

Preface

With LOGO! you have acquired a logic module that meets the stringent quality requirements of ISO 9001.

You can use LOGO! in many fields of applications. Due to its high functionality and easy operation, LOGO! offers you the utmost efficiency for almost any application.

Purpose of this manual

This LOGO! manual provides you with information about the creation of circuit programs, about the installation and use of LOGO! 8 Base Modules with more enhanced features, the LOGO! TDE (Text Display with Ethernet interfaces), and LOGO! expansion modules.

For LOGO! 8 series, LOGO!Soft Comfort uses device type to distinguish different LOGO! device. For more information, you can refer to the following table.

Device	Order number and FS number	Device type in LOGO!Soft Comfort	LOGO!Soft Comfort Version
LOGO! BM	6ED1052-xxxxx-0BA8 FS01-FS03	LOGO! 8 (0BA8.Standard)	LOGO!Soft Comfort V8.3 and later version
	6ED1052-xxxxx-0BA8 FS04-FS06	LOGO! 8.1 & 8.2 (LOGO! 8.FS4)	
	6ED1052-xxx08-0BA0	LOGO! 8.1 & 8.2 (LOGO! 8.FS4)	
	6ED1052-xxx08-0BA1	LOGO! 8.3	
LOGO! TDE	6ED1055-4MH00-0BA1 FS01-FS06	LOGO! TDE 6ED1055-4MH08- 0BA1	LOGO!Soft Comfort V8.3 and later version
	6ED1055-4MH08-0BA0		
	6ED1055-4MH08-0BA1		

LOGO!'s place in information technology

The wiring information in your LOGO! manual can also be found in the LOGO! Product Info which is included with all devices. For further information on programming the LOGO! on your PC, refer to the *LOGO!Soft Comfort Online Help*.

LOGO!Soft Comfort is LOGO! programming software for PCs. It runs under Windows® (Windows 7®, Windows 8® and Windows 10®), Linux® and Mac OS X®. It helps you to get started with LOGO! and to write, test, print out and archive your programs, independent of LOGO!.

Valid range of this manual

The manual applies to devices of LOGO! 8 6ED1052-xxx08-0BA1 series.

New features of LOGO! 8 (6ED1052-xxx08-0BA1) device series

The following features are new for LOGO! 6ED1052-XXX08-0BA1 devices:

- **Cloud IoT connection**

LOGO! BM supports AWS Cloud connectivity through MQTT protocol on Ethernet TCP/IP network.

- You can use IoT connectivity to synchronize data between LOGO! BM and AWS Cloud. When this function is enabled, LOGO! BM can publish data to AWS Cloud, and you can change LOGO! BM data remotely through AWS IoT.
- You can use LOGO!Soft Comfort V8.3 to set the Cloud data transmission.
- The LOGO! BM menu includes "Cloud" in the "Diagnostics" page.

- **Security enhancement**

- Enhanced the Network security (Page 296).

- **New menu items are included on TDE**

- The LOGO! TDE menu includes "Factory Reset" in the "Setup" page

New features of LOGO! 8 (6ED1052-xxx08-0BA0) device series

The following features are new for LOGO! 6ED1052-XXX08-0BA0 devices:

- **Support the function that TDE can be scanned**

LOGO! TDE 6ED1055-4MH08-0BA0 can be scanned by LOGO!Soft Comfort V8.2 and later versions.

- **Support LOGO! Access Tool V2.0.0 and later versions**

With LOGO! Access Tool V2.0.0 and later versions, you can set data synchronization period, show history data and start or stop the data synchronization of LOGO! Base Module. For detailed information, refer to *LOGO! Access Tool Help*.

- **Support LOGO! Web Editor tool**

LOGO! Web Editor is a new tool used together with LOGO! Base Module (BM) and LOGO! Soft Comfort. This tool helps you create user-defined web pages in the Editor pane, and visit the whole project through Web Server of LOGO! Base Module. With LOGO! Web Editor, you can also integrate different components including some variables conveniently. For detailed information, refer to *LOGO! Web Editor Tool Online Help*.

Which display modules are available?

- LOGO! Basic (integrated in base module)
- LOGO! TDE

Features of the LOGO! TDE

The LOGO! TDE is available for the OBA8 series. It provides an additional display that is wider than the LOGO! Basic. It has four function keys that you can program in your circuit program as inputs. Like the LOGO! Basic, it has four cursor keys, an ESC key and an Enter key that you can also program in your circuit program and use for navigation on the LOGO! TDE.

You can create and download a power-up screen for the LOGO! TDE from LOGO!Soft Comfort. This screen displays briefly when you initially power on the LOGO! TDE. You can also upload the power-up screen from the LOGO! TDE to LOGO!Soft Comfort.

LOGO! TDE provides three main menu commands, respectively for the IP address selection of a Base Module, the remote settings of the connected Base Module, and the independent configuration of the LOGO! TDE. The menus for the LOGO! TDE are shown in Appendix "LOGO! TDE (Page 361)".

LOGO! TDE 6ED1055-4MH08-0BA1 and 6ED1055-4MH08-0BA0 can be scanned by LOGO!Soft Comfort V8.2 and later versions.

It's your choice

The various LOGO! Base Modules, expansion modules, LOGO! TDE and communications modules offer you a highly flexible and adaptive system to suit your specific tasks.

The LOGO! system offers you many solutions for small domestic installations, simple automation tasks, and even complex engineering tasks involving its integration into a bus system.

Note

You can only use expansion modules of the same voltage as the LOGO! Base Module. Mechanical encoding pins in the housing prevent you from connecting devices of a different voltage class.

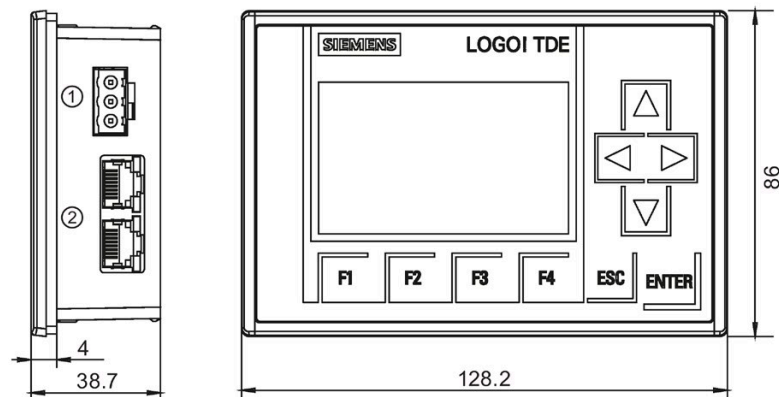
Exception: The interface on the left side of an analog module or communications module is galvanically isolated. These types of expansion modules can therefore be connected to devices of a different voltage class (Page 32).

A LOGO! TDE has two Ethernet interfaces. You can connect each interface to a Base Module, a PC, or another LOGO! TDE.

Each LOGO! Base Module supports the following connections for the creation of the circuit program, regardless of the number of connected modules:

- Digital inputs I1 to I24
- Analog inputs AI1 to AI8
- Digital outputs Q1 to Q20
- Analog outputs AQ1 to AQ8

LOGO! TDE



- ① Power supply
- ② Ethernet interfaces

The LOGO! TDE includes a wider display area than the LOGO! onboard display. It includes four programmable cursor keys, four programmable function keys, an ESC key, and an ENTER key. You use the Ethernet cable to connect from the Ethernet interface on the right side of the LOGO! TDE to the Ethernet interface on the LOGO! Base Module.

How to identify LOGO!

The LOGO! identifier informs you of various properties:

- 12/24: 12/24 VDC version
- 230: 115 VAC/VDC to 240 VAC/VDC version
- R: Relay outputs (without R: solid-state outputs)
- C: Integrated real-time clock
- E: Ethernet interface
- o: Version without display ("LOGO! Pure")
- DM: Digital module
- AM: Analog module
- TDE: Text Display with Ethernet interfaces

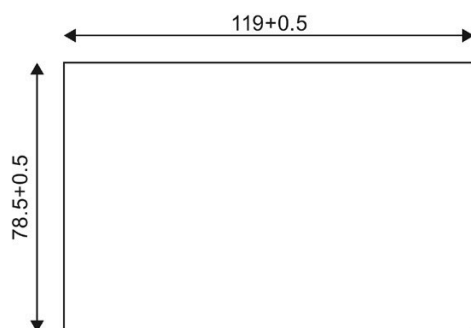
2.2.3 Mounting the LOGO! TDE

Note

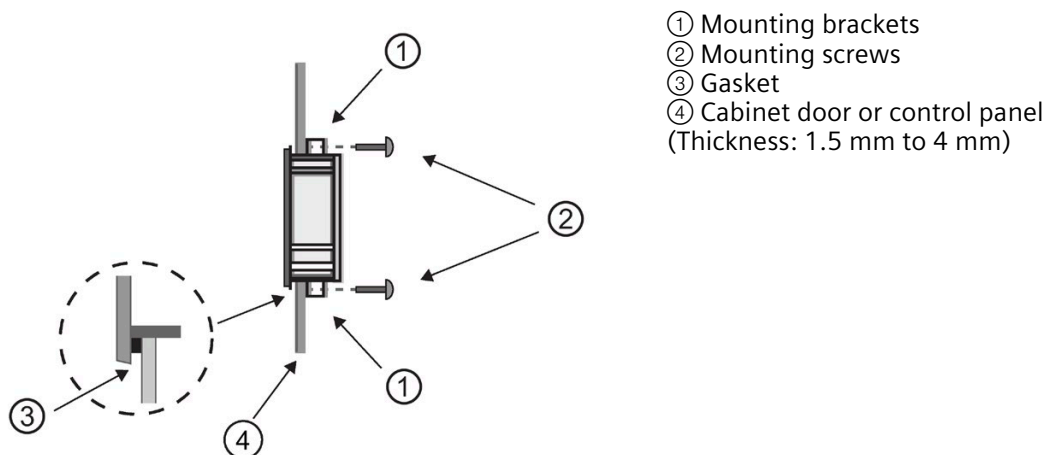
Make sure you mount the LOGO! TDE vertically on a flat surface of an IP 65 or Type 4X/12 enclosure.

To prepare the mounting surface for the optional LOGO! TDE and mount it, follow these steps:

1. Cut a 119 mm × 78.5 mm (tolerance: +0.5 mm) hole in the mounting surface.



2. Place the included gasket on the frontplate of the LOGO! TDE.
3. Fit the LOGO! TDE into the cutout you made in the mounting surface.
4. Attach the mounting brackets (included) to the LOGO! TDE.
5. Tighten the mounting screws on the mounting brackets to 0.2 Nm torque to secure the LOGO! TDE.



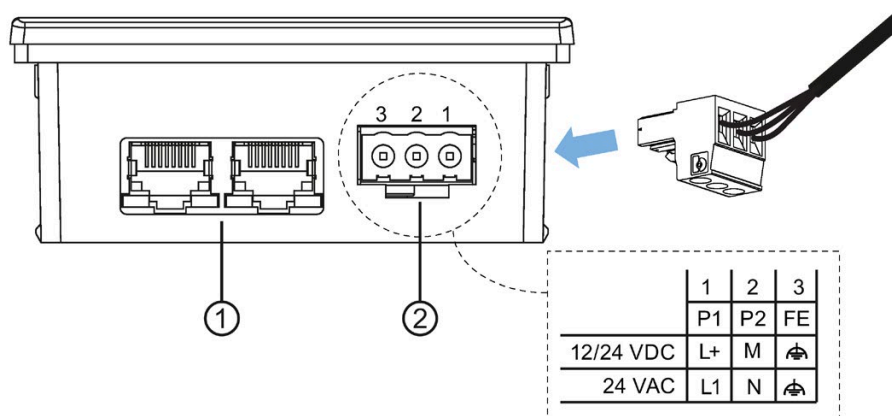
You can then connect the LOGO! TDE to the LOGO! Base Module through the Ethernet interface.

Circuit protection with DC voltage

To suppress voltage peaks on the power supply lines, install a protection device, for example DEHN (order number BVT AVD 24).

2.3.2 Connecting the LOGO! TDE power supply

You must connect the LOGO! TDE to an external power supply that supplies a voltage of 12 VDC or 24 VAC/VDC. The LOGO! TDE includes a power connector. Connect the power supply to the power connector then plug the power connector to the power supply interface on LOGO! TDE.



① Ethernet interfaces

② Power supply

- The power connection is non-polar. If you connect a DC power supply to the LOGO! TDE, you can connect the positive supply wire or negative supply wire to either pin 1 or pin 2.
- Pin 3 must be connected to the ground.

Note

Siemens recommends that you protect the LOGO! TDE with a 0.5 A safety fuse on the power supply.

2.3.3 Connecting LOGO! inputs

Requirements

At the inputs you connect sensor elements such as: momentary pushbuttons, switches, light barriers, daylight control switches etc.

	LOGO! TDE
Permissible mains frequency	47Hz to 63 Hz
Power consumption (Ethernet and white backlight active) • 12 VDC • 24 VDC • 24 VAC	• Typ. 150 mA • Typ. 75 mA • Typ. 145 mA
Degree of protection	
	IP20 for LOGO! TDE excluding front panel IP65 for LOGO! TDE front panel
Communication port	
Ethernet performance	Two Ethernet interfaces with 10/100 M full/half duplex data transmission rate
Connection distance	Max. 30 m
LCD Display and Backlight	
Backlight lifetime ¹⁾	20,000 hours
Display lifetime ²⁾	50,000 hours
Mounting	
Mounting hole dimensions (WxH)	(119 + 0.5 mm) x (78.5 + 0.5 mm)
Mounting conditions	Mount the LOGO! TDE vertically on a flat surface of an IP 65 or Type 4x/12 enclosure.

¹⁾ The backlight lifetime is when the final brightness is 50% of the original brightness.

²⁾ The display lifetime is calculated under ordinary operating and storage conditions: room temperature (20 ± 8 °C), normal humidity below 65% relative humidity, and not in exposure to direct sunlight.

A.17 Technical data: LOGO! CSM12/24

The CSM12/24 is a communications switch module with Ethernet. It can support the current range of 12 VDC to 24 VDC.

	LOGO! CSM12/24
Ethernet interface	
Communications connector	4 x RJ45 jacks with MDI-X assignment 10/100 Mbps (half/full duplex), autopolarity, autonegotiation
Network cable	Use a shielded Ethernet cable to connect to the Ethernet interface. To minimize electromagnetic interference, make sure you use a standard Category 5 shielded twisted-pair Ethernet cable with a shielded RJ45 connector on each end.
Largest data packet	1518 byte
Smallest data packet	64 byte