Claims

1. Plug (100) for connecting to an Internet-of-Things device (200), having

a housing (6),

a printed circuit board (4) with a first and second end (4a, 4b), wherein the printed circuit board (4) is provided in the housing (6),

wherein the first end (4a) of the printed circuit board (4) is connected to a hybrid single pair Ethernet cable (1),

wherein the second end (4b) of the printed circuit board (4) is provided with a plug-in face (110) with contact surfaces (7) by means of which the plug (100) can be coupled to the Internet-of-Things device (200), and

an electromagnetic compatibility (EMC) protection unit (5) in or on the printed circuit board (4),

wherein the electromagnetic compatibility (EMC) protection unit (5) has at least one diode between DC voltage terminals and serves as surge voltage protection .

2. Plug (100) for connecting to an IoT device (200) according to Claim 1, having

a seal (9) in the region of the second end (4b) of the printed circuit board (4) for producing a sealed region around the plug-in face in the plugged-in state.

3. Plug (100) for connecting to an IoT device (200) according to Claim 2, having

a locking element (8) outside the region of the housing (6) sealed by the seal (9).

4. Plug (100) for connecting to an IoT device (200) according to any one of Claims 1 to 3, wherein

the housings (6) of the plugs (100) are arranged rotated by 90° with respect to a printed circuit board (10) of the IoT device (200).

5. Plug (100) for connecting to an IoT device (200) according to any one of Claims 1 to 3, wherein

the plug-in face is designed rotationally symmetrical with respect to a 180° rotation and thus the plug (100) can be inserted into the IoT device (200) after being rotated by 180°.

6. Plug (100) for connecting to an Internet-of-Things device (200) according to any one of Claims 1 to 5,

wherein the plug complies with the IEC63171-6:2020 standard.

7. Hybrid single pair Ethernet cable (1), having a plug according to any one of Claims 1 to 6.

8. Internet-of-Things device (200), having

a plug connector with an M8 H-coded connector, and

a pluga having a housing (6), a printed circuit board (4) with a first and second end (4a, 4b), wherein the printed circuit board (4) is provided in the housing (6), wherein the first end (4a) of the printed circuit board (4) is connected to a hybrid single pair Ethernet cable (1), wherein the second end (4b) of the printed circuit board (4) is provided with a plug-in face (110) with contact surfaces (7) by means of which the plug (100) can be coupled to the Internet-of-Things device (200), and an electromagnetic compatibility (EMC) protection unit (5) in or on the printed circuit board (4).

wherein the plug is connected to the plug connector of the Internet-of-Things device, the internet-of-things device (200) further comprising only one interface in form of the plug connector.

9. Internet-of-Things device (200) according to claim 8, wherein

the electromagnetic compatibility (EMC) protection unit (5) has at least one diode between DC voltage terminals and serves as surge voltage protection .