SMARTEH LPC-2.DB2 Longo Programmable Controller Debug Module User Manual

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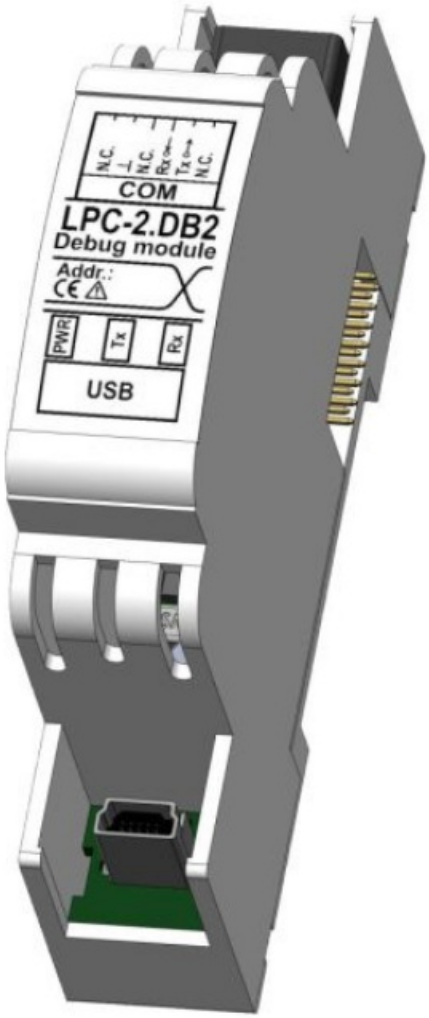
SMARTEH LPC-2.DB2 Longo Programmable Controller Debug Module



FAQ

Frequently Asked Questions

- **Q:** Can the LPC-2.DB2 debug module be used with other controller models?
  - **A:** The LPC-2.DB2 is specifically designed for use with LPC-2.main modules and certain operator terminals as listed in the description. It is recommended to refer to the product manual for compatibility information.
- **Q:** What should I do if the diagnostic LEDs show abnormal patterns?
  - **A:** If the diagnostic LEDs display unusual patterns or do not indicate normal operation, check the connections and ensure proper installation according to the provided connection schemes in the manual.

STANDARDS AND PROVISIONS

Standards, recommendations, regulations and provisions of the country in which the devices will operate, must be considered while planning and setting up electrical devices. Work on 100 .. 240 V AC network is allowed for authorized personnel only.

DANGER WARNINGS: Devices or modules must be protected from moisture, dirt and damage during transport, storing and operation.

WARRANTY CONDITIONS

WARRANTY CONDITIONS: For all modules LONGO LPC-2 – if no modifications are performed upon and are correctly connected by authorized personnel – in consideration of maximum allowed connecting power, warranty of 24 months is valid from the date of sale to the end buyer, but not more than 36 months after delivery from Smarteh. In case of claims within warranty time, which are basedon material malfunctions the producer offers free replacement.

The method of return of malfunctioned module, together with description, can be arranged with our authorized representative. Warranty does not include damage due to transport or because of unconsidered corresponding regulations of the country, where the module is installed.

This device must be connected properly by the provided connection scheme in this manual. Misconnections may result in device damage, fire or personal injury.
Hazardous voltage in the device can cause electric shock and may result in personal injury or death.

NEVER SERVICE THIS PRODUCT YOURSELF!

This device must not be installed in the systems critical for life (e.g. medical devices, aircrafts, etc.).

If the device is used in a manner not specified by the manufacturer, the degree of protection provided by the equipment may be impaired.
Waste electrical and electronic equipment (WEEE) must be collected separately!

LONGO LPC-2 complies to the following standards:

- **EMC:** EN 61000-6-3:2007 + A1:2011, EN 61000-6-1:2007, EN 61000-3- 2:2006 + A1:2009 + A2: 2009, EN 61000-3-3:2013
- **LVD:** IEC 61010-1:2010 (3rd Ed.), IEC 61010-2-201:2013 (1st Ed.)

Smarteh d.o.o. operates a policy of continuous development.
Therefore we reserve the right to make changes and improvements to any of the products described in this manual without any prior notice.

MANUFACTURER:

- SMARTEH d.o.o.
- Poljubinj 114 5220 Tolmin Slovenia

ABBREVIATIONS

Sorted by order of appearance in document:

- **LED:** Light emitting diode

DESCRIPTION

LPC-2.DB2 debug module is used for debugging LPC-2.main modules LPC-2.MC9, LPC-2.MM1, LPC-2.MM2, LPC-2.MM3 and operator terminals LPC-3.GOT.111, LPC-3.GOT.131, LPC-3.GOT.112, LPC-3.GOT.012, LPC-3.GOT.002.

FEATURES

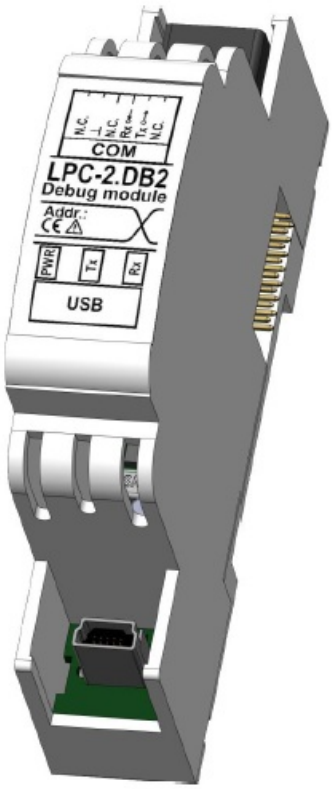


Figure 1: LPC-2.DB2 debug module

Table 1: Features
Debugging LPC-2.MC9, LPC-2.MM1, LPC-2.MM2, LPC-2.MM3, LPC-3.GOT.111, LPC-3.GOT.131, LPC-3.GOT.112, LPC-3.GOT.012, LPC-3.GOT.002
Standard DIN EN50022-35 rail mounting
3 diagnose LEDs

INSTALLATION

Connection scheme example

Figure 2: Connection scheme for debugging LPC-2.MC9

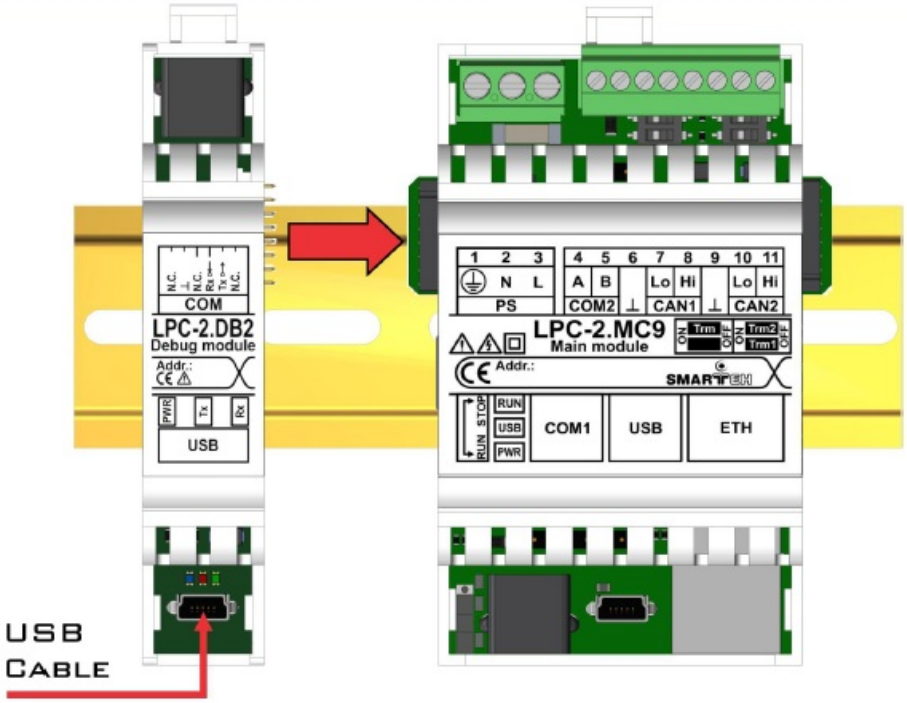


Figure 3: Connection scheme for debugging LPC-2.MM1, LPC-2.MM2, LPC-2.MM3

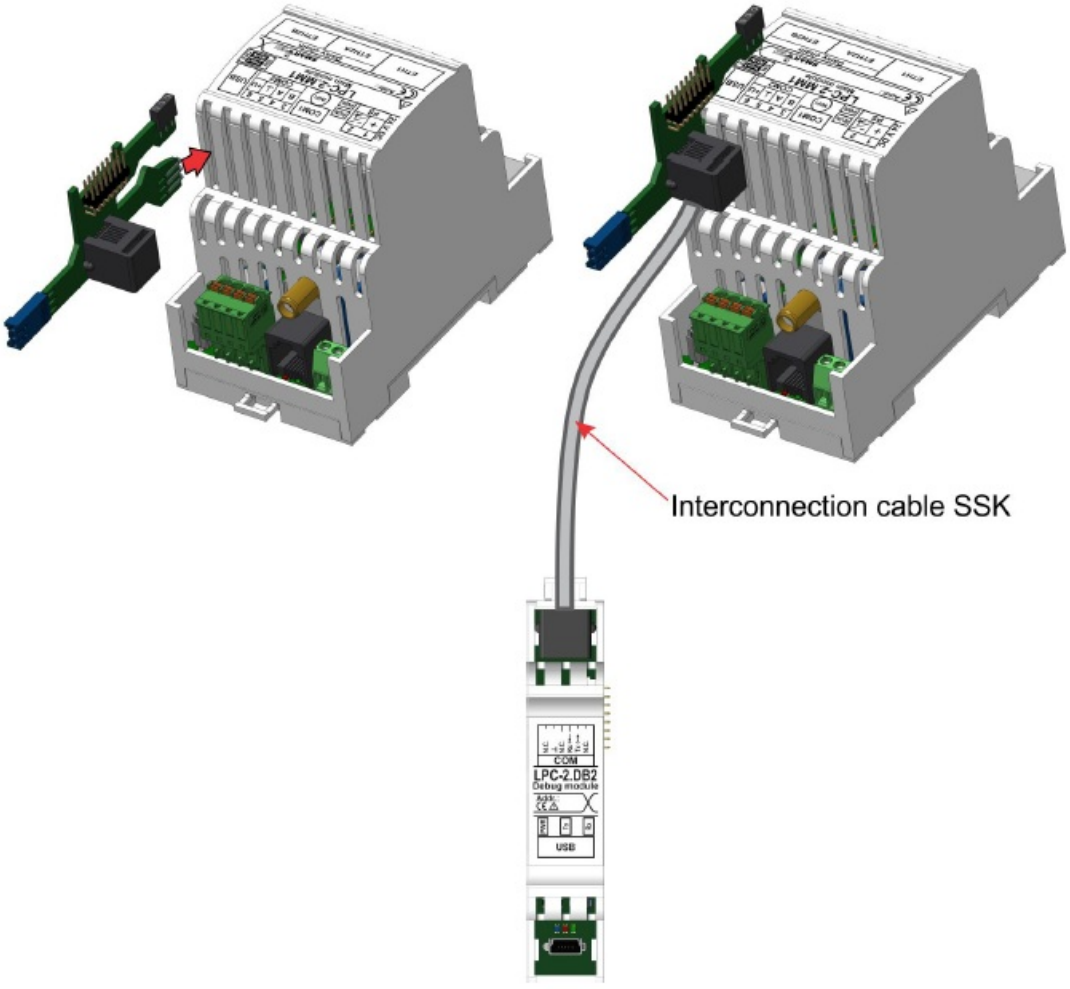


Figure 4: Connection scheme for debugging LPC-3.GOT.111, LPC-3.GOT.131, LPC-3.GOT.112

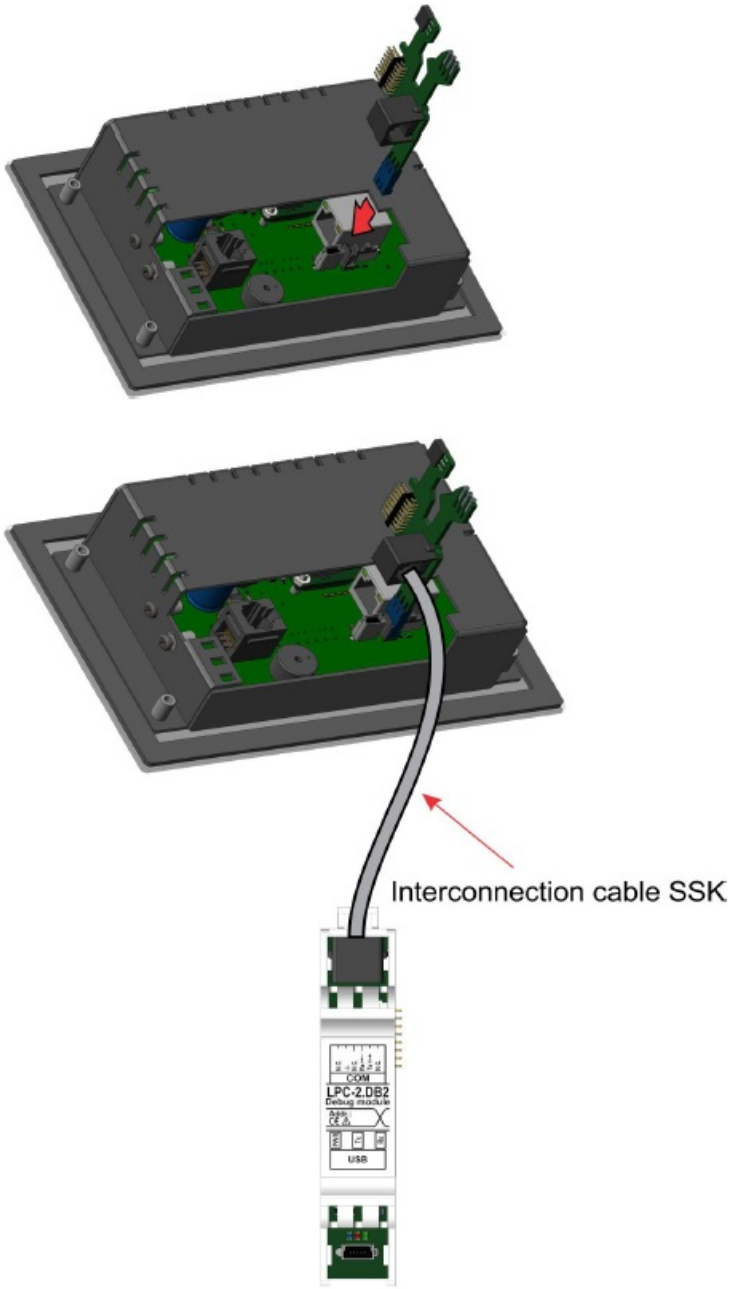


Figure 5: Connection scheme for debugging LPC-3.GOT.012, LPC-3.GOT.002

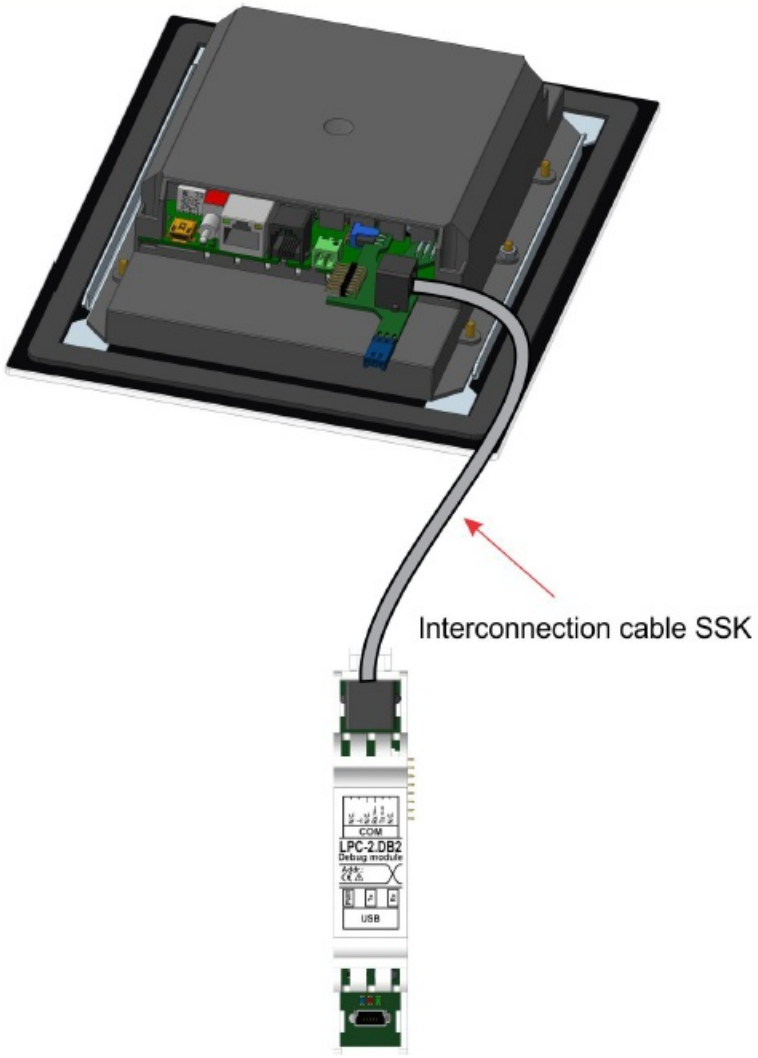


Figure 6: Connection scheme

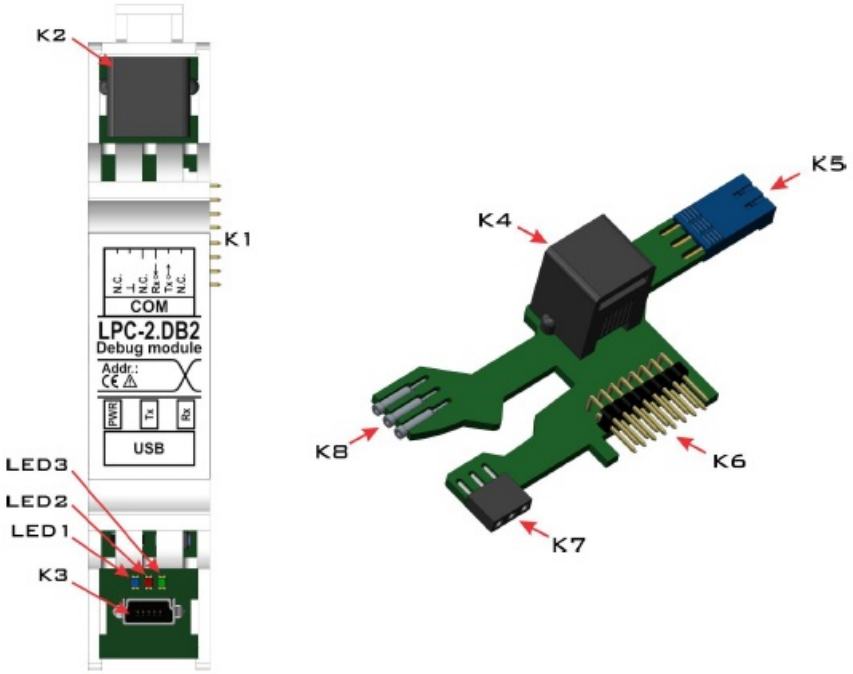


Table 2: K1

Internal BUS	Data transfer	Connection to controller

Table 3: K2

K2.1	N.C.	Not connected
K2.2	GND	Ground
K2.3	N.C.	Not connected
K2.4	Rx ·¬	Data receive input
K2.5	Tx ·®	Data send output
K2.6	N.C.	Not connected

Table 4: K3

K3.1	VCC	Power supply input
K3.2	D-	Data –
K3.3	D+	Data +
K3.4	ID	May be N/C, GND or used as an attached device presence i ndicator
		(tied to GND with resistor)
K3.5	GND	Ground

Table 5: Adapter connectors

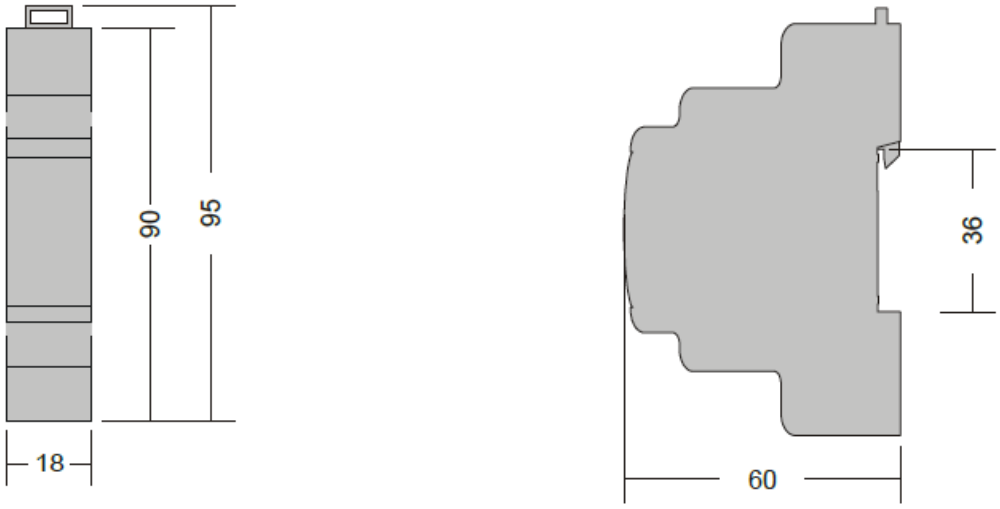
K4	LPC-2.DB2
K5	LPC-3.GOT.111, LPC-3.GOT.131, LPC-3.GOT.112
K6	LPC-2.MC9
K7	LPC-3.GOT.012, LPC-3.GOT.002
K8	LPC-2.MM1, LPC-2.MM2, LPC-2.MM3

Table 6: LEDs

LED1	Blue, DB2 status	OFF: No power supply ON: OK
LED2	Red, DB1 Tx packet status	Blinking ON: Transmitting Tx packet
LED3	Green, DB1 Rx packet status	Blinking ON: Receiving Rx packet

Mounting instructions

Figure 7: Housing dimensions



- Dimensions in milimeters.

WARNING: All connections, module attachments and assembling must be done while module is not connected to the main power supply.

Mounting instructions for debugging purpose:

1. Switch off main power supply.
2. Mount LPC-2.DB2 module to the provided place inside an electrical panel (DIN EN50022-35 rail mounting).
3. Mount other LPC-2 modules (if required). Mount each module to the DIN rail first, then attach modules together through K1 and K2 connectors.
4. Make connections as show in connection schemes.
5. Blue LED1 should turn on.

Dismount in reverse order. For mounting/dismounting modules to/from DIN rail a free space of at least one module must be left on the DIN rail.

NOTE: LPC-2 main module should be powered separately from other electrical appliance connected to LPC-2 system. Signal wires must be installed separately from power and high voltage wires in accordance with general industry electrical installation standard.

Module labeling

Figure 8: Label

Label (sample):

XXX-N.ZZZ
P/N: AAABBBCCDDDEEE
S/N: SSS-RR-YYXXXXXXXXX
D/C: WW/YY

Label Description:

1. XXX-N.ZZZ – full product name.
    - XXX-N – Product family
    - ZZZ – product
2. **P/N:** AAABBBCCDDDEEE – part number.
    - AAA – general code for product family,
    - BBB – short product name,
    - CCDDD – sequence code,
        - CC – year of code opening,
        - DDD – derivation code,
    - EEE – version code (reserved for future HW and/or SW firmware upgrades).
3. **S/N:** SSS-RR-YYXXXXXXXXX – serial number.
    - SSS – short product name,
    - RR – user code (test procedure, e.g. Smarteh person xxx),
    - YY – year,
    - XXXXXXXXX – current stack number.
4. **D/C:** WW/YY – date code.
    - WW – week and
    - YY – year of production.

Optional

1. MAC
2. Symbols
3. WAMP
4. Other

TECHNICAL SPECIFICATIONS

Table 7: Technical specifications

- **Power supply** from USB
- **Power consumption** 0.5 W
- **Connection type K2** RJ-12 6/4
- **Connection type K3** mini B type
- **Dimensions (L x W x H)** 90 x 18 x 60 mm
- **Weight** 40 g
- **Ambient temperature** 0 to 50 °C
- **Ambient humidity** max. 95 %, no condensation
- **Maximum altitude** 2000 m
- **Mounting position** vertical
- **Transport and storage temperature** -20 to 60 °C
- **Pollution degree** 2
- **Protection class** IP 30

SPARE PARTS

For ordering spare parts following Part Numbers should be used:

LPC-2.DB1 Debug module	
LPC-2.DB1	P/N: 225DB217G02001

Interconnection cable	
SSK	P/N: 203SSK05001001

USB cable	
USB A - B mini cable 2 m	P/N: 440USBAB200001

CHANGES

The following table describes all the changes to the document.

Date	V.	Description
05.06.24	1	The initial version, issued as LPC-2.DB2 UserManual.

CONTACT

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Documents / Resources

	SMARTEH LPC-2.DB2 Longo Programmable Controller Debug Module [pdf] User Manual LPC-2.DB2, LPC-2.DB2 Longo Programmable Controller Debug Module, Longo Programmable Controller Debug Module, Programmable Controller Debug Module, Controller Debug Module, Debug Module, Module

References

- User Manual

Manuals+, Privacy Policy

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