DIGIPILOT
Acknowledgement device for manual work
optical and acoustical notification

Model 5510

Application
On production floor, the need for optical as well as acoustical notification of OK and NOK parts can be found oftentimes next to the evaluation done by measuring and evaluating instrumentation. Especially for manual work places with a certain allowed time/work piece ratio the additional notification related to the product is wanted, sometimes also the control of the previously identified OK and NOK parts. This function is fulfilled by DIGIPILOT 5510.

The control device regulates dependencies of work processes by necessary acknowledgement of OK- and/or NOK parts and informs the results visually via warning lamp and acoustically via buzzer. Moreover, the mechanical arrest of a press, storing area or part feeding can be effected until an unmistakable identification for the product is done.

The dependencies of acknowledgement, alarm and arrest are determined by the different operation modes which can be changed only by the fitter himself. The 24 V supply voltage for supplying the inputs “OK-” and “NOK acknowledgements” is available even without a connected PLC. The DIGIPILOT 5510 is designed for rough industrial environment. As a complete unit with different switching and notification possibilities the device is priced at good value compared to a collection of separate solutions.

Description
DIGIPILOT 5510 is optimized with DIGIFORCE® 9311, DIGIFORCE® 9310. The two devices are connected electrically 1:1 via the PLC interface of DIGIFORCE® 9311, DIGIFORCE® 9310 and a 25 pin cable model 9900-K331. If DIGIFORCE® 9311, DIGIFORCE® 9310 is controlled via PLC the connection must be done on the available second bushing on DIGIPILOT 5510. DIGIPILOT 5510 offers different operation modes that need to be activated by jumpers in the 15 pin Sub-min-D connector for both modes, active as well as passive, i.e. with or without acknowledgement.

This acknowledgement can be effected via the indicator lights on the front side of the instrument or via an external button (normally open). At the beginning of a new measurement, the present evaluation is erased. In the operation mode “Confirmation and evaluation NOK” the red light stays switched-on, even at a new measurement start. It will switch-off only after acknowledging the “NOK” result by pushing the green button.
Technical Data

Operational elements on front side
► green light for power excitation control
► green indicator light for OK notice and acknowledgement
► red indicator light for NOK notice and acknowledgement
► buzzer

Operational elements on back side
► On/Off and loudness controller for internal buzzer
► Power switch
► Security holder for power fuse
► Five LEDs for function control
► Two 25 pin D-sub-sockets
► One 15 pin D-sub-sockets
► Power supply

Acknowledgement
Configured functions by means of soldered bridges in 15 pin D-sub-connector

Function 1
No acknowledgement active
Purely passive operation, DIGIPILOT model 5510 only visualizes the evaluation of the connected measurement device

Function 2
External acknowledgement for OK-parts
Operator must acknowledge every OK part by pushing the button, NOK parts cannot be acknowledged

Function 3
External acknowledgement for NOK parts
Operator must acknowledge every NOK part by pushing the button, OK parts cannot be acknowledged

Function 4
External acknowledgement for OK and NOK parts
Operator must acknowledge every OK and NOK part by pushing the button.

Function 5
Internal acknowledgement for NOK parts
Operator must acknowledge every NOK part by pushing the button, OK parts cannot be acknowledged

Function 6
Internal acknowledgement for NOK parts and external acknowledgement of OK parts
Operator must acknowledge every OK and NOK part by pushing the button

Function 7
Internal or external acknowledgement for NOK parts
Operator must acknowledge every NOK part by pushing the button OK parts cannot be acknowledged

Function 8
Internal or external acknowledgement for NOK parts
External acknowledgement for OK parts

Technical Data
Excitation voltage: 90 ... 264 V eff / 47 ... 63 Hz
Power consumption: 5 ... 15 VA
Power fuse: 5 x 20 mm, 0.25 AT
Power supply connector:
  euro plug with security fuse and power switch
Protection class of device: IP30
Protection class of front plate: IP65
Housing: aluminium housing with support
Dimensions (W x H x T): ca. 111 x 111 x 183 mm
Recess for panel installation: ca. 112 x 112 mm
Front plate of device: 119 x 119 mm
Weight: approx. 1400 g
Operation temperature range: 5 ... 40 °C
Range of storage temperature: - 10 ... 60 °C
Protection class: 1
Transient over voltage: category 2
Grade of contamination: 2
Ground potentiale: <= 50 V on ground

Air humidity: up to 31 °C 80 %, above that linear descending to 50 % at 60 °C, not dewing

Power rating of output:
  PLC supply 24 V 100 mA
  Supply of OK and NOK button 50 mA
  OK output 100 mA
  NOK output 100 mA
  Alarm output 100 mA
  Locking device output 200 mA

Pin alignment of 15 pin D-sub-socket
Pin 1: Deactivate internal NOK key
Pin 2: Deactivate internal lights
Pin 3: Activate external NOK acknowledgement
Pin 4: Output OK
Pin 5: Output NOK
Pin 6: Output locking device
Pin 7: Output alarm
Pin 8: 24 V supply output for inputs OK and NOK acknowledgement activate
Pin 9: Activate external OK acknowledgement
Pin 10: Reference point for activation of functions, corresponds to PLC ground
Pin 11: Activate 24 V supply
Pin 12: Input OK acknowledgement
Pin 13: Input NOK acknowledgement
Pin 14 and 15: Reference ground of 24 V supply for the outputs OK, NOK, alarm and locking device

Accessories
Data cable to DIGIFORCE® model 9311 Model 9900-K331
Data cable to DIGIFORCE® model 9307 Model 99160-165A-0090020
Mounting kit for panel installation Model 9310-Z001
Connecting profiles to a DIGIFORCE® model 9311 Model 9310-Z002
Mating connector 15 pin D-sub with soldering bridges *Model 5510-Z001
Mating connector 25 pin D-sub *Model 9900-V160
* one unit is included in scope of delivery

Application
Hand lever press equipped with force and a displacement sensor, both connected to DIGIFORCE® and DIGIPILOT.

The CAD drawing (3D/2D) for this device can be imported online directly into your CAD system.
Download via www.burster.com or directly at www.traceparts.com. For further information about the burster traceparts cooperation refer to data sheet 80-CAD-EN.