

# 8559 Series Modular Junction Blocks



## Interconnect Technology for Airframes

Building interconnection combinations of variable and transformable composition under a compact size.

**Versatility** ■ Contacts: size 22 or 20.  
Sealed and unsealed version.

**RoHS compliant** ■ Many layouts available.

**Easy to install** ■ Termination modules are easily installed on a mounting rail.

**Flight proven** ■ Used on major airframer programs.

**Standards** ■ NSA937901 qualified.  
Developed in accordance with EN3708.

**Integrated components** ■ Two new modules #20: layouts 12 & 13.  
Use some features of CAN bus technology.

## Description

- Two types of modules
- Contacts: size 22 or 20
- Sealed and unsealed version
- Standards: NSA937901 qualified
- Developed in accordance with EN3708



## Technical features

### Mechanical

- **Module:**  
thermoplastic
- **Grommet:**  
silicone elastomer (for sealed version)
- **Module clamp:**  
stainless steel
- **Contact:**  
copper alloy
- **Contact plating:**  
gold over nickel
- **Vibration:**  
to EN3708 - 10 to 2000 Hz - 10 g
- **Shock:**  
to EN3708 - 100g peak during 6 m/s
- **Contact retention:**  
size 22 - 40 N  
size 20 - 67 N

### Electrical

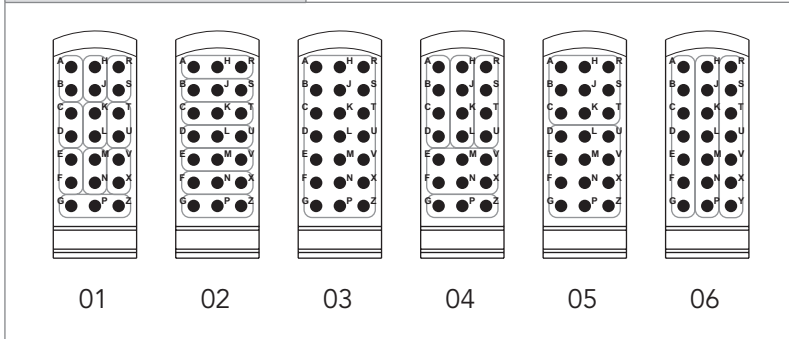
- **Test voltage:**  
1500 Vrms (all layouts, except 12 & 13)  
750 Vrms (layouts 12 & 13 only)
- **Contact resistance:**  
size 22 - 5 mΩ  
size 20 - 4 mΩ
- **Insulation resistance:**  
≥ 5000 MΩ (under 500 Vdc)
- **Working current per contact:**  
size 22 - 5 A  
size 20 - 7.5 A

### Environmental

- **Temperature range:**  
-55°C +175°C (all layouts, except 12 & 13)  
-55°C +125°C (layouts 12 & 13 only)
- **Damp heat:**  
to EN3708 - 21 days
- **Salt spray:**  
48 hours
- **Resistance to fluids:**  
JP5  
Skydrol 500 B4  
Skydrol LD 4  
MIL-PRF-7870C  
MIL-PRF-23699F  
AMS 1424

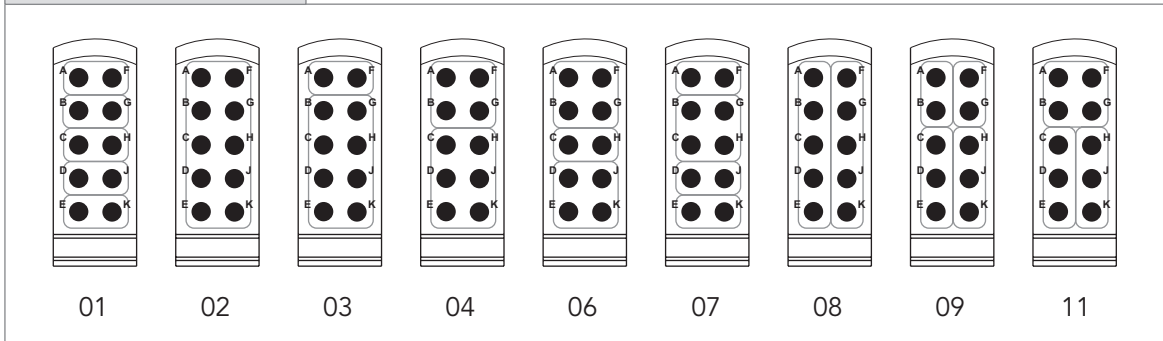
## Contact layouts

### Contact #22



Note: Module delivered without contact. Contact #22 Part Number: EN3155016M2222.

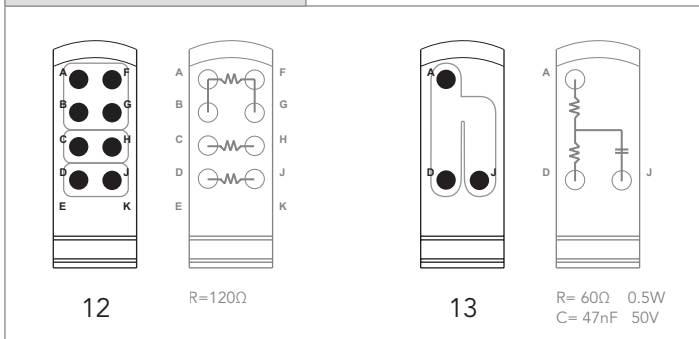
### Contact #20



Note: Module delivered without contact. Contact #20 Part Number: EN3155016M2018.

## Module with integrated components

### Contact #20



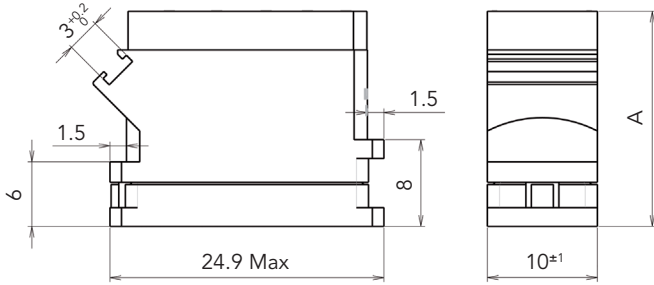
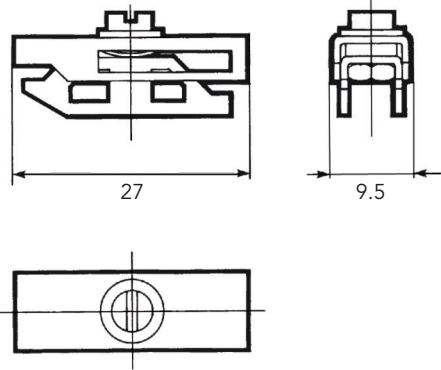
Note: Module delivered with contacts. For other electrical layouts, please consult us.

## Ordering information

### Module part numbers

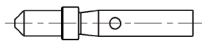
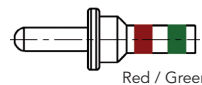
Basic Series	8559	N	20	01	B
<b>Class:</b>					
N: unsealed module (not available for layout 13)					
E: sealed module					
<b>Module type:</b>					
22: size 22 contact					
20: size 20 contact					
<b>Contact layouts:</b>					
see tables next page					
<b>Last version:</b>					
B					

## Dimensions

Module & Module clamp											
<p><b>Module</b></p>  <table border="1" style="margin-top: 10px; width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="text-align: center;">A Max.</th> <th rowspan="2" style="text-align: center;">Unsealed module</th> <th colspan="2" style="text-align: center;">Sealed module</th> </tr> <tr> <th style="text-align: center;">All layouts, except layout 13</th> <th style="text-align: center;">Layout 13</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">19 mm</td> <td style="text-align: center;">20 mm</td> <td style="text-align: center;">20 mm</td> <td style="text-align: center;">22 mm</td> </tr> </tbody> </table>	A Max.	Unsealed module	Sealed module		All layouts, except layout 13	Layout 13	19 mm	20 mm	20 mm	22 mm	<p><b>Module clamp</b></p>  <p style="margin-top: 10px;">Part Number: <b>8559 S</b></p>
A Max.			Unsealed module	Sealed module							
	All layouts, except layout 13	Layout 13									
19 mm	20 mm	20 mm	22 mm								

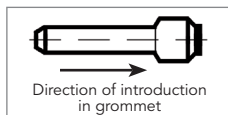
Note: All dimensions are in millimeters (mm)

## Contacts

Contact size	Part Numbers	Admissible wire section		Ø over insulator (mm)		Profile
		mm <sup>2</sup>	AWG	Min	Max	
#22	EN3155 016 M 22 22	0.15 0.25 0.40	26 24 22	0.75	1.09	
#20 Only layouts 12 & 13	8559 0232			0.85	1.59	
#20 Except layouts 12 & 13	EN3155 016 M 20 18			0.25 0.40 0.60 1.00	24 22 20 18	0.85

## Filler plugs

Contact size	Part numbers	Color
#22	8660-212	Black
#20	8522-389A	Red



## Crimping tool

Contact size	Wire sizes		Crimping pliers	Locator
	mm <sup>2</sup>	AWG		
#22	0.15 0.25 0.40	26 24 22	8476-01 (M22520/2-01)	8572-30A
#20 Only layouts 12 & 13				K-1554
#20 Except layouts 12 & 13			0.25 0.40 0.60 1.00	24 22 20 18

## Insertion & extraction tool

Contact size	Part numbers	Color	
		Insertion	Extraction
#22	M81969.14.01 MS27534-22D	Green	White
#20	M81969.14.11 MS27534-20	Red	White

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