

iButton Touch Socket

The Touch Socket provides the electrical contact for the transfer of data to and from the Maxim iButton® family. The outer ring provides a self-lining interface that matches the metal can package of the iButton, while contact with the inner face of the iButton (Data) is made through the contact in the centre of the socket.

The contacts have no moving parts, making the socket a rugged interface for harsh outdoor and indoor environments.

Two LED options are available. A bi-colour led, identified with a black cable, allows the user to select either the red or green by swapping the polarity of the led wires.

The multi-colour led, identified with a white cable, has the common cathode of the led internally connected to ground, with separate wires for each of the red and green led's. By switching both led's on, a third orange colour is obtained.

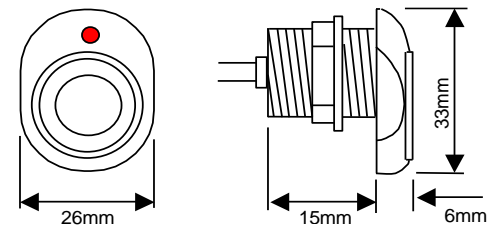
Note that no internal current limiting resistors are fitted. An external resistor should be added with the resistance value calculated according to the supply voltage (V_{supply}) and current (I_{select}) through the LED. I_{select} may be chosen up to 20mA maximum. A higher current gives better brightness. Resistor value (R_{calc}) is calculated with:

$$R_{calc} = \frac{V_{supply} - 2.2}{I_{select}} \text{ Ohm} \quad \text{Example: } \frac{5V - 2.2}{15mA} = 220 \text{ Ohm}$$

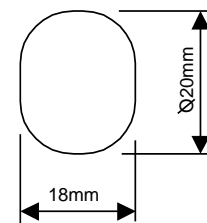
The socket is designed for panel mounting through an oval shaped hole, to prevent the socket from turning sideways, using a threaded nut to secure the socket.



Socket Dimensions



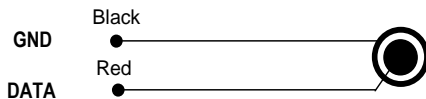
Panel Cut-out



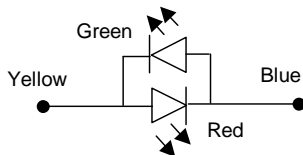
Models

Part Number	LED Type	Identification
TOUCH SOCKET TSS	No LED	2 Core Black Cable
TOUCH SOCKET TSL	3mm Bi-colour LED (2 Colour)	4 Core Black Cable
TOUCH SOCKET TSM	3mm Multi-colour LED (3 Colour)	4 Core White Cable

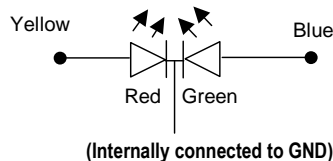
iButton Connection



TSL LED Connection



TSM LED Connection



Specifications

Socket Body:	ABS - Black
Contacts:	Nickel plated Brass
Cable length:	200mm +/- 30mm
Cable Type:	4 Core PC/P/P
Cable Diameter:	3.9mm Max.
Core Diameter:	0.2mm ²
Core Colours:	Red, black, green, Blue
LED Type:	Diffused, High Bright
LED Size:	3mm
LED max. current:	20mm