

STG-660

CAN Mini-PLC Open Source

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



FEATURES

- Small and universal CAN Logic Controller
- Programmable with all PIC18 Compiler
- 6 analog Inputs 0..30 VDC, 12 bit ADC
- 4 digital Inputs up to 10 kHz
- 8 Power Outputs up to 1.5 A
- 1 Power PWM Output 2 A/1 to 32 kHz
- 1 CAN Interface
- Reliable Solid-State Outputs
- Fail Safe Oscillator
- Programmable Status LED
- TTL-232/USB Connection to PC
- Wide Operating Voltage Range 7..32 VDC
- Wide Operating Temp. Range -40...+60°C
- Ultraflat Housing, Height 10 mm
- Vibration resistant and rugged Sealing
- Engineered and manufactured in Germany

APPLICATIONS

- Technical Education
- Industrial Automation
- Test Systems

DESCRIPTION

The innovative STG-660 extends the established BARTH® CAN Mini-PLC series with an outstanding Open Source hardware concept.

With similar dimensions in comparison to the STG-600, the STG-660 provides hardware-oriented programming at lowest current consumption and the well-known small form factor.

The CAN bus allows the user to connect a variety of network components to the Mini-PLC, for example: displays, stepper motors or CAN sensors.

The STG-660 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, automotive and 12/24V battery-powered applications.

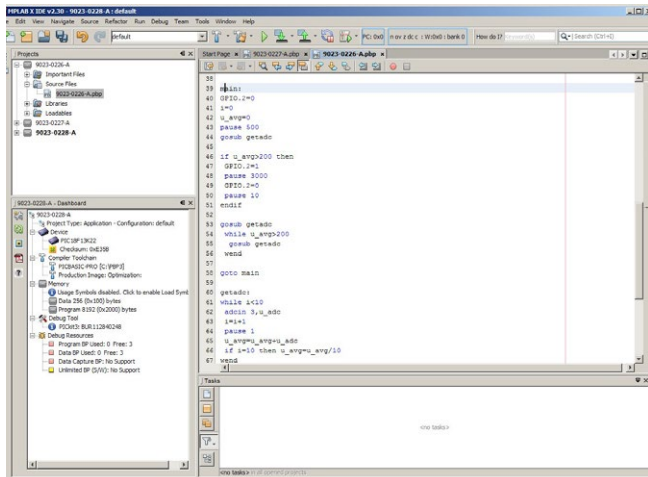
The STG-660 is also available as customer-tailored OEM version.

STG-660

OPEN SOURCE PROGRAMMING

The BARTH® Mini-PLC STG-660 features an outstanding Open Source hardware concept and is able to be programmed using your favourite compiler supporting the MICROCHIP® PIC18® microcontroller family.

BARTH® and a variety of distributors supports powerful and easy-to-use C- and BASIC-Compilers to tap the full potential of the STG-660.



In common the compiler language tool is integrated in the free MICROCHIP® MPLABX® development suite to ensure easy-to-use programming, simulating and debugging in one unique software tool.

BARTH® provides a variety of programming templates for their Open Source Mini-PLC's to ensure fast access to the programming language.

SPECIFICATIONS

Design	Mini-PLC fully enclosed in resin filled housing with plugable spring terminal connectors
Programming	Open Source MICROCHIP® ICSP (C, BASIC, Assembler)
Operation Voltage	7 to 32 VDC
Current Consumption	nominal 15 mA at 32 VDC (depending on configuration)
Fusing	8 A max. (external)
CAN	100 kbit up to 1 Mbit
Digital Input IN7 - IN10	$U_{IN} = 0$ to 30 VDC, $R_I > 30$ kOhm $U_{LOW} \leq 5$ VDC, $U_{HIGH} > 5$ VDC $f_{IN} \leq 10$ kHz, $t_{IN} \geq 100$ μ s
Analog Input IN1 - IN6	$U_{IN} = 0$ to 30 VDC, $R_I > 11$ kOhm
Accuracy ADC	$\pm 2\%$ (0.1 VDC) 12 Bit
Digital Output OUT1 - OUT8	$I_{OUT} \leq 1.5$ A (resistive load) @ $f_{OUT} = 0$ to 500 Hz $U_{OUT} \geq U_{IN} - 0.45$ V, $I_{TOT} \leq 4$ A
PWM Output OUT9	$I_{OUT} \leq 2$ A (resistive load) @ $f_{OUT} = 1$ kHz to 32 kHz $U_{OUT} \leq GND + 0.25$ V
Security Features	Watchdog (WD) Fail safe oscillator (FSO) Brown out detection (BOD) Power up timer (PUT)
Conformity	2006/95/EG, 2004/108/EG EN60730-1, EN61010-1, EN50081-1, EN50082-1 EN 60068-2-78: 2002 EN 60068-2-6: 2008 ISO 16750-3: 2007
Electrical Connection	plugable 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
Weight	80 g (without connectors)
Dimensions	93 x 45 x 15 mm (LxWxH) Height housing: 10 mm
Ordering Information Mini-PLC	Mini-SPS STG-660 Art.-No. 0850-0660
Ordering Information Accessory	Programmer PICKit3 Art. No. 0017-0045 Connection cable VK-6 for PICKit3 Art. No. 0091-0006 Connection cable VK-16 USB Art. No. 0091-0016

DOCUMENTS & SOFTWARE

Detailed information and additional documents relating to this product are downloadable from

www.barth-elektronik.de