**INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC) SYSTEM FOR CERTIFICATION TO STANDARDS RELATING TO EQUIPMENT FOR USE IN EXPLOSIVE ATMOSPHERES (IECEx SYSTEM)**

**Title: ExTAG/610A/CD – Assessment of devices “Ex ec” (previously “nA”) with integral plug for field wiring**

**Circulated to: ExTAG – IECEx Testing and Assessment Group**

**INTRODUCTION**

This updated version, ExTAG/610A/CD, Draft Revised ExTAG Decision Sheet –Assessment of devices “Ex ec” (previously “nA”) with integral plug for field wiring, including track changes, has been prepared taking into account comments received on ExTAG/610/CD and is listed for discussion during the 2020 ExTAG Remote Meeting.

A Compilation of Comments on ExTAG/610/CD, along with originator observations, are contained in ExTAG/621A/CC.

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**COLLECTION OF IECEx / ExTAG DECISIONS**

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| **Standard:** IEC 60079-0:2017 (Ed. 7.0)IEC 60079-7:2015(5.1)IEC 60079-15:2010 (4.0) | **Clauses:** 204.2.46.3.2, 10 | Draft Decision Sheet:  |
| **Subject:**Assessment of devices “Ex ec” (previously “nA”) with integral plug for field wiring **Status of document:** **Draft** | **Key words:*** External plug
* IP54
* Ex ec
 | **Date: 2020 07 24** **Originator of proposal:** LCIE Bureau Veritas**TC/SC involved:**  |
| **Background:** Discussions among some ExCBs have revealed differences when assessing devices “Ex ec” (previously “nA”) with integral plug intended for field wiring where the associated socket is provided by the installation and consequently not included in the scope of the assessment and/or certificate. A typical example is shown below. The standard IEC 60079-15:2010 (Ed. 4.0), clause 6.3.2 was applied with addition of “Specific Condition of use” where the enclosure is completed by the installation of the equipment and instructions are provided with the device for proper installation. ***Integral Plug*****Basic principle:** The standard IEC 60079-7:2015 (Ed. 5.1), which replaces the standard IEC 60079-15:2010 (Ed. 4.0), does not include the additional requirement indicated in clause 6.3.2 for installation consideration. Nevertheless, this modification is not shown in the significance of the changes indicated in the foreword of the IEC 60079-7:2015 (Ed. 5.1).**Question:**When a certificate is updated for such equipment from IEC 60079-15 (“Ex nA”) to IEC 60079-7(“Ex ec”), shall a Specific Condition of Use be added to the CoC (with the suffix “X”) relative to the applicable requirements for the user-supplied mating connector (e.g. for the degree of protection provided by the installation)?**Answer:**Yes, considering that the mating connector for the bulkhead-mounted socket is not provided by the manufacturer but by the installer at the point of installation, not all requirements of the applied standards can be examined by the ExTL / ExCB. Nevertheless, in order to ensure the compliance of the completed connection/field wiring connection, additional considerations are necessary and shall be provided to the user in the Specific Condition of Use of the CoC (eg. “*The device shall be connected in compliance with IEC 60079-14 requirements, providing and maintaining degree of protection at least IP54 according to IEC 60079-0 requirements”*) and shall refer to the installation instructions, where the instructions will provide the complete details necessary for the proper installation, including the specific mating connector required to comply with the IP54 requirement according to IEC 60079-0.Rationale:Considering the current practices for such Ex nA certified equipment, it is not recommended to modify the assessment process by requiring to include the socket in the scope of the certificate. Indeed, socket is usually externally provided, depending on the process design. If the socket is provided to the installer by the manufacturer, and included in the scope of the certificate then the specific condition of use would no longer be necessary.  |