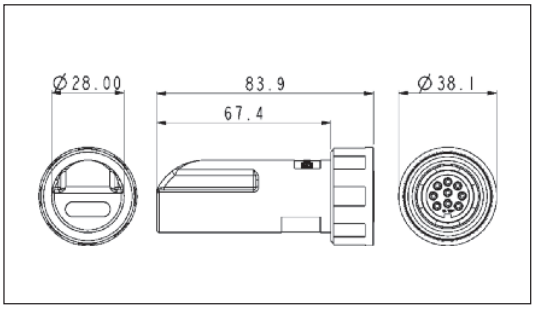
Buccaneer® Bluetooth Cable Replacement

BLUETOOTH CABLE REPLACEMENT RS485/RS232

- Dust & waterproof to IP68 EN60529 when mated
- RS485 & RS232 Serial data to Bluetooth Adapter
- Wireless transparent data connection
- Self connectiong for true cable replacement
- Up to 100m range (class 1)
- Built-in sealed antenna



Part No.	Description
PX0885/01/M	Master unit, IP68 rated, Bluetooth Class I
PX0885/02/M	Master unit, IP68 rated, Bluetooth Class 2
PX0885/01/S	Slave unit, IP68 rated, Bluetooth Class I
PX0885/02/S	Slave unit, IP68 rated, Bluetooth Class 2

Description

Buccaneer Bluetooth cable replacement products eliminate data cables and allow equipment with RS485 or RS232 data ports to communicate using wireless Bluetooth technology.

The IP68 rated environmentally sealed enclosure protects against the ingress of dust and moisture, so the units can be used in numerous harsh or hostile applications. They can be mounted internally or externally for maximum flexibility, convenience and also for optimum range.

These units can be used when cables are difficult, impractical or expensive to install, for example: between different buildings, between walls or floors, around other obstructions, or open field sites. With a wireless communication range of up to 100m, significant savings could be made over a hard-wired solution in terms of installation time, disruption and cost.

Wireless Point-to-Point or Multi-Drop data connections can be made quickly and easily between serial interfaces or dumb devices and work transparently without any need for a PC, PLC or Bluetooth software.

The Master and Slave units automatically establish a data link between themselves, no intervention or special serial commands are required, enabling fast and cost-effective cable replacement or data network extension. The Master will automatically connect with up to six Slave units to form a multi-drop network.

The units require a DC power supply between 6 and 24 Volts DC. Wired communication data connections can be made via pins 3, 4, 5 and 9. Data types RS232, RS422 and RS485 are supported and the desired mode can be configured via connector pin 7. Half Duplex or Full Duplex modes are selected via connector pin 2. Configuration modes are selected by linking the relevant pin to ground or by leaving the pin open circuit.

The product features a translucent status window, through which five LEDs are visible to indicate the device status: Power on (Green LED), RS232 mode, RS485 mode, configuration problem (Red LED), and Bluetooth connected (Blue LED)

If required, the communication Baud rate, parity, stop bits and flow control can be re-configured using a software application, download from http://www.bulgin.co.uk/software/. The factory default settings are: 9600, N, 8, 1 without flow control, and the products will self-connect and work straight out-of-the box without any intervention or adjustment.

Typical applications:

Water industry
Environmental monitoring
Energy management
Factory monitoring
Plant and machinery
Transport/traffic systems
Vehicle communications - tractor/trailer

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SPECIFICATION

Serial Interface

Interface Type	RS485 (4-wire) full-duplex RS485 (2-wire) half-duplex RS232 (4-wire) full-duplex
Baud rates	9600 (default), 19200, 38400, 57600
Data format	8 data bits, no parity bit and 1 stop bit (default) Contact factory for other formats Select RS485/RS232 using pin 7 Select Half/Full duplex using pin 2

Bluetooth

Protocol	Bluetooth V2
Classification	Class I +7dBm** up to100m* range Class 2 +3.5dBm** up to 25m*range
Frequency band	2.4GHz unlicensed ISM band
Security settings	Authentication, encryption and pin code
PC Software	Optional windows configuration software

Mechanical

Sealing	IP68, EN60529, when mated
Operating Temp.	–20 to +70°C
Storage Temp.	–30 to +85°C
Vibration	EN 60068-2-6, 5g
Shock	EN 60068-2-27, 15g
Free Fall	EN 60068-2-32
RoHS	Compliant
Mates with	PX0727/S, PX0708/S/09, PX0707/S/09, PX0762/S & PX0769/S

Electrical

DC Supply	6 to 24Vdc
Electromagnetic Compatibility	EMC Directive 2004/108/EC
EMC Immunity	EN61326:2006 Immunity - Industrial environment EN61000-4-2:1995 Electrostatic Discharges (ESD) EN61000-4-3:2006 Radiated Immunity,10 V/m EN61000-4-4:2004 Fast Transient & Bursts EN61000-4-5:2006 Surges EN61000-4-6 1996 Conducted disturbances
EMC Emissions	EN 61326-1:2006 Measurement, control and laboratory equipment EN55011 Group 1 Class B:2007 Industrial, scientific and medical equipment FCC Part 15 Class B
Approvals:	CE Mark FCC Compliant RoHS Compliant

Material

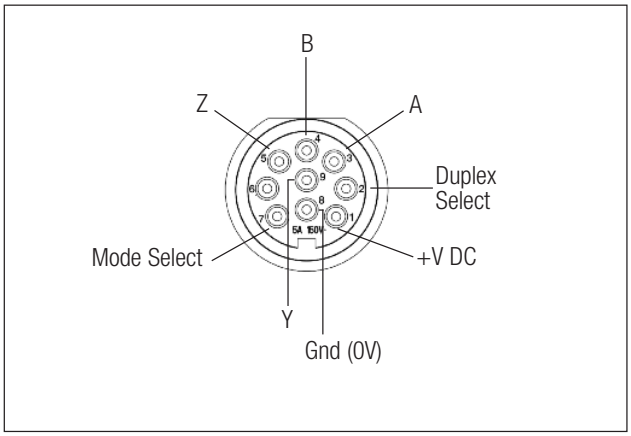
Body Moulding	Nylon
Lens	Nylon
Flame retardancy	UL94V-0
Contacts	Copper alloy, Gold plated

Notes: * range is dependent on prevailing conditions
** minimum output power at maximum power setting

Connection Diagram

Pin 1 DC Supply Voltage 6 to 24V dc (ensure correct polarity)
Pin 2 Duplex select. Connect to Gnd for half. Leave open circuit for full
Pin 6 Not used
Pin 7 Mode select. Connect to Gnd for RS485. Leave open circuit for RS232
Pin 8 Gnd (0V)

Mode	Duplex	Pin 3 A	Pin 4 B	Pin 9 Y	Pin 5 Z
RS232	Full Duplex	RX	CTS	RTS	TX
RS422	Full Duplex	A Input	B Input	A Output	B Output
RS485	Half Duplex	Not used	Not used	A	B



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