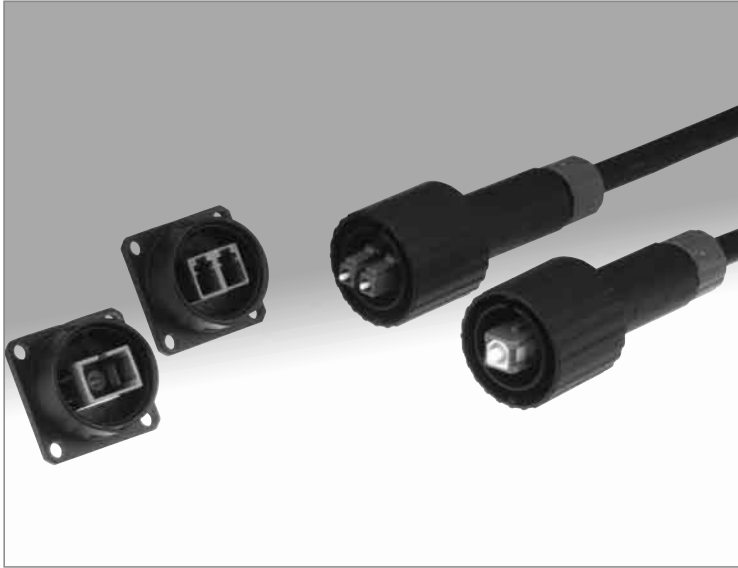
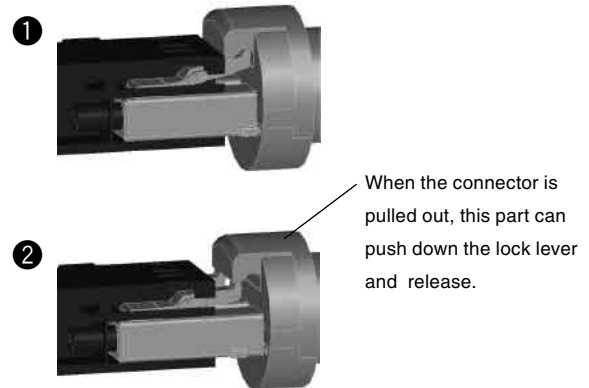


Waterproof optical connectors with built-in standard optical connectors (SC/LC)

SW20 Series



Waterproof structure that makes the best use of lock mechanism of standard connector (Patented)



■Features

1. Waterproof, bayonet lock, standard optical connector (SL/LC)

This waterproof series combines a global standard optical connector (SC/LC) and a standard optical adapter (SC/LC). The plug can be mated to/unmated from the chassis mounted receptacle via a one touch operation using a bayonet lock.

2. Usable in harsh outdoor environments

Connectors can withstand 1000 hour salt spray and IP67 waterproof testing when mated or with cap attached.

3. SW20-SC/SW20-LC common exterior package size

Due to standard optical connector (SC/LC), standard optical connector (SC/LC) and exterior structure dimensions being common to both SW20-SC/SW20-LC, the receptacle chassis mounting hole dimensions and mating/unmating method are also the same.

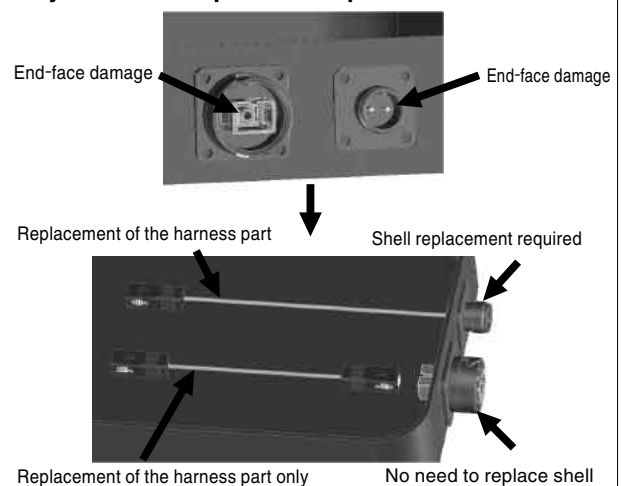
4. Compatible with standard connector where waterproofing is not required

When connectors are not exposed to harsh environments, such as during testing or assembly, the connection portion of the standard optical connector can be used without specially cable.

5. Easy repair

When the receptacle interface is damaged, the entire receptacle does not need to be replaced. It is only necessary to replace the connection portion of the standard connector inside.

During maintenance and repair Only the harness parts are replaced.



■Product Specifications

Ratings	Operating temperature range	-40℃ to +85℃	Storage temperature range	-25℃ to +75℃
	Item	Test method	Requirements	
Construction	General examnation.	Visually and by measuring instrument.	Accoding to drawing.	
	Marking	Confirmed visually.		
Optical characteristics	Insertion loss	Measurement at wave length 1310±20nm(LD),1550±20nm(LED)	SW (≤ 0.4dB 1310nm, ≤ 0.5dB 1550nm) SC (≤ 0.3dB 1550nm, ≤ 0.4dB 1550nm)	
	Return loss	Measurement at wave length 1310±30nm(LD)	≥ 40dB(SM), 22dB(MM)	
Mechanical characteristics	Tensile strength(axial)	A tensile force to cable axially for 1 minutes at 200N.	Insertion loss range: ≤ 0.3dB No Looseness,breakage,cracks	
	Durability (mating/un-mating)	200 times	1) Insertion loss fluctuation after test:0.3dB max. 2) No visible damage or components dislocation.	
	Vibration	Frequency: 10 to 55Hz, single amplitude of 0.75mm, acceleration of 98.1 m/s ² , 2 hours in each of the 3 axis.		
	Shock	Acceleration of 981 m/s ² , 6 ms duration, sine half-wave waveform, 10 cycles in each of the 3 axis.		
Environmental characteristics	Humidity (Temperature/ humidity-cycles)	-10℃ to +65℃, humidity: 90% to 100% 168hours. (12H/cycle×14cycle) (Telcordia GR3120-CORE)	1) Insertion loss fluctuation after test:0.3dB max. 2) No visible damage or components dislocation.	
	Temperature cycle	-40℃ to +75℃, 42 cycles,168hours. (8H/cycle×42cycle)(Telcordia GR326-CORE)		
	Dry heat	240 hours at +85℃		
	Cold	240 hours at -40℃		
	Salt mist	Salt mist :5% and temperature 35℃ or 1000hours.	No corrosion.	
	Water resistance (mating)	Put the product under water for 1min.With air pressure 50kPa.	No air leakage.	

■Material & Finish

Part	Plug		Receptacle	
	Material	Finish/Remarks	Material	Finish/Remarks
Housing	Zinc alloy die casting	Chrome plated	Zinc alloy	Chrome plated
	Synthetic resin	UL94V-0		
Oring/gasket	Synthetic rubber	——	Synthetic rubber	——
SC/LC	Depend on each connector. (Synthetic resin,Zirconia,spring)	——	Depend on each adapter. (Synthetic resin,Zirconia)	——
Spring	Steel wire	——		
Others (Internal part)	Phosphor bronze	Nickel plated		
	Zinc alloy	Nickel plated		
	Stainless steel	——		

SW20 Series ● Waterproof optical connectors with built-in standard optical connectors (SC/LC)

■ Ordering information

(1) Plug Assembly (Plugs can be ordered only as terminated cable assemblies.)

SW20 – **SC** **P** **T75** – **1** – **SC** – **LM** – **1**

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Series name : SW20	⑤ Suffix
② Connector type : SC...SW20-SC plug LC...SW20-LC plug	⑥ Connector type at the other side ("P2" when SW20 plugs are at both ends)
③ Assembly type P : Single ended P2 : Double ended	⑦ Total length (M) Length (M)
④ Round cable : $\phi 7$ round cable. If you would like other cables, please contact us.	⑧ Suffix

(2) Receptacle

SW20 – **SC** **R** – **1**

① ② ③ ④

① Series name : SW20	③ Receptacle R:Receptacle
② Connector type: SC...SW20-SC receptacle LC...SW20-LC receptacle	④ Suffix

(3) Receptacle cap

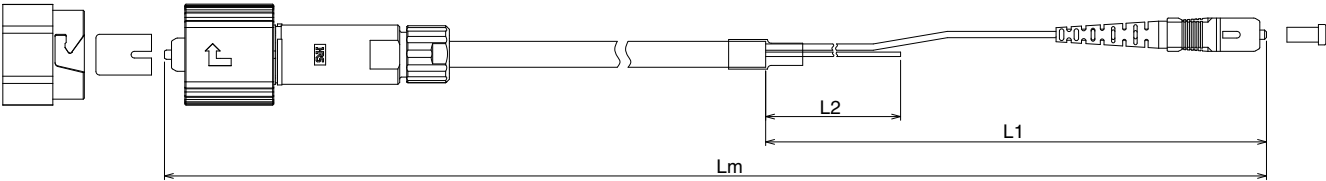
SW20 – **RC** **1**

① ② ③

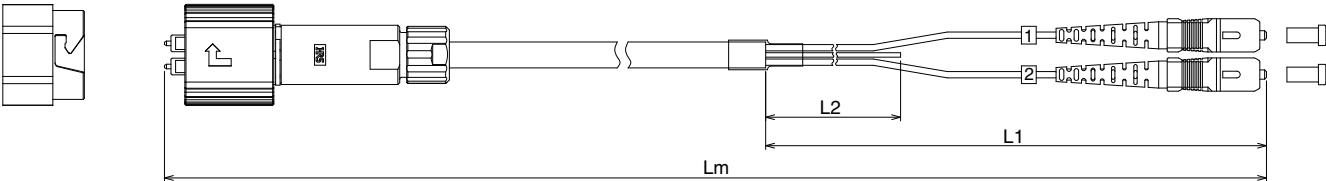
① Series name : SW20	③ Suffix 1:Waterproof cap
② Receptacle cap RC:Receptacle cap	3:Dustproof cap

■How to Specify Plug Cable Assembly

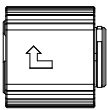
SW20-SCPT75-1-SC-LM-1



SW20-LCPT75-1-SC-LM-1



SW20-RC1



SW20-RC3

