### Rectangular Connectors

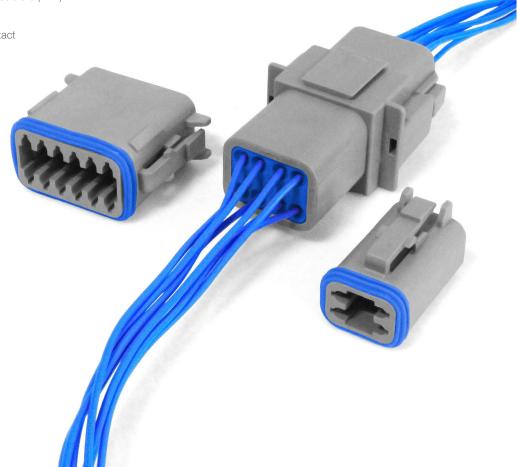


The Bulgin Rectangular Connector range offers a reliable, rugged solution for cable to cable applications in harsh environments with its environmentally sealed range of products.

The series has a male and female option, as well as modifications such as enhanced seal retention, protective end caps, shrink boot adapters, welded flange, terminating resistors and a Y-Type connector for the automotive

#### Key Features:

- 2, 3, 4, 6, 8 & 12 Contact Count
- 0 IP68
- Choice of Enhanced Seal Retention (ESR), Protective End Caps (PEC), Shrink Boot Adapters (SBA), Terminating Resistors (TER) and a Y-Type Connector (YTY)
- Wedge-locks available for contact retention and alignment
- Accepts 14 20 AWG

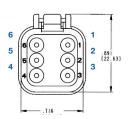




Standard Rectangular Connectors Male



- O 2, 3, 4, 6, 8 & 12 Contacts
- Male housing
- Socket contacts
- Available in grey and black
- Additional options available



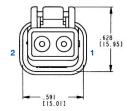
PX0100

Part Number	Contacts	Key	Termination	Colour	Additional
PX0100S02BK	2	_	Crimp	Black	_
PX0100S02GY	2	-	Crimp	Grey	-
PX0100S03BK	3	-	Crimp	Black	-
PX0100S03GY	3	-	Crimp	Grey	-
PX0100S04BK	4	_	Crimp	Black	_
PX0100S04GY	4	-	Crimp	Grey	-
PX0100S06BK	6	_	Crimp	Black	_
PX0100S06GY	6	-	Crimp	Grey	-
PX0100S08AGY	8	Α	Crimp	Grey	-
PX0100S08ABK	8	Α	Crimp	Black	_
PX0100S12AGY	12	A	Crimp	Grev	_
PX0100S12ABK	12	A	Crimp	Black	-

Standard Rectangular Connectors Male - ESR



- O 2 Contacts
- Male housing
- Enhanced seal retention
- Socket contacts
- Available in black
- Additional options available



PX0102

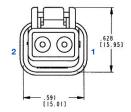
Part Number	Contacts	Key	Termination	Colour	Additional
PX0102S02BK	2	-	Crimp	Black	ESR

Standard Rectangular Connectors

Male - ESR & PEC



- O 2 Contacts
- Male housing
- Enhanced seal retention & protective end cap
- Socket contacts
- Available in grey
- Additional options available



PX0103

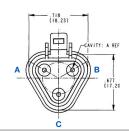
Part Number	Contacts	Key	Termination	Colour	Additional	
PX0103S02GY	2	-	Crimp	Grey	ESR & PEC	



Standard Rectangular Connectors Male - PEC



- 2, 3, 4, 6, 8 & 12 Contacts
- Male housing
- Protective end cap
- Socket contacts
- Available in grey and black
- Additional options available



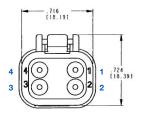
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Part Number	Contacts	Key	Termination	Colour	Additional
PX0105S02BK	2	-	Crimp	Black	PEC
PX0105S02GY	2	-	Crimp	Grey	PEC
PX0105S03BK	3	-	Crimp	Black	PEC
PX0105S03GY	3	-	Crimp	Grey	PEC
PX0105S04BK	4	-	Crimp	Black	PEC
PX0105S04GY	4	-	Crimp	Grey	PEC
PX0105S06BK	6	-	Crimp	Black	PEC
PX0105S06GY	6	-	Crimp	Grey	PEC
PX0105S08ABK	8	Α	Crimp	Black	PEC
PX0105S08AGY	8	Α	Crimp	Grey	PEC
PX0105S12AGY	12	Α	Crimp	Grey	PEC
PX0105S12ABK	12	Α	Crimp	Black	PEC

Standard Rectangular Connectors Male - SBA



- PX0108
- O 2, 3 & 4, 6 & 12 Contacts
- Male housing
- Shrink boot adapter
- Socket contacts
- Available in grey
- Additional options available



Part Number	Contacts	Key	Termination	Colour	Additional
PX0108S02GY PX0108S03GY PX0108S04GY PX0108S06GY PX0108S12AGY	2 3 4 6 12	- - - -	Crimp Crimp Crimp Crimp Crimp	Grey Grey Grey Grey Grev	SBA SBA SBA SBA SBA

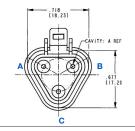
Standard Rectangular Connectors Male - TER



- Terminating resistor
- Socket contacts

3 Contacts Male housing

- Available in grey
- Additional options available



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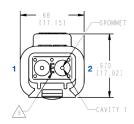
Part Number	Contacts	Key	Termination	Colour	Additional
PX0110S03GY	3	-	Crimp	Grey	TER



Standard Rectangular Connectors Female



- O 2, 3, 4, 6, 8 & 12 Contacts Female housing
- Plug contacts
- Available in grey and black
- Additional options available



Part Number	Contacts	Key	Termination	Colour	Additional
PX0101P02BK	2	_	Crimp	Black	-
PX0101P02GY	2	-	Crimp	Grev	-
PX0101P03BK	3	-	Crimp	Black	-
PX0101P03GY	3	-	Crimp	Grev	-
PX0101P04BK	4	-	Crimp	Black	-
PX0101P04GY	4	-	Crimp	Grev	-
PX0101P06BK	6	-	Crimp	Black	-
PX0101P06GY	6	-	Crimp	Grey	_
PX0101P08ABK	8	Α	Crimp	Black	_
PX0101P08AGY	8	Α	Crimp	Grey	-
PX0101P12ABK	12	Α	Crimp	Black	_
PX0101P12AGY	12	Α	Crimp	Grey	_

Standard Rectangular Connectors Female - PEC



PX0106

- O 2, 3, 4, 6, 8 & 12 Contacts
- Female housing
- Protective end cap
- Plug contacts
- O Available in grey and black
- Additional options available



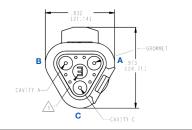
Part Number	Contacts	Key	Termination	Colour	Additional
PX0106P02BK	2	-	Crimp	Black	PEC
PX0106P02GY	2	-	Crimp	Grey	PEC
PX0106P03BK	3	-	Crimp	Black	PEC
PX0106P03GY	3	-	Crimp	Grey	PEC
PX0106P04BK	4	-	Crimp	Black	PEC
PX0106P04GY	4	-	Crimp	Grey	PEC
PX0106P06BK	6	-	Crimp	Black	PEC
PX0106P06GY	6	-	Crimp	Grey	PEC
PX0106P08ABK	8	Α	Crimp	Black	PEC
PX0106P08AGY	8	Α	Crimp	Grey	PEC
PX0106P12ABK	12	Α	Crimp	Black	PEC
PX0106P12AGY	12	Α	Crimp	Grev	PEC

Standard Rectangular Connectors Female - SBA



PX0109

- O 2, 3, 4, 6, 8 & 12 Contacts
- Female housing
- Shrink boot adapter
- Plug contacts
- Available in grey and black
- O Additional options available



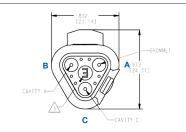
Part Number	Contacts	Key	Termination	Colour	Additional
PX0109P02BK	2	-	Crimp	Black	SBA
PX0109P02GY	2	-	Crimp	Grey	SBA
PX0109P03BK	3	-	Crimp	Black	SBA
PX0109P03GY	3	-	Crimp	Grey	SBA
PX0109P04GY	4	-	Crimp	Grey	SBA
PX0109P06GY	6	-	Crimp	Grey	SBA
PX0109P08GY	8	-	Crimp	Grey	SBA
PX0109P12AGY	12	-	Crimp	Grey	SBA



Standard Rectangular Connectors Female - TER



- 3 Contacts
- Female housing
- Terminating resistor
- Plug contacts
- Available in grey
- Additional options available



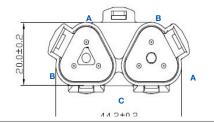
Part Number	Contacts	Key	Termination	Colour	Additional
PX0111P03GY	3	-	Crimp	Grey	TER

Standard Rectangular Connectors Female - YTY



PX0113

- O 3 Contacts
- Female housing
- Y-type connector
- Plug contacts
- Available in grey
- Additional options available



Part Number	Contacts	Key	Termination	Colour	Additional
PX0113P03GY	3	-	Crimp	Grev	YTY



Contacts



- O Crimp plug & sockets
- Choice of gold and nickel Plated
- Green stripe available

SA1000

Part Number	Plating	AWG	Туре	Plug / Socket	Additional
SA1000/G	Nickel Plating	14	Solid	Plug	Green Stripe
SA1001/G	Nickel Plating	14	Solid	Socket	Green Stripe
SA1002/G	Nickel Plating	16 - 20	Solid	Plug	Green Stripe
SA1003/G	Nickel Plating	16 - 20	Solid	Socket	Green Stripe
SA1000	Nickel Plating	14	Solid	Plug	-
SA1001	Nickel Plating	14	Solid	Socket	-
SA1002	Nickel Plating	16 - 20	Solid	Plug	-
SA1003	Nickel Plating	16 - 20	Solid	Socket	-
SA1004	Nickel Plating	16 - 20	Stamped	Plug	Bandolier
SA1005	Nickel Plating	16 - 20	Stamped	Socket	Bandolier
SA1006	Nickel Plating	14 - 18	Stamped	Plug	Bandolier
SA1007	Nickel Plating	14 - 18	Stamped	Socket	Bandolier
SA1008	Gold Plating	14 - 18	Stamped	Plug	Bandolier
SA1009	Gold Plating	14 - 18	Stamped	Socket	Bandolier
SA1010/G	Gold Plating	14	Solid	Socket	Green Stripe
SA1011/G	Gold Plating	14	Solid	Socket	Green Stripe
SA1012	Gold Plating	16-20	Solid	Plug	-
SA1013	Gold Plating	16-20	Solid	Socket	-

Wedgelocks



- O Plug & sockets available
- O 2, 3, 4, 6, 8 & 12 Contact

\* Wedgelocks are sold separately and are required for confirmation of alignment of contact. Please refer to the chart above to determine part required: e.g. WLP02 is required for 2 Contact female housings

WLP12

Part Number	Contacts	Plug / Socket	Additional	
WLP02	02	Plug	-	
WLS02	02	Socket	-	
WLP03	03	Plug	-	
WLS03	03	Socket	-	
WLP04	04	Plug	-	
WLS04	04	Socket	-	
WLP06	06	Plug	-	
WLS06	06	Socket	-	
WLP08	08	Plug	-	
WLS08	08	Socket	-	
WLP12	12	Plug	-	
WLS12	12	Socket	-	

Tooling



- O Crimp tooling available
- Probe extraction tool

10000 Crimping tool for heavy duty Rectangular Connectors (series coming soon)
10001 Probe extraction tool
10002 Crimping tool for Rectangular Connectors



#### STANDARD SERIES DIMENSIONS





	Male			Female			
Cavity	Overall Length A	Overall Height B	Overall Width C	Overall Length D	Overall Height E	Overall Width F	
2	1.118 (28.4)	.628 (15.95)	.591 (15.01)	1.708 (43.38)	.670 (17.02)	.675 (17.15)	
3	1.118 (28.4)	.934 (23.72)	.718 (18.23)	1.698 (43.13)	.973 (24.71)	.832 (21.13)	
4	1.218 (30.94)	.724 (18.39)	.716 (18.19)	1.808 (45.92)	.776 (19.71)	.820 (20.83)	
6	1.218 (30.94)	.891 (22.63)	.716 (18.19)	1.808 (45.92)	.951 (24.16)	.820 (20.83)	
8	1.217 (30.91)	.776 (19.71)	1.465 (37.21)	1.798 (45.67)	1.000 (25.40)	1.435 (36.45)	
12	1.218 (30.94)	.716 (18.19)	1.597 (40.56)	1.808 (46.92)	.876 (22.25)	1.597 (40.56)	

<sup>\*</sup> Dimensions are for reference only.

#### **Electrical:**

No Contacts: 2, 3, 4, 6, 8 & 12

Insulation Resistance:  $>1000M\Omega$ 

Dielectric Strength: No damage when exposed

Dielectric

Withstanding Voltage: 1500 VAC

Operating

Temperature Range: -55°C to +125°C

#### **Material**

Grommet: Silicone rubber

Insert Retainer: Thermoplastic

Receptacle Interfacial Seal:

Silicone Rubber

Shell: Thermoplastic

Wedgelocks: Thermoplastic

RoHS: Compliant

#### Mechanical:

Sealing: IP68

Contact Accommodation: 14-20AWG (2.0-0.5mm2)

Termination: Crimp terminals

Cycles: >100

#### **Contact Layout (Rear View)**



2 Contact

2 Contact









3 Contact 4 Cont

contact 6

0 0 0 0

1 2 3 4 5 6 0 0 0 0 0 0 0 0 0 0 0 0 12 11 10 9 8 7

WALL

3 Contact

3 2 4 Contact

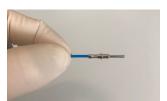
6 Contact

8 7 6 5 8 Contact

2 11 10 9 8 12 Contact

#### **Contact Insertion Instructions**

Step One:



Use a previously crimped contact and wire and hold just behind the contact barrel.

Step Two:



Line the contact up with the grommet.

Step Three:



Push the contact until a click is felt. Check the contact is in place by gently tugging and confirming alignment. Repeat for number of contacts desired

Step Four:



When contacts are in place, insert the appropriate wedgelock until a click is heard. Once male and female housings are prepared the parts can be mated

# RECTANGULAR - Specifications - Part Number System Standard Rectangular Connectors



PX0	XXX	X	XX	X	XX
Range	Body Type	Contact Type	Contacts	Key	Colour
PXO	100 = Male 101 = Female 102 = Male Enhanced Seal Retention 103 = Male Enhanced Seal Retention & Protective End Cap 105 = Male Protective End Cap 106 = Female Protective End Cap 108 = Male Shrink Boot Adapter 109 = Female Shrink Boot Adapter 110 = Male Terminating Resistor 111 = Terminating Resistor 113 = Female Y Type	S = Socket P = Plug	02 03 04 06 08 12	A = A Key	GY = Grey BK = Black