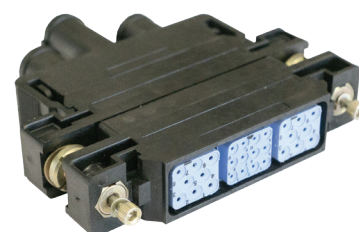




1900SIM CONNECTORS



Railway



BROCHURE 03/23 - V9.0

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PRESENTATION

1900SIM is a rectangular, modular and sealed connector, in lightweight composite.

WEIGHT SAVING

Derived from the legacy 1977 connector shells, the 1900SIM series can be fitted with the whole SIM modules range.

1900SIM series consists of a Plug, a Receptacle (with or without flange) and Rear clip-in accessories. This connector is full composite without plating.

2 Locking / Polarizing systems are available: Standard (by screw) and Quarter Turn ensuring 36 keying positions.

TIME SAVING

REACH ET ROHS

All connector shells and modules are conformed to the REACH and RoHS specifications as well as 1/4 turn and Zn/Ni standard polarizers.



STANDARDS AND QUALIFICATIONS

Compliant with NFF 61-030

Fire / Smoke / Toxicity:

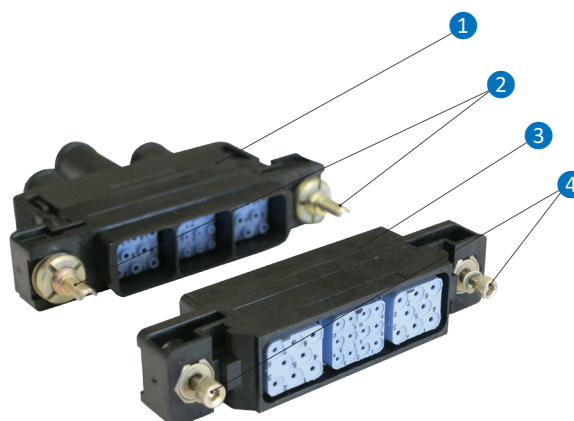
- Compliant with EN45545-2 HL3 R22 standard
- Compliant with NFF 16-101 / 16-102 standards (I3F2 ex2)

CONTACTS

Modules fitted with crimp contacts
Size 20 to 12 : as per EN3155 standard

CAPTION

- ① - Receptacle
- ② - Male Polarizers
- ③ - Plug
- ④ - Female Polarizers



MAIN TECHNICAL FEATURES

MATERIAL

Shells : Thermoplastic
Modules : Thermoplastic and Silicone elastomer
Contacts : Copper alloy, Gold on Nickel plating

ENVIRONMENTAL

Operating temperature : -40° to +100° continuously
Salt Spray withstanding (BS) : 96 h
Ozone : 100 ppm concentration

ELECTRICAL

Insulation resistance : $\geq$ to 5000 M Ω

Contact size	20	16	12
Withstanding voltage	3250 V RMS		
Max. current rating (A)	7,5	13	23

MODULE RETENTION IN SHELL

25,4 daN

MECHANICAL

Shocks and vibrations : Compliant with NF EN 61373 category 2, mounting on boggie
Endurance : 500 full mating and unmating cycles (for standard polarizer)

SEALING

IP 66

FLUID RESISTANCE

Fuel, mineral oils, acids and bases

WEIGHT

Products		Weight
Plug	/	10,20 g
Receptacle	Standard	9,90 g
	With flange	11,60 g
Accessories	Backshell (with integrated chimneys)	/
	Standard cable clamp	4,73 g
Locking / Polarization system (couple)	Standard (by screw)	7,31 g
	1/4 turn	7,68 g

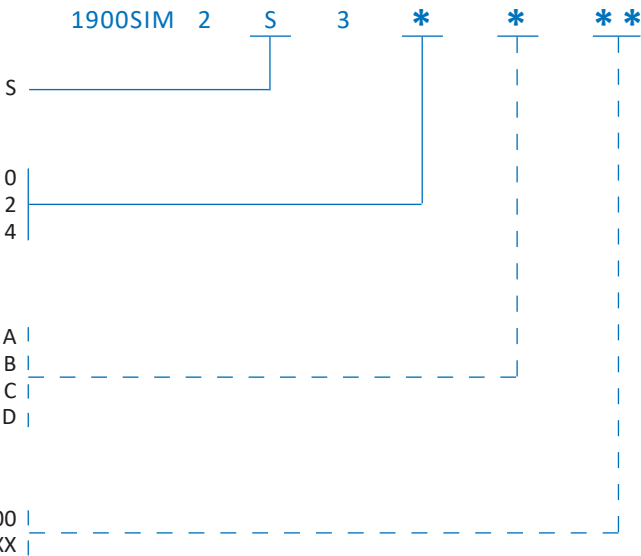
PART NUMBERING SYSTEM

CONNECTORS

Material:
Standard composite (without plating)

Shell Type:
Plug
Standard Receptacle
Flanged Receptacle

- O** Equipment Code (Polarizer material according to shell metallization):
P Plug delivered with its Female standard polarizers (by screw)
R Receptacle delivered with its Male standard polarizers (by screw)
T Plug delivered with its Female 1/4 turn polarizers
I Receptacle delivered with its Male 1/4 turn polarizers
- O** Polarizing Code:
N Polarizers not mounted on shells
S Polarizers mounted and polarized on shells ⁽¹⁾
- ⁽¹⁾ Ex : XX = 16 mean Polarizer 1 in position 1 / Polarizer 2 in position 6



NOT-METALLIZED ACCESSORIES

Designation	Part Number
Standard Straight Cable-Clamp (For Standard Composite connectors)	001901 050 00
Standard Angled (90°) Cable-Clamp (For Standard Composite connectors)	001901 051 00
Rear cover with single chimney	1900SIM2S310



Straight Cable Clamp



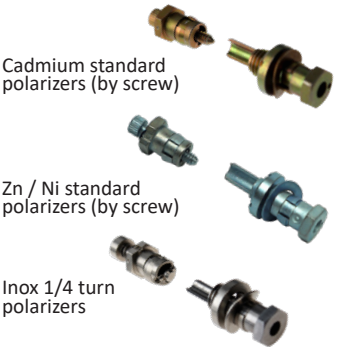
Standard angled (90°) cable-clamp



Rear cover with single chimney

POLARIZERS AND TOOLS

Designation				Part Number
Standard polarizers (by screw)	Cadmium	For Composite connectors without plating or with Olive Drab Cadmium plating	Female F	001901 170 00
			Male M	001901 160 00
	Zn / Ni	For Composite connectors without plating, with Bright Nickel or Black Zinc Nickel plating	Female F	3354 5170 086 CRE
			Male M	3354 5160 086 CRE
1/4 Turn polarizers	Inox	For Composite connectors without plating, with Bright Nickel or Black Zinc Nickel plating	Female F	001901 270 00
			Male M	001901 260 00
Tools		Tool for polarizer extraction		001901 003 00



MODULES, CONTACTS AND TOOLS

MODULE PROTECTION DURING TRANSPORTATION

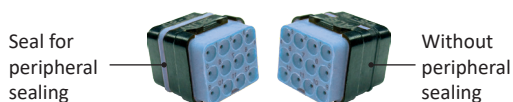
Rigid protective Cap to avoid contact damages (pin contacts bended, dust in socket contacts) during transportation of Cable Harnesses

- for both Pin and Socket modules
- for modules with or without peripheral sealing



P/N: SIM201

MODULES



All Pin Modules [equipped with Pin Contacts] can be mounted into both Plugs
All Socket Modules [equipped with Socket Contacts] Receptacles

Modules	Pin front view	Layout		Pin P/N	Socket P/N
		12 contacts size 20		SIM * F 1220 P *	SIM * F 1220 S *
		8 contacts size 16		SIM * F 0816 P *	SIM * F 0816 S *
		4 contacts size 12		SIM * F 0412 P *	SIM * F 0412 S *
		SIM RJ45 Ethernet		Class Ea (category 6A)	SIM M D 0145 E S N
				Class C (category 3)	SIM M D 0145 S N

MODULES PART NUMBERING SYSTEM

SIM * 1220 P *

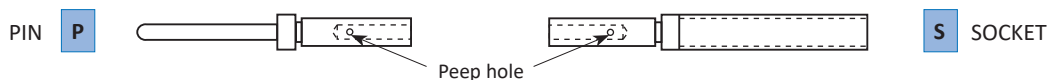
With peripheral sealing E
Without peripheral sealing M

Polarization N, A, B, C, D

TOOLS FOR MODULES

Module Insertion	Module Extraction	RJ45 Module Extraction
006101 006 00	006101 000 00	006101 008 00

CRIMPABLE CONTACTS



Contacts from standard				Cable		Crimping tooling		Insertion Extraction
Contacts	P/N	Type	Size	Section mm ²	Sheath dia. mm (inch)	Crimping tool	Locator	
EN 3155-003 F 2018	001704 205 92	S	20	0.25 à 1	0.85 - 1.73 (.033 - .068)	M 22520/1-01 or .../2-01, .../7-01	M 22520 / 1-04 or .../ 2-10, .../ 7-08	M 81969 / 14-10
EN 3155-008 M 2018	001714 205 92	P						001112 250 25
EN 3155-003 F 1614	001704 302 92	S	16	0,60 à 2	1.31 - 2.62 (.051 - .103)	M22520/1-01 or .../7-01	M 22520 / 1-04 or .../ 7-04	M 81969/14-03
EN 3155-008 M 1614	001714 302 92	P						001112 300 25
EN 3155-003 F 1212	001704 400 92	S	12	1.90 à 2.50	1,90 - 3,70 (.075 - .145)	M22520/1-01	M22520 / 1-04	M 81969/14-04
EN 3155-008 M 1212	001714 400 92	P						001112 400 25