

Title (en)
METHOD FOR DIAGNOSING AN OPEN- AND/OR CLOSED-LOOP CONTROL SYSTEM, AND OPEN- AND/OR CLOSED-LOOP CONTROL SYSTEM

Title (de)
VERFAHREN ZUR DIAGNOSE EINES STEUER- UND/ODER REGELUNGSSYSTEMS SOWIE STEUER- UND/ODER REGELUNGSSYSTEM

Title (fr)
PROCÉDÉ POUR DIAGNOSTIQUER UN SYSTÈME DE COMMANDE ET/OU DE RÉGULATION ET SYSTÈME DE COMMANDE ET/OU DE RÉGULATION

Publication
EP 4200680 A1 20230628 (DE)

Application
EP 21759090 A 20210813

Priority
• DE 102020121890 A 20200820
• EP 2021072632 W 20210813

Abstract (en)
[origin: WO2022038060A1] In a method for diagnosing an open- and/or closed-loop control system of a process engineering plant having a plurality of actuating units (1i) for setting a process fluid and a central unit, the following steps are provided: (a) detecting (200) at least one actuating-unit-specific control raw datum, such as a setpoint value (w), an actual value (s), a setpoint-actual difference value (d) or a control value (g); (b) generating (300) at least one more particularly local diagnosis code (Dj, Dij) by one of the plurality of actuating units (1i) on the basis of the at least one detected control raw datum; (c) transmitting (400) the at least one diagnosis code (Dj, Dij) from the respective actuating unit (1i) to a central unit (3); (d) transforming (304, 404) a local diagnosis code (Dj), which comes from a particular actuating unit (1i) and/or relates to a particular actuating unit (1i), into a global diagnosis code (Dij) in that the local diagnosis code (Dj, Dij) is linked to an actuating-unit-specific identifier (li), (e) defining (603) at least one logical condition for a diagnosis deduction logic (γ) such that when the at least one logical condition is applied to at least one diagnosis code (Dj, Dij), the diagnosis deduction logic (γ) determines a predetermined deduction result (K), and (f) determining (500) at least one deduction result (K) by means of the diagnosis deduction logic (γ) on the basis of the at least one diagnosis code (Dj, Dij) in the central unit (3).

IPC 8 full level
G05B 19/4063 (2006.01); **G05B 19/418** (2006.01); **G05B 23/02** (2006.01)

CPC (source: EP US)
G05B 19/4063 (2013.01 - EP); **G05B 19/418** (2013.01 - EP); **G05B 19/41875** (2013.01 - EP); **G05B 23/0275** (2013.01 - EP US); **G05B 19/4184** (2013.01 - EP); **G05B 2219/31211** (2013.01 - EP); **G05B 2219/33284** (2013.01 - EP); **Y02P 90/02** (2015.11 - EP)

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
DE 102020121890 A1 20220224; CN 116097187 A 20230509; EP 4200680 A1 20230628; US 2024028023 A1 20240125; WO 2022038060 A1 20220224

DOCDB simple family (application)
DE 102020121890 A 20200820; CN 202180057250 A 20210813; EP 2021072632 W 20210813; EP 21759090 A 20210813; US 202118042277 A 20210813