

Title (en)

INTRINSICALLY SAFE MODULAR SENSOR DEVICES AND SYSTEMS FOR USE IN HAZARDOUS LOCATIONS

Title (de)

EIGENSICHERE MODULARE SENSORVORRICHTUNGEN UND SYSTEME ZUR VERWENDUNG AN GEFAHRENORTEN

Title (fr)

DISPOSITIFS CAPTEURS MODULAIRES À SÉCURITÉ INTRINSÈQUE ET SYSTÈMES DESTINÉS À ÊTRE UTILISÉS DANS DES  
EMPLACEMENTS DANGEREUX

Publication

**EP 3776123 A1 20210217 (EN)**

Application

**EP 19782042 A 20190403**

Priority

- US 201862652300 P 20180403
- US 2019025680 W 20190403

Abstract (en)

[origin: WO2019195490A1] Systems, methods, and devices for monitoring environmental data in a hazardous environment (25) includes a plurality of modules having an endpoint control module (210) and operational node modules (220) connected to each other in a daisy-chain configuration and connected to the endpoint control module (210), the modules are mounted together on a mounting bracket (260) for a stabilizing placement at a specific location within the hazardous environment. Each operational node has a sensor (226) to monitor a desired type of environmental data and is designed to be interchanged and swapped out easily with other operational nodes. A communication component (250) enables communication between the plurality of modules and a remote data collection center (15) associated with the hazardous location. Each of the modules includes I/O ports (212, 214, 222, 224) to enable power and data communications between the modules. Each of the plurality of modules and I/O ports is compliant with intrinsically safe operational requirements.

IPC 8 full level

**G05B 23/02** (2006.01); **H04B 17/00** (2015.01)

CPC (source: EP)

**G05B 9/02** (2013.01); **G05B 19/0428** (2013.01); **G05B 2219/14011** (2013.01); **G05B 2219/24028** (2013.01)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2019195490 A1 20191010**; AU 2019247198 A1 20201126; EP 3776123 A1 20210217; EP 3776123 A4 20220406

DOCDB simple family (application)

**US 2019025680 W 20190403**; AU 2019247198 A 20190403; EP 19782042 A 20190403