

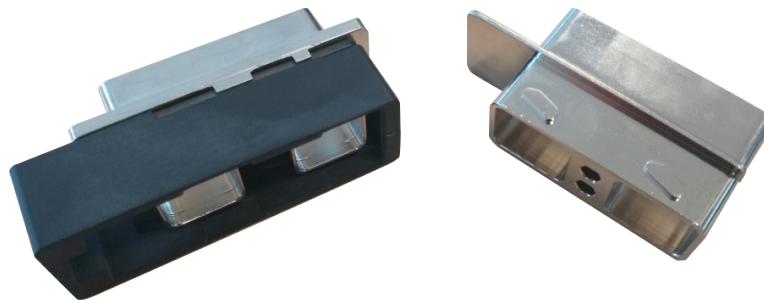


# SIM QUICK RELEASE CONNECTOR

IN PROJECT  
New generation  
of SIM connector



Commercial Aerospace  
Defence



BROCHURE 06/21 - V1.0

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# PRESENTATION

The **SIM QUICK RELEASE** connector is a connector with a compact design based on the EN4165 / SIM standard.

SPACE SAVING

It is equipped with modules selected from a wide range of overmolded EN4165 / SIM modules offering several contact sizes and arrangements.

MODULARITY

It offers second to none dielectric and sealing performances in its category.

For Power & Signal contacts.

The mating / unmating of the plug and the socket is done by a quick locking / unlocking system (receptacle side).

TIME SAVING

It is available in 2, 3 and 4 modules version, in metallized version or not.

The 2 and 4 modules versions are compatible with the rear accessories of the SIM / EN4165 standard range.

A unique model of polarizer exists in 7 different colors and can be put in 2 cavities of plug / receptacle in 6 possible positions.

## APPLICATIONS IN HARSH ENVIRONMENT

Commercial Aerospace, Defence

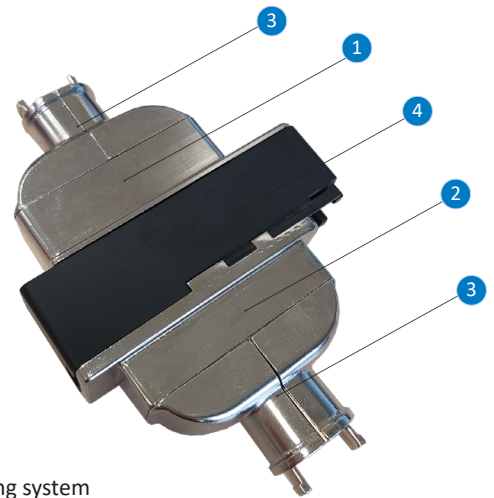
## REACH AND RoHS SPECIFICATION

All connector shells and modules are conformed to the REACH spec.



### CAPTION

- 1 - Plug
- 2 - Receptacle
- 3 - Shielding cover
- 4 - Locking / unlocking system



# MAIN TECHNICAL FEATURES

## MATERIAL

Shells : Thermoplastic  
Plating : Nickel or without plating  
Modules : Thermoplastic and Silicone elastomer  
Contacts : Copper alloy, Gold on Nickel plating

## ENVIRONMENTAL

Operating temperature : -55° to +175°C continuously  
Salt Spray withstanding (BS) :

Plating (Plug + Receptacle mated)	
Without plating	Nickel
/	500h

## ELECTRICAL

Insulation resistance :  $\geq$  to 5000 M $\Omega$

Contact size	23	22	20	16	12	8
Withstanding voltage	1800 V eff. 50 Hz					
Max. current rating (A)	5	7,5	13	23	46	80

## MODULE RETENTION IN SHELL

25,4 daN

## MECHANICAL

Shocks : 100g during 6 ms  
Vibrations : 0,4 g<sup>2</sup> / Hz up to 2000 Hz, 8 H per axis  
Endurance : 500 full mating and unmating cycles

## SEALING

Interfacial : according to EN2591 test 314 pressure = 11 hPa  
Air leakage : leak  $\leq$  4 cm<sup>3</sup>/h under differential pressure of 1 bar  
Immersion at low air pressure : according to EN2591 test 314 pressure = 11 hPa

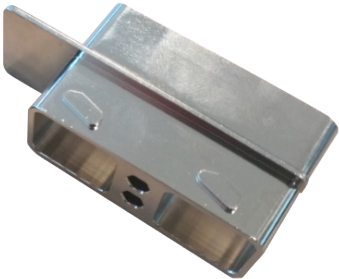
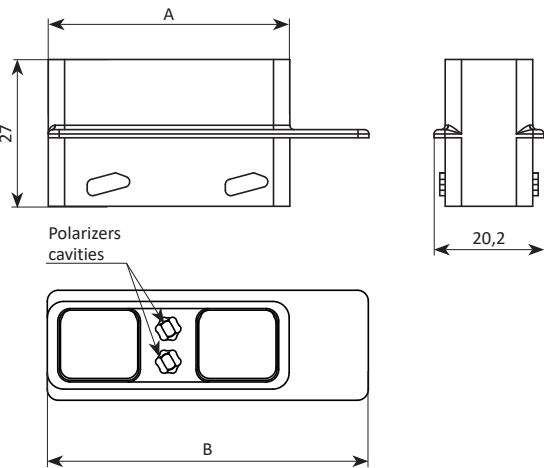
## METALLIZATION RESISTANCE

Metallization continuity by conductive plating  
Nickel plating : < 3 m $\Omega$  under 1 Amp per connection

# PART NUMBERING AND DIMENSIONS

## PLUG

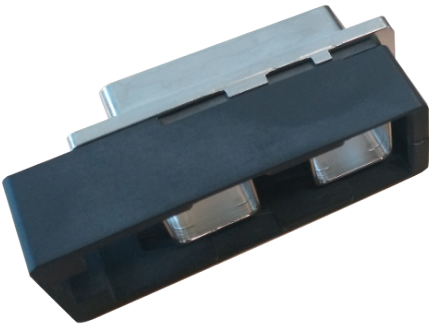
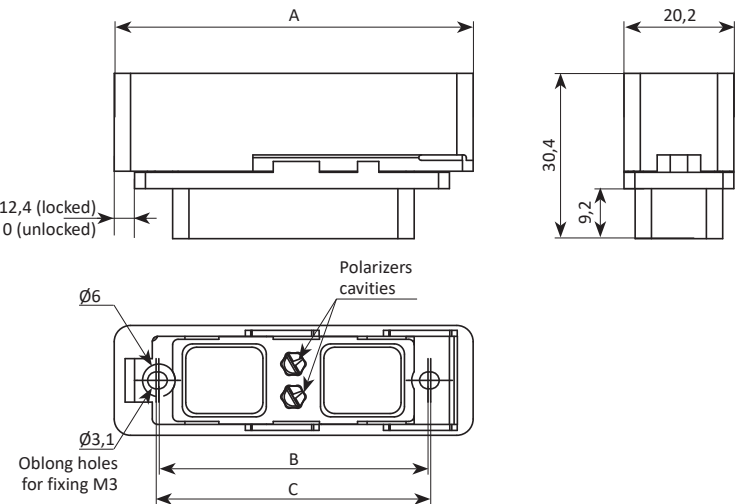
The plug is available in 2, 3 and 4 modules versions.  
For the 4 modules connector, a securing locking option is available. A protection zone is then integrated into the plug and a tool becomes necessary for unlocking. Please consult us.



Dimensions (mm)	A	B
Plug 2 modules	44,42	59
Plug 3 modules	56,58	71,5
Plug 4 modules	74,7	89,5
Plug 4 modules with securing locking option	74,7	91,5

## FLANGED RECEPTACLE

The receptacle is available in 2, 3 and 4 modules versions.  
Panel mounting.

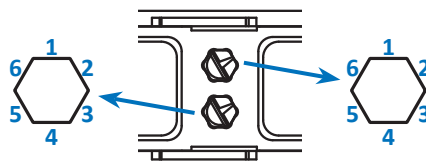


Dimensions (mm)	A	B	C
Receptacle 2 modules	66	49,5	50,5
Receptacle 3 modules	76,23	67,5	68,5
Receptacle 4 modules	95,48	80	81

## ■ POLARIZERS

There is a unique model of polarizer existing in 7 different colors. Each plug / socket can contain 2 polarizers. Each polarizer can be put in 6 different positions which offers a total of 36 mechanical keying combinations.

The 7 different colors of polarizers allow visual polarization only when coupling the connector.



## ■ ACCESSORIES

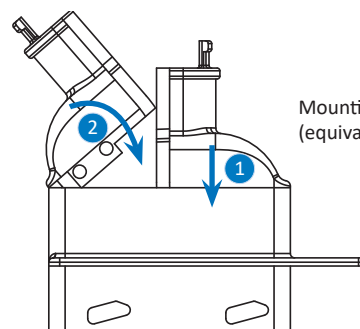
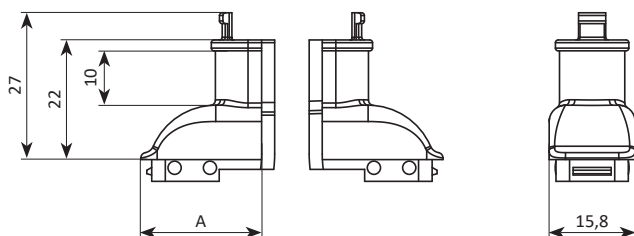
The Quick Release 2 and 4 modules versions are compatible with all the rear accessories of the SIM / EN4165 range. Please consult our catalog «SIM connectors».

### Quick Install shielding cover

This cover exists in 2, 3 and 4 modules versions. It can be mounted without tool.



Example of compatible rear accessories



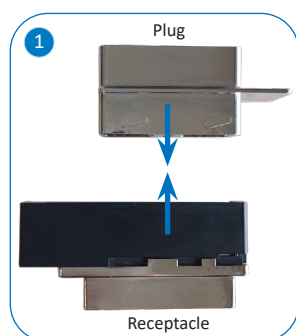
Mounting of a cover on the plug (equivalent mounting on the receptacle)

Dimension	A
Cover 2 modules	22,21
Cover 3 modules	28,29
Cover 4 modules	37,35

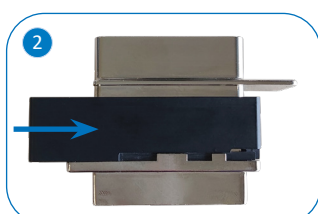
# IMPLEMENTATION

## ■ LOCKING / UNLOCKING OF THE CONNECTOR

The locking is made on receptacle side.



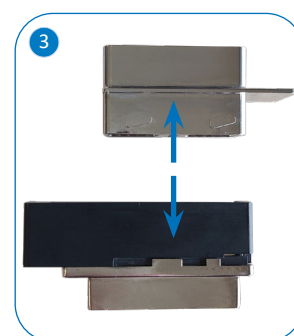
Plug / receptacle mating



Connector locked!



Connector unlocked!



Plug / receptacle unmating