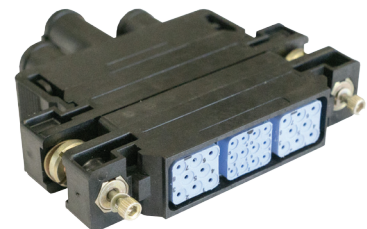
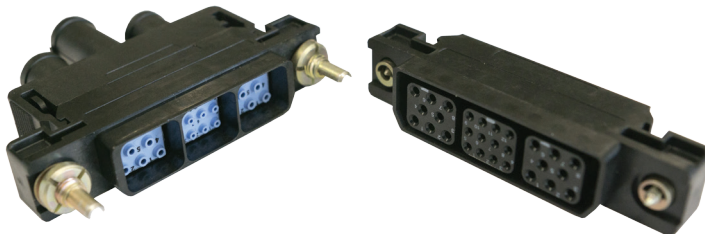




1900SIM CONNECTORS



Railway



BROCHURE 07/18 - V6.0

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PRESENTATION

1900SIM is a new 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.

3 Locking / Polarizing systems are available: Standard (by screw), Quick Lock 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.



STANDARDS AND QUALIFICATIONS

Compliant with NFF 61-030

Fire / Smoke / Toxicity:

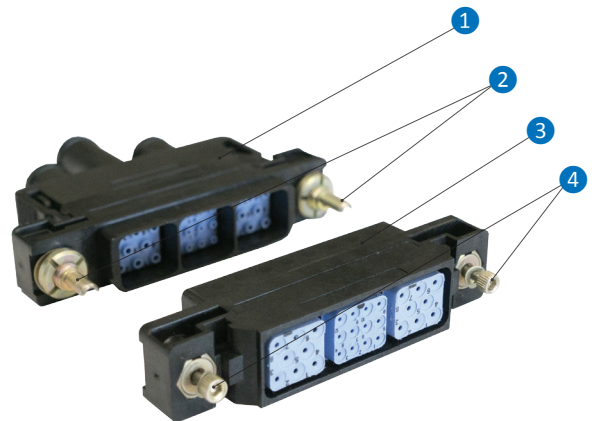
- Compliant with EN45545-2 HL3 R22 standard
- Compliant with NFF 16-101 / 16-102 standards (I3F2 ex2)
- Compliant with NFPA 130

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
	Quick Lock	9,38 g

PART NUMBERING SYSTEM

CONNECTORS

Material:
Standard composite (without plating)

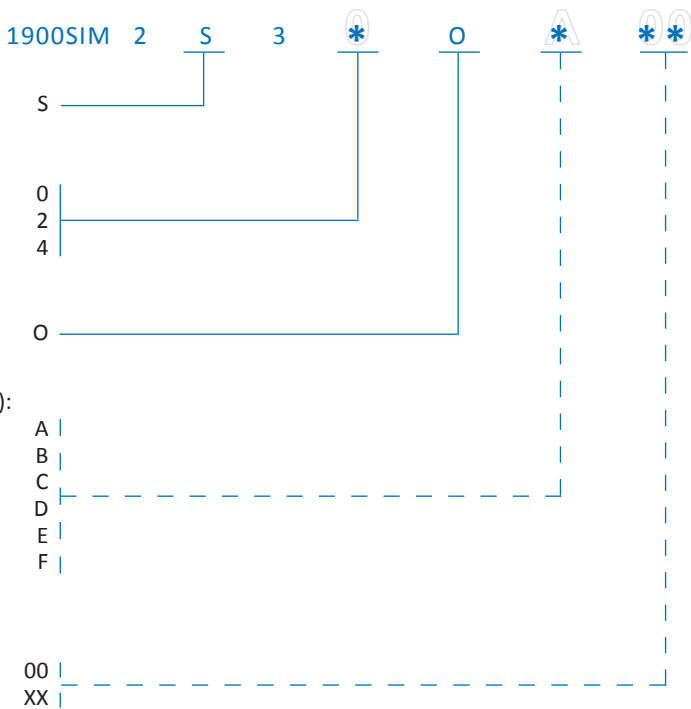
Shell Type:
Plug
Standard Receptacle
Flanged Receptacle

Plating / Shell metallization:
Without plating

Equipment Code (Polarizer material according to shell metallization):
O Plug delivered with its Female standard polarizers (by screw)
P Receptacle delivered with its Male standard polarizers (by screw)
T Plug delivered with its Female 1/4 turn polarizers
D Receptacle delivered with its Male 1/4 turn polarizers
E Plug delivered with its Female Quick Lock polarizers
I Receptacle delivered with its Male Quick Lock polarizers

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



Straight Cable Clamp

POLARIZERS AND TOOLS

Designation	Part Number
Standard polarizers (by screw)	Female F 001901 170 00
	Male M 001901 160 00
1/4 Turn polarizers	Female F 3354 0210 045 CRS ⁽²⁾
	Male M 3354 0200 045 CRS ⁽²⁾
Quick Lock polarizers	Female F 3357 0080 045 CRS ⁽²⁾
	Male M 3357 0070 045 CRS ⁽²⁾
Quick Lock polarizer mating/unmating tool	3357 1001 000 OUT ⁽²⁾
Backshell removing tool	3357 1002 000 OUT ⁽²⁾

⁽²⁾ Please consult us.



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



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 P N	SIM M D 0145 E S N
			Class C (category 3)	SIM M D 0145 P N	SIM M D 0145 S N

MODULES PART NUMBERING SYSTEM

SIM * 0000 P *

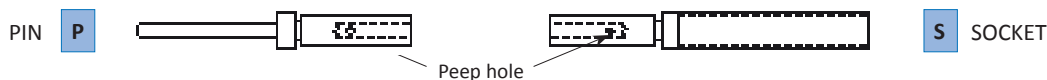
With peripheral sealing E
Without peripheral sealing M

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