

## SMEMA Ethernet Adaptor Mk3 - Single Lane SMT - RS232 - RTC (CLIVE B5145E85)

A compact and low cost solution to control your SMEMA based SMT electronic assembly equipment.



### Typical Applications

- SMEMA Interlocking
- SMEMA control
- General I/O
- MES Interlocking<sup>1</sup>
- IPC-Hermes-9852 upgrade path<sup>1</sup>

<sup>1</sup> With additional MultiPlug Extensions (Software) and configuration.

### High Level Specification

- Single Lane SMT Assembly Production  
[GEORGE - Dual Lane (B5145E95)]
- Length 109 x Width 62 x Height 55 - Weight 227 grams
- 2GB RAM, 32GB Storage, Linux Single-Board Computer
- 5 Volt 3 Amp Supply via USB-C  
[Optional industrial 24v step down PSU available]
- RJ12 Plug to SMEMA Plug or Socket Dongles  
[Optional accessory]
- RS232 Serial Port
- SMEMA status indicators
- Real Time Clock for accurate data logging
- WiFi Access Point for remote setup and monitoring
- Audible indicator and Active Cooling
- Din Rail, Magnetic or Wall Mount
- SMEMA Control via REST API or Serial Port commands
- User Interface via Web Browser



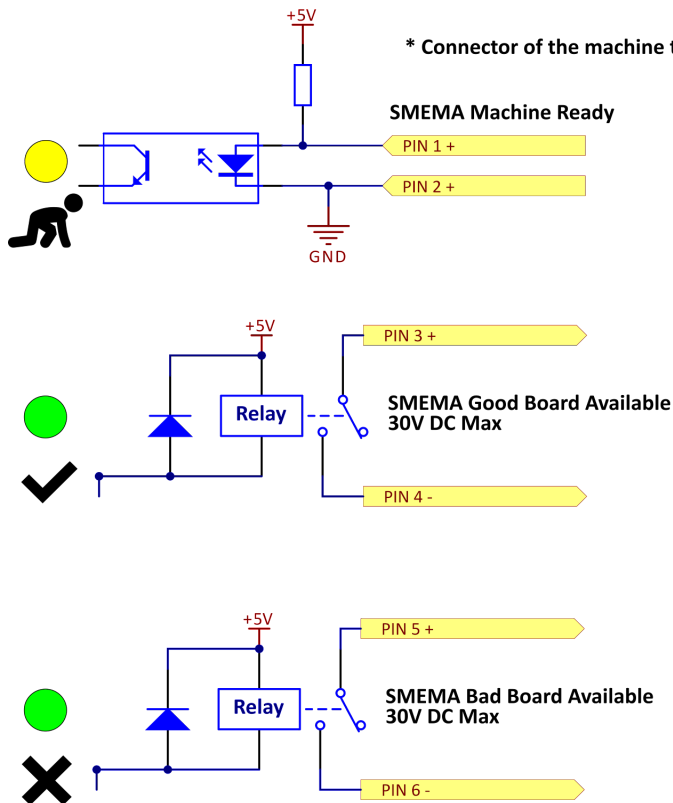
Not to be used in safety critical situations.  
Always use the attached machine's Emergency Stop when servicing the attached machine.

## Hardware Specification

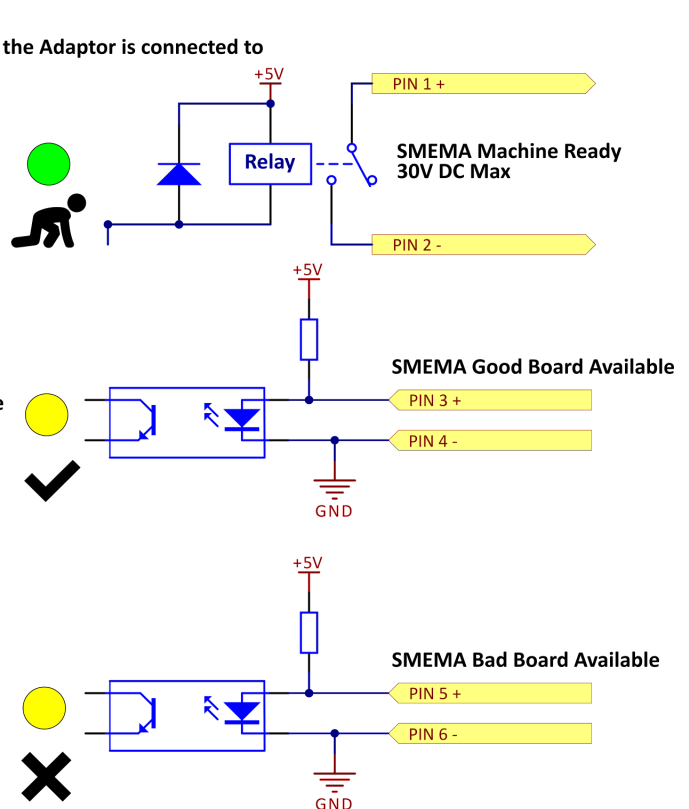
Size	Length 109 x Width 62 x Height 55 - Weight 227 grams
Single Board Computer	2GB RAM, 32GB SD Card Storage. Raspberry Pi OS (Debian Linux)
Network	Ethernet or WiFi. WiFi Access Point for remote setup and monitoring
Input voltage	5 Volt 3 Amp Supply via USB-C
Connectors	2 x RJ12 SMEMA Sockets. 2 x USB 3.0 2 x USB 2.0
Indicators	SMEMA and audible alarm indicator
Buttons	Shutdown / Restart
Data	9 Pin Male RS232 Serial Port
SMEMA Switching Max	30V DC
Mount	Din Rail, Magnetic or Wall
Real Time Clock	Yes
Cooling	Active
Conformity	CE UKCA RoHS WEEE Country Of Origin: GB

## SMEMA Schematic of RJ12 Socket

### ↑ Upstream / Upline\*



### ↓ Downstream / Downline\*



## Software Included

Name	Licence	Description
MultiPlug	Proprietary - 1 Included	.Net Edge Computing Platform
Multiplug.Ext.SMEMA	Open Source	Basic SMEMA Interlock
Multiplug.Ext.Network.HTTP	Open Source	Sends HTTP requests on event (Interlock)
Multiplug.Ext.SerialPort	Open Source	Read or Write to RS232 Serial Ports
Multiplug.Ext.Raspi.Gpio	Open Source	Read or Write to a Raspberry Pi GPIO
Multiplug.Ext.Raspi.Config	Open Source	Configure a Raspberry Pi
Multiplug.Ext.Hostapd.Config	Open Source	Configure a Wifi Access Point

Control of the SMEMA Interlock is controlled via a REST API or Serial Port by default. Any other control, eg via a MES, requires optional MultiPlug Extensions or software development provided at cost via 4IR.UK. Consult the support website.

## Alternative Versions - Hermes, CFX, SMEMA

SL - Single Lane | DL - Dual Lane | RTC - Real Time Clock | RS232 - Male 9 Serial Port

MPN	Product Group	Interface	Description / Features	Available
B5145A42	QUENTIN	IPC-HERMES-9852	SL	Custom Build
B5145A43	QUENTIN	IPC-HERMES-9852	SL RTC	Custom Build
B5145A44	QUENTIN	IPC-HERMES-9852	SL RS232	Custom Build
B5145A45	QUENTIN	IPC-HERMES-9852	SL RTC RS232	Yes
B5145A52	AUSTIN	IPC-HERMES-9852	DL	Custom Build
B5145A53	AUSTIN	IPC-HERMES-9852	DL RTC	Custom Build
B5145A54	AUSTIN	IPC-HERMES-9852	DL RS232	Custom Build
B5145A55	AUSTIN	IPC-HERMES-9852	DL RTC RS232	Low Volume
B5145B65	OSCAR	IPC-CFX-2591	SL RTC RS232	Enquire
B5145B75	JASPER	IPC-CFX-2591	DL RTC RS232	Enquire
B5145E85	CLIVE	IPC-SMEMA-9851	SL RTC RS232	Yes
B5145E95	GEORGE	IPC-SMEMA-9851	DL RTC RS232	Low Volume

## Accessories

- RJ12 to SMEMA Male (Pair) dongles for Direct Machine connections
- RJ12 to SMEMA Female (Pair) dongles for SMEMA Extension cables
- USB-C 5v 3 Amp 110-230v Power Supply
- Din Rail Mount
- 24v to 5v Step Down PSU
- USB-C Male to 5 Pin Female Bolt Screw Shield Terminals Pluggable Adapter
- Power over Ethernet (PoE) USB-C Splitter

## Use Cases

- RS232 Serial Port to be used for SMT Conveyor integration
- USB Ports for Barcode Scanner integration

## MultiPlug

This product is based on the MultiPlug Edge Computing Platform making it highly configurable.

<https://www.multipug.app>

## Also see FAQs:

Manufacturer's Website: <https://www.4ir.uk/products/smema-ethernet-adaptor/>

Brochure Website: <https://www.smema-ethernet-adaptor.info/>

Support Website: <https://github.com/Industry4/SMEMA-Ethernet-Adaptor/wiki>

[Hello@4IR.UK](mailto>Hello@4IR.UK) - Industry4 Ltd - Trading As 4IR.UK British Systems - Unit 12, 44 Springfield Road, Poole, BH14 0LQ,  
United Kingdom - Made in England, United Kingdom