

Digital servoamplifiers TGA-24-9/20

Inverters TGA-24-9/20 are intended to drive AC synchronous servomotors up to 150 W. Power supply 24VDC open possibilities to use the servoamplifiers in applications, where is not possible use supply voltage 230/400V AC e.g. in mobile equipments or for environment with requirements to save voltage.

High-performance processor guarantee superior servomotor control and thereby high precision and dynamics of the drive, and currently a number of user functions, that allows general purpose application of servoamplifiers.

Digital current loop (current measuring, vector control, position measuring from resolver) is realized with frequency 16 kHz, speed loop is calculated with frequency 4 kHz, position loop with frequency 1 kHz.

Operating modes

Servoamplifier TGA can operate in following modes:

- ✓ torque control
- ✓ speed control
- ✓ absolute positioning
- ✓ relative positioning
- ✓ pulse and direction signals control (stepper-motor control)
- ✓ electronic gearing
- ✓ continuous control by CAN-BUS

Communication

Servoamplifier TGA can communicate by serial interface RS 232 and by CAN BUS. It has communication port RS 422/485.

Inputs / outputs

TGA are equipped by 10 digital inputs, 4 digital outputs, 1 analog input (0-5V or 0-10V), 2 count inputs (configurable).

Parameters setting, status monitoring

The SETUP program (part of delivery) allows parameters setting and status monitoring by PC. Programm SETUP is executable under Windows operating systems and communicate with servoamplifier TGA by serial interface RS232.

Control

TGA servoamplifier has following possibilities to control:

- ✓ Analog voltage – torque or speed
- ✓ Stepper-motor signals (pulse and direction)
- ✓ Digital inputs – start of programmable position or speed profiles
- ✓ Digital control by serial interface RS 232 (422/485) or by CAN-BUS (torque, speed, position profiles etc.)

Mechanical design

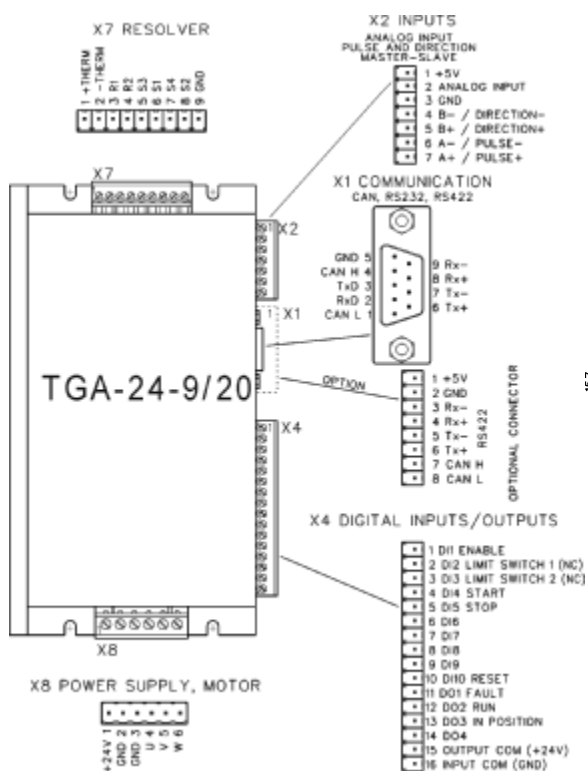
L-profile allows variable servoamplifier mounting to switchboard or directly to the machine.



Technical data of servoamplifiers TGA-24-9/20

Parameters	Units	Data
Rated supply voltage	V =	24 (12 – 40)
Rated installed load for S1 operation	W	230
Rated output current	A_{rms}	9
Peak output current (max. ca 5 s)	A_{rms}	18,5
Overvoltage protection treshold (transil)	V	47
Dissipation at rated load	W	20
Fusing		
Supply 24 VDC – internal	–	T 10 A
– external	–	C 8 A
Inputs / Outputs		
Analog input, resolution 12 bit	V	0 – 5 / 0 – 10
Input resistance	$k\Omega$	6.6
Digital inputs with adjustable function 24 VDC, qty - 10	V	low 0 .. 5 / high 7 .. 30
	mA	6
Digital outputs with adjustable function, 24 VDC, PNP, qty - 4	V	max. 36
	mA	25
Counter inputs for IRC or stepper-motor signals	–	5V (RS422)
Connectors		
Control signals	–	Interhart 3.81, 1.5mm ²
Power	–	Interhart 5.08, 2.5mm ²
Resolver input	–	Interhart 3.81, 1.5mm ²
Communication	–	SubD 9-pole plug
Mechanical		
Weight	kg	0.6
Dimensions without connectors	mm	157 × 86 × 40
Environment		
Operating temperature	°C	0 - 40
Relative humidity	%	max. 85

Interfaces description



Dimensions (mm)

