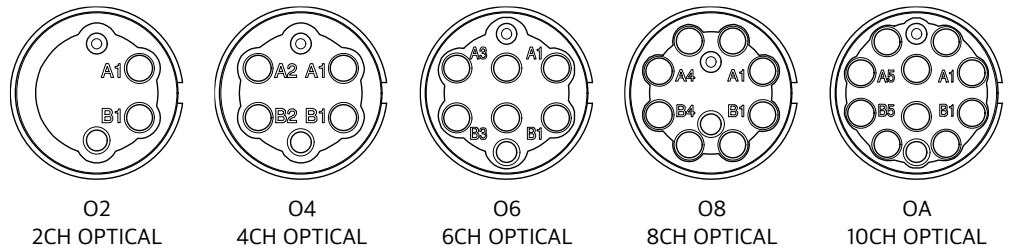
Note. Other configurations, materials and finishes available upon request

HXB15 CONNECTOR

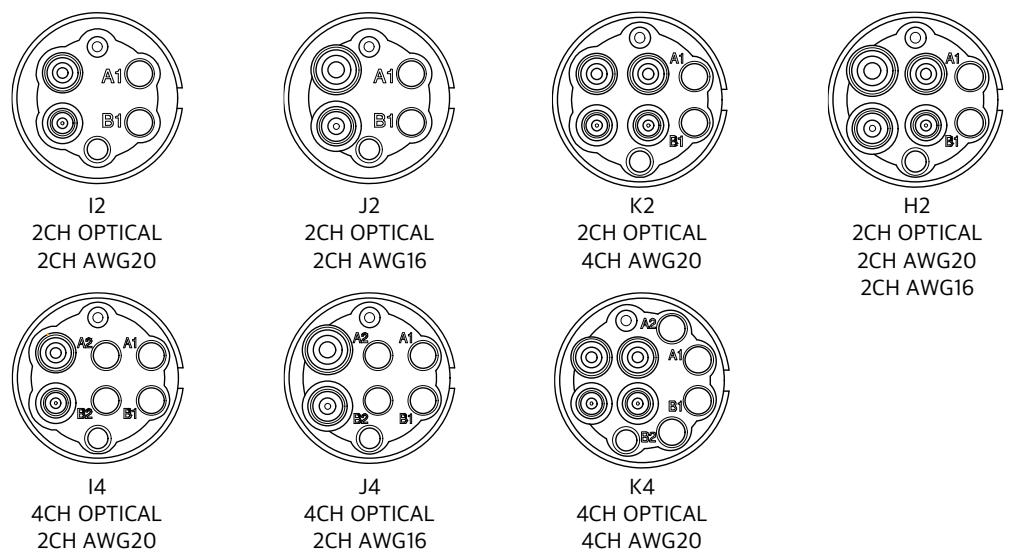
MODELINGS



OPTICAL INSERT ARRANGEMENTS



HYBRID INSERT ARRANGEMENTS



HXB15 CONNECTOR

ORDER INFORMATION (Order Example)

Connector only

HXB15 - PSD - B - O4 - M1 - D55_(C03)

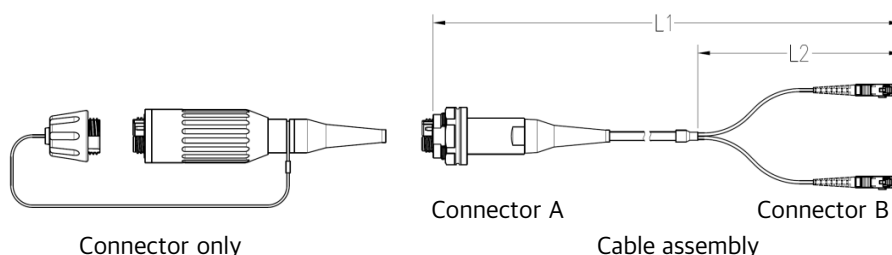
Cable assembly

HXB15AS - RJS - B - O4 - M1 - S20 - LC - 020/30D_(C03)

1	2	3	4	5	6	7
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1	Connector A		PSD Plug with Dust Cap RJS Receptacle, Jam Nut, Standard, Dust Cap RJL Receptacle, Jam Nut, Low Profile, Dust Cap RQS Receptacle, Square Flange, Standard, Dust Cap RQL Receptacle, Square Flange, Low Profile, Dust Cap CXX Customized Connector
2	Material & Finish		B Aluminum Alloy, Black Hard Anodized P Stainless Steel, Passivated X Others
3	Channel Count	O2, O4, O6, O8, OA H2 I2, I4 J2, J4 K2, K4	2 / 4 / 6 / 8 / 10 CH OPTICAL 2 CH OPTICAL, 2 CH AWG20, 2 CH AWG16 2 / 4 CH OPTICAL, 2 CH AWG20 2 / 4 CH OPTICAL, 2 CH AWG16 2 / 4 CH OPTICAL, 4 CH AWG20
4	Fiber Type		S1 SM - 9 μ m core Singlemode Fiber M1 OM1 - 62.5 μ m core Multimode Fiber M2 OM2 - 50 μ m core Multimode Fiber M3 OM3 - 50 μ m core Multimode Fiber
5	Cable Diameter		S09 \varnothing 0.9 mm Buffered Fiber - RJL, RQL S20 \varnothing 2.0 mm Jacketed Cable - RJS, RQS D55 \varnothing 5.5 mm Outdoor Cable - PSD, RJS, RQS DXX Others
6	Connector B		SA Same as Connector A SC SC Connector LC LC Connector ST ST Connector CX Customized Connector
7	Cable Length	L1/L2 100 020/30B 020/30D	Total Length (m)/ Distribution Length (cm) Total 100m Total 20m / Distribution 30cm Breakout Cable Total 20m / Distribution 30cm Distribution Cable

For custom requirements, please consult us.

Note. Other configurations, materials and finishes available upon request

Fiber Optic Connector Series

X-BEAM TECH

HXB13 CONNECTOR

FEATURES

RoHS
COMPLIANT



- Advanced expanded beam technology
- Rugged field deployable fiber optic connector
- Hermaphroditic interconnection
- 2 and 4 optical channels
- Singlemode (SM) or Multimode (MM)
- Optical/electric hybrid configurations available
- Custom configurations available
- Environmental sealing (IPX8)
- Very high resistance to vibration, shock, environmental effects, dust, and debris
- Easy clean, no special tools
- No adaptors necessary
- Cables assemblies with plugs and bulkheads



DESCRIPTION

The HXB13 Connectors, featuring expanded beam technology, hermaphroditic connections, and rugged construction for field deployment and hybrid configurability, have been designed for harsh environment applications such as military tactical communications, avionics, offshore systems, outside broadcast, mining, and plants.

The expanded beam technology uses expanded and collimated beams to couple optical fibers without any contact. It could allow for optics to be used in areas that have been quite restrictive due to the presence of damage or contamination at the fiber end.

The hermaphroditic connector design enables fast deployment by daisy-chaining multiple cable segments. HXB13 connectors also enable the transfer of electrical signals or power using a hybrid insert configuration.

APPLICATIONS

- Military Communications
- Avionics, Marine
- Mining, Oil and Gas
- Rail, Transport
- Broadcast
- Telecommunications
- Medical
- Industrial

SPECIFICATION

Optical Performance

Insertion Loss	Typical 0.8 - 1.8 dB @ 1310, 1550 nm Typical 0.5 - 1.0 dB @ 850, 1300 nm	Singlemode Multimode
Return Loss	> 32 dB	Singlemode only

Mechanical Performance

Durability	3,000 mating cycles
Operating Temperature	-40 °C to 85 °C
Storage Temperature	-55 °C to 85 °C
Water Immersion	Up to 15 m
Free Fall	500 falls @ 1.2 m
Vibration	10 - 500 Hz, 3 axis, 0.75 mm, 10 g
Shock	11 ms, 3 axis, 50 g

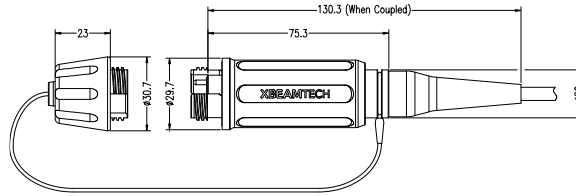
X-BEAM TECH

HXB 13 CONNECTOR

DIMENSIONS

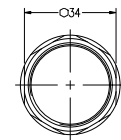
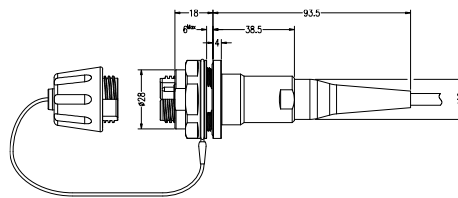
HXB13 Plug Connector

HXB13-PSD
Standard Plug with Dust Cap



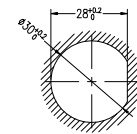
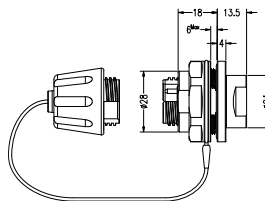
HXB13 Jam Nut Receptacle

HXB13-RJS
Receptacle, Jam Nut,
Standard, Dust Cap



Flange Nut

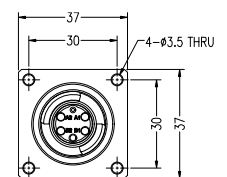
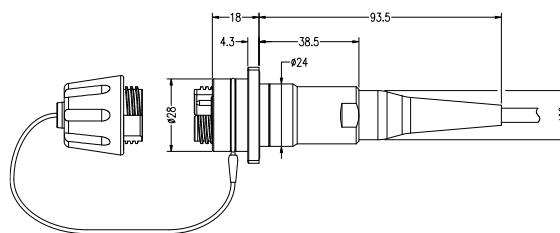
HXB13-RJL
Receptacle, Jam Nut,
Low Profile, Dust Cap



Panel Cut Out
D-Hole Mount Data

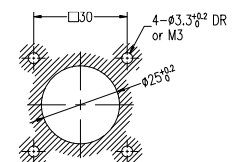
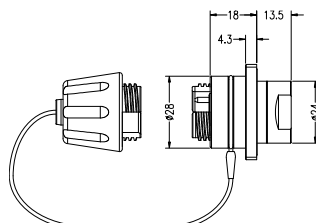
HXB13 Square Flange Receptacle

HXB13-RQS
Receptacle, Square Flange,
Standard, Dust Cap



Square Flange

HXB13-RQL
Receptacle, Square Flange,
Low Profile, Dust Cap



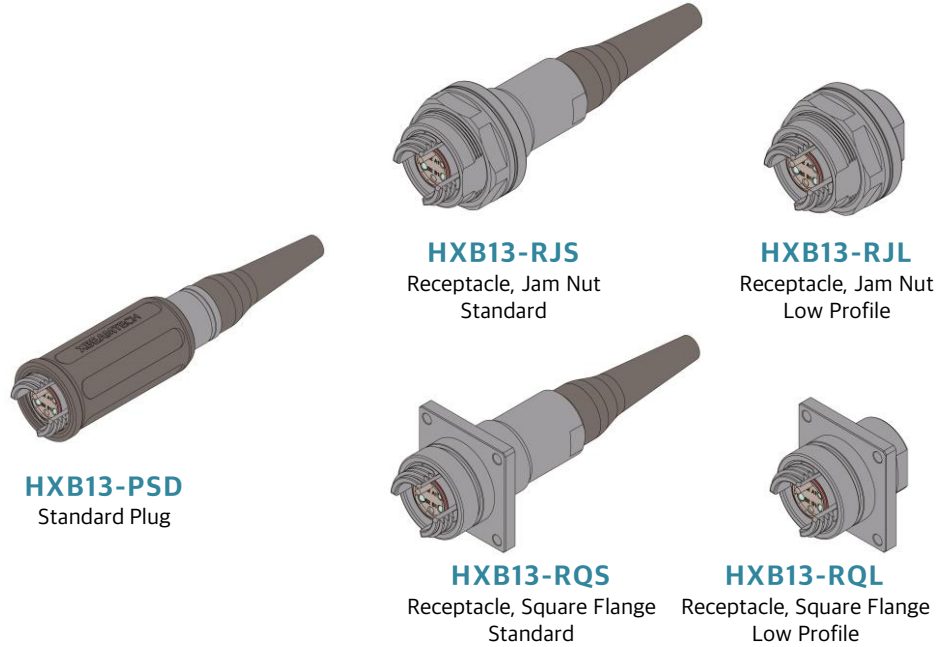
Panel Cut Out
Square Flange Mount Data

Note. Other configurations, materials and finishes available upon request

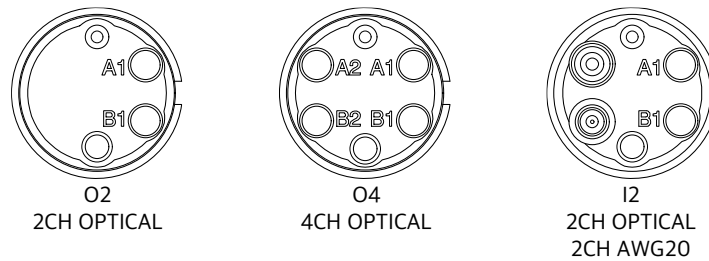
X-BEAM TECH

HXB13 CONNECTOR

MODELINGS



INSERT ARRANGEMENTS



HXB CONNECTOR SERIES



Note. Other configurations, materials and finishes available upon request

HXB13 CONNECTOR

ORDER INFORMATION (Order Example)

Connector only

HXB13 - PSD - B - O4 - M1 - D55_(C03)

Cable assembly

HXB13AS - RJS - B - O4 - M1 - S20 - LC - 020/30 D_(C03)

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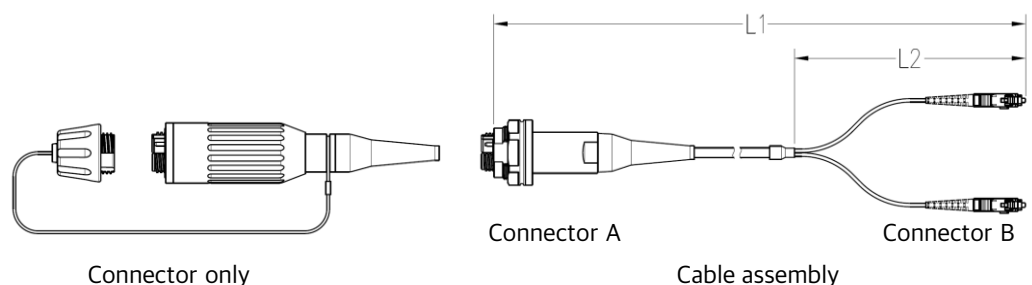
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1	Connector A	PSD	Plug with Dust Cap
		RJS	Receptacle, Jam Nut, Standard, Dust Cap
		RJL	Receptacle, Jam Nut, Low Profile, Dust Cap
		RQS	Receptacle, Square Flange, Standard, Dust Cap
		RQL	Receptacle, Square Flange, Low Profile, Dust Cap
		CXX	Customized Connector
2	Shell Material & Finish	B	Aluminum Alloy, Black Hard Anodized
		X	Others
3	Arrangement	O2	2 CH OPTICAL
		O4	4 CH OPTICAL
		I2	2 CH OPTICAL, 2 CH AWG20
4	Fiber Type	S1	SM - 9 μ m core Singlemode Fiber
		M1	OM1 - 62.5 μ m core Multimode Fiber
		M2	OM2 - 50 μ m core Multimode Fiber
		M3	OM3 - 50 μ m core Multimode Fiber
5	Cable Option	S09	\varnothing 0.9 mm Buffered Fiber - RJL, RQL
		S20	\varnothing 2.0 mm Jacketed Cable - RJS, RQS
		D55	\varnothing 5.5 mm Outdoor Cable - PSD, RJS, RQS
		DXX	Others
6	Connector B	SA	Same as Connector A
		SC	SC Connector
		LC	LC Connector
		ST	ST Connector
		CX	Customized Connector
7	Cable Length	L1/L2	Total Length (m)/ Distribution Length (cm)
		100	Total 100m
		020/30B	Total 20m / Distribution 30cm Breakout Cable
		020/30D	Total 20m / Distribution 30cm Distribution Cable

For custom requirements, please consult us.

Note. Other configurations, materials and finishes available upon request

Fiber Optic Connector Series

X-BEAM TECH

HXB11 CONNECTOR

FEATURES

RoHS
COMPLIANT



- Advanced expanded beam technology
- Rugged field deployable fiber optic connector
- Hermaphroditic interconnection
- 1, 2 and 4 optical channels
- Singlemode (SM) or Multimode (MM)
- Custom configurations available
- Environmental sealing (IPX8)
- Very high resistance to vibration, shock, environmental effects, dust, and debris
- Easy clean, no special tools
- No adaptors necessary
- Cables assemblies with plugs and bulkheads



DESCRIPTION

The HXB11 Connectors, featuring expanded beam technology, hermaphroditic connections, and rugged construction for field deployment, have been designed for harsh environment applications such as military tactical communications, avionics, offshore systems, outside broadcast, mining, and plants.

The expanded beam technology uses expanded and collimated beams to couple optical fibers without any contact. It could allow for optics to be used in areas that have been quite restrictive due to the presence of damage or contamination at the fiber end.

The hermaphroditic connector design enables fast deployment by daisy-chaining multiple cable segments.

APPLICATIONS

- Military Communications
- Avionics, Marine
- Mining, Oil and Gas
- Rail, Transport
- Broadcast
- Telecommunications
- Medical
- Industrial

SPECIFICATION

Optical Performance

Insertion Loss	Typical 0.8 - 1.8 dB @ 1310, 1550 nm Typical 0.5 - 1.0 dB @ 850, 1300 nm	Singlemode Multimode
Return Loss	> 32 dB	Singlemode only

Mechanical Performance

Durability	3,000 mating cycles
Operating Temperature	-40 °C to 85 °C
Storage Temperature	-55 °C to 85 °C
Water Immersion	Up to 15 m
Free Fall	500 falls @ 1.2 m
Vibration	10 - 500 Hz, 3 axis, 0.75 mm, 10 g
Shock	11 ms, 3 axis, 50 g

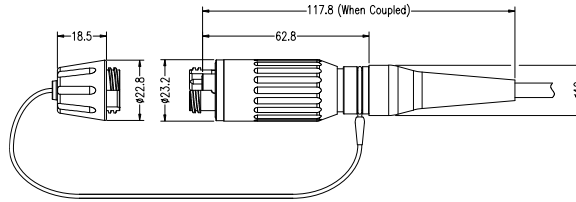
X-BEAM TECH

HXB11 CONNECTOR

DIMENSIONS

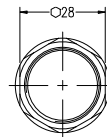
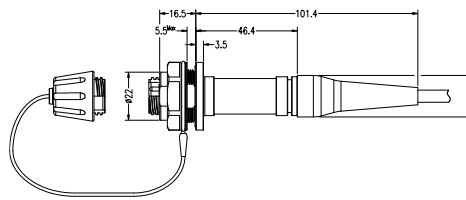
HXB11 Plug Connector

HXB11-PSD
Standard Plug with Dust Cap



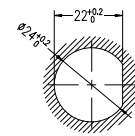
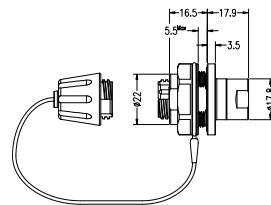
HXB11 Jam Nut Receptacle

HXB11-RJS
Receptacle, Jam Nut,
Standard, Dust Cap



Flange Nut

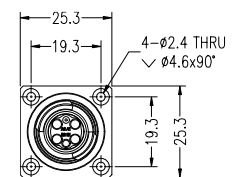
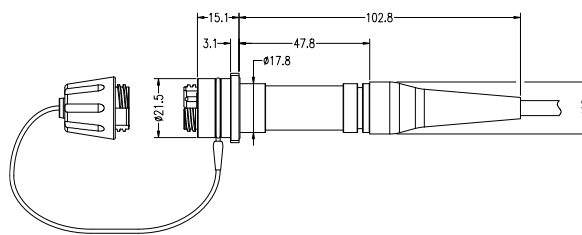
HXB11-RJL
Receptacle, Jam Nut,
Low Profile, Dust Cap



Panel Cut Out
D-Hole Mount Data

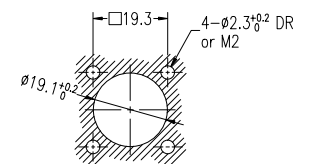
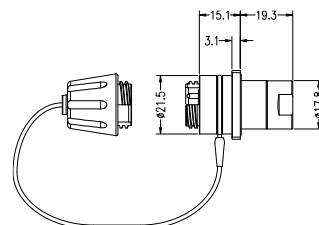
HXB11 Square Flange Receptacle

HXB11-RQS
Receptacle, Square Flange,
Standard, Dust Cap



Square Flange

HXB11-RQL
Receptacle, Square Flange,
Low Profile, Dust Cap



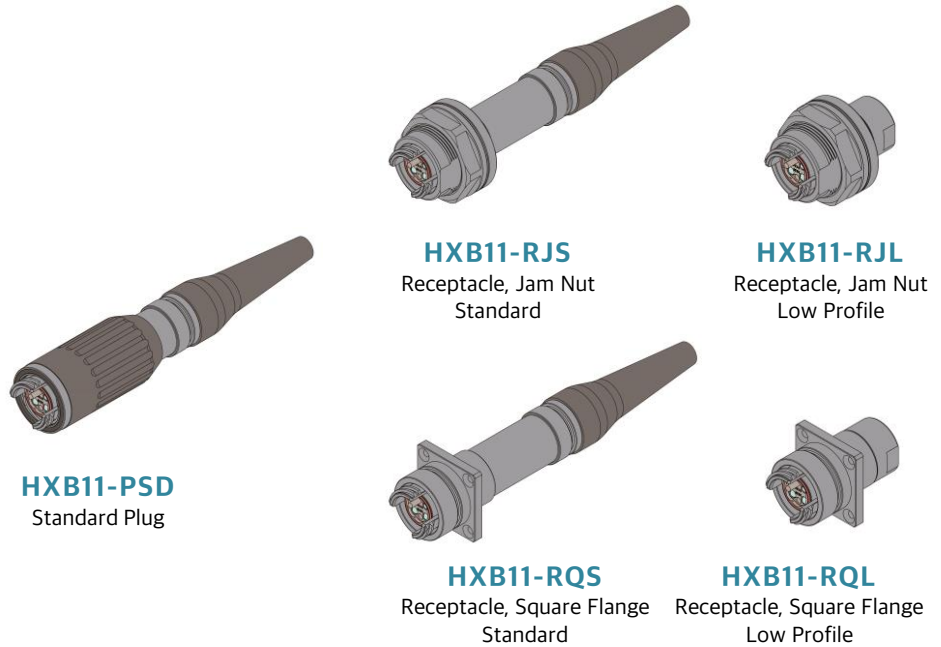
Panel Cut Out
Square Flange Mount Data

Note. Other configurations, materials and finishes available upon request

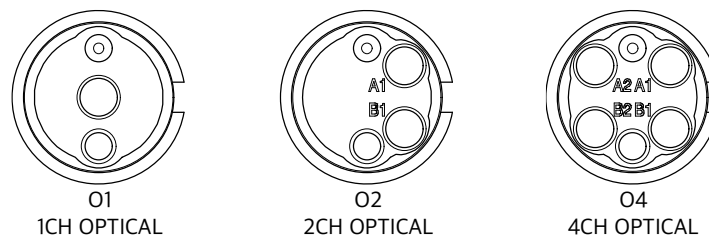
X-BEAM TECH

HXB11 CONNECTOR

MODELINGS



INSERT ARRANGEMENTS



HXB CONNECTOR SERIES



Note. Other configurations, materials and finishes available upon request

HXB11 CONNECTOR

ORDER INFORMATION (Order Example)

Connector only

HXB11 - PSD - B - O4 - M1 - D55 _(C03)

Cable assembly

HXB11AS - RJS - B - O4 - M1 - S20 - LC - 020/30D _(C03)

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1	Connector A	PSD	Plug with Dust Cap
		RJS	Receptacle, Jam Nut, Standard, Dust Cap
		RJL	Receptacle, Jam Nut, Low Profile, Dust Cap
		RQS	Receptacle, Square Flange, Standard, Dust Cap
		RQL	Receptacle, Square Flange, Low Profile, Dust Cap
		CXX	Customized Connector
2	Shell Material & Finish	B	Aluminum Alloy, Black Hard Anodized
		X	Others
3	Channel Count	O1	1 CH OPTICAL
		O2	2 CH OPTICAL
		O4	4 CH OPTICAL
4	Fiber Type	S1	SM - 9 μ m core Singlemode Fiber
	End A - Fiber Type	M1	OM1 - 62.5 μ m core Multimode Fiber
		M2	OM2 - 50 μ m core Multimode Fiber
		M3	OM3 - 50 μ m core Multimode Fiber
5	Cable Diameter	S09	\varnothing 0.9 mm Buffered Fiber - RJL, RQL
		S20	\varnothing 2.0 mm Jacketed Cable - RJS, RQS
		D55	\varnothing 5.5 mm Outdoor Cable - PSD, RJS, RQS
		DXX	Others
6	Connector B	SA	Same as Connector A
		SC	SC Connector
		LC	LC Connector
		ST	ST Connector
		CX	Customized Connector
7	Cable Length	L1/L2	Total Length (m)/ Distribution Length (cm)
		100	Total 100m
		020/30B	Total 20m / Distribution 30cm Breakout Cable
		020/30D	Total 20m / Distribution 30cm Distribution Cable

For custom requirements, please consult us.

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