Haller + Erne GmbH
Im Schelmental 4
D-874226 Nordheim
+49 (0)7133 96 12-30
contact@haller-erne.de

MSTKN Socket Tray

H-S24-HM-ETH-M12

- 8-slot socket tray with status display and operator guidance
- 2 operation modes possible: (intelligent mode and direct-I/O mode)
- Detailed diagnostic capabilities
- Maximum tool diameter of 38mm
- Rugged aluminium casing (IP54)
- Controlled as Modbus-TCP-Slave
- Expandable up to 32 sockets via internal bussystem
- 24 Volt (DC) power supply

Overview

The MSTKN socket trays are developed for industrial environments. The tray is a Modbus TCP slave and can be connected to any existing bus system. Power supply and bus connection are realized with two M12 connectors.

Description

Modbus interface

The Fieldbus interface is working with a data rate of up to 100Mb/s. The Open-Modbus-TCP/UDP interface is Class 0 compliant with extensions for Class 2 (FC23, read/write multiple registers). The device provides two words of process data (one input and one output register), which can be accessed as follows:

- Read: Register address 512 (hex 0x200) provides socket tray status data; address 0 reads back the output register.
- Write: Register address 0 (hex 0x000) sets socket tray control registers

The control register can be split into two areas (each 1 byte) for “command” (bits 0-7) and “selection” (bits 8-15). The status register is similarly split into two bytes: “state” (bits 0-7) and “selection” (bits 8-15).

LED display

Each socket has three colored LEDs (red, yellow and green) to signal the state of the socket and the preselection of the control unit. They can also show malfunctions of the socket tray itself. In addition, the tray provides two additional LEDs (red & green) with user defined functions, e.g. to show OK or NOK tightening results.

Operating modes

The simple data exchange mode (“intelligent” mode) uses 2 bytes I/O and mimics the behavior of the 24V-I/O based MSTKN socket trays (free selection, guided operation). The Modbus master can request a tool to be used by the operator (which is then indicated by the LEDs) and read back the tray sensor states (which tool is removed from the tray). The full control data exchange mode (“direct-I/O” mode) uses one byte I/O for each tray to read the sensor state and control the three LEDs individually.

Additional functions

Using the programming cable and the software that is supplied with the socket tray, the group functions and tool recognition can be configured. The integrated diagnostic capabilities enable the user to monitor the status of each slot via Modbus. For more detailed information please see the manual.

Technical Data

Dimensions: WxHxD 255x170x60 mm
Weight: approx. 2,1kg
Operating temperature: -20 … +50°C
Protection: IP54
Supply: 24V DC, < 250mA
Connectors: 2x M12 A-coded (5 pin, 1xF + 1xM), 1x M12 D-coded (4 pin, F)
EMC: EN 61000-6-2 and EN 61000-6-4

Ordering Information

Order Code	Description and references
22346	MSTKN-H-S24-HM-ETH-M12

Please note, that additional models (additional enclosures/sizes and interfaces) of MSTKN are available.