



# 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





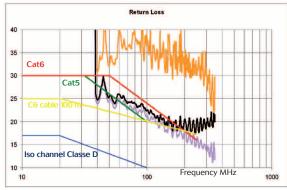


### **Technical features**

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

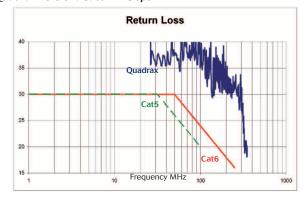
#### **Data Transmission**

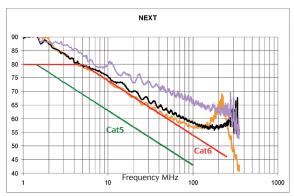
• Standard version with 4 contacts Ø2.0mm: Cat5 - 100 Mbps



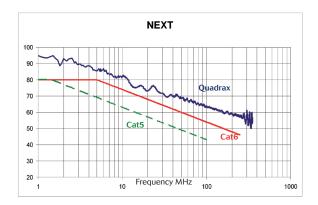
Quad cable configuration

· Quadrax version: Cat6 - 1 Gbps





Quad cable configuration



#### 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



- · Contact resistance:
- Contacts Ø2.0 mm: ≤ 2 m $\Omega$
- Quadrax:  $\leq 6 \text{ m}\Omega$  (contacts #20)  $\leq 2 \text{ m}\Omega$  (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 M $\Omega$  under 500 Vdc
- Quadrax:  $\geq 3000~M\Omega$  (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*		83	38 0	E	1	E	09	1	В	М	0	Α
Coupling type	<b>0:</b> Screw coupling with coding option											
Connector type	E: Receptacle	F:	Plug									
Shell type	<ul> <li>0: Square flange receptacle without panel gas</li> <li>1: Square flange receptacle with panel gasket</li> <li>0: Plug without clicker locking</li> <li>1: Plug with clicker locking</li> </ul>											
Shell size	E											
Contact layout	<b>09:</b> 4 contacts ø 2.0 mm											
Contact gender	1: Male crimp contact	5:	Female of	crimp co	ntact							
Contact type	L: Connector supplied without contact	B:	Contacts	ø 2.0 n	nm							
Backshell type	<ul> <li>G: Straight backshell for PMA flexible tube</li> <li>M: Without backshell, nor accessories</li> <li>N: Boot</li> <li>V: Straight backshell with sealing gland</li> </ul>	W: T: U: Z:	Straight backshell with cable clamp and sealing gland Backshell with low profile sealing gland Backshell T type with shielding termination Backshell for shielding termination									
Index	0 to 20											
Insert	A: Thermoplastic insert											

<sup>\*</sup>Delivered without contact

### 838 Quadrax version with 2 Quadrax cells

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

<sup>\*</sup>Delivered without contact

#### **Contacts**

#### Contact ø 2.0 mm (standard version)

8380 726	Passivated silver Gold Passivated silver	Cable size:	min. 0.6 0.6 1.34	max. 1.5 1.5 2.61
8380 727	Passivated silver Gold Passivated silver		0.6 0.6 1.34	1.5 1.5 2.61

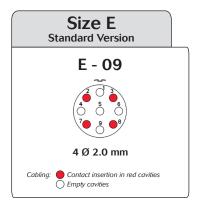
Other contact versions, please contact us.

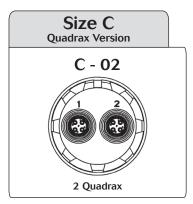
#### Quadrax contact

Contact type Male 8380 2035A	Copper alloy	Cable size:	<b>min.</b> 0.21	<b>max.</b>
Female 8380 2034A	Copper alloy		0.21	0.93



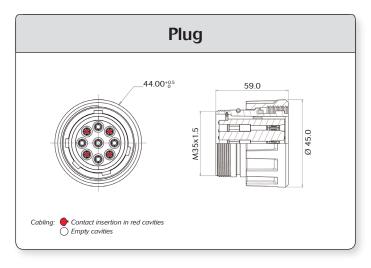
## Contact layouts (from front face of female connector)

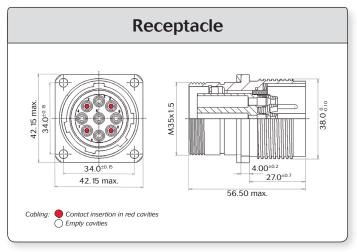




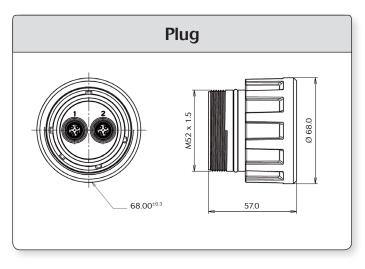
## **Range presentation**

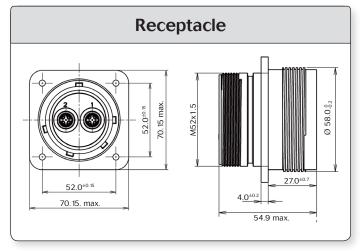
#### 838 size E standard version with 4 contacts Ø 2.0 mm (standard version)





### 838 size C Quadrax version with 2 Quadrax cells

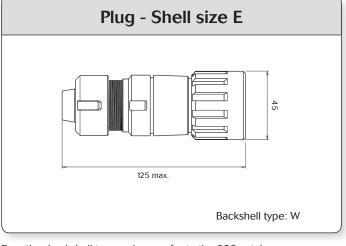


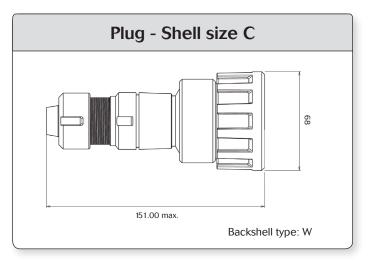


Note : all dimensions are in mm



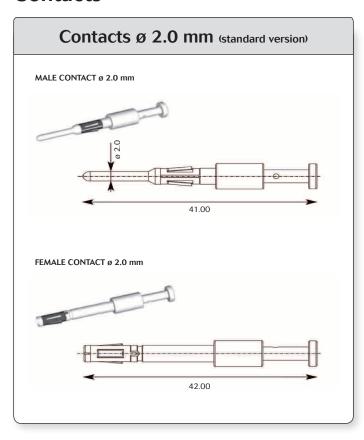
# **Example of connector with backshell**

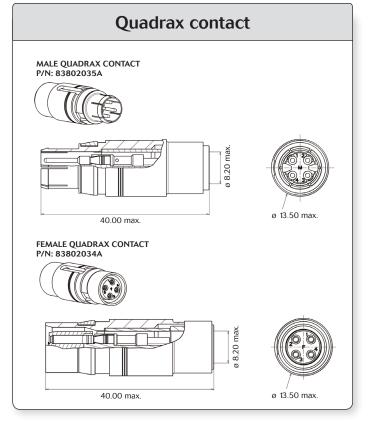




For other backshell types, please refer to the 838 catalog.

### **Contacts**





Note : all dimensions are in mm

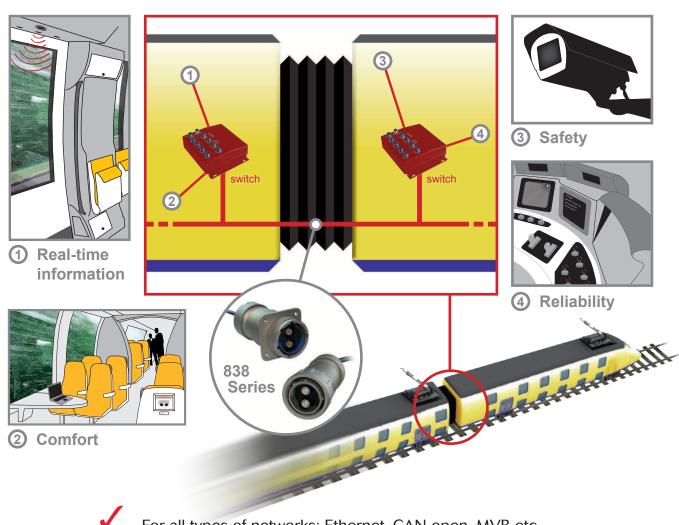
For further information, visit our website www.railway-connectors.com or contact us at contactindustry@souriau.com

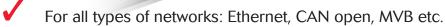
# **Dedicated for Railway Applications**



Railway applications are using more & more data transmission to videosurveillance), Comfort Safety (e.g. improve (e.g. 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.





- From 100 Mbps to 1 Gbps
- NFF61030 compliant
- Fire & smoke standards compliant
- Designed for railway cables





### **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

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AIC16-16PG AIC8-12P AIC8-8SG AIC8-8SRAD 1495044-1 BACC47CP2T BACC47DP4 BACC47GC1A BACC47GN1 16968/2C
241611N001 2560-220-2031 27964-38T112 2M809-118 97-67-36-20 AIC12-16P AIC16-18PG AIC16-20PG AIC4-4PG CE102S-18
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