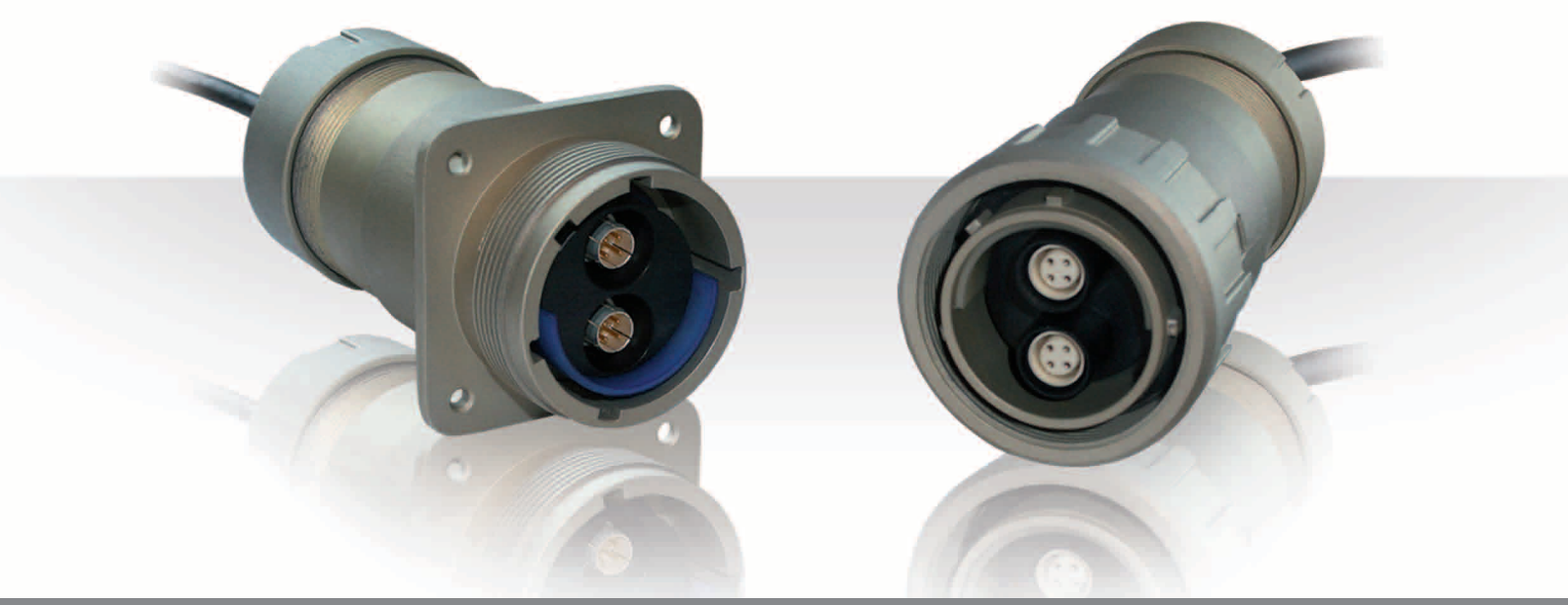


Outdoor High Speed Data Transmission

The ruggedized solution for outdoor data transmission in harsh environments facing increasing new needs of data information.

2 technical solutions for outdoor High Speed Data Transmission	✓	Standard version with 4 contacts Ø 2.0 mm Quadrax version with 2 cells
Excellent Data Transmission	✓	1 Gbps per Quadrax contacts 100 Mbps with standard contacts
Compliant to railway standards	✓	NFF61030 I2F3 according to NFF16101 & NFF16102 (Fire & smoke standards)
Standardization oriented	✓	Standard shell Standard contacts Standard accessories

IRIS Certification

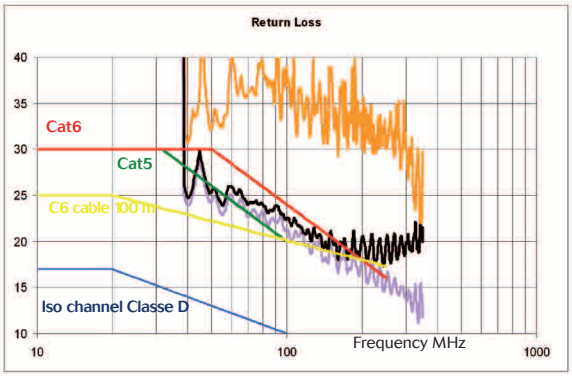
SOURIAU
Connection Technology

Technical features

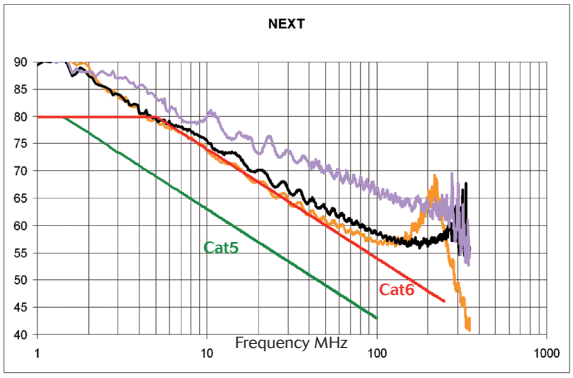
Mechanical, electrical and environmental features according to NFF61030 Railway standards.

Data Transmission

• **Standard version with 4 contacts Ø2.0mm: Cat5 - 100 Mbps**

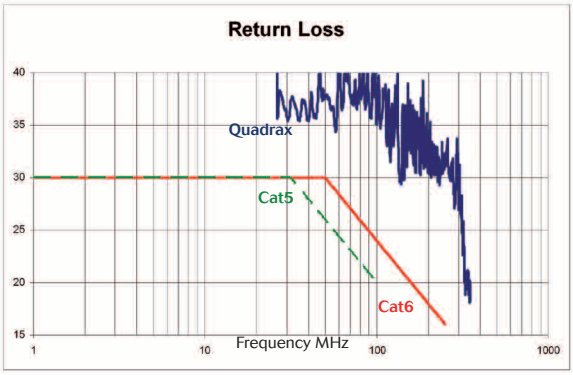


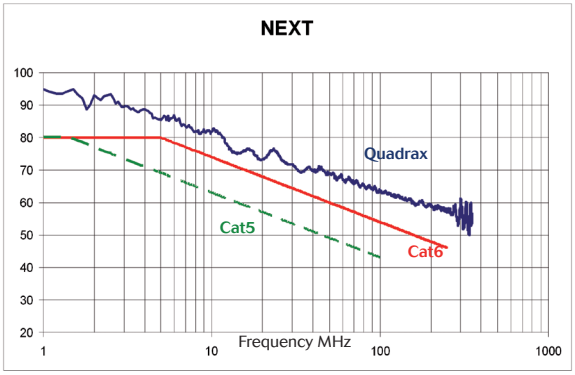
Quad cable configuration



Quad cable configuration

• **Quadrax version: Cat6 - 1 Gbps**





Mechanical

• **Shell**: Aluminium alloy

• **Conductive shell plating**

• **Locking system**: screw with clicker

• **Insulator**: Hard thermoplastic in accordance with NFF16101-16102 exigence I2F3 (Fire & smoke emissions) for installations on equipments category A1 UL94-V0

• **Removable coding system** enables the operator to choose between 12 different key orientations - delivered in position 1

• **Both male & female insulators** can fit in either the plugs or the receptacles

• **Endurance**: 500 mating/unmating

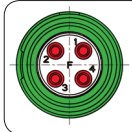
• **Contacts:**
- Copper alloy, silver or gold plated
- Crimp type

Electrical

• **Contact type**:

Contacts Ø2.0 mm
= Standard version

or



Contacts Quadrax
Description
Cell
Contacts #20

• **Contact resistance**:
- Contacts Ø2.0 mm: ≤ 2 mΩ
- Quadrax: ≤ 6 mΩ (contacts #20)
  ≤ 2 mΩ (cell)

• **Withstanding voltage**:
- Contacts Ø2.0 mm: 3250 Vrms
- Quadrax: ≥ 1000V (between contacts #20)
  ≥ 500V (between cell / contacts #20)

• **Insulation resistance**:
- Contacts Ø2.0 mm: ≥ 5000 MΩ under 500 Vdc
- Quadrax: ≥ 3000 MΩ (contacts #20)

• **Service voltage per layout**: 380 Vrms max.

Environmental

• **Temperature range**: -40°C to +100°C

• **Salt spray resistance:** 96 hours (NFC 20711)

• **Sealing:** IP66 and IP67 (with adapted backshell)

Ordering information

838 standard version with 4 contacts ø 2.0 mm

Type*	838	0	E	1	E	09	1	B	M	0	A
Coupling type	**0:** Screw coupling with coding option										
Connector type	**E:** Receptacle	**F:** Plug									
Shell type	**0:** Square flange receptacle without panel gasket **1:** Square flange receptacle with panel gasket **0:** Plug without clicker locking **1:** Plug with clicker locking										
Shell size	**E**										
Contact layout	**09:** 4 contacts ø 2.0 mm										
Contact gender	**1:** Male crimp contact	**5:** Female crimp contact									
Contact type	**L:** Connector supplied without contact	**B:** Contacts ø 2.0 mm									
Backshell type	**G:** Straight backshell for PMA flexible tube **M:** Without backshell, nor accessories **N:** Boot **V:** Straight backshell with sealing gland	**W:** Straight backshell with cable clamp and sealing gland **T:** Backshell with low profile sealing gland **U:** Backshell T type with shielding termination **Z:** Backshell for shielding termination									
Index	**0 to 20**										
Insert	**A:** Thermoplastic insert										

**Delivered without contact*

838 Quadrax version with 2 Quadrax cells

Type*	838	0	E	1	C	02	1	R	M	0	A
Coupling type	**0:** Screw coupling with coding option										
Connector type	**E:** Receptacle	**F:** Plug									
Shell type	**0:** Square flange receptacle without panel seal **1:** Square flange receptacle with panel seal **0:** Plug without clicker locking **1:** Plug with clicker locking										
Shell size	**C**										
Contact layout	**02:** 2 Quadrax contacts										
Contact gender	**1:** Male crimp contact	**5:** Female crimp contact									
Contact type	**R:** Quadrax contacts										
Backshell type	**G:** Straight backshell for PMA flexible tube **M:** Without backshell, nor accessories **N:** Boot **V:** Straight backshell with sealing gland	**W:** Straight backshell with cable clamp and sealing gland **T:** Backshell with low profile sealing gland **U:** Backshell T type with shielding termination **Z:** Backshell for shielding termination									
Index	**0 to 20**										
Insert	**A:** Thermoplastic insert										

**Delivered without contact*

Contacts

Contact ø 2.0 mm (standard version)

Contact type	Male			min.	max.
8380 722	Passivated silver	Cable size: (mm²)		0.6	1.5
8380 726	Gold			0.6	1.5
8380 970	Passivated silver			1.34	2.61
	Female				
8380 725	Passivated silver			0.6	1.5
8380 727	Gold			0.6	1.5
8380 973	Passivated silver			1.34	2.61

Other contact versions, please contact us.

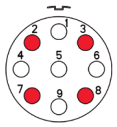
Quadrax contact

Contact type	Male			min.	max.
8380 2035A	Copper alloy	Cable size: (mm²)		0.21	0.93
	Female				
8380 2034A	Copper alloy			0.21	0.93

Contact layouts (from front face of female connector)

Size E
Standard Version

E - 09

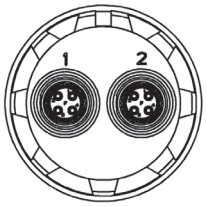


4 Ø 2.0 mm

Cabling: ● *Contact insertion in red cavities*
○ *Empty cavities*

Size C
Quadrax Version

C - 02

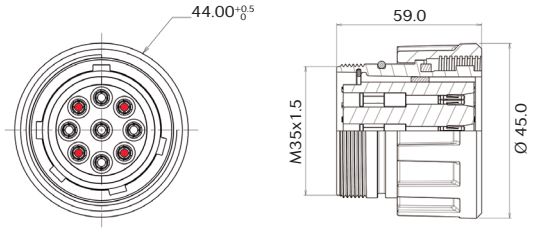


2 Quadrax

Range presentation

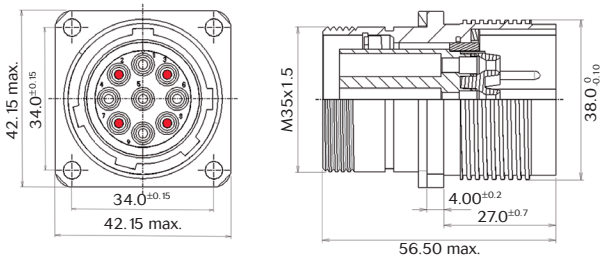
838 size E standard version with 4 contacts ø 2.0 mm (standard version)

Plug



Cabling: ● *Contact insertion in red cavities*
○ *Empty cavities*

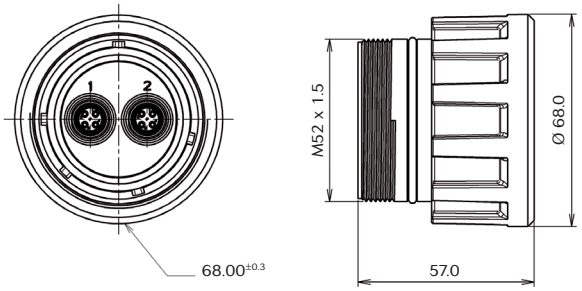
Receptacle



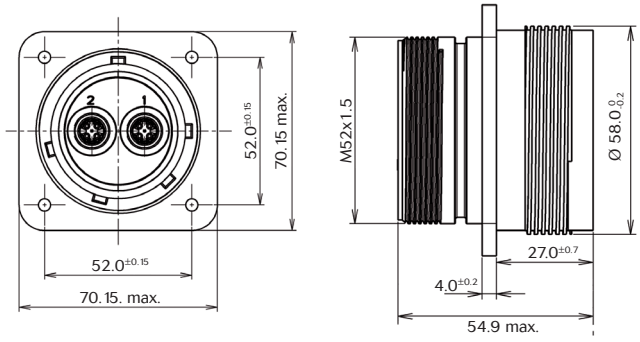
Cabling: ● *Contact insertion in red cavities*
○ *Empty cavities*

838 size C Quadrax version with 2 Quadrax cells

Plug



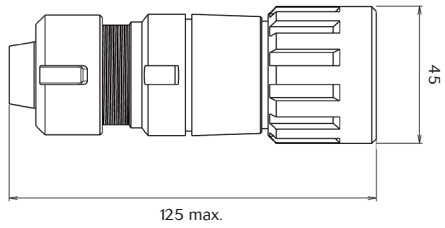
Receptacle



Note : all dimensions are in mm

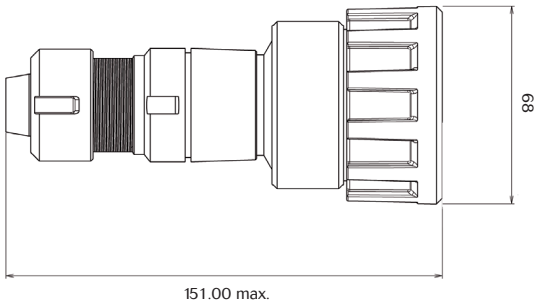
Example of connector with backshell

Plug - Shell size E



Backshell type: W

Plug - Shell size C



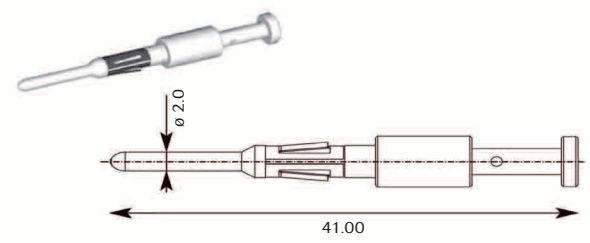
Backshell type: W

For other backshell types, please refer to the 838 catalog.

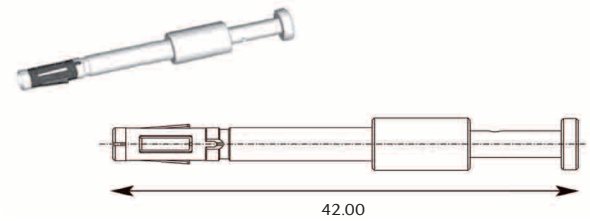
Contacts

Contacts ø 2.0 mm (standard version)

MALE CONTACT ø 2.0 mm

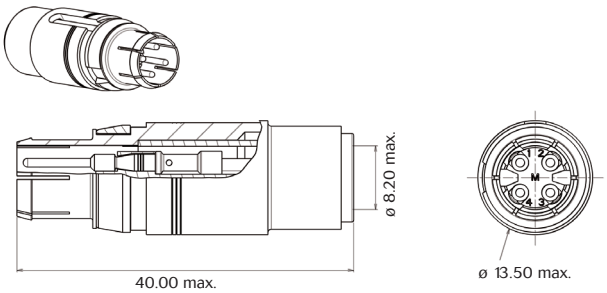


FEMALE CONTACT ø 2.0 mm

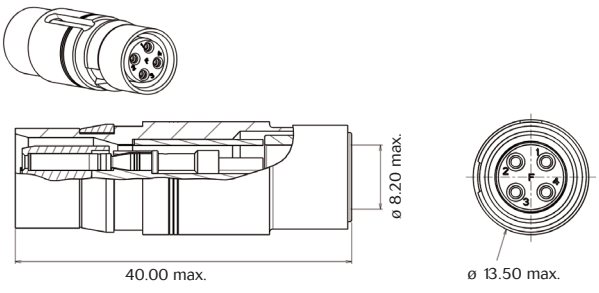


Quadrax contact

MALE QUADRAX CONTACT
P/N: 83802035A



FEMALE QUADRAX CONTACT
P/N: 83802034A



Note : all dimensions are in mm

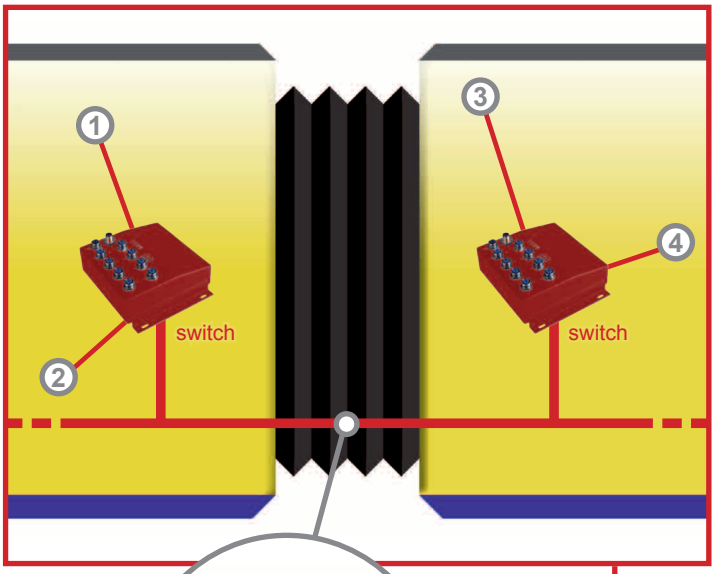
For further information, visit our website **www.railway-connectors.com**
or contact us at **contactindustry@souriau.com**

838 Series
Dedicated for Railway Applications

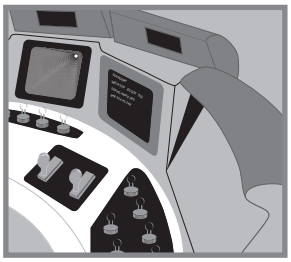
Railway applications are using more & more data transmission to improve **Safety** (e.g. videosurveillance), **Comfort** (e.g. WIFI, entertainment), **Reliability** (e.g. train service indicators) and **Real-time information** (e.g. passenger counting system).

Souriau's **High Speed Connection** product range has been designed to link all these new equipments along trains.

① Real-time information



③ Safety



④ Reliability

② Comfort

- ✓ For all types of networks: Ethernet, CAN open, MVB etc.
- ✓ From 100 Mbps to 1 Gbps
- ✓ NFF61030 compliant
- ✓ Fire & smoke standards compliant
- ✓ Designed for railway cables

SOURIAU
Connection Technology

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