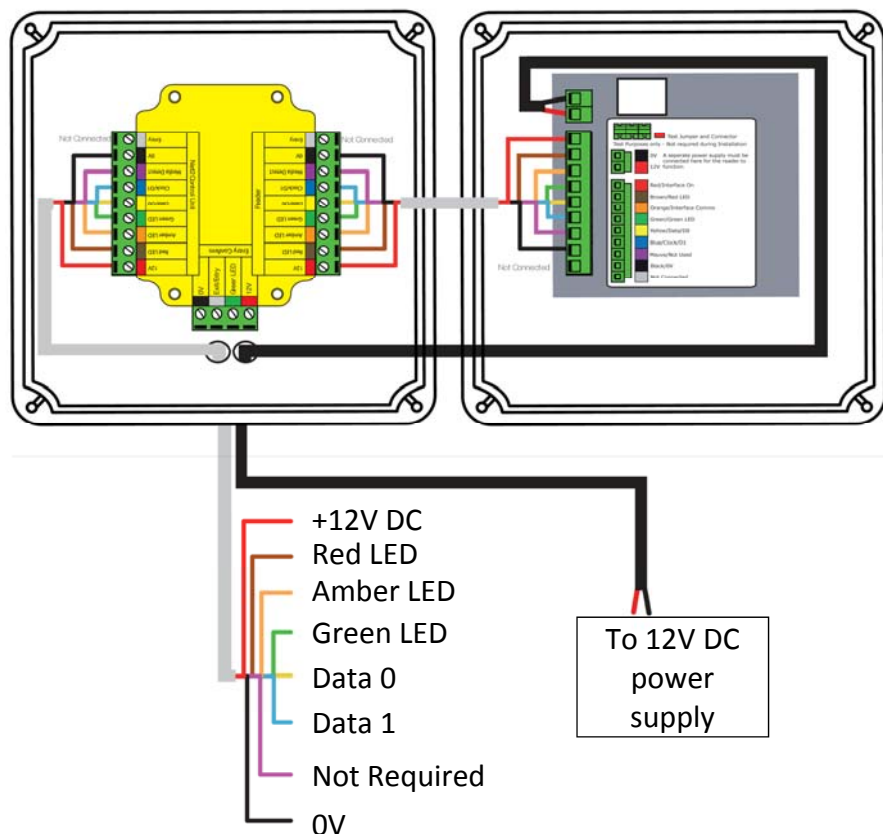


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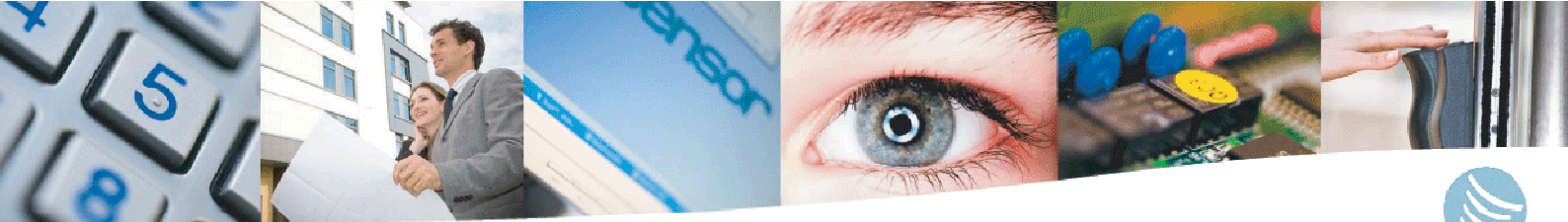
SP-LR

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Dimensions	220mm (H) x 220mm (W) x 120mm (D)	
Weight	2.23kgs	
Read Range	5000 mm (max)	
Current Reader	1a	
Current Interface	80mA	
Voltage Range	12 vDC from a regulated supply	
Colour	Black	
Material	UV-resistant polycarbonate plastic	
LED Indicator	One tri-coloured	
Buzzer	No	
Operating Temperature	-20°C to 55°C	
Max Range to Controller	100m	
To Extend Cable Use	Belden 9540, 10 core overall screened	



You will see that the interface is mounted upside down in the housing. This is to position the internal aerial away from other reader components and is intentional.



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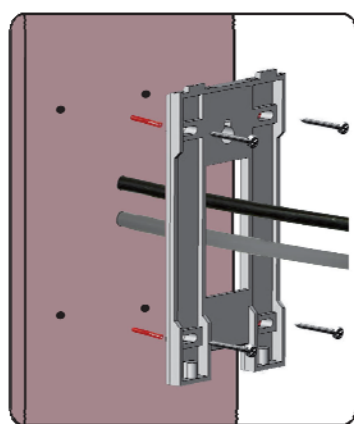
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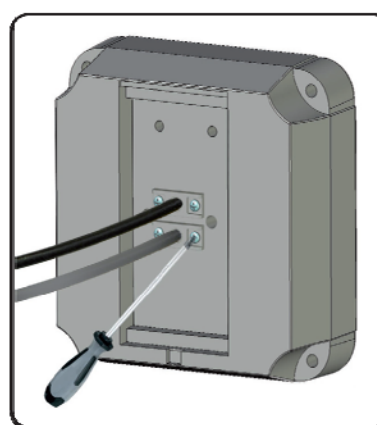
FITTING

The long range reader consists of a reader module mounted inside the front half of the housing and a hands free interface mounted inside the rear half. An interconnect cable is supplied that connects the two sections together.

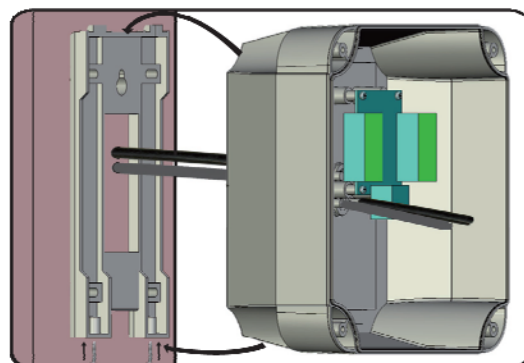
Two 5 meter cables for data and power are provided. These enter the module at the rear through two compression glands.



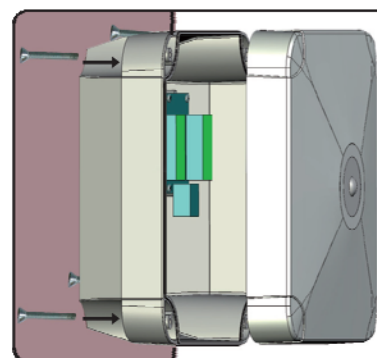
1



2

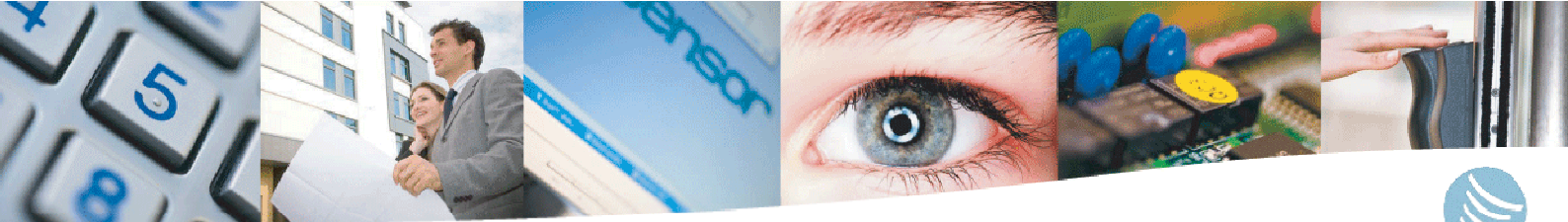


3



4

- Determine the position of the reader and mark drill holes for the fixing screws and cable access
- Fix the mounting plate to the post with the locating hooks at the top (fig1)
- Feed the cables for power and data through the mounting plate and into the rear section of the reader leaving enough slack to allow easy connection to the circuit boards later in the installation
- Tighten the weatherproof cable glands at the rear of the reader (fig2)
- Hang the rear reader section on the mounting plate and secure with two screws(fig3)
- Complete the wiring of the reader as shown in this instruction
- Join the front section to the rear section with the Allen screws provided (fig4)
- It may be necessary to briefly remove the reader from its mounting plate if access to the Allen screws is limited by the post or wall



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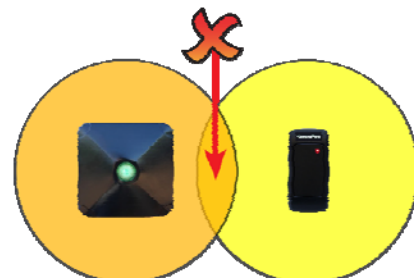
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POSITIONING READERS

Readers should not be positioned so that their active fields overlap

For optimum keyfob battery life please choose your reader location carefully to avoid placing it within hands free range of workstation, rest or smoking areas.



Read in - Read Out

When using in and out readers, users may be picked up by both readers as they move through the door which will reduce the reliability of any roll call or anti-passback applications. Ensure that sufficient spacing is provided between these readers for optimum range and reliability.

WIRING

A data cable must be run from the controller to the reader interface. The recommended cable for this is Belden 9540, A 10 core overall screened cable with a maximum length of 100 meters. Spare cored should be used to double up on power wires to the interface.

The reader requires a higher current (up to 1A) than can be supplied by the reader port so an independent 12V DC power feed must be provided.

A 5 meter length of 0.75mm sq x 2 core cable is supplied with the reader for longer runs it will be necessary to increase the size of the cable as any voltage drop will reduce the read range. We recommend a cable of 2.5mm sq x 2 core cable for distances up to 100m

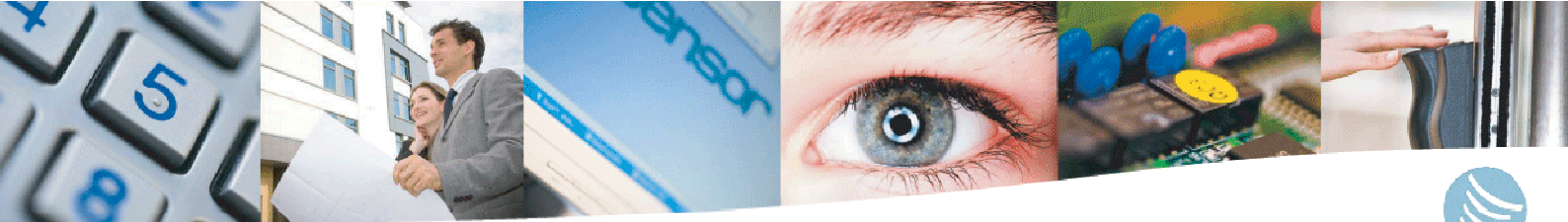
ENROLLING HANDS FREE KEYCARDS

To enable the buttons, the keycard must first be presented to the SP-LR reader and then used in hands free mode. The keycard stores the details of this interface and can then activate the door using a button.

It can also be used in normal hands free mode and also in local passive mode with other standard readers.

Switch SW2 is used to select the fixed channels used by the two keycard buttons.
Select either switch 1 or 2 to set which keycard button the interface will respond to.

The unit must be power cycled if the switch position is changed to activate the new settings.



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CHANGING FREQUENCY CHANNEL

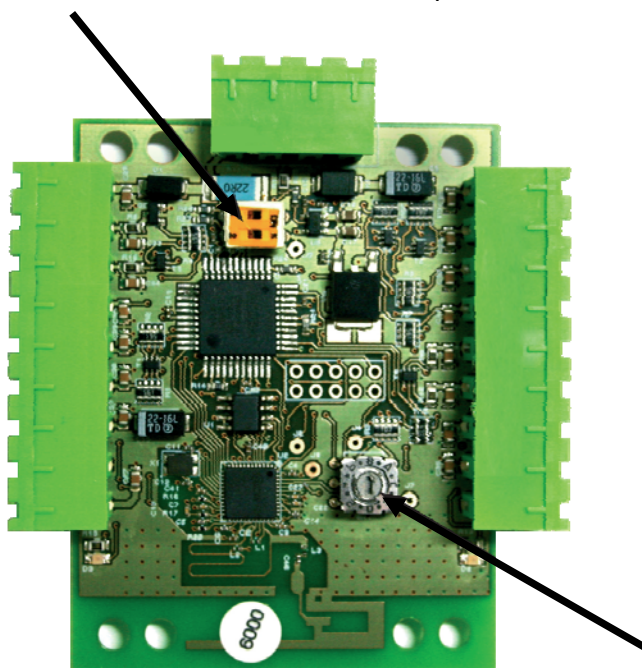
If you are experiencing problems with the range or reliability this may be due to poor reader positioning, adjacent interfering 125KHz or 2.4GHz equipment e.g. an adjacent wireless PC network

If you are unable to improve the system performance then you may try an alternative 2.4 GHz channel using Switch1. Power cycle the unit after any changes.

The system has 16 channels available (unless a keycard fixed channel; is selected) The unit is set to channel 4 as this frequency is normally clear of other device transmissions. This can be changed using a small flat blade screwdriver. Take care not to contact the circuit board with the screwdriver blade as this may damage components.

SW2—Keycard button 1 and 2 fixed channels

If either switch 1 (channel 26) or switch 2 (channel 11) is set, the rotary frequency switch is disabled. If both switches are selected, the interface will not operate



Switch Position	GHz	IEEE 802.15.4 Channel
0	2.405	11
1	2.41	12
2	2.415	13
3	2.42	14
4	2.425	15
5	2.43	16
6	2.435	17
7	2.44	18
8	2.445	19
9	2.45	20
A	2.455	21
B	2.46	22
C	2.465	23
D	2.47	24
E	2.475	25
F	2.48	26