

LOGO!
Simply different – simply ingenious



Micro Automation

Answers for industry.

SIEMENS

Switching and controlling – the profitable way



Transport facilities

- Conveyor systems
- Hoisting platforms
- Elevators
- Silo facilities
- Livestock feed delivery



Residential and commercial building services

- Interior and exterior lighting control
- Door/gate control
- Shutter, sun blind and awning control
- Irrigation system control



Unique applications

- Solar-electric systems
- Marine
- Harsh environments
- Display panels and traffic control signs

Every decision maker faces mounting pressure to increase productivity and efficiency, through optimizing energy costs and maintenance downtime. Those with innovative ideas are looking to their industrial partners for flexible controllers that perform multiple operations requiring minimal troubleshooting and maintenance. No other logic module satisfies these requirements better than LOGO!. The original and world's number one logic module for switching and control.



Heating/ventilation/ air conditioning

- Energy management
- Heating Control
- Cooling systems
- Ventilation systems
- Air conditioning systems



Machine controls

- Motor, pump and valve controls
- Air compressors
- Exhaust and filtering systems
- Water-treatment plants
- Woodworking machinery
- Etching and purification plants



Operational monitoring systems

- Access control
- Vehicle control monitoring
- Alarm systems
- Level limit monitoring
- Traffic light control systems
- Baggage handling

Advanced intelligent technology

The LOGO! system from Siemens is the ideal controller for simple automation tasks in industry and building services. The intelligent logic module features maximum user friendliness and satisfies nearly every functional requirement with high speed precision, efficient instructions and memory design. Applications can easily be accomplished with LOGO! and its large selection of expansion modules.

Maximum flexibility through consistent modularity

The consistently modular design of LOGO! makes it extremely flexible. A wide range of modules allows individual expansion of LOGO! to 24 digital inputs, 16 digital outputs, 8 analog inputs and 2 analog outputs! Communications modules are also available for AS-Interface and KNX (Instabus network for building automation). Now it is also possible to use the analog output module to solve simple closed-loop control tasks. Heating and cooling systems can be designed with the RTD PT100 module using special functions for PI control, ramp response and analog multiplexer.

Proven millions of times – in numerous applications

Together with the LOGO! Soft Comfort software, configuring of the logic module is simply intuitive: program generation, project simulation and documentation are accomplished using drag and drop functionality, allowing maximum ease of operation. LOGO! includes maximum functionality: backlit display, efficient line usage, and the capability for directly modifying message texts for optimum customer interaction. These are reasons why LOGO! has been proven millions of times in a multitude of applications.

Even more ingenious – LOGO! also with external text display



Introducing the new remote LOGO! TD text display, the newest accessory for the line of LOGO! products. The LOGO! TD provides an affordable interface for equipment builders and their customers, even for simple relay switching systems. Adjustments and troubleshooting alarms are easily handled using the LOGO! TD with built-in operator functions and diagnostics.

The expansion and communications modules, as well as programs from earlier LOGO! generations are compatible when upgrading to the new Basic or Pure logic module to be able to utilize the LOGO! TD.

Performance optimized further

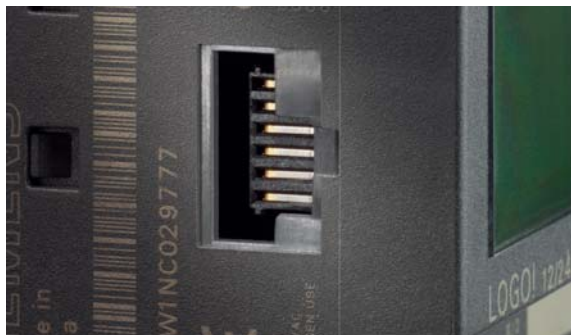
The new generation LOGO! 0BA6 now offers 200 function blocks due to a more than 50% expansion of the program memory. Other hardware upgrades include up to 4 of the digital inputs on the 12/24 & 24 V DC variants being usable as 0-10 V analog inputs and the other 4 as optional 5 kHz high speed counter inputs.

Expanded Functionality

The new LOGO! offers maximum visualisation with up to 50 four-line message texts with up to 32 characters per line, clearly displaying all relevant machine parameters on either or both the built-in LCD or remote LOGO! TD. 'Ticker-text', bar graph or I/O status switching enhance this further. Additional applications are now possible with arithmetic and pulse width modulation (PWM) function blocks. The 'Teleservice' feature provides for remote connectivity for program monitoring or editing – easily paying for itself in terms of expensive on-site servicing of widely distributed systems.

Truly Remote Text Display

You can now optionally connect an additional text display to any of the new LOGO! controllers without needing a dedicated communications module. Highlighting its ease of implementation: the same message text function block is used for either internal or external display where the message texts can also be selectively output to either or both. For example, you can output messages relevant to operation on the text display and service information only in the switching cabinet. The backlighting duration of both displays is controllable from the program and can also be set for continuous operation.



Simple connection of the LOGO! TD text display

The LOGO! hardware



LOGO! offers the widest range of capabilities and successful implementation of extensive applications with the option of selecting from 38 integrated functions and linking up to 200 of them in the user program. Operator control and monitoring are made extremely user-friendly by means of a 4 line, 32 characters per line, backlit display. This allows for the display of text, action items and current values, bar graphs and I/O status. Parameter values can also be changed in the message text. The LOGO! is suitable for almost any small industrial or non-manufacturing commercial application.

LOGO! – simply more.

LOGO! reduces costs by up to 50 %

- Replaces many conventional switching control devices
- Requires less control cabinet space
- Fewer accessories
- Less warehouse space for fewer components
- Saves on service because it is practically wear-free

LOGO! reduces time requirements by up to 70 %

- Built-in DIN rail or panel mounting
- Simplified wiring and panel layout
- Can be programmed using LOGO! Soft Comfort
- Pretested sample programs can be used at no charge
- Real-time clock/calendar with daylight savings time
- User friendly and easy to learn documentation

The LOGO! software



LOGO! Soft Comfort makes programming fast, yet simply elegant. Create ladder and function block diagrams with ease by selecting, dragging and dropping functions and making the logical connections. The included offline simulator for both the 'function block' or 'ladder' representation, allows programs to be tested and debugged without any connected hardware, providing significant savings on installation time and cost. Professional documentation generation is automated during program editing and configuration.

LOGO! Soft Comfort – simply professional

LOGO! reduces space requirements by up to 70%

- Modules based on a 4 width industry standard dimension replace a wide variety of relays, timer switches and contactor relays
- 8 basic and 30 special functions replace many conventional switching devices

Universal application

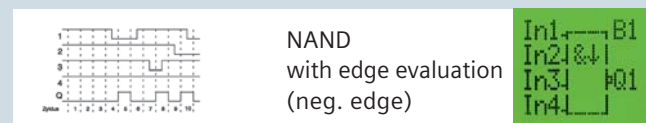
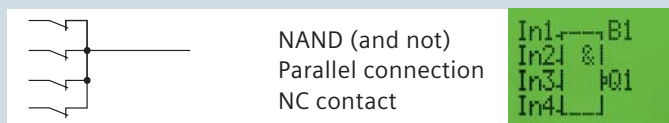
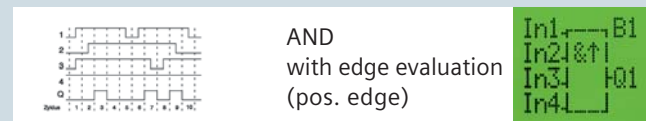
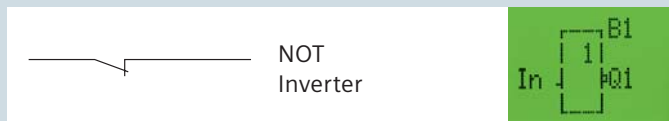
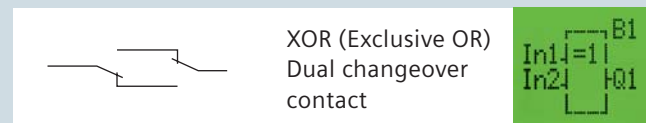
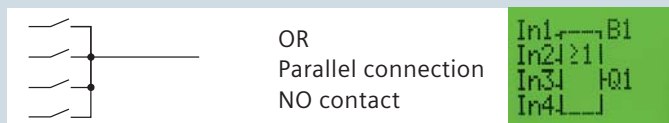
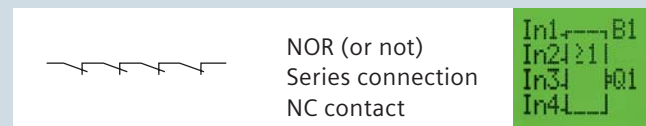
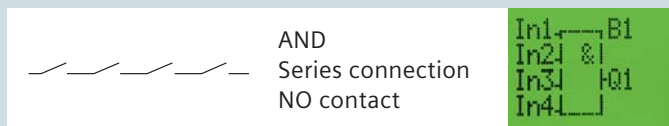
- Vibration-resistant
- High level of electromagnetic compatibility (EMC)
- Industrial standard
- For all climatic conditions
- Radio interference suppression class B
- All necessary certifications for use anywhere in the world
- Marine approval

The LOGO! functions

With the eight basic functions, you can create simple switching programs quickly either at the device or on the PC.

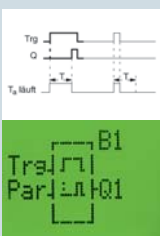
With the 30 special functions, you can also create complex switching programs quickly and easily. An extensive selection of sample applications can be found at www.siemens.com/logo

The eight basic functions

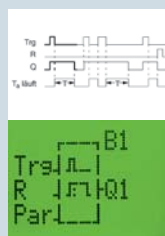


The 30 special functions

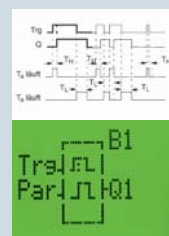
ON delay



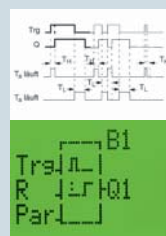
OFF delay



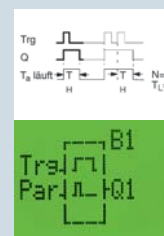
ON/OFF delay



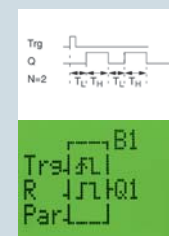
Retentive
ON delay



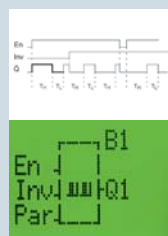
Impulse relay/
pulse output



Impulse relay/
edge-triggered



Clock-pulse
generator



LOGO! and its modules



LOGO! Basic and LOGO! Pure

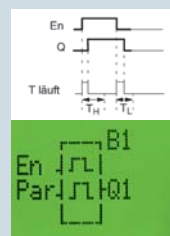
- Different voltages, i. e. 12 V DC, 24 V AC/DC, 115/240 V AC/DC
 - Can be used for a wide range of applications
- Automatic changeover for configured daylight saving time
 - Reduces maintenance overhead
- Password protection
 - Protects your engineering IP
- 38 integrated, pre-tested functions
 - No additional devices, such as elapsed time counter, are required
- Linking of 200 functions is possible
 - Extensive applications can be implemented without restrictions
- Eight digital inputs (incl. four AIs at 12/24 V DC) and four digital outputs on board
- Display of message texts, action items and current values as well as direct modification of the values on the display (except for Pure versions)
- Retentive data memory
 - Protects current values against loss in the event of a power failure
- Flexibly expandable up to 24 DIs, 16 DOs, 8 AIs and 2 AOs
 - Protects original investment
 - Suitable for a wide variety of applications
- Software LOGO! Soft Comfort V6 for user-friendly generation of control programs on PC; suitable for a variety of operating systems, such as Windows 95/98, NT 4.0, Me, 2000, XP, Vista, MAC OS X 10.4 with J2SE 1.5.0 and SUSE LINUX 10.0.
- Connection facility for remote text display on all OBA6 basic devices

Digital expansion modules

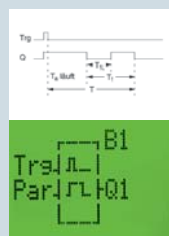
Four versions for expanding the digital inputs and outputs:

- **DM8 230R/DM16 230R**
 - Supply voltage 115/240 V AC/DC
 - Four/eight 120/230 V AC/DC digital inputs
 - Four/eight digital output relays, 5 A per relay
- **DM8 24/DM16 24**
 - Supply voltage 24 V DC
 - Four/eight 24 V DC digital inputs
 - Four/eight digital output transistors, 0.3 A
- **DM8 12/24R**
 - Supply voltage 12/24 V DC
 - Four 12/24 V digital inputs
 - Four digital output relays, 5 A per relay
- **DM8 24R**
 - Supply voltage 24 V AC/DC
 - Four 24 V AC/DC digital inputs, PNP or NPN
 - Four digital output relays, 5 A per relay
- **DM16 24R**
 - Supply voltage 24 V DC
 - Eight 24 V DC digital inputs
 - Eight digital output relays, 5 A per relay

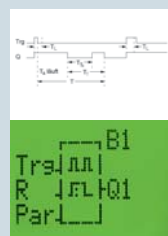
Pulse generator



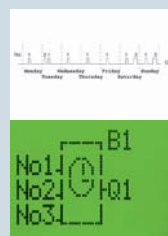
Stairlight switch



Convenience switch



One-week time switch



12-month time switch



Up and down counter



Operating hours counter



Threshold value switch



The software

Simple – quick – professional

The LOGO! Soft Comfort software does it all – generating and testing control programs, simulating all functions and of course documentation is sensation-

ally easy with LOGO! Soft Comfort

using drag & drop on your PC. This is

how it is done:

Creating control programs

- Select function and position on the drawing surface
- Link selected functions by means of connecting lines
- Set function parameters using clear dialog window



Analog expansion modules

Three modules for expanding analog and temperature I/O:

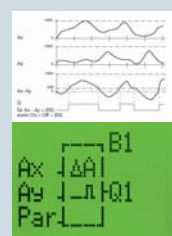
- **AM2**
 - Supply voltage 12/24 V DC
 - Two channels
 - 0 to 10 V or 0 to 20 mA typ.
- **AM2 PT100**
 - Supply voltage 12/24 V DC
 - Two channels
 - Type PT100
 - Measuring range –50 °C to +200 °C
- **AM2 AQ**
 - Supply voltage 24 V DC
 - 2 analog outputs
 - Output range 0 to 10 V

Communications modules

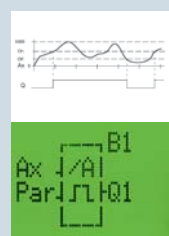
Speciality modules are also available for communication:

- **CM AS-Interface slave**
 - Supply voltage 12/24 V DC
 - 4 DIs/4 DOs as interface to AS-Interface master
- **CM EIB/KNX**
 - Supply voltage 24 V AC/DC
 - max. 16 DIs, 12 DOs, 8 AIs as interface to the KNX
 - Date and time can be synchronized via KNX
 - All digital and analog inputs/outputs are available on the KNX as communication objects
 - Dimmer and shutter actuators connected to the KNX can be activated in conformance with the system

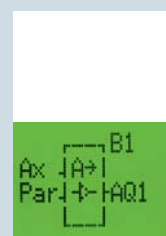
Analog comparator



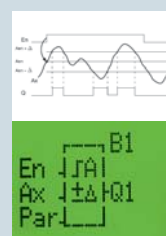
Analog threshold value switch



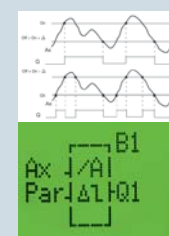
Analog amplifier



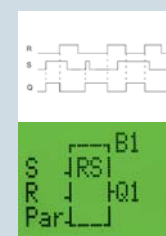
Analog monitoring



Analog differential threshold switch



Latching relay



Current inrush relay



Software switch relay



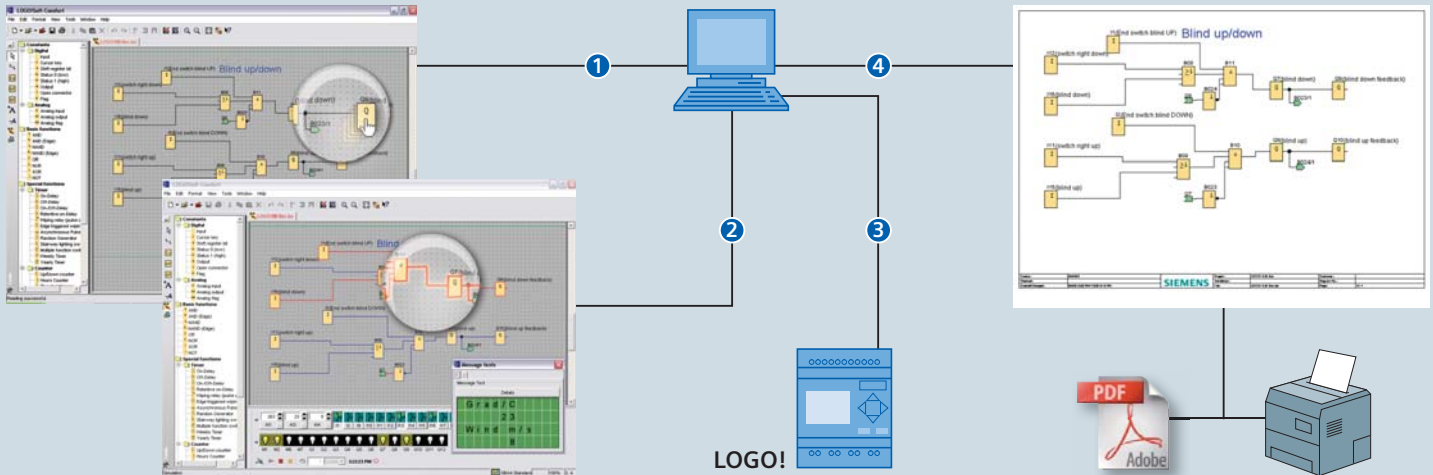
LOGO! Soft Comfort

1 Creating

2 Simulating

3 Online testing

4 Documenting



Commissioning with LOGO!

- Simulation of the entire switching process using all functions on the PC
- Analog signals can be simulated with real values (e. g. temperature – 20 °C to +80 °C)
- Time-controlled/cyclic simulation
- Simulation of clock time
- Pop-up window of the LOGO! display in the simulation
- Status display of all functions, parameters and current values
- Online test with display of statuses and current values of LOGO! in RUN mode now in function block and ladder diagram representations

The documentation

- Each function can be provided with additional comments
- Each function can be provided with additional comments
- Additional assignment of names possible for inputs and outputs
- Any positioning and formatting of free text
- Clear representation of control program across several pages
- Professional printout with all necessary configuration information
- Separate printout of parameters and interface names possible
- Integration into standard Windows applications by storing as .pdf or .jpg file

NEW

NEW

NEW

Shift register

PI controller

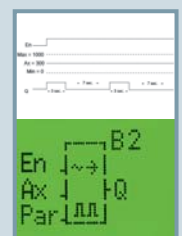
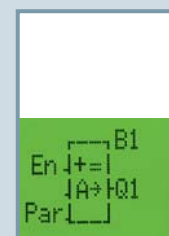
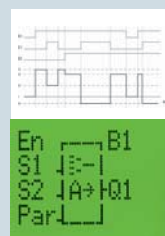
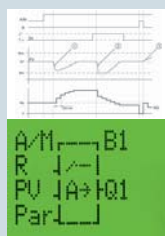
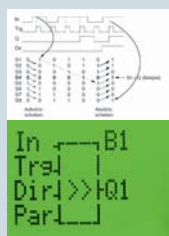
Ramp function

Analog multiplexer

Message text expanded

Arithmetic function

Pulse width modulation



LOGO! modular – the technical details

Basic units	LOGO! 12/24RC ¹⁾ , LOGO! 12/24RCo ²⁾	LOGO! 24 ¹⁾ , LOGO! 24o ²⁾
Inputs	8	8
of these usable as analog inputs	4 (0 to 10 V)	4 (0 to 10 V)
Input/supply voltage	DC 12/24 V	DC 24 V
Permissible range On "0" signal On "1" signal Input current	10.8 V DC to 28.8 V DC Max. 5 V DC Min. 8.5 V DC 1.5 mA (I3 to I6), 0.1 mA (I1, I2, I7, I8)	20.4 V DC to 28.8 V DC Max. 5 V DC Min. 12 V DC 2 mA (I3 to I6), 0.1 mA (I1, I2, I7, I8)
Outputs	4 relays	4 transistors
Continuous current	10 A for resistive load; 3 A for inductive load	0.3 A
Short-circuit protection	External fuse required	Electronic (approx. 1 A)
Operating frequency	2 Hz for resistive load; 0.5 Hz for inductive load	10 Hz
Power consumption	0.7 to 2.1 W (12 V) 1.0 to 2.4 W (24 V)	0.7 to 1.3 W 1.0 to 1.8 W
Cycle time	< 0.1 ms / function	< 0.1 ms / function
Real-time clock/calendar/ retentive data memory backup	Yes / typ. 80 h (2 years with battery module)	–
Connecting cables	2 x 1.5 mm ² or 1 x 2.5 mm ²	
Ambient temperature	0 to +55 °C	
Storage temperature	–40 °C to +70 °C	
Radio interference suppression	To EN 55011 (limit-value class B)	
Degree of protection	IP20	
Approvals	To VDE 0631, IEC 1131, UL, FM, CSA, ship-building certifications	
Mounting	On 35-mm DIN rail, 4 WM wide, or wall mounting	
Dimensions	72 (4 WM) x 90 x 55 mm (W x H x D)	

Digital modules	LOGO! DM8 12/24R	LOGO! DM8 24 DM16 24
Inputs	4	4 / 8
Input/supply voltage	12 / 24 V DC	24 V DC
Permissible range	10.8 to 28.8 V DC	20.4 to 28.8 V DC
On "0" signal On "1" signal	Max. 5 V DC Min. 8.5 V DC	Max. 5 V DC Min. 12 V DC
Input current	1.5 mA	2 mA
Outputs	4 relays	4 / 8 transistors
Continuous current I _{th} (per terminal)	5 A for resistive load 3 A for inductive load	0.3 A
Short-circuit protection required	External fuse required	Electronic (approx. 1 A)
Operating frequency	2 Hz for resistive load 0.5 Hz for inductive load	10 Hz
Power consumption	0.3 to 1.7 W at 12 V DC 0.4 to 1.8 W at 24 V DC	0.8 to 1.1 W * 0.8 to 1.7 W **
Dimensions (W x H x D)	36 (2 WM) x 90 x 53 mm	36 (2 WM) x 90 x 53 mm 72 (4 WM) x 90 x 53 mm

LOGO! 24RC ¹⁾ , LOGO! 24RCo ²⁾	LOGO! 230RC ¹⁾ , LOGO! 230RCo ²⁾
8	8
–	–
24 V AC/DC	115 / 240 V AC/DC
20.4 to 28.8 V DC 20.4 to 26.4 V AC Max. 5 V DC Min. 12 V DC, 2.5 mA	85 to 253 V AC 100 to 253 V DC Max. 40 V AC / 30 V DC Min. 79 V AC / 79 V DC, 0.08 mA
4 relays	4 relays
10 A for resistive load; 3 A for inductive load	10 A for resistive load; 3 A for inductive load
External fuse required	External fuse required
2 Hz for resistive load; 0.5 Hz for inductive load	2 Hz for resistive load; 0.5 Hz for inductive load
1.1 to 3.1 W 1.0 to 2.4 W	1.7 to 4.6 W (115 V AC) 3.6 to 6.0 W (240 V AC) 1.1 to 2.9 W (115 V DC) 1.4 to 3.6 W (240 V DC)
< 0.1 ms / function	< 0.1 ms / function
Yes / typ. 80 h (2 years with battery module)	Yes / typ. 80 h (2 years with battery module)

LOGO! DM8 24R DM16 24R	LOGO! DM8 230R DM16 230R
4 / 8	4 / 8
24 V AC/DC *	115 / 240 V AC/DC
24 V DC **	
20.4 to 28.8 V DC, 20.4 to 26.4 V AC *	85 to 265 V AC, 100 to 253 V DC
Max. 5 V AC/DC Min. 12 V AC/DC	Max. 40 V AC Min. 79 V AC
2.5 mA*, 2.0 mA**	0.08 mA
4 / 8 relays	4 / 8 relays
5 A for resistive load 3 A for inductive load	5 A for resistive load 3 A for inductive load
External fuse required	External fuse required
2 Hz for resistive load	2 Hz for resistive load
0.5 Hz for inductive load	0.5 Hz for inductive load
0.4 to 1.8 W at 24 V DC *	1.1 to 3.5 W (115 V AC) ... 4.5 **
0.9 to 2.7 W at 24 V AC *	2.4 to 4.8 W (240 V AC) ... 5.5 **
0.7 ... 2.5 W at 24 V DC **	0.5 to 1.8 W (115 V DC) ... 2.9 **
	1.2 to 2.4 W (240 V DC) ... 4.8 **
36 (2 WM) x 90 x 53 mm 72 (4 WM) x 90 x 53 mm	36 (2 WM) x 90 x 53 mm 72 (4 WM) x 90 x 53 mm

R: Relay outputs, C: Clock, o: No display

*: for the DM8 module, **: for the DM16 module

¹⁾: As SIPLUS component also for extended temperature range
–25 °C to +70 °C and aggressive atmosphere/thawing
(www.siemens.com/siplus)

²⁾: As SIPLUS component also for extended temperature range
–40 °C to +70 °C and aggressive atmosphere/condensation
(www.siemens.com/siplus)

LOGO! modular – the technical details

Analog modules	LOGO! AM2 ²⁾	LOGO! AM2 PT100
Supply voltage	12 / 24 V DC	12 / 24 V DC
Permissible range	10.8 to 28.8 V DC	10.8 to 28.8 V DC
Analog inputs	2	2 x PT100 2- or 3-wire
Measuring range		–50 °C to +200 °C
Input range	0 to 10 V or 0 to 20 mA	
Resolution	10 bits scaled to 0 to 1000	0.25 °C
Cable length (shielded and twisted)	10 m	10 m
Sensor supply	None	1.1 mA
Power consumption for 12 V DC for 24 V DC	0.3 to 0.6 W 0.6 to 1.2 W	0.3 to 0.6 W 0.6 to 1.2 W
Dimensions (W x H x D)	36 (2 WM) x 90 x 53 mm	36 (2 WM) x 90 x 53 mm

²⁾: As SIPLUS component also for extended temperature range
–40 °C to +70 °C and aggressive atmosphere/condensation (www.siemens.com/siplus)

Analog modules	LOGO! AM2 AQ ²⁾
Supply voltage	24 V DC
Permissible range	20.4 to 28.8 V DC
Analog outputs	2
Output range	0 to 10 V
Resolution	10 bits normalized to 0 – 1000
Cable length (shielded and twisted)	10 m
Power consumption at 24 V DC	0.6 to 1.2 W
Dimensions (W x H x D)	36 (2 WM) x 90 x 53 mm

²⁾: As SIPLUS component also for extended temperature range
–40 °C to +70 °C and aggressive atmosphere/condensation (www.siemens.com/siplus)

Analog modules	EIB / KNX	CM AS-Interface (Slave)
Supply voltage	24 V AC / DC	24 V DC
Permissible range	20.4 to 28.8 V DC 20.4 to 26.4 V AC	19.2 to 28.8 V DC
Digital inputs*	6 (also configurable as monoflop)	4
Analog inputs*	8	–
Analog outputs*	2	–
Digital outputs*	12	4
Dimensions (W x H x D)	2 WM 36 x 90 x 53 mm	2 WM 36 x 90 x 53 mm

* Illustration LOGO! inputs/outputs

LOGO! ordering data

LOGO! accessories

LOGO! versions	Order number
LOGO! 24	6ED1 052-1CC00-0BA6
LOGO! 24o	6ED1 052-2CC00-0BA6
LOGO! 12/24RC	6ED1 052-1MD00-0BA6
LOGO! 12/24RCo	6ED1 052-2MD00-0BA6
LOGO! 24RC (AC/DC)	6ED1 052-1HB00-0BA6
LOGO! 24RC (AC/DC)	6ED1 052-2HB00-0BA6
LOGO! 230RC	6ED1 052-1FB00-0BA6
LOGO! 230RCo	6ED1 052-2FB00-0BA6
LOGO! TD	6ED1 055-4MH00-0BA0

Expansion modules	Order number
LOGO! DM8 24	6ED1 055-1CB00-0BA0
LOGO! DM8 12/24R	6ED1 055-1MB00-0BA1
LOGO! DM8 24R (AC/DC)	6ED1 055-1HB00-0BA0
LOGO! DM8 230R	6ED1 055-1FB00-0BA1
LOGO! DM16 24	6ED1 055-1CB10-0BA0
LOGO! DM16 24R	6ED1 055-1NB10-0BA0
LOGO! DM16 230R	6ED1 055-1FB10-0BA0
LOGO! AM2	6ED1 055-1MA00-0BA0
LOGO! AM2 PT100	6ED1 055-1MD00-0BA0
LOGO! AM2 AQ	6ED1 055-1MM00-0BA0

Communications modules	Order number
LOGO! AS-i	3RK1 400-0CE10-0AA2
LOGO! EIB/KNX	6BK1 700-0BA00-0AA1

Optional accessories	Order number
LOGO! Manual German	6ED1 050-1AA00-0AE7
LOGO! Manual English	6ED1 050-1AA00-0BE7
LOGO! Memory card	6ED1 056-1DA00-0BA0
LOGO! Battery Card	6ED1 056-6XA00-0BA0
LOGO! Combo Memory & Battery Card	6ED1 056-7DA00-0BA0
LOGO! Soft Comfort 6.0	6ED1 058-0BA02-0YAO
LOGO! Soft Comfort V 6.0 upgrade	6ED1 058-0CA02-0YE0
LOGO! PC cable	6ED1 057-1AA00-0BA0
LOGO! USB PC cable	6ED1 057-1AA01-0BA0
LOGO! Modem cable	6ED1 057-1CA00-0BA0



LOGO! PC cable/USB PC cable
For easy transmission of LOGO! switching programs to and from the PC



LOGO! Program module
For duplication of switching programs – and for protecting your existing



LOGO! Manual
for starting with LOGO!

- Detailed operating information
- Description of all integrated functions
- Numerous practical sample applications



LOGO! Power
Reliable power supply for LOGO! – for converting the 100/240 V AC line voltage into the relevant operating voltage

- Suitable for all LOGO! 12 V DC and 24 V DC units
- Various versions in each case for different output currents



LOGO! Contact
Hum-free switching module

- For switching resistive loads up to 20 A
- For direct switching of motors up to 4 kW
- For high-performance loads in noise-sensitive environments



LOGO! Prom
For duplicating program modules

- Copying modules
- Writing modules by means of LOGO! Soft Comfort

additional information: www.siemens.com/siplus



Front panel racks
For installation in control cabinet doors

- Front IP65 (IP30 without panel)
- 4 WM or 8 WM (optionally with keys)

additional information: www.siemens.com/siplus



LOGO! Upmitter
For use with critical power supplies.
Generates stable 24 V DC at the output with 8 to 59 V DC at the input

R: Relay outputs, C: Clock/time switch, o: No display

The products listed here may be subject to the current European/German and/or US export regulations.

You can find more information about LOGO! on the Internet – www.siemens.com/logo

- Comprehensive product information
- Free demo software
- Software upgrades
- Preprogrammed applications
- News
- Customer magazine GO!
- and much more

Of course you can also purchase LOGO! software and hardware online. Furthermore, you can receive personal support if necessary under “Service and Support”. Further sample applications and configuration aids can be found at www.siemens.com/microset

SIPLUS LOGO! on the Internet

www.siemens.com/siplus

There you will find tempered LOGO! modules with

- Extended temperature range
- Protection against aggressive atmosphere / condensation

Siemens AG
Industry Sector
Industry Automation
P. O. Box 48 48
90026 NÜRNBERG
GERMANY

Subject to change without prior notice
Order No. E20001-A1120-P271-X-7600
Dispo 06307
21/13866 MK.AS.LO.LOLO.52.8.07 / 090810.0
Printed in Germany
© Siemens AG 2008

www.siemens.com/logo

The information provided in this brochure contains merely general descriptions or characteristics of performance which in actual case of use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

All product designations may be trademarks or product names of Siemens AG or supplier companies whose use by third parties for their own purposes could violate the rights of the owners.