

DATA INTERFACE SOCKET

FIELD OF THE INVENTION

[0001] The present invention relates to the filed of electromechanics, and in particular to a
5 data interface socket.

BACKGROUND OF THE INVENTION

[0002] Presently, several data interface sockets, such as network cable data interface socket, telephone line data interface socket and so on, are required to be installed in an office location,
10 hotel or family.

[0003] In prior art, the data interface socket is fixedly mounted on the wall, and if the data interface socket is to be used by a user, an additional cable is required. For example, when using a network cable interface socket, the user needs to use a network cable for connecting the data interface socket and a user terminal. However, the cable in use has a certain length
15 which can not be adjusted according to the requirement of the user. If the user has to use the data interface socket at a location that is far away from the data interface socket, a longer cable is required to connect with the data interface socket. However, when the distance is shortened, the longer cable will be scattered and may occupy some space, thus it is prone to be wound and tied due to the disorder, which affects the use of the user. If the selected cable is
20 too short, the applying range will be limited, which brings much inconvenience to the user.

SUMMARY OF THE INVENTION

[0004] The invention provides a data interface socket for facilitating a user and improving the user's experience.

25 [0005] A data interface socket, including:

[0006] a fixture 1, a cable assembly 2 and a wall box 3; wherein

[0007] the cable assembly 2 is mounted in the wall box 3 through the fixture 1;

[0008] the cable assembly 2 includes a cable 21, a cable roller 22 and a data interface 23, the cable roller 22 being freely rotatable;

[0009] the cable 21 is wound on the cable roller 22 and has a free end 211 connected with the data interface 23, and the free end 211 of the cable 21 is of a length extendable and retractable with rotation of the cable roller 22.

[0010] From the above technical solution, it can be understood that the invention has the following advantages:

[0011] The invention includes a fixture 1, a cable assembly 2 and a wall box 3. The cable assembly 2 is mounted in the wall box 3 through the fixture 1. The cable assembly includes a cable 21, a cable roller 22 and a data interface 23. The cable roller 22 is freely rotatable. The cable 21 is wound on the cable roller 22. The cable 21 has a free end 211 connected with the data interface 23. The free end 211 of the cable 21 is of a length extendable and retractable with the rotation of the cable roller 22. Thus, the user can be facilitated and the user's experience can be improved by using the data interface 23 by keeping the retractable cable 21 at different distances within a certain range.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] For explaining a technical solution of an embodiment of the invention more clearly, hereafter, accompanying drawings which are used for describing the embodiment will be simply introduced. Obviously, the accompanying drawings are merely some embodiments of the invention, and for those skilled in the art, other drawings can be attained according to these accompanying drawings, without any creative labor.

[0013] Figure 1 is an exploded schematic drawing of a data interface socket according to an embodiment of the invention;

[0014] Figure 2 is a partial sectional view of a data interface socket according to an embodiment of the invention ;

[0015] Figure 3 is a schematic view of a cable assembly of a data interface socket according to an embodiment of the invention; and

[0016] Figure 4 is another exploded schematic drawing of a data interface socket according to an embodiment of the invention.

DETAILED DESCRIPTION OF THE INVENTION

[0017] Hereinafter, the technical solution in the invention will be clearly and completely described in conjunction with accompanying drawings in the invention. Apparently, the described embodiments are only a part of the embodiments of the invention, but not all. All the other embodiments that are obtained by those skilled in the art based on the embodiments in the invention without any creative labor fall within the scope of protect of the invention.

[0018] The present invention provides a data interface socket, and users can use a data interface of the socket at different distances within a certain range, thus facilitating the user and improving the user's experience.

[0019] Hereinafter, the technical solution of the invention will be described in detail by specific embodiments, referring to Figures 1 to 4.

[0020] A data interface socket includes a fixture 1, a cable assembly 2 and a wall box 3. The cable assembly 2 is mounted in the wall box 3 through the fixture 1. The cable assembly 2 includes a cable 21, a cable roller 22 and a data interface 23. The cable roller 22 can rotate freely. The cable 21 is wound on the cable roller 22. The cable 21 has a free end 211 connected with the data interface 23. The free end 211 of the cable 21 is of a length extendable and retractable with the rotation of the cable roller 22.

[0021] Wherein, in the embodiment, the wall box 3 can be a wall box of any specification. Optionally, by designing the dimension of the fixture 1, the cable assembly 2 can be mounted in the wall box 3 of any specification, and for example can be mounted in the wall box that meets the standard of BS4662. In the embodiment, the specification of the wall box 3 is not defined particularly.

[0022] Optionally, as shown in Figure 1, the cable assembly 2 can be mounted in the wall box 3 through the fixture 1. Specifically, the fixture 1 includes a clipping hole for mounting the cable assembly 2, and the cable assembly 2 can be directly clipped in the clipping hole of the fixture 1. The fixture 1 can be mounted in the wall box 3 through a screw, thus the cable assembly 2 is located in the wall box 3.

[0023] Optionally, referring to Figures 1 to 4, the length of the cable can be extended or retracted by the cable assembly 2. Specifically, referring to Figure 3, the cable assembly 2 includes a cable 21, a cable roller 22 and a data interface 23.

[0024] Optionally, the cable 21 has a free end 211 connecting with the data interface 23. The free end 211 of the cable 21 can be extended or retracted with the rotation of the cable roller 22, such that the cable interface 23 can be moved in the direction of length with the extension and retraction of the cable 21 in length.

5 [0025] It should be noted that, specifically, the cable assembly 2 further includes a locking clasp mechanism and a volute spring. The embodiments of the locking clasp mechanism and the volute spring can be referred to the prior art, and will not be described herein. Optionally, the cable assembly 2 can control the rotation of the volute spring by the locking clasp mechanism, so as to lock and fix the position of the cable 21, ensuring that the cable 21 can
10 be extended or retracted freely in length and can be located at any length. Therefore, the data interface 23 connected at the free end 211 of the cable 21 can be moved with the extension and retraction of the cable 21 in length, and it can be ensured that the data interface 23 can be used at different distances within a certain range.

[0026] Wherein, the data interface 23 may include a telephone line interface, an audio
15 interface and a network cable interface and the like. Particularly, the data interface 23 can be a telephone line plug or a telephone line jack, which can be provided according to the requirement of a user. If the data interface 23 is a telephone line plug, the user can directly draw the cable, such that the data interface 23 is directly connected with a jack of the telephone side, achieving signal transmission. If the data interface 23 is a telephone line jack,
20 the user can prepare a telephone line with a shorter length, and two ends of the telephone line are respectively connected with the data interface 23 and a jack of the telephone side, achieving signal transmission.

[0027] Optionally, in the embodiment, the data interface socket may further include a signal output terminal 4. Wherein, the signal output terminal 4 may be a data interface socket, for
25 example, a telephone line or network jack, which can specifically be referred to the prior art and will not be described herein.

[0028] In particular, referring to Figure 4, the fixed end 212 of the cable 21 can be connected with the signal output terminal 4, such that the signal output terminal 4 can transmit the signal to the data interface 23. Wherein, referring to Figure 2 which is a partial
30 sectional view of a data interface socket according to the embodiment, the signal output terminal 4 can be connected with the fixture 1 and mounted in the wall box 3.

[0029] In addition, referring to Figure 4, to fix the position of the cable 21 in the cable assembly 2, the data interface socket in the embodiment may include a front cover 5. Particularly, referring to Figure 2, a through hole may be provided in the front cover 5, through which the cable 21 may pass, such that the cable 21 in the cable assembly 2 can be fixed within the range of the through hole in the front cover 5. Wherein, the front cover 5 may be connected with the fixture by a snap fit.

[0030] Furthermore, referring to Figure 4, for having the data interface socket in the embodiment pleasing in appearance, the data interface socket of the embodiment may further include a panel 6 and an outer frame 7. Wherein, the panel 6 and the front cover 5 can be connected by a snap fit to facilitate assembling and disassembling. The outer frame 7 and the fixture 1 can also be connected by a snap fit to facilitate assembling and disassembling.

[0031] For example, in the removing process, firstly, the snap fit between the panel 6 and the front cover 5 can be disengaged with a screwdriver. The panel 6 is disassembled and the panel 6 is separated from the cable 21. Then, the outer frame 7 is disassembled, the front cover 5 is disassembled and the cable 21 is separated from the front cover 5. Next, the cable assembly 2 is fetched out. The screw connecting the fixture 1 and the wall box 3 is then unscrewed by a screwdriver. As such, the data interface socket is completely removed.

[0032] Optionally, a belocking structure can be provided on the panel 6 for controlling the extension and retraction length of the cable 21. In other words, after the cable 21 has been extended to the required length by the use, the cable 21 can be prevented from further extending or retracting by the belocking structure on the panel 6. Until the user unlocks the belocking function of the belocking structure, the cable 21 can not be extended or retracted freely.

[0033] From the above, it is known that the invention includes a fixture 1, a cable assembly 2 and a wall box 3. Wherein, the cable assembly 2 is mounted in the wall box 3 by the fixture 1. The cable assembly 2 includes a cable 21, a cable roller 22 and a data interface 23. The cable roller 22 can be freely rotatable. The cable 21 is wound on the cable roller 22. The cable 21 has a free end 211 connected with the data interface 23. The free end 211 of the cable 21 is of a length extendable and retractable with the rotation of the cable roller 22, and thus the user can use the data interface 23 at different distances within a certain range through the retractable cable 21, facilitating the user and improving the user's experience.

[0034] In the above, a data interface socket according to the invention is introduced in detail. For those skilled in the art, on the basis of the spirit of the invention, modifications may occur to the specific embodiments and the application range. In conclusion, the disclosure of the specification should not be construed as a limitation to the invention.

CLAIMS

1. A data interface socket, comprising:

a fixture (1), a cable assembly (2), a wall box (3) and a signal output terminal (4),

5 wherein the cable assembly (2) is mounted in the wall box (3) through the fixture (1);

the cable assembly (2) comprises a cable (21), a cable roller (22) and a data interface (23), the cable roller (22) being freely rotatable;

the cable (21) is wound on the cable roller (22) and has a free end (211) connected with the data interface (23), and the free end (211) of the cable (21) is of a length extendable and
10 retractable with rotation of the cable roller (22) ,

wherein the cable (21) has a fixed end (212) connected with the signal output terminal (4), for transmitting a signal to the data interface (23) .

15 2. The data interface socket according to claim 1, wherein the data interface (23) comprises a telephone line interface, an audio interface and a network cable interface.

3. The data interface socket according to claim 1 or claim 2, further comprising:

20 a front cover (5), a panel (6) and an outer frame (7),

wherein the front cover (5) is connected with the fixture (1) and is adapted to fix a position of the cable (21) in the cable assembly (2);

the panel (6) is connected with the front cover (5), and the outer frame (7) is connected with the fixture (1).

25

4. The data interface socket according to any preceding claim, wherein the cable assembly (2) further comprises a locking clasp mechanism and a volute spring;

the cable assembly (2) is adapted to control rotation of the volute spring through the locking clasp mechanism so as to lock and fix the position of the cable (21).