CONNECTOR TERMINAL AND METHOD OF ASSEMBLING THE SAME

RELATED APPLICATION

[0001] This application claims priority to U.S. patent application serial no. 15/350,509, filed November 14, 2016 and entitled Connector Terminal and Method of Assembling the Same, the subject matter of which is incorporated herein by reference.

FIELD OF THE INVENTION

[0002] The present invention relates to a connector terminal, such as an outdoor gland terminal, and method for assembling the same

BACKGROUND OF THE INVENTION

[0003] Integrating electrical connectors into product designs or units is often complicated and costly, particularly for outdoor applications where environmental sealing and ruggedness is required. The cables of these connectors are typically pre-terminated to a connector component instead of being field installable. That is particularly cumbersome and costly when dealing with long and heavy cables which are large and expensive to ship to site.

[0004] Therefore, a need exists for a connector terminal that can be easily integrated into a unit and allows field installation of the cables at a reduced cost while also providing ruggedness and environmental sealing for outdoor applications.

SUMMARY

[0004a] In an aspect, the present disclosure refers to a method of assembling a connector terminal to a unit, the connector terminal including a unit-mountable connector and a cable

sealing adapter, comprising the steps of:

terminating at least one conductor of the unit to a unit interface end of a double-sided contact of the unit-mountable connector disposed within a connector body of the unit-mountable connector;

mounting the connector body of the unit-mountable connector to the unit;

installing a cable after the step of mounting the connector body by terminating at least one conductor of the cable to a cable interface end of the double-sided contact of the unit-mountable connector opposite the unit interface end of the double-sided contact; and

assembling the cable sealing adapter on the cable after the step of installing the cable and mating an end of the cable sealing adapter with the connector body of the unit-mountable connector such that a cable interface end of the unit-mountable connector is received in the cable sealing adapter.

[0005] Accordingly, the present disclosure may provide a unit-mountable connector that comprises a connector body that has an adapter engagement end and a unit engagement end opposite the adapter engagement end, and a mounting member therebetween for mounting the connector body to a unit. An insert extends through the connector body. The insert has an inner

WHAT IS CLAIMED IS:

1. A method of assembling a connector terminal to a unit, the connector terminal including a unit-mountable connector and a cable sealing adapter, comprising the steps of:

terminating at least one conductor of the unit to a unit interface end of a double-sided contact of the unit-mountable connector disposed within a connector body of the unit-mountable connector;

mounting the connector body of the unit-mountable connector to the unit;

installing a cable after the step of mounting the connector body by terminating at least one conductor of the cable to a cable interface end of the double-sided contact of the unit-mountable connector opposite the unit interface end of the double-sided contact; and

assembling the cable sealing adapter on the cable after the step of installing the cable and mating an end of the cable sealing adapter with the connector body of the unit-mountable connector such that a cable interface end of the unit-mountable connector is received in the cable sealing adapter.

2. The method according to claim 1, wherein

the step of terminating the at least one conductor of the unit to the unit interface end of the double-sided contact includes crimping the unit interface end.

3. The method according to claim 2, wherein

the step of terminating the at least one conductor of the cable includes clamping the cable termination end of the double-sided contact.

4. The method according to claim 1, wherein

the double-sided contact is one-piece and the cable sealing adapter is devoid of any contacts.

5. The method according to claim 1, further comprising the step of

extending the unit engagement end of the connector body through an aperture of the unit.

6. The method according to claim 1, further comprising the step of

abutting a mounting member of the connector body against the unit.

7. The method according to claim 6, further comprising the step of

fastening the mounting member to the unit.

8. The method according to claim 6, wherein

a sealing member is located between the unit and the mounting member.

9. The method according to claim 1, wherein

the step of terminating at least one conductor of the unit occurs inside the unit and the step of installing the cable occurs outside the unit.

10. The method according to claim 9, wherein

the end of the cable sealing adapter is threadably engaged with the connector body of the unit-mountable connector.

11. The method according to claim 1, wherein

the cable is a power cable.