

SIEMENS



Factory Automation SIMATIC LOGO! ..0BA6



Colin Limbert

Factory Automation Department

Product Manager
LOGO! and S7-200

SIEMENS

LOGO! ..0BA6

Innovated hardware

Overview

Innovated inputs

LOGO! TD text display

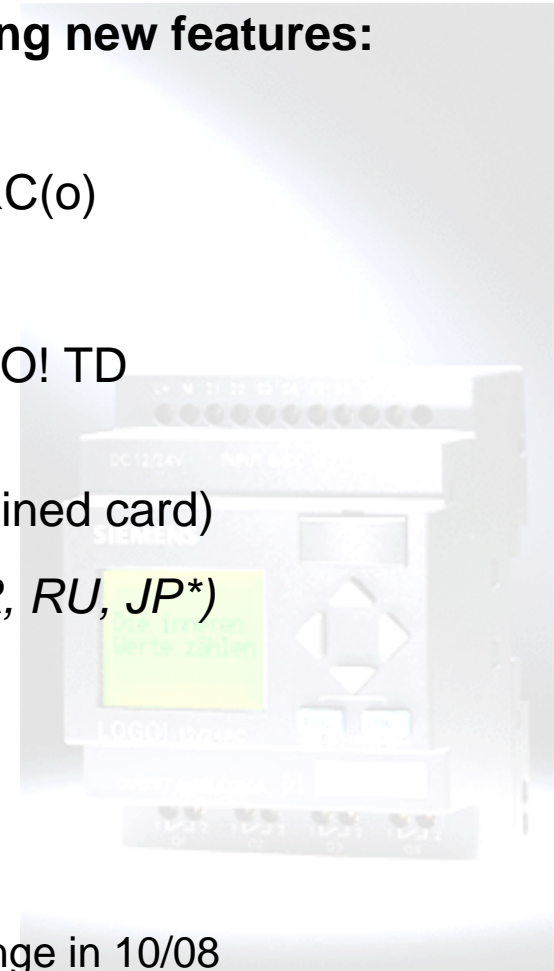
3 new plug-in cards



LOGO! ..0BA6 – Overview

LOGO! ..0BA6 hardware series provides the following new features:

- Innovated inputs for LOGO! 24(o) and LOGO! 12/24RC(o)
- LOGO! TD text display
- Backlight function for LOGO! on-board display + LOGO! TD (permanently on/off or controlled by user program)
- 3 new plug-in cards (memory card, battery card, combined card)
- 10 menu languages: (*EN, IT, NL, ES, FR, CN, DE, TR, RU, JP**)
- Extended memory – 200 FB's



*) Japanese menu texts will be implemented in a E-stand change in 10/08

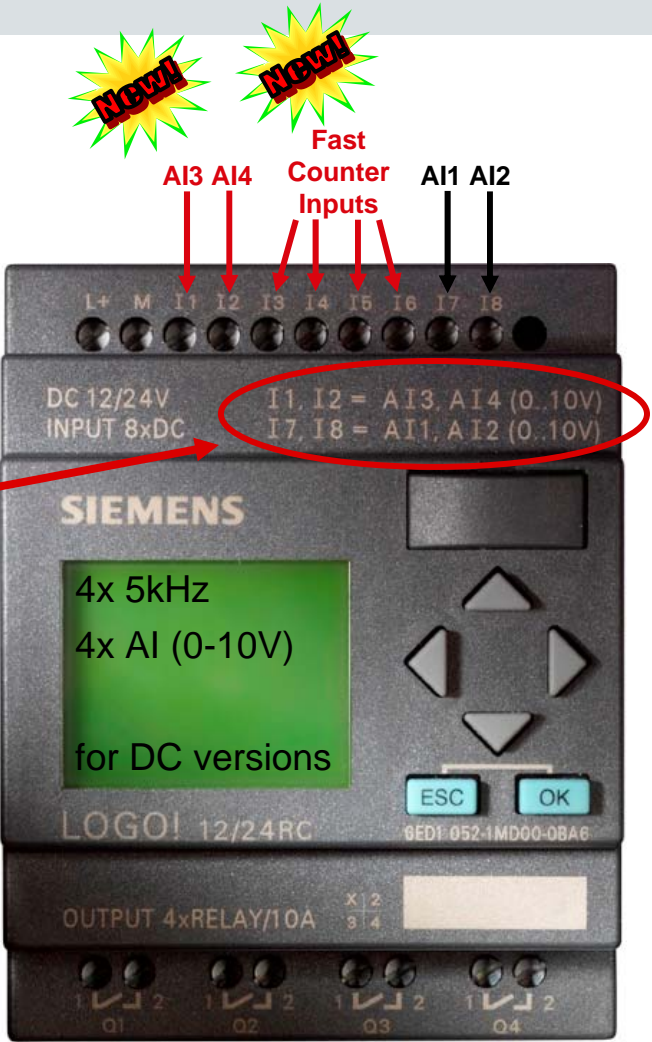
LOGO! ..0BA6 – Innovated inputs

LOGO! 24(o), 12/24RC(o) now with 4 fast inputs and 4 analog inputs on-board

LOGO! versions with DC power supply now offer:

- 4 fast counter inputs (for frequency up to 5 kHz)
I3, I4, I5, I6
- 4 analog inputs (0-10V)
I1=AI3
I2=AI4
I7=AI1
I8=AI2

In LSC V6.0 you must defined weather 2 or 4 integrated analog inputs are to be used.



LOGO! ..0BA6 – New separated text display LOGO! TD

LOGO! TD text display

LOGO! ..0BA6 provides a new text display LOGO! TD. The LOGO! TD extends the display and user interface capabilities of all LOGO! basic modules.

LOGO! Soft Comfort V6.0 provides configuration of the following LOGO! TD features:

- Power-on screen
- Function keys
- Message texts
- Backlight function



LOGO! ..0BA6 – New separated text display LOGO! TD

LOGO! TD text display

Power Supply:

- 12V DC, 24V AC/DC
- unipolar power supply connector

Features:

- 4 lines with 12 characters per line
- connectable to all ..0BA6 basic modules via a new interface socket
- Special connection cable is delivered with the LOGO! TD
- 6 standard keys and 4 additional function keys (F1-F4)
- IP65 protection class
- List price £89.00 (incl. cable)



LOGO! ..0BA6 – 3 new cartridges



LOGO! ..0BA6 supports 3 new cartridge:

- **LOGO! Memory cartridge (violet colour)**
(single memory card with doubled memory – 32K)
- **LOGO! Battery cartridge (green colour)**
(single battery card, supports RTC power supply up to 2 years)
(Back up for Clock without a battery is 80 hours at 25°C)
- **LOGO! Memory / Battery cartridge (brown colour)**
(combined memory / battery card)



Note:

LOGO! ..0BA6 still supports the brown memory cartridge from 0BA4/0BA5 (read, not write). i.e. Transfer Cartridge > LOGO!

SIEMENS

LOGO! ..0BA6

Innovated software

Overview

New functionalities of LSC V6.0

New function blocks

Updated message text



LOGO! Soft Comfort V6.0 - Overview

New features

LOGO! Soft Comfort V6.0 together with the LOGO! ..0BA6 hardware provides the following new features:

- Support of 10 languages (EN, IT, NL, ES, FR, CN, DE, TR, RU, JP)
- Backlight function for the LOGO! ..0BA6 on-board display and LOGO! TD
- Analog modem communication between a PC and LOGO! ..0BA6 (upload, download, online-test)
- Online status for LAD circuit programs
- Display of PI controller analog output value in a trend view during simulation or online test
- Method to delete user program with password in LOGO! ..0BA6 over LOGO! Soft Comfort
- Power-on screen for the LOGO! TD

Changed functionality

LOGO! Soft Comfort V6.0 provides changes in the following areas:

- Change in daylight savings time period for USA
- Support of all changes in the I/O structure in LOGO! ..0BA6

LOGO! Soft Comfort V6.0 - Overview

New Connectors

- 4 function blocks for keys LOGO! TD
- 3 additional flags (M25, M26, M27)

New Special functions

- Pulse Width Modulator (PWM)
- Analog Math FB and a separate Error detection FB

Updated Special functions

The following FB's support new features:

- Message text
- PI-controller
- Operation hours counter
- Weekly timer
- Yearly timer
- Analog watchdog
- Up/down counter

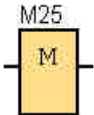
Additionally, LSC V6.0 supports new [reference parameters](#) for many blocks.

LOGO! Soft Comfort V6.0 – New connectors & Markers

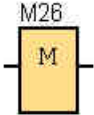


LOGO! TD Function keys

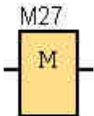
N.B. Connectors don't count as Function Blocks



M25: controls the backlight of the LOGO! on-board display



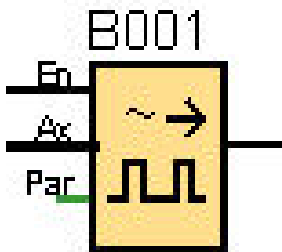
M26: controls the backlight of the LOGO! TD text display



M27: enables the primary or the secondary character set for the message text

N.B. Markers don't count as Function Blocks

LOGO! Soft Comfort V6.0 – New FBs: Pulse Width Modulator (PWM)

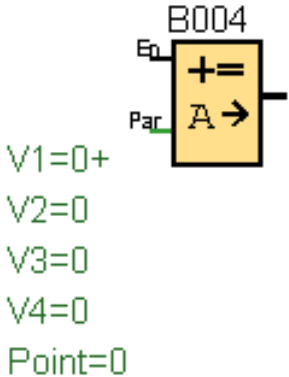


The PWM function modulates the analog input value Ax into a digital output signal.

The pulse width is proportional to the analog value Ax.

LOGO! Soft Comfort V6.0 – New FBs: Analog Math and Analog Math Error Detection

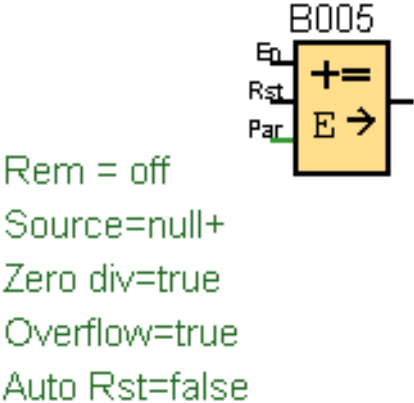
Analog Math



With this new function basic arithmetic operations are possible (+ , - , x , /) .

The result is an internal analog value (-32768 - +32767).

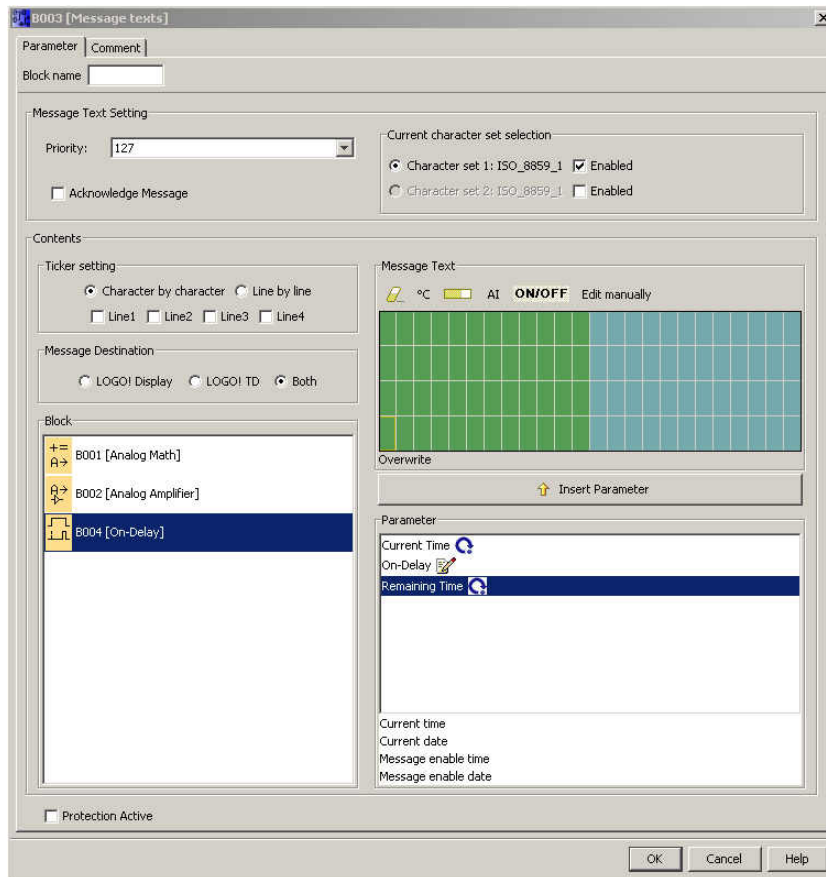
Analog Math Error Detection



With this new function it's possible to handle both error cases of the Analog Math FB:

- Overflow
- Division by zero

LOGO! Soft Comfort V6.0 – Updated message text



New features:

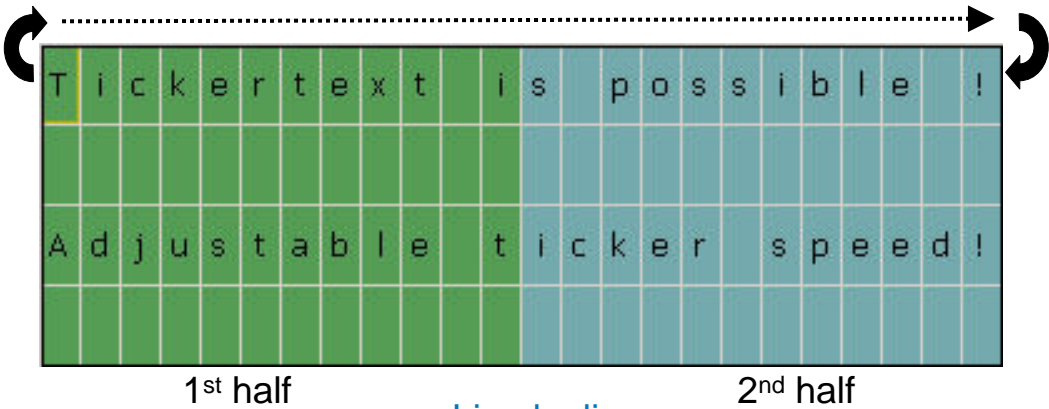
- Up to 24/32 characters per line
- Properties for the ticker text
- Bar graph functionality
- Selection of message destination
- Display state of analog values
- Digital I/O states
- Selection / enabling of different character sets
- Display of remaining time of all timers

LOGO! Soft Comfort V6.0 – Updated message text

2 possibilities for the ticker text:

Character by character ...

(one character after another tickers through the display)



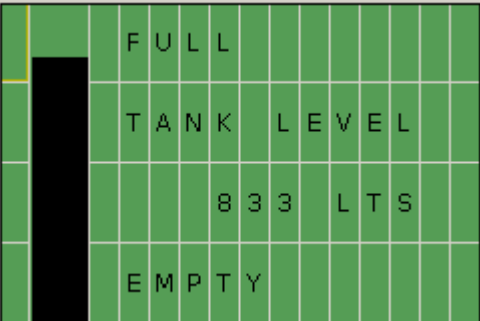
... or Line by line

(the display alternates between the 1st half and the 2nd half of the message text)

Ticker speed can be adjusted by software or via LOGO! TD

Bar graph indication

It is possible to place a bar graph for the actual value of special function blocks in the circuit program.



Placement: Horizontal / Vertical

Max. 32 bar graphs per project

Max. 4 bar graphs per message

LOGO! Soft Comfort V6.0 – Updated message text

Status indication of digital inputs/outputs and analog inputs

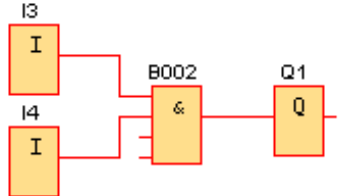
Digital I/O state

The Message Text window shows a table with 4 columns: I/O symbol, name, and status. The status is indicated by a green bar (ON) or a yellow bar (OFF/INACTIVE). Below it, the 'I/O status name' dialog box allows defining custom text for each state.

I 3	I3	0:OFF 1:ON	
I 4	I4	0:INACTIVE 1:ACTIVE	
Q 1	Q1	0:OFF 1:ON	

I/O status name dialog box:

- I/O Status Name Setting
- Select an input or output: Digital Inputs
- Select an I/O: I4
- Input status name
- Input name for status FALSE: INACTIVE
- Input name for status TRUE: ACTIVE



I 3	: ON		
I 4	: ACTIVE		
Q 1	: ON		

Analog AI state

The Message Text window shows a table with 4 columns: AI value, name, and status. The status is indicated by a green bar (ON) or a yellow bar (OFF). Below it, the 'AI filter' dialog box allows selecting specific AI values to display.

970	AI1	
560	AI2	

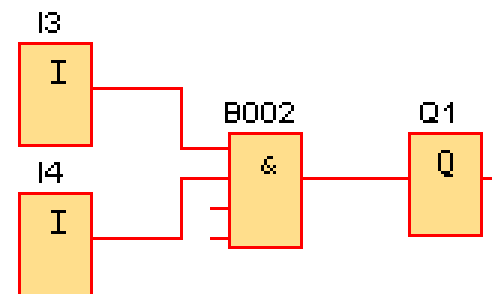
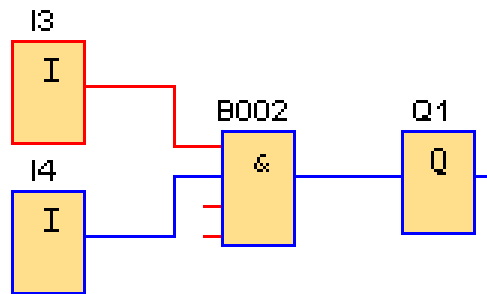
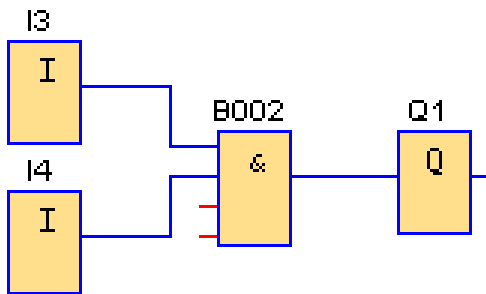
AI filter dialog box:

- Select AI: AI1, AI2, AI3, AI4

- 4 I/O states in one message text
- 20 I/O states in one circuit diagram
- User can define his own text for each state

- The internal analog input value 0...1000 of any AI can be shown in a message text
- 2 AI values in one message text

LOGO! Soft Comfort V6.0 – Updated message text



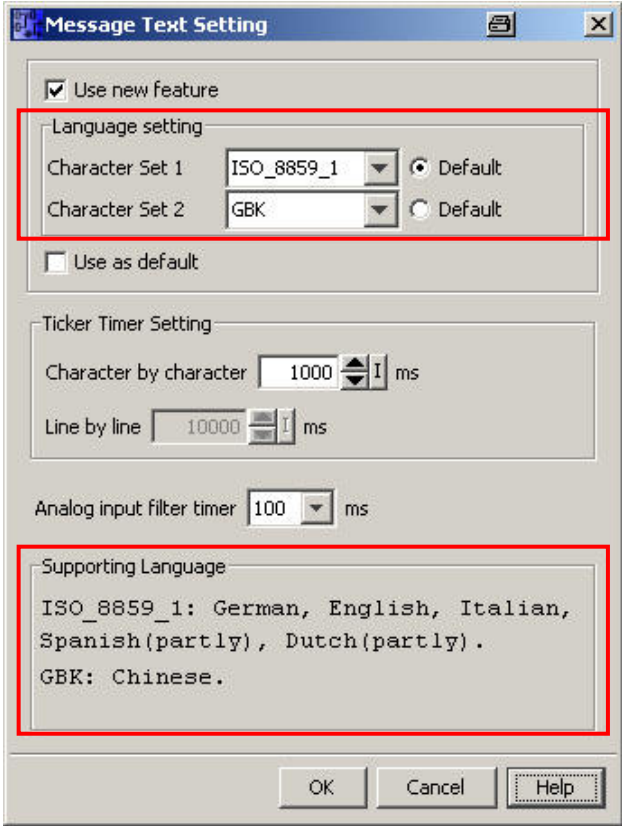
I 3 :	OFF				
I 4 :	INACTIVE				
Q 1 :	OFF				

I 3 :	ON				
I 4 :	INACTIVE				
Q 1 :	OFF				

I 3 :	ON				
I 4 :	ACTIVE				
Q 1 :	ON				

LOGO! Soft Comfort V6.0 – Updated message text

Selection/enabling of character sets



LOGO! ..0BA6 supports 10 languages. To ensure, that all characters / signs of a language used in a message text can be displayed correctly, it is possible to activate an alternative character set.

In a message 2 text character sets can be enabled. By using new flag M27 the user can switch between the 2 character sets.

6 character sets are available:

ISO_8859_1	German, English, Italian, Spanish (partly), Dutch (partly)
ISO_8859_5	Russian
ISO_8859_9	Turkish
ISO_8859_16	French
GBK	Chinese
SJIS	Japanese (partly)