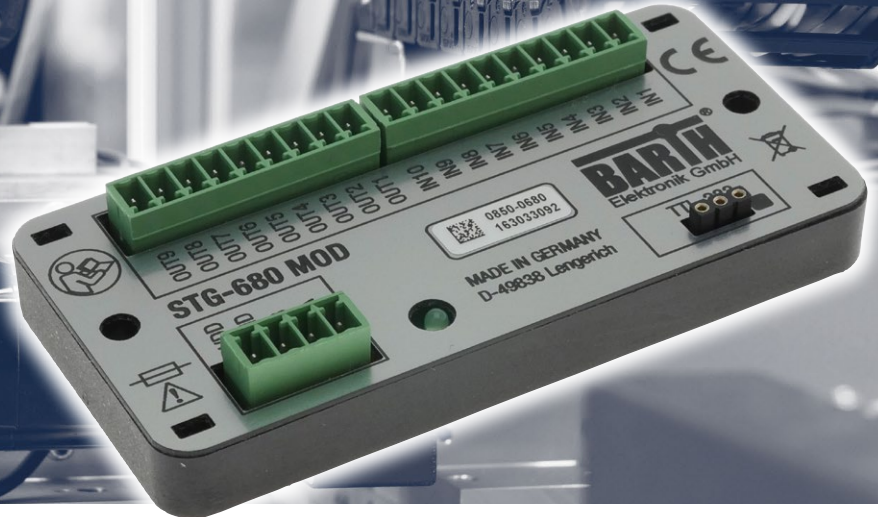


STG-680

MODBUS Mini-PLC
graphically
programmable

6 ANALOG INPUT	4 DIGITAL INPUT	8 POWER OUTPUT	1 POWER PWM
MOD BUS	TTL-232	SOLID STATE	miCon-L
7..32V= -40/+60	°C	ULTRA FLAT	SHOCK PROOF



FEATURES

- Small & universal MODBUS Logic Controller
- 6 analog Inputs 0..10 VDC, 12 bit ADC
- 4 digital Inputs up to 1 kHz
- 8 Power Outputs up to 1.5 A
- 1 Power PWM Output 2 A/1 to 10 kHz
- 1 MODBUS RTU Interface
- Graphically programmable MODBUS Data
- Reliable Solid-State Outputs
- Fail Safe Oscillator
- Programmable Status LED
- TTL-232/USB Connection to PC
- Intuitive graphical Programming Capability
- Wide Operating Voltage Range 7..32 VDC
- Wide Operating Temp. Range -40..+60°C
- Ultraflat Housing, Height 11 mm
- Vibration resistant and rugged Sealing
- Engineered and manufactured in Germany

APPLICATIONS

- Industrial Automation
- Process Control
- Building Automation
- Environmental Technology

DESCRIPTION

The innovative STG-680 extends the established BARTH® Mini-PLC series with a additional model featuring a rugged MODBUS interface with graphical programming and configuring capability.

With similar dimensions in comparison to the STG-650, the STG-680 provides outstanding graphical programming at lowest current consumption and the well-known small form factor.

The MODBUS interface allows the user to connect a variety of industrial network components to the Mini-PLC.

The STG-680 does not need any peripheral components to operate. Both inputs and outputs features highly integrated and rugged protection circuits to operate the Mini-PLC in really harsh environment.

These outstanding features open up a variety of application fields in industrial and also in battery-powered applications.

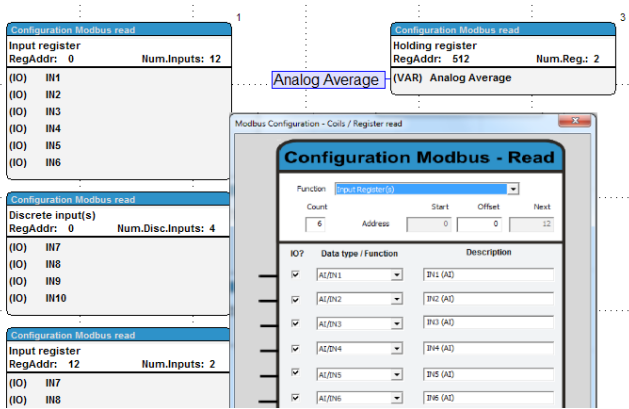
The STG-680 is also available as customer-tailored OEM version.

STG-680

PROGRAMMING WITH MICON-L

Without learning a difficult programming language the Mini-PLC can be easily programmed using simple and vivid graphical function blocks. This block design meets graphical standards of the latest graphical programming languages.

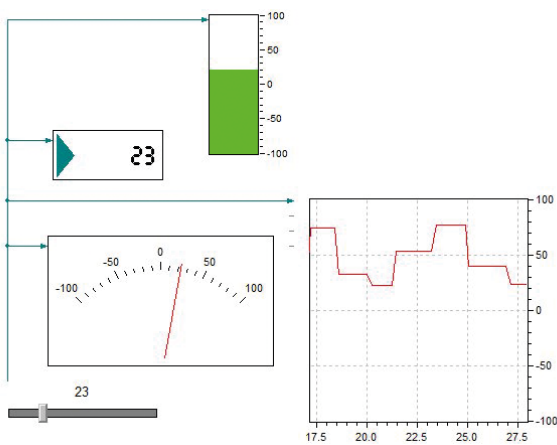
The miCon-L software suite features programming, simulation and test in one unique software design tool. The flexible programming option offers a variety of possibilities in industrial, automotive and maritime applications.



Programming the STG-680 follows using the USB port of your PC with installed miCon-L software suite and the VK-16 Connection Cable.

The miCon-L Software supports full simulation and visualisation operation modes.

miCon-L provides a variety of visualisation blocks and interactive elements to control and debug the Mini-PLC.



SPECIFICATIONS

Operation Voltage	7 to 32 VDC
Current Consumption	nominal 15 mA at 32 VDC (depending on configuration)
Fusing	8 A max. (external)
MODBUS Interface	Protokol: RTU Baud: 1.200, 2.400, 4.800, 9.600, 19.200, 38.400, 56.000 Kbit Parity: no, Stopbit: 1 flexibly graphically configurable data format
Digital Input IN7 - IN10	$U_{IN} = 0$ to 30 VDC, $R_1 > 30$ kOhm $U_{LOW} \leq 5$ VDC, $U_{HIGH} > 5$ VDC $f_{IN} \leq 1$ kHz, $t_{IN} \geq 1$ ms
Analog Input IN1 - IN6	$U_{IN} = 0$ to 10 VDC, $R_1 > 16$ kOhm
Accuracy ADC	$\pm 1\%$ (< 0,15 VDC) 12 Bit
Digital Output OUT1 - OUT8	$I_{OUT} \leq 1.5$ A (resistive load) @ $f_{OUT} = 0$ to 100 Hz $U_{OUT} \geq U_{IN} - 0.45$ V, $I_{TOT} \leq 6$ A
PWM Output OUT9	$I_{OUT} \leq 2$ A (resistive load) @ $f_{OUT} = 0$ to 10 kHz $U_{OUT} \leq GND + 0.2$ V
Security Features	Watchdog (WD) Fail safe oscillator (FSO) Brown out detection (BOD) Power up timer (PUT)
Conformity	2004/108/EG 2004/108/EC 2014/30/EU
Electrical Connection	pluggable spring terminal connectors 0.25 to 1.5 mm ²
Operation Temperature	-40 to +60 °C (IEC 60068-2-1/2)
Storage Temperature	-40 to +70 °C (IEC 60068-2-1/2)
Shock Resistance	min. 100 m/s ² (10G)
Vibration Resistance	min. 50 m/s ² (5G) @ 10 to 100 Hz
Protection Grade	IP 20
Housing Material	Grilon TSG-30/4, UL: V0
Potting Material	Polyurethane Resin, UL: V0
Weight	80 g (without connectors)
Dimensions	93 x 45 x 15 mm (LxWxH) Height housing: 11 mm
Ordering Information Mini-PLC	Mini-SPS STG-680 Art.-No. 0850-0680 GTIN 4251329400149
Ordering Information Accessory	Connection cable VK-16 USB Art.-No. 0091-0016 GTIN 4251329400187

DOCUMENTS, SOFTWARE & VIDEOS

www.barth-elektronik.de

www.micon-l.de