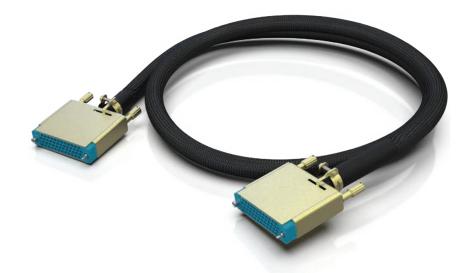
## **50-Pin SGMC** Accessories

90-027D

- Standard Voltage to 250 V AC, 5 A
- Cable Assemblies
- Cable Connectors
- Guaranteed Compatibility



#### **Simple Connection**

Pickering connection solutions provide a simple way of connecting to a user's device under test or remote connection. The products include cable assemblies and cable connectors.

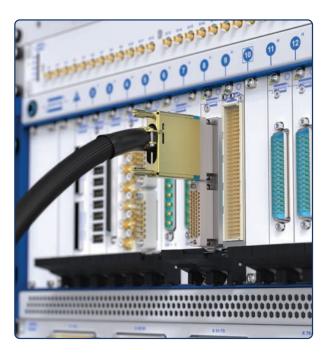
#### **Cable Assemblies**

Cable assemblies are offered in connector to connector, and connector to unterminated versions. There are 3 termination options for the unterminated cables - ferrules, tinned copper or simple cut end.

#### **Custom Design Needs**

Pickering Interfaces can manufacture custom connector accessories to suit any application. If you do not see what you need in this data sheet contact your Pickering Interfaces sales office with information on your requirements or consider using our free online Cable Design Tool.

Using our Cable Design Tool, you can graphically design your own custom cable assembly. Once completed and submitted, our engineers will generate a quote for your cable requirements. See pickeringtest.com/cdt





Example of a Pickering PXI Product using 50-Pin SGMC Connectors

Issue 1.2 June 2023

#### **Cable Assemblies**

| Description  |   | End 1                  | End 2                  |                     | Cable Product Order Code                              |  | Data          |
|--|---|------------------------|------------------------|---------------------|---|--|---------------|
|  |   | Gender &<br>Cable Exit | Gender &<br>Cable Exit | Options             | Cable<br>Length                                       | and Part Number  | Sheet<br>Page |
| $\left( \begin{array}{c} \\ \\ \\ \end{array} \right)$ | Cable Assy,<br>50-Pin SGMC,<br>5 A                                  | Male,<br>Rear          | Female,<br>Rear        | -                   | 0.5 m<br>1 m<br>2 m                                   | A050FMR-050FFR-0A050<br>A050FMR-050FFR-0A100<br>A050FMR-050FFR-0A200 | 3             |
|  | Cable Assy,<br>50-Pin SGMC,<br>5 A                                  | Female,<br>Rear        | Female,<br>Rear        | -                   | 0.5 m<br>1 m<br>2 m                                   | A050FFR-050FFR-0A050<br>A050FFR-050FFR-0A100<br>A050FFR-050FFR-0A200 | 4             |
|  | Cable Assy,<br>50-Pin SGMC to Female,<br>Unterminated, Rear<br>5 A. |                        |                        | Ferrules            | 0.5 m<br>1 m<br>2 m                                   | A050FFR-F-0A050<br>A050FFR-F-0A100<br>A050FFR-F-0A200                |               |
|  |   | NA                     | Tinned<br>End          | 0.5 m<br>1 m<br>2 m | A050FFR-T-0A050<br>A050FFR-T-0A100<br>A050FFR-T-0A200 | 5  |               |
|  |   |                        | Cut End                | 0.5 m<br>1 m<br>2 m | A050FFR-C-0A050<br>A050FFR-C-0A100<br>A050FFR-C-0A200 |  |               |

#### **Female Connectors**

| De                | scription                  | Gender &<br>Cable Exit | Туре              | Product Order Code<br>and Part Number | Page |
|-------------------|----------------------------|------------------------|-------------------|---------------------------------------|------|
| t                 | Cable Connector            | Female,<br>Rear        | With Backshell    | C050FFR-1CP-0A                        | ,    |
| the second second | 50-Pin SGMC,<br>5 A, Crimp |                        | Without Backshell | C050FFX-1CP-0A                        | 6    |

### **Custom Termination**

Please click on the page number to navigate to the data sheet page required. Return to this page via the C button.

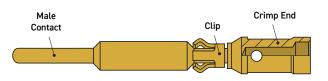
# Cable Assy - Male to Female

## 90-027D

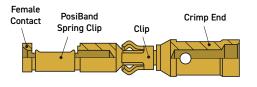
- High Specification 5 A Cable
- Highly Flexible Cable with Braided Sleeving
- Fully Screened Cable Construction with Strain Relief
- Rear Cable Exit

#### **Technical Specification**

| 50-Pin SGMC                          |
|--------------------------------------|
| Female                               |
| 2-56 UNC screwlocks                  |
| 50-Pin SGMC                          |
| Male                                 |
| 2-56 UNC screwlocks                  |
| 5 A                                  |
| 250 V AC (rms)                       |
| 1000 MOhm                            |
|                                      |
| Gold plated copper alloy             |
| 4 m0hm                               |
| Rear                                 |
| H41.3 x W18.1 x D54.6 mm             |
| Individual wires, screened & sleeved |
| Copper                               |
| 19/0.18 (0.41 mm², 21AWG)            |
| 0.041Ω/m                             |
| PFA                                  |
| Polyester                            |
| Yes (Cable screen connected to       |
| backshells)                          |
| Yes                                  |
| 12 mm                                |
| 25 mm                                |
| 60 mm (see diagram)                  |
|                                      |





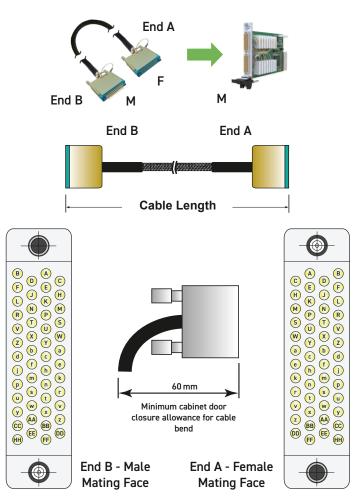


**Female Contact** 



50-Pin SGMC Cable Assembly

#### **Product Compatibility**



#### **Product Order Codes**

| 50-Pin SGMC Cable Assy, 5 A, Male to Female, Rear Cable Exit, |                      |  |  |
|---|----------------------|--|--|
| 0.5 m Long  | A050FMR-050FFR-0A050 |  |  |
| 1.0 m Long  | A050FMR-050FFR-0A100 |  |  |
| 2.0 m Long  | A050FMR-050FFR-0A200 |  |  |
|   |                      |  |  |

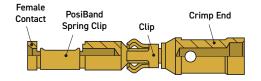
# Cable Assy - Female to Female

### 90-027D

- High Specification 5 A Cable
- Highly Flexible Cable with Braided Sleeving
- Fully Screened Cable Construction with Strain Relief
- Rear Cable Exit

#### **Technical Specification**

|                           | ·                                    |
|---------------------------|--------------------------------------|
| Connector Type (End A):   | 50-Pin SGMC                          |
| Gender                    | Female                               |
| Securing Method           | 2-56 UNC screwlocks                  |
| Connector Type (End B):   | 50-Pin SGMC                          |
| Gender                    | Female                               |
| Securing Method           | 2-56 UNC screwlocks                  |
| Maximum Current           | 5 A                                  |
| Maximum Voltage           | 250 V AC (rms)                       |
| Insulation Resistance     | 1000 MOhm                            |
| Connectors:               |                                      |
| Contact Material          | Gold plated copper alloy             |
| Contact Resistance        | 4 m0hm                               |
| Cable Exit                | Rear                                 |
| Overall Size (Approx)     | H41.3 x W18.1 x D54.6 mm             |
| Cable Type:               | Individual wires, screened & sleeved |
| Conductor: Material       | Copper                               |
| Strands                   | 19/0.18 (0.41 mm², 21AWG)            |
| Resistance                | 0.041Ω/m                             |
| Insulation                | PFA                                  |
| Outer Sleeve              | Polyester                            |
| Screened Construction     | Yes (Cable screen connected to       |
|                           | backshells)                          |
| Additional Braided Sleeve | Yes                                  |
| Cable O/D                 | 12 mm                                |
| Minimum Bend Radius       | 25 mm                                |
| Door Closure Allowance    | 60 mm (see diagram)                  |

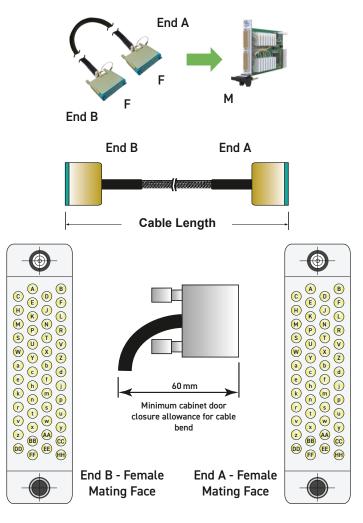


**Female Contact** 



50-Pin SGMC Cable Assembly

#### **Product Compatibility**



#### **Product Order Codes**

50-Pin SGMC Cable Assy, 5 A, Female to Female, Rear CableExit,...0.5 m LongA050FFR-050FFR-0A0501.0 m LongA050FFR-050FFR-0A1002.0 m LongA050FFR-050FFR-0A200

# Cable Assy - Female to Unterminated

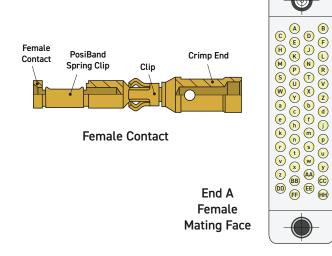
## 90-027D

- High Specification 5 A Cable
- Highly Flexible Cable with Braided Sleeving
- Fully Screened Cable Construction with Strain Relief
- Fully Coded Markers to Ensure Easy Connection

#### **Technical Specification**

| Connector Type (End A):   | 50-Pin SGMC   |
|---|---|
| Gender  | Female  |
| Securing Method   | 2-56 UNC screwlocks                                       |
| Unterminated End (End B):   | Ferrules, Tinned, Cut End                                 |
| Wire End Options  | 130mm nominal   |
| Free Wire Length  | To connector pins. A white/black screen                   |
| Individual Wire Labelling   | pigtail is included                                       |
| Maximum Current<br>Maximum Voltage<br>Insulation Resistance<br>Connector: | 5 A<br>250 V AC (rms)<br>1000 MOhm                        |
| Contact Material  | Gold plated copper alloy                                  |
| Contact Resistance  | 4 mOhm  |
| Cable Exit  | Rear  |
| Overall Size (Approx)   | H41.3 x W18.1 x D54.6 mm                                  |
| Cable Type:   | Individual wires, screened & sleeved                      |
| Conductor: Material   | Copper  |
| Strands   | 19/0.18 (0.41 mm², 21AWG)                                 |
| Resistance  | 0.041Ω/m  |
| Insulation  | PFA   |
| Outer Sleeve  | Polyactor   |
| Screened Construction   | Polyester<br>Yes (Cable screen connected to<br>backshell) |
| Additional Braided Sleeve   | Yes   |
| Cable O/D   | 12mm  |
| Minimum Bend Radius   | 25mm  |
| Door Closure Allowance  | 60mm (see diagram)  |

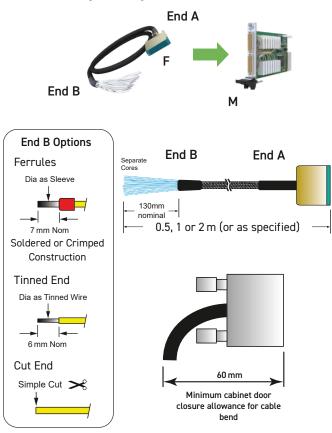
**Note:** When using this product please ensure appropriate electrical safety.





#### 50-Pin SGMC Unterminated Cable Assembly

#### **Product Compatibility**



#### **Product Order Codes**

| 50-Pin SGMC Cable Assy, 5 A, Female to Unterminated, |                 |  |  |
|--|-----------------|--|--|
| Ferrules, 0.5 m Long                                 | A050FFR-F-0A050 |  |  |
| Ferrules, 1.0 m Long                                 | A050FFR-F-0A100 |  |  |
| Ferrules, 2.0 m Long                                 | A050FFR-F-0A200 |  |  |
| Tinned End, 0.5 m Long                               | A050FFR-T-0A050 |  |  |
| Tinned End, 1.0 m Long                               | A050FFR-T-0A100 |  |  |
| Tinned End, 2.0 m Long                               | A050FFR-T-0A200 |  |  |
| Cut End, 0.5 m Long                                  | A050FFR-C-0A050 |  |  |
| Cut End, 1.0 m Long                                  | A050FFR-C-0A100 |  |  |
| Cut End, 2.0 m Long                                  | A050FFR-C-0A200 |  |  |

## **Cable Connector - Female**

## 90-027D

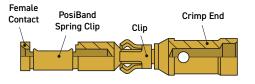
- 5 A Connector only or Connector and Backshell
- Cable Clamp in Backshell
- Soldered Cable Termination

This accessory is designed to allow users to directly terminate with soldered connections to the connector.

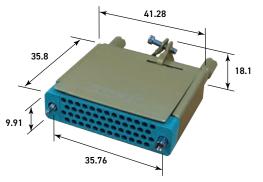
When the product is used without a backshell users should make their own cable strain relief arrangements and ensure appropriate electrical safety precautions are observed.

#### **Technical Specification**

| Connector Type:           | 50-Pin SGMC                 |
|---------------------------|-----------------------------|
| Gender                    | Female                      |
| Securing Method:          |                             |
| Product with Backshell    | 2-56 UNC screwlocks         |
| Product without Backshell | 2-56UNC screwlocks          |
| Wire Connection           | Crimp                       |
| Cable Screen Connection   | Connector shell / Screwlock |
| Connector Ratings:        |                             |
| Maximum Current           | 5 A                         |
| Maximum Voltage           | 250 V AC (rms)              |
| Cable Exit:               | Rear                        |
| Cable Exit Size           | 25.4 x 9.9 mm               |
| Overall Size (Approx)     | H41.3 x W18.1 x D54.6 mm    |
| 20-Pin GMCT:              |                             |
| Contact Material          | Gold plated copper alloy    |
| Contact Resistance        | 4 m0hm                      |
| Wire Connection:          |                             |
| Maximum Wire Size         | 22AWG                       |
| Recommended Insulation    | PTFE                        |
| Additional Cable Clamp    | Yes (in backshell)          |
|                           |                             |



**Female Contact** 

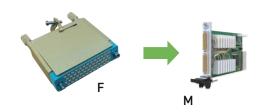


**Connector Dimensions** 



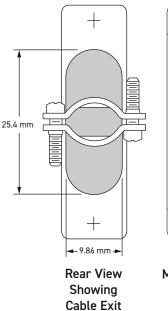
50-Pin SGMC Cable Connector with Backshell

#### **Product Compatibility**



n

t



B Screwlock (Male) ø Screwlock × (Female) BB EE

Female Mating Face

#### **Product Order Codes**

| 50-Pin SGMC Connector, 5 A, Crimp Pin,                           |                |  |  |
|--|----------------|--|--|
| With Backshell, Female   | C050FFR-1CP-0A |  |  |
| Without Backshell, Female  | C050FFX-1CP-0A |  |  |
| Note: The supplied connector kit includes 50 off contacts of the |                |  |  |
| appropriate gender.  |                |  |  |

### **Custom Termination**

Pickering Interfaces are able to manufacture custom built cable assemblies and backshells that mate with all the connectors we use in our extensive product range and to provide connection solutions for third party products.

We are able to model and manufacture cable assemblies and other termination arrangements to user notes and drawings, and to deal with simple and complex assemblies, and both small and high volume orders.

All products are designed to ensure easy and problem free connection.

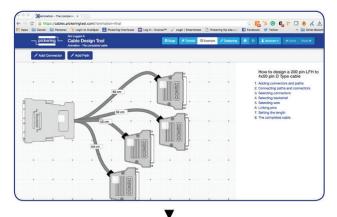
We offer a fast turn round of custom items to keep your ordering and integration time scales to a minimum.



### Pickering's Cable Design Tool

Our Cable Design Tool is an online tool that allows you to define a cable assembly to exactly meet your requirements.

- Graphical design of customized cable assemblies
- Built-in library of standard cable sets can be used as the basis for customization, or cables can be defined from scratch
- The ability to store cable assemblies in the Cloud and develop them over time
- Each cable design has a PDF documentation file detailing all the specifications
- Allows detailed design including; connector types, wire type, pin definitions, pin & cable labelling, cable bundling, length selection, sleeving, comments, etc.
- Add your own connectors and wires
- · Fully supported on major tablet operating systems





Because the Cable Design Tool is a web-based tool, we will continually update it to better accommodate your requirements and features. Your data is not trapped; complete details of the design are always available to the user at any time via the documentation or spreadsheet file. Once a cable is designed, you can submit it to us for quotation.

For more information visit: pickeringtest.com/cdt