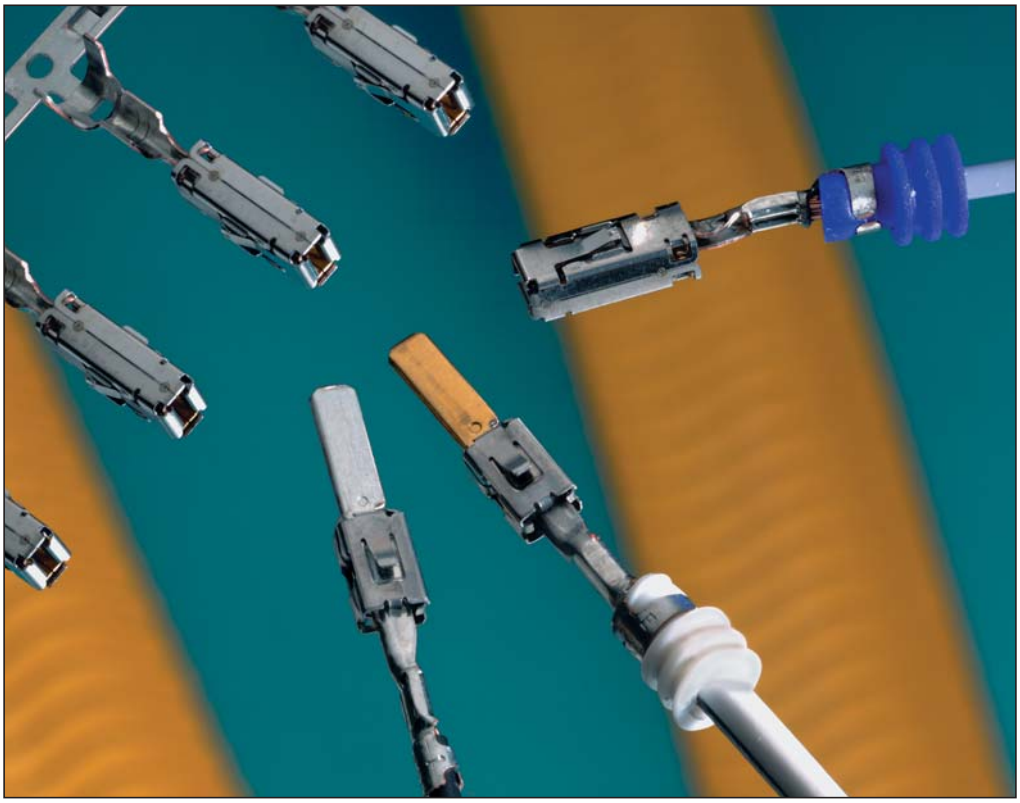
Introduction



Micro motions due to vibrations or changes in temperature can cause fretting corrosions in the contact area of receptacle and tab. This leads to surface oxydation so that mainly at a low current it will possibly come to a complete interruption of the electric circuit.

To prevent fretting corrosion we have developed a sensor receptacle contact. Integrated into the body is a spring, which is able to compensate the micro motions in all three space axis. Thanks to this spring, the resulting friction force depending on spring normal force and friction parameter is higher than the unmating force in axial direction, so that micro motions and fretting corrosion is hereby prevented.

The two-piece contact exists of a body which is responsible for the electrical function and a steel spring. The two locking lances of the steel spring lock the contact securely in the housing, achieving high contact extraction forces. Furthermore this steel spring also serves to secure the secondary contact locking in the housing.

The sensor receptacle contact is available in a tin plated and (only in the contact area) gold plated or silver plated version. It can be applied in a single wired sealed and a non-waterproof design.

By altering the mold cavity the sensor receptacle contact becomes compatible to the Junior Power Timer receptacle. That means, that the sensor receptacle contact then can also be used in existing housing designs thereby stopping immediately appearing corrosion problems.

Our customers can accomplish this conversion of the cavity by using a mold conversion kit. Regarding a standardization of terminals with existing Junior Power Timer contacts, this possibility has to be regarded as extremely valuable.

The sensor receptacle contact can be rapidly and economically crimped to wire by using hand tools resp. semi-automatic or fully-automatic tooling.

Receptacle Contacts

Technical Features

Material:
Contact: CuNiSi
Tabs: CuSn4/CuFe2
Top Spring: Stainless Steel

Contact Finish:
tin plated,
selective silver plated,
selective gold plated

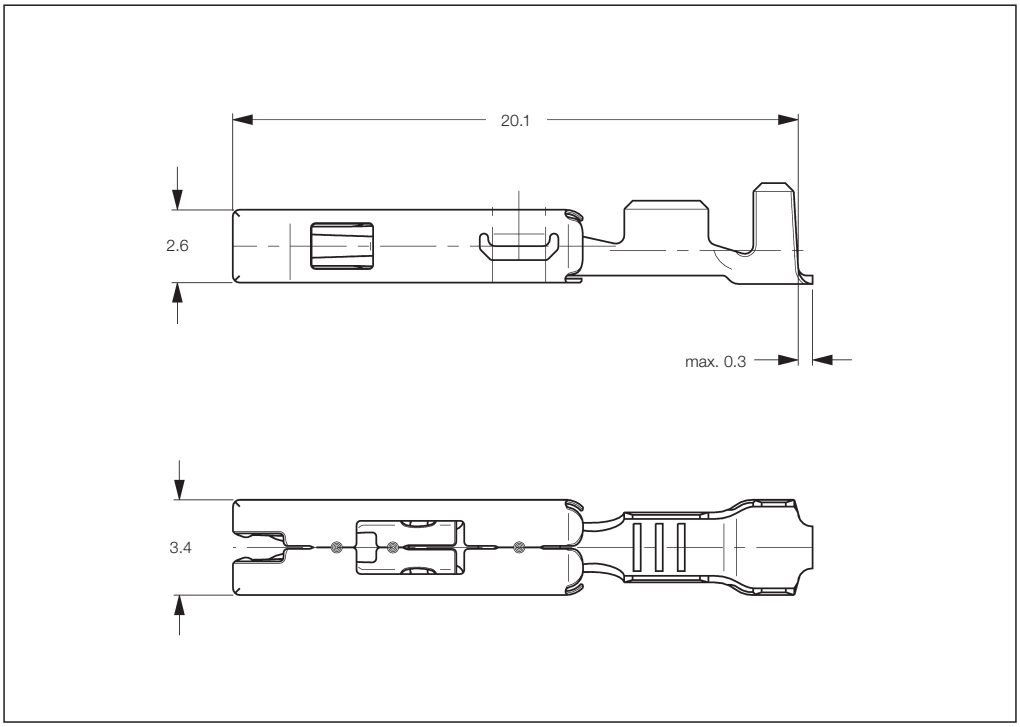
Wire Size Range:
0.5–1.0 mm^2/1.4–2.0 mm^2
Single Wires (FLR)

Current Carrying Capacity:
up to 4 Ampere
(at 20 °C ambient temperature)

Temperature Range:
–40 °C to +130 °C (tin plated)
–40 °C to +140 °C (silver plated)
–40 °C to +150 °C (gold plated)

Mating Frequency:
up to 10 cycles (tin plated)
up to 50 cycles (silver plated)
up to 100 cycles (gold plated)

Centerline:
3.33 x 5.0 mm



Contact Resistance:
New State ≤4 mΩ

Mating Force:
Max. 10 N

Unmating Force:
1.5–7 N

Extraction Tool:
Part No. **7-1579007-0**

Product Specification:
108-18617

Application Specification:
114-18254

Standard Receptacle Contacts

Wire Size Range (mm^2)	Insulation Diameter (mm)		Material and Finish*	Part Numbers					
	FLK	FLR		Strip Form	Package Quantity	Loose-Piece	Package Quantity	Applicator	Hand Tool
0.5–1.0	–	1.4–2.1	-1 / -2 / -3	929027	5,500	929028	500	x-1528283-x	2119155-1
1.4–2.0	–	2.2–2.8	-1 / -2 / -3	929025	4,500	929026	500	x-1528282-x	

*) **Material and Finish:**
xxx-1 = selective gold plated
xxx-2 = pre-tin plated
xxx-3 = silver plated

Receptacle Contacts

Technical Features

Material:
Contact: CuNiSi
Tabs: CuSn4/CuFe2
Top Spring: Stainless Steel

Contact Finish:
tin plated,
selective silver plated,
selective gold plated

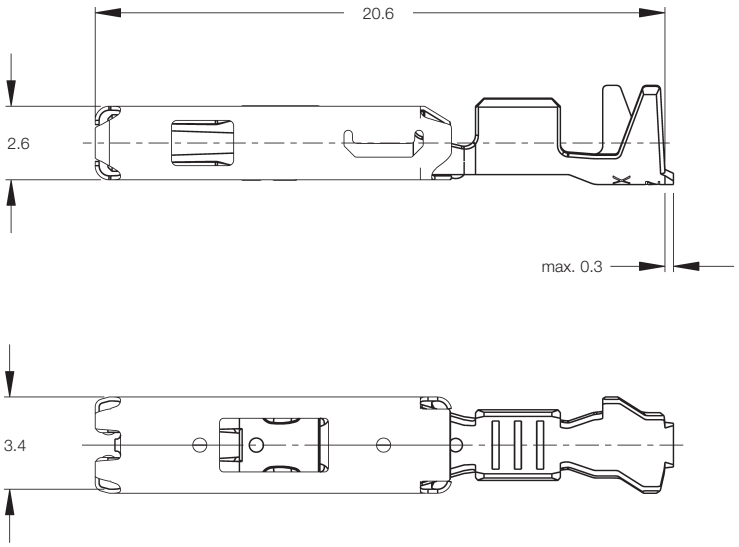
Wire Size Range:
0.35–0.5 mm^2/0.75–1.0 mm^2/
1.4–2.0 mm^2
Single Wires (FLR)

Current Carrying Capacity:
up to 4 Ampere
(at 20 °C ambient temperature)

Temperature Range:
–40 °C to +130 °C (tin plated)
–40 °C to +140 °C (silver plated)
–40 °C to +150 °C (gold plated)

Mating Frequency:
up to 10 cycles (tin plated)
up to 50 cycles (silver plated)
up to 100 cycles (gold plated)

Centerline:
3.33 x 5.0 mm



Contact Resistance:
New State ≤4 mΩ

Mating Force:
Max. 10 N

Unmating Force:
1.5–7 N

Extraction Tool:
Part No. **7-1579007-0**

Product Specification:
108-18617

Application Specification:
114-18254

Standard Receptacle Contacts

Wire Size Range (mm^2)	Insulation Diameter (mm)		Material and Finish*	Part Numbers					
	FLK	FLR		Strip Form	Package Quantity	Loose-Piece	Package Quantity	Applicator	Hand Tool
0.35–0.50	–	1.2–1.7	-1 / -2 / -3	1564724	7,500	1564725	500	x-1528435-x	
0.75–1.00	–	1.7–2.15	-1 / -2 / -3	1670326	5,500	1670327	500	x-1528785-x	2119155-1
1.4–2.0	–	2.2–2.8	-1 / -2 / -3	1670328	4,500	1670329	500	x-1528786-x	

*) **Material and Finish:**
xxx-1 = selective gold plated
xxx-2 = pre-tin plated
xxx-3 = silver plated

Receptacle Contacts

Technical Features

Material:
Contact: CuNiSi
Tabs: CuSn4/CuFe2
Top Spring: Stainless Steel

Contact Finish:
tin plated,
selective silver plated,
selective gold plated

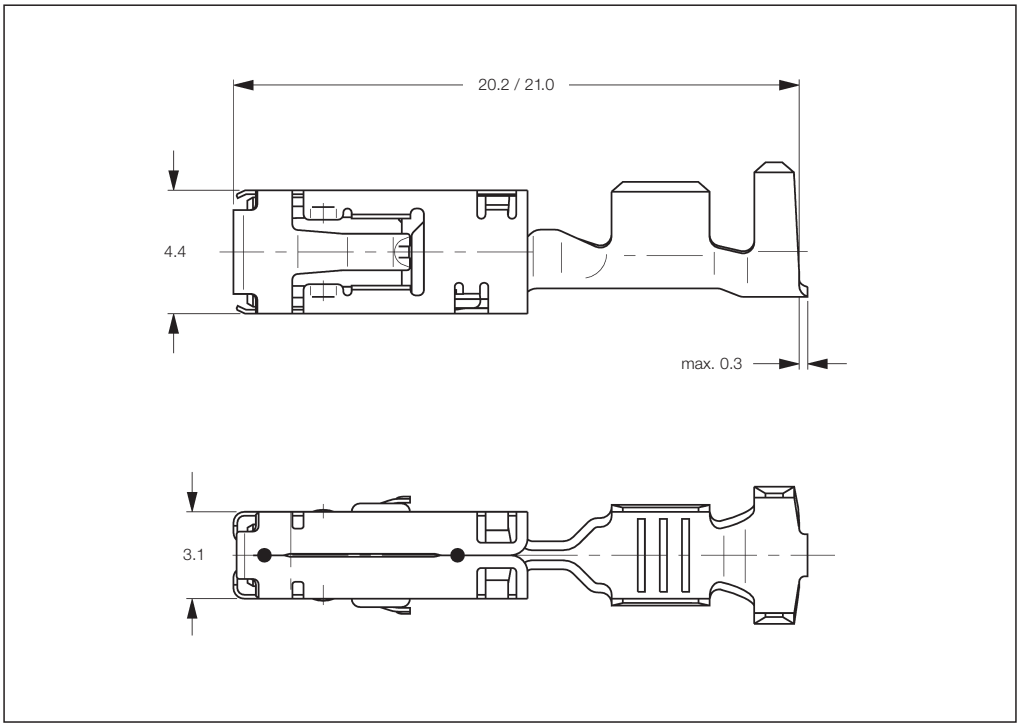
Wire Size Range:
0.35 mm^2/0.5–1.0 mm^2/
1.5–2.5 mm^2
Single Wires (FLR)

Current Carrying Capacity:
up to 25 Ampere
(at 20 °C ambient temperature)

Temperature Range:
–40 °C to +130 °C (tin plated)
–40 °C to +140 °C (silver plated)
–40 °C to +150 °C (gold plated)

Mating Frequency:
up to 20 cycles (tin plated)
up to 50 cycles (silver plated)
up to 100 cycles (gold plated)

Centerline:
5.0 x 5.5 mm Standard
5.0 x 5.0 mm Staggered



Contact Resistance:
New State ≤2 mΩ

Mating Force:
3 to 10 N

Unmating Force:
2 to 10 N

Extraction Tool:
Part No. **1-1579007-1**

Product Specification:
108-18509

Application Specification:
114-18144

Standard Receptacle Contacts

Wire Size Range (mm^2)	Insulation Diameter (mm)		Material and Finish*	Part Numbers					
	FLK	FLR		Strip Form	Package Quantity	Loose-Piece	Package Quantity	Applicator	Hand Tool
0.5–1.0	–	1.4–2.1	-1 / -2	967702	4,000	967713	500	x-1528115-x	2063534-1
1.5–2.5	–	2.2–3.0	-1	967703	4,000	967714	500	x-1528033-x	2063532-1

Single Wire Sealing System

Wire Size Range (mm^2)	Insulation Diameter (mm)		Material and Finish*	Part Numbers					
	FLK	FLR		Strip Form	Package Quantity	Loose-Piece	Package Quantity	Applicator	Hand Tool
0.35	–	1.2–1.4	-1	967541	3,500	967715	500	x-1426162-x	2063623-1
0.5–1.0	–	1.4–2.1	-1 / -2	967542	4,000	967716	500	x-1528017-x	2063624-1
1.5–2.5	–	2.2–3.0	-1 / -2 / -3	967543	4,000	967717	500	x-1528066-x	2063523-1

*) **Material and Finish:**
xxx-1 = pre-tin plated
xxx-2 = selective gold plated
xxx-3 = silver plated

Tab Contacts Symmetric

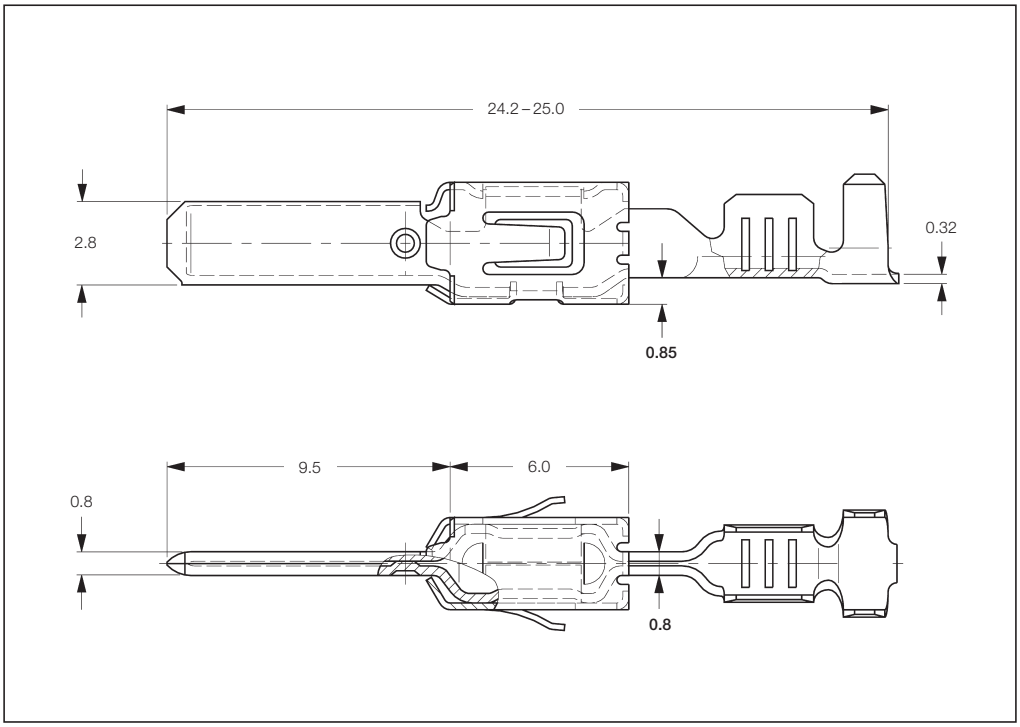
Tabs 2.8 x 0.8 mm with Modified Steel Top Spring, Mates with 2.8 mm Sensor Flat Type Receptacle

Extraction Tool:
Part No. **1-1579007-6**

Product Group Drawing:
1355364

Product Specification:
108-18063

Application Specification:
114-18051



Standard Tab Contacts with Modified Spring

Wire Size Range (mm^2)	Insulation Diameter (mm)		Material and Finish*	Part Numbers					
	FLK	FLR		Strip Form	Package Quantity	Loose-Piece	Package Quantity	Applicator◆	Hand Tool
0.2–0.5	–	1.15–1.60	1-xxx-3 / 2-xxx-1	964292	4,000	964291	500	x-1528004-x	2063533-1
0.5–1.0	–	1.4–2.1	1-xxx-3 / 2-xxx-1 / 2-xxx-2	964294	4,000	964293	500	x-1528097-x	
1.25–2.50	–	2.2–3.0	1-xxx-3 / 2-xxx-1 / 2-xxx-2	964296	3,300	964295	500	x-1528001-x	

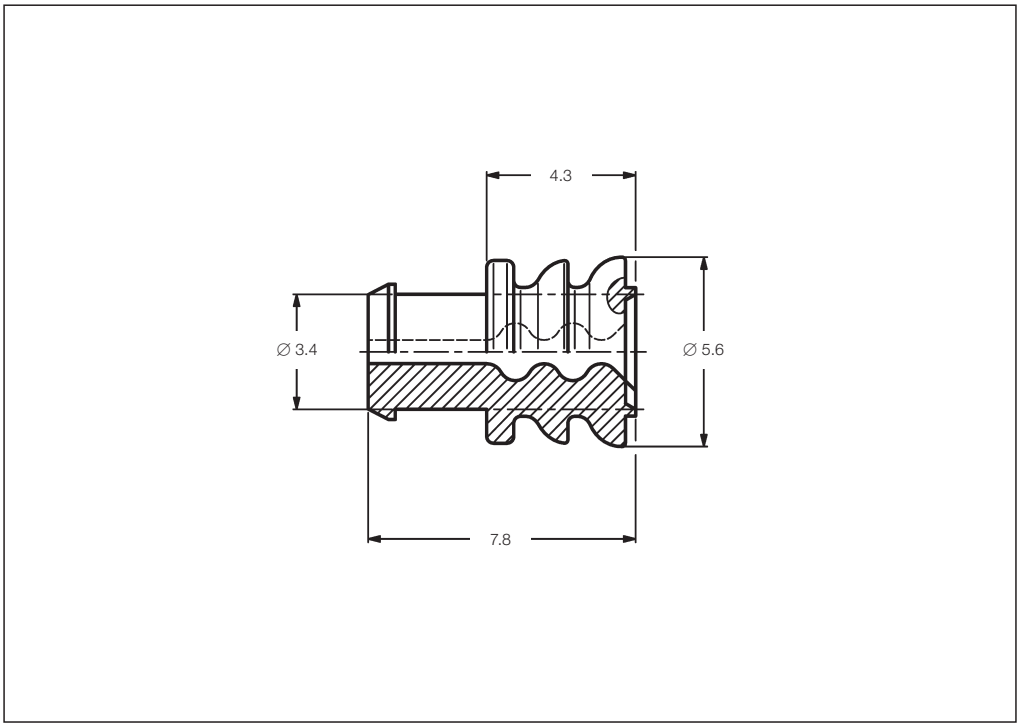
Tab Contacts with Modified Spring and Single Wire Sealing System

Wire Size Range (mm^2)	Insulation Diameter (mm)		Material and Finish*	Part Numbers					
	FLK	FLR		Strip Form	Package Quantity	Loose-Piece	Package Quantity	Applicator◆	Hand Tool
0.2–0.5	–	1.15–1.60	1-xxx-3 / 2-xxx-1	964298	3,500	964297	500	x-1528025-x	2063435-1
0.5–1.0	–	1.4–2.1	1-xxx-3 / 2-xxx-1 / 4-xxx-1	964300	3,500	964299	500	x-1528101-x	
1.25–2.50	–	2.2–3.0	1-xxx-3 / 2-xxx-1	964302	3,500	964301	500	x-1528026-x	

*) **Material and Finish:**
1-xxx-3 = CuSn, selective gold plated
2-xxx-1 = CuFe, pre-tin plated
2-xxx-2 = CuFe, selective pre-silver plated
4-xxx-1 = CuNi18Zn20, plain

◆) The pre- and suffix for the applicators depends on the applied termination equipment.

Single Wire Seals and Sealing Plugs for 2.8 mm Sensor Flat Contact System



Insulation Diameter (mm)	Wire Size Range (mm^2)	Color	Part Number	Package Quantity
1.2–2.1	(0.35–1.00)	Blue	828904-1	1,000
			828904-2	10,000
2.2–3.0	(1.50–2.50)	White	828905-1	10,000
Sealing Plug	(0.35–2.50)	Natural	828922-1	10,000