Application module operations

CP-AM-MAG (front)

This application module can distribute the front covers onto the pallet on the carrier

Operations:

- **200 – feed front cover**
  This operation is responsible to distribute the frint cover

  Parameters:
  - **1 – Part number**
    Part number of the front cover to be distributed:
    - 210 – black
    - 310 – gray
    - 410 – blue
    - 510 – red

CP-AM-MEASURE

This application module can be used to measure the height difference of two points of the part.

Operations:

- **115 – measure difference**
  It measure the height difference of two points of the part. With the default parameter it could also be used to check if the front cover orientation is correct or not. If the orientation is correct, the workplan continues, otherwise it jumps to the error step (if defined).

  Parameters:
  - **1 – default [0.1mm]**
    Nominal value of the measurement (what is the expected value of the mesurement)
  - **2 – max [0.1mm]**
    Maximum value to be accepted
  - **3 – min [0.1mm]**
    Minimum value to be accepted
  - **4 – measured [0.1mm]**
    This value comes back from the PLC with the measured distance.

This application module can drill holes into the front cover left and/or right side.

Operations:

- **120 – drill right**
  drills two holes on the right side of the front cover

  Parameters:
  - **1 – program**
    fixed to 2, which means drill on the right

- **121 – drill left**
  drills two holes on the left side of the front cover

  Parameters:
  - **1 – program**
    fixed to 1, which means drill on the left

- **122 – drill both**
  drills two holes on both side of the front cover

  Parameters:
  - **1 – program**
    fixed to 3, which means drill on both sides

- **123 – drill custom**
  the drilling program is customizable from a dropdown list

  Parameters:
  - **1 – program**
    selectable from a dropdown list (1: left, 2: right, 3: both sides)

This is a manual workplace to assemble the PCB, fuses and or back cover onto the front cover.

Operations:

- **116 – pick by light**
  Manual assembly of the PCB, fuses and or back cover onto the front cover

  Parameters:
  - **1 – program**
    automatically calculated from the other parameters. This program defines the type of assembly
    - 1 – assemble PCB without fuses
    - 2 – assemble PCB with front fuse only
    - 3 – assemble PCB with rear fuse only
    - 4 – assemble PCB with two fuses
    - other – assemble back cover
  - **2 – front fuse**
    Type of the fuse to be assembled to the front (0: no fuse, 130: normal fuse)

  - **3 – rear fuse**
    Type of the fuse to be assembled to the rear
    - 0 – no fuse
    - 130 – normal fuse
  - **4 – PCB**
    If fuses are selected, the PCB should also be sleected as 120.
    - 0 – no PCB
    - 120 – green PCB
  - **5 – cover**
    It can only be used if parameter 2 – 4 is 0. This specifies, that a back cover assembly must be made.
  - **6 – not used**
    Not used, leave it 0
  - **7 – next part number (Ciros)**
    Not used, leave it 0

CP-AM-CAM

This application module can check the part with a camera.

Operations:

- **400 – camera check**
  use a freely selectable camera program to check the part

  Parameters:
  - **1 – program**
    Camera program to be used for the quality check
    The pick by light operation can be checked if we use the same camera program as the pick by light program.
    - 1 – check if PCB without fuses
    - 2 – check if PCB with front fuse only
    - 3 – check if PCB with rear fuse only
    - 4 – check if PCB with two fuses
  - **2 – result**
    Written by the PLC to store the result of the quality check

- **401 – check no fuse**
  check if PCB present without any fuses

  Parameters:
  - **1 – program**
    fixed to 1
  - **2 – result**
    Written by the PLC to store the result of the quality check

- **402 – check front fuse**
  check if PCB present with front fuse only

  Parameters:
  - **1 – program**
    fixed to 2
  - **2 – result**
    Written by the PLC to store the result of the quality check

- **403 – check rear fuse**
  check if PCB present with rear fuse only

  Parameters:
    - **1 – program**
      fixed to 3
    - **2 – result**
      Written by the PLC to store the result of the quality check

- **404 – check both fuses**
  check if PCB present with both fuses

  Parameters:
    - **1 – program**
      fixed to 4
    - **2 – result**
      Written by the PLC to store the result of the quality check

CP-AM-OUT

This application module can deliver the workpiece to one of the slides.

Operations:

- **205 – deliver**
  deliver the part to one of the slides

  Parameters:
    - **1 – slide**
      defines which slide to be used:
        - 0 – first free slide
        - 1 – left slide
        - 2 – right slide