






Harsh environment connectors Overview

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Harsh environment connectors overview

	ODC based (outdoor connector) screw-lock		Q-ODC based (quick-lock outdoor connector) push-pull		
	ODC-2	ODC-4	Q-ODC-2*	Q-ODC-2 Industry*	Q-ODC-2 Mini
					
Number of fibers	2	4	2	2	2
Mating cycles	1000	1000	200	500	50
Tensile load	tensile load 800 N plug ≤ 30 N socket	tensile load 800 N plug ≤ 30 N socket	tensile load 450 N plug ≤ 30 N socket	tensile load 450 N plug ≤ 30 N socket	tensile load 150 N plug
Protection class IEC 60529	IP68 (30 days / 3 m)	IP68 (30 days / 3 m)	IP67	IP68 (30 days / 3 m)	IP65
Operating temperature IEC 61300-2-22	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C
Salt mist IEC 61300-2-26	720h	720h	720h	720h	720h

*cross-compatible connectors

Main applications

Bus shelter

Upgrade of transportation and advertisement infrastructure creates ideal locations to deploy small cells but the challenge is the amount of different active equipments. This requires small connectivity solutions that are easy to reconfigure as upgrades are done.

Requirements: small and reliable

Products

Q-ODC-2 Mini, Q-ODC-2

Lamp poles

Lamp poles are getting connected to the network. This is challenging, as lamp poles have high visibility and limited space but are deployed in large quantities which requires deployment simplicity and installation speed.

Requirements: small size to fit through reduced size opening, low visual footprint, simple to install, reliable connection

Products

Q-ODC-2 Mini

		LC Duplex based			
Q-ODC-12 / Q-ODC-24*	Q-ODC-12 Industry / Q-ODC-24 Industry*	XCO	Q-XCO	FullAXS	FullAXS Mini
					
12/24	12/24	2	2	2/12	2
100	500	500	100	100	100
tensile load 450 N plug ≤ 30 N socket	tensile load 450 N plug ≤ 30 N socket	tensile load ≤ 500 N plug 30 N socket	tensile load ≤ 450 N plug	tensile load 150 N plug	tensile load 150 N plug
IP68 (30 days / 3 m)	IP68 (30 days / 3 m)	IP67	IP67	IP65	IP67
-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C
720h	720h	720h	720h	720h	720h

*cross-compatible connectors

Wind power: Data connectivity throughout wind turbine structures

Monitoring and control of wind turbines is conducted by means of fiber optic links. Connectors represent pivotal components that impact deployment and reliability.

Requirements: Designed for fast and easy installation under difficult conditions; high IP class, withstand of mechanical stress, temperature swings and longevity.

Products

ODC-4, Q-ODC-12, Q-ODC-24, XCO

Underground mining: data networks for CCTV, com and M2M

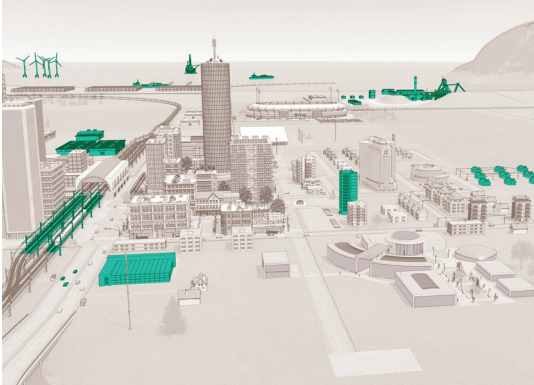
One of the harshest imaginable operating environments for fiber optics is found in underground mining. Mining firm's needs for robust fiber optic networks evolve in step with their growing breadth and sophistication of automation.

Requirements: Extreme robustness to shock, ingress, and mating durability while maintaining low insertion losses.

Products

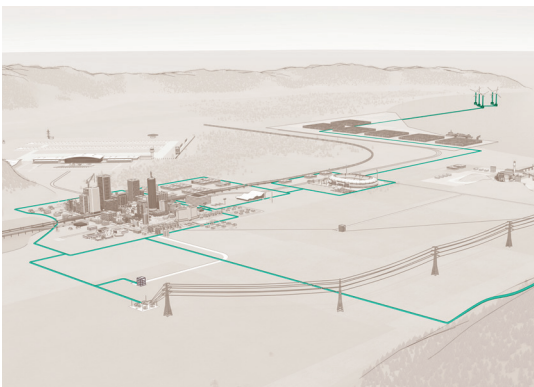
ODC-4, Q-ODC-2, Q-ODC-12, XCO

Applications in the communication and industrial market



Communication applications

Three stages are crucial when deploying new communication infrastructure: planning, building and operation. HUBER+SUHNER solutions are addressing these three dimensions by reducing size of our products and with that simplifying site permitting procedures or we improve deployment cost and make maintenance much more simple. With our products, we create added value along those three dimensions and help reducing cost per bit.



Industrial applications

Connectors of HUBER+SUHNER for harsh environments are ubiquitous in industrial environments. From wind turbine control circuits, electrical substation data links, railway on-board and trackside communication networks to underground-mine remote operations, our selection of dual core to 24-core metal-encapsulated fiber optic connectors enable data streams to be transmitted reliably and easily.

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HUBER+SUHNER is certified according to ISO 9001, ISO 14001, OHSAS 18001, EN(AS) 9100, IATF 16949 and ISO/TS 22163 – IRIS.

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