

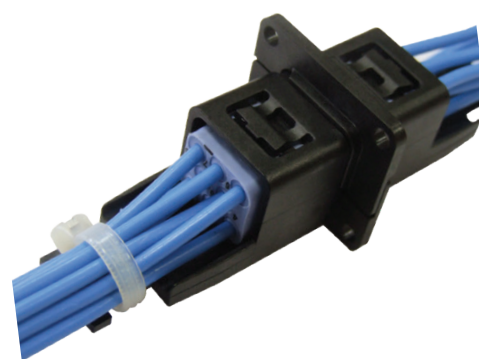
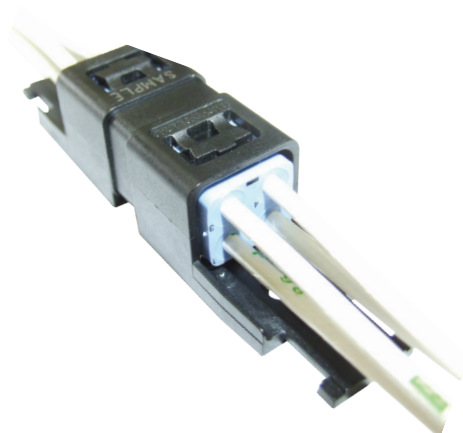


SIM Modular Splice

NFF 61-030 approved for railway applications



Rail & Mass Transit



BROCHURE 05/18 - V4.0

Customer Service
2 rue Clément ADER, Zac de Wé
08110 CARRIGNAN
FRANCE
Tel : +33 (0)3 24 22 32 66
Fax : +33 (0)3 24 22 38 72
customer-service@amphenol-airlb.fr
www.amphenol-airlb.fr



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PRESENTATION

The **SIM Splice** is a modular splice allowing a reliable, quick and perfect sealed connection between two embedded equipments.

Modular, the SIM Splice is fitted with inserts allowing a wide range of cable cross sections with a current up to 46A.

Compact and full composite, the SIM splice is lightweight. Inserts are in composite and silicone, compliant with Railway applications.

SIM splices are available in 4 polarized versions and in 4 housing versions: standard, with cable clamp, with flange or with both cable clamp and flange.

ADVANTAGES

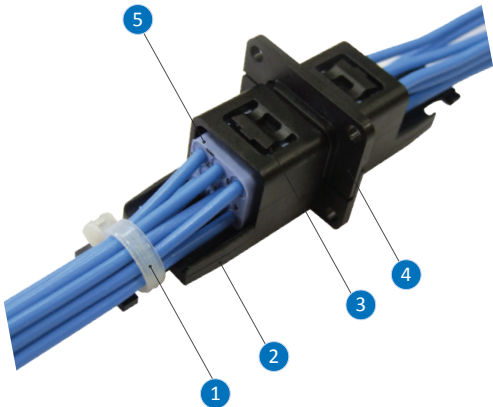
- Quick and easy mounting
- Sealed: IP 66 / IP68 and 69K
- Suited for 1 up to 12 contacts, cross sections 0,25 mm² to 2,5 mm² for EN50306-2 cables
- Resistant to high and low operating temperatures: -55°C to +175°C
- Many housings and contact layouts
- Product designed to optimize space
- Unmating without tool
- Resistant to salt spray

HIGH DEMANDING APPLICATIONS

- Railway: Signalling, Lighting, Doors actuation controls units, Air conditioning
- Suited cross section 0,25 mm² to 2,5 mm² (8,5 mm² max), Current up to 46A and Withstanding voltage 1800 V

QUALIFICATIONS AND STANDARDS

- Compliant with the NFF 61030 standard
- Fire / Smoke / Toxicity:
- Composite: NFF16101/102 Ex 2, EN45545 (EL10 R26)
 - Silicone: NFF16101/102 Ex 4 (I2F1), EN45545 (HL3 R22)
- Compliant with REACH spec. for both housings and inserts
- Compliant with RoHS spec. for both housings and inserts



CAPTION

- 1 - Cable-tie
- 2 - Integrated cable clamp
- 3 - Unlocking system for inserts
- 4 - Removable flange for feedthru mounting
- 5 - Removable insert

MAIN TECHNICAL FEATURES

MATERIAL

- Splice : Thermoplastic
- Inserts : Thermoplastic and Silicone
- Contacts : Copper alloy, Gold on Nickel plating

MECHANICAL

- Modules retention in housings : 25,4 daN
- Vibrations : compliant with the NF EN 61-373
- Endurance : 50 full cycles (insertion/extraction)

ENVIRONMENTAL

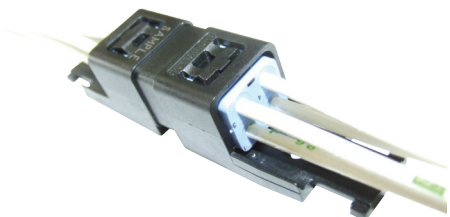
- Operating temperature : -55° to +175°C permanent

SEALING

- IP 66 / IP68 and 69K (with appropriate cable diameter)

ELECTRICAL

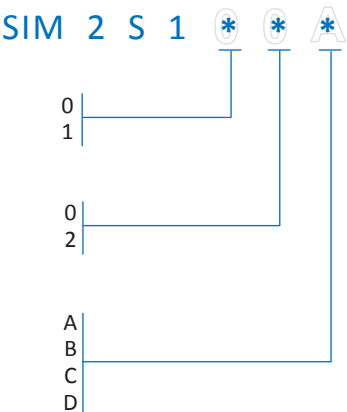
	Contact size		
	20	16	12
Withstanding voltage	1800 V RMS 50 Hz		
Max. current rating (A)	7,5	13	23



PART NUMBERING SYSTEM

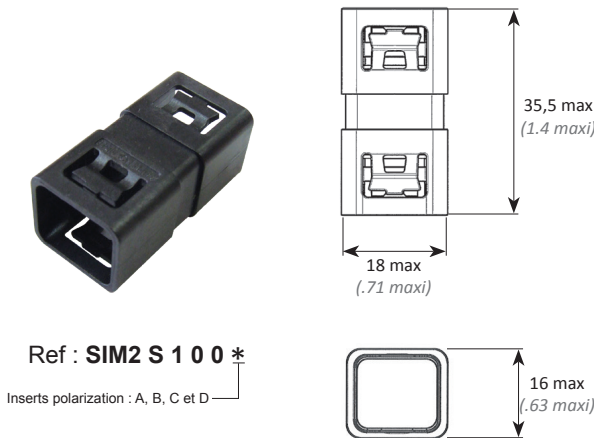
SPLICES

- Accessories:
Without cable clamp
With cable clamp
- Fixing:
Without fixing
With flange for Feedthru mounting
- Inserts polarization:
A
B
C
D



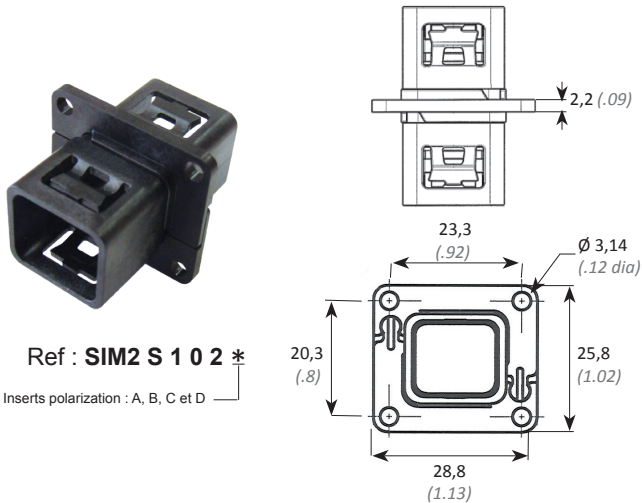
DRAWINGS

Standard SIM Splice



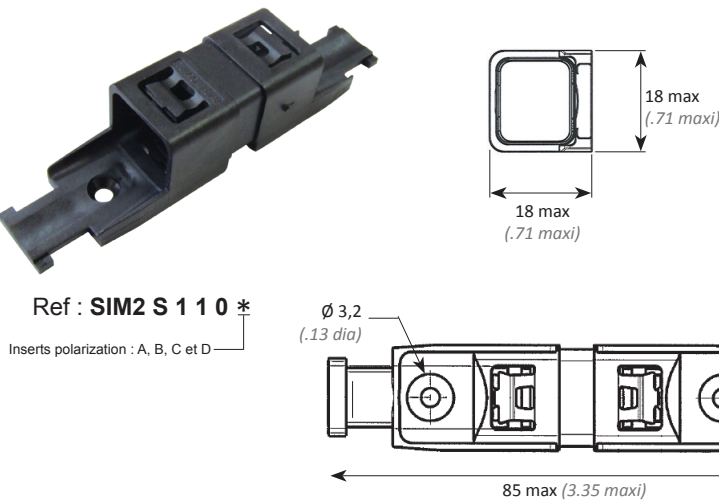
Inserts polarization : A, B, C et D

SIM Splice with flange



Inserts polarization : A, B, C et D

SIM Splice with cable clamp



Inserts polarization : A, B, C et D

SIM Splice with cable clamp and flange



Inserts polarization : A, B, C et D

MODULES, CONTACTS AND TOOLS



CONTACTS LAYOUTS

Pin front view	Contact layout	Pin inserts	Female inserts	
	12 contacts size 20	SIM M F1220 P *	SIM M F1220 S *	1 to 12 contacts, cross section 0,25 mm² to 1 mm², for cable EN 50 306-2
	8 contacts size 16	SIM M F0816 P *	SIM M F0816 S *	1 to 8 contacts, cross section 0,6 mm² to 2 mm², for cable EN 50 306-2
	4 contacts size 12	SIM M F0412 P *	SIM M F0412 S *	1 to 4 contacts, cross section 1,9 mm² to 2,5 mm², for cable EN 50 306-2

Polarization: N, A, B, C, D

The SIM modular Splice is suited for all Amphenol Air LB inserts

CRIMP CONTACTS

Contacts				Cable		Crimping tools		Insertion Extraction
Standard	Part Number	Type	Size	Section	Sheath Ø (mm)	Crimping tool	Locator	
EN 3155-003 F 2018	001704 205 92	S*	20	0.25 to 1 mm²	0.85 - 1.73	M 22520/1-01 ou .../2-01, .../7-01	M 22520 / 1-04 ou .../ 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	0,6 to 2 mm²	1.31 - 2.62	M22520/1-01 ou .../7-01	M 22520 / 1-04 ou .../ 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	1.9 to 2.5 mm²	1,90 - 3,70	M22520/1-01	M22520 / 1-04	M 81969/14-04
EN 3155-008 M 1212	001714 400 92	P						001112 400 25

S : Socket & P : Pin

IMPLEMENTATION

3 possibilities to mount the SIM modular Splice on structure:

- Using glue (standard SIM splice)
- Using M3 screw and washer (SIM splice with cable clamp)
- Using M3 screw for Feedthru application (Standard SIM splice with flange or SIM splice with both cable clamp and flange)

2 wiring process possible:

- Either insertion of modules previously fitted with wired contacts
- Or wiring of modules previously inserted in the SIM splice

Modules disconnection in 2 steps:

- Push the locking system
- Pull up the electrical bundles

