

BRUSHLESS SERVODRIVES

Advantages

TDE MACNO digital brushless drives are the result of a significant experience in the design and development of products for industrial automation.

» **EASE-OF-USE AND EASY SET UP**

Thanks to the automatic functions, such as auto phasing of the resolver and auto tuning of the motor, TDE MACNO's products are easy to adjust to any kind of motor type. The programming software from PC allows a rapid and precise use of all the operations and makes the set-up easy and extremely quick.

» **ADVANCED CHARACTERISTICS**

The control software enables particular functions such as electronic gearing, multi positioning, cams, etc. and a wide flexibility in the control of the motor. The advanced control system of the speed and current loop allows high dynamic performances.

» **PARAMETER SETTING SOFTWARE**

The programming software, developed in Windows operating system, leads the user to the programming of the drive: it displays all the set-up and control parameters and enables customised solutions.

» **SMALL IN SIZE**

As a result of an accurate research TDE MACNO has developed compact drives, which bring substantial space savings in the installation.

» **FLEXIBILITY AND CUSTOMISED SOLUTIONS**

Based on our experience as application and systems engineers for industrial automation we provide our know-how to realise in a flexible way customised solutions for the specific needs of the customers.

» **RELIABILITY**

Since its establishment in 1976 TDE MACNO has been designing and developing comprehensive and straight forward solutions to a wide variety of industrial automation applications. We have a strong commitment to the continuous development of high quality and reliable solutions. This has made TDE MACNO your reliable partner.

SERVODRIVE

SDB is a digital converter for sinusoidal brushless motors. Thanks to its high dynamic response, SDB is suitable for a wide range of applications.

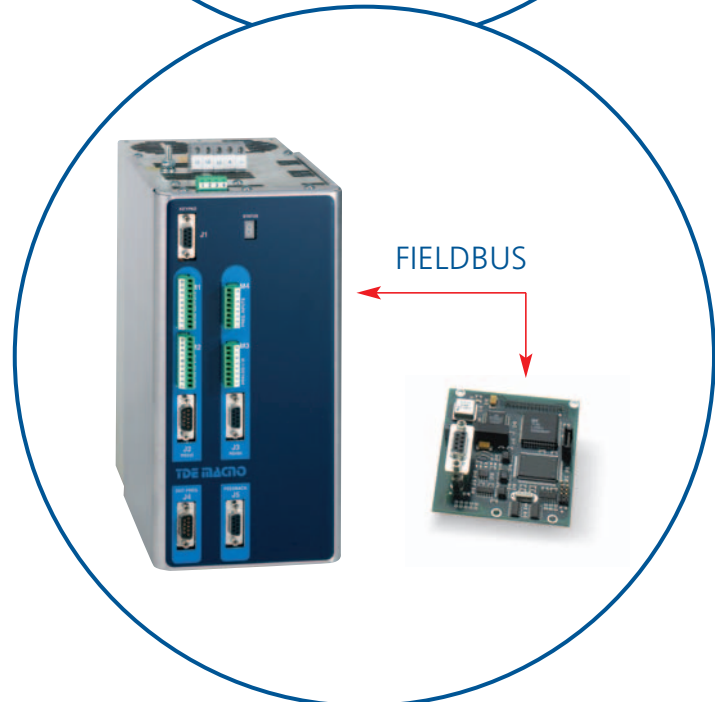
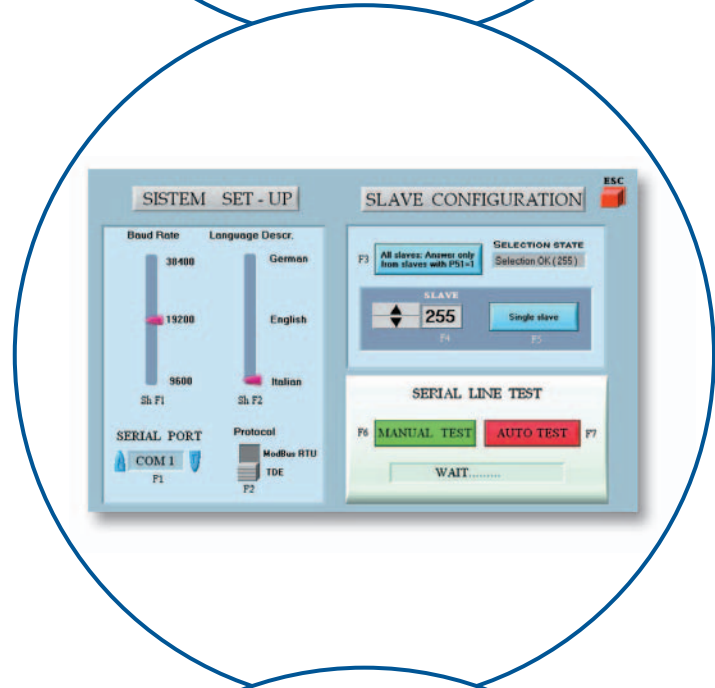
Main Features

SPECIAL FUNCTIONS

- » Resolver auto phasing
- » Current loop gain automatic calibration according to motor inductance (motor auto tuning)
- » Resolver resolution self-adjustment to maximize precision in the whole speed range
- » Configurable simulated encoder output from 64 to 4096 ppr (line driver)
- » Monitor software under Windows for parameters setting and monitoring
- » Electrical gearing and master/slave function
- » Multipositioner: 12 full programmable positions
- » Programmable profiles
- » Digital potentiometer for setting speed ratio in master/slave function
- » Step motor function with position loop control
- » RS485/ RS232 serial interface with Modbus protocol (baud rate 9.600 ÷ 115.200)
- » Separate power supply for the IGBT drivers (safety stop function EN 954-1) and the regulation (24Vdc)

OPTIONS

- » CAN BUS interface (can open compatible)
- » PROFIBUS DP interface
- » Opto isolated simulated encoder output
- » RS232 / 485 adapter for PC
- » Remote keypad for drive parameters setting and monitoring
- » Clamping resistors



SDB SERIES

POWER

- ▶ Built in clamping circuit (external resistor)
- ▶ Output frequency: 0 ÷ 640 Hz
- ▶ Drive diagnostic through display or from serial line
- ▶ Built in soft-start circuit
- ▶ Ac voltage supply range
3 x 200 Vac ÷ 440 Vac ±10%
- ▶ Control circuit supply 24 Vdc (external)
- ▶ Intermediate dc circuit accessible

CONTROL AND REGULATION

- ▶ Full digital regulation
- ▶ Independent ramps in the 4 quadrants
- ▶ 8 opto isolated configurable digital inputs
- ▶ 3 programmable speed references (jog)
- ▶ Inputs for speed reference:
 - analog ±10 V (16 bit)
 - digital: from remote keypad or serial line
 - frequency (encoder-like or frequency and up/down)
- ▶ Inputs for torque and current limit references:
 - analog ±10 V
 - digital: from remote keypad or serial line
- ▶ 4 opto isolated digital outputs
- ▶ 2 programmable analog outputs
- ▶ 1 analog output for speed monitoring

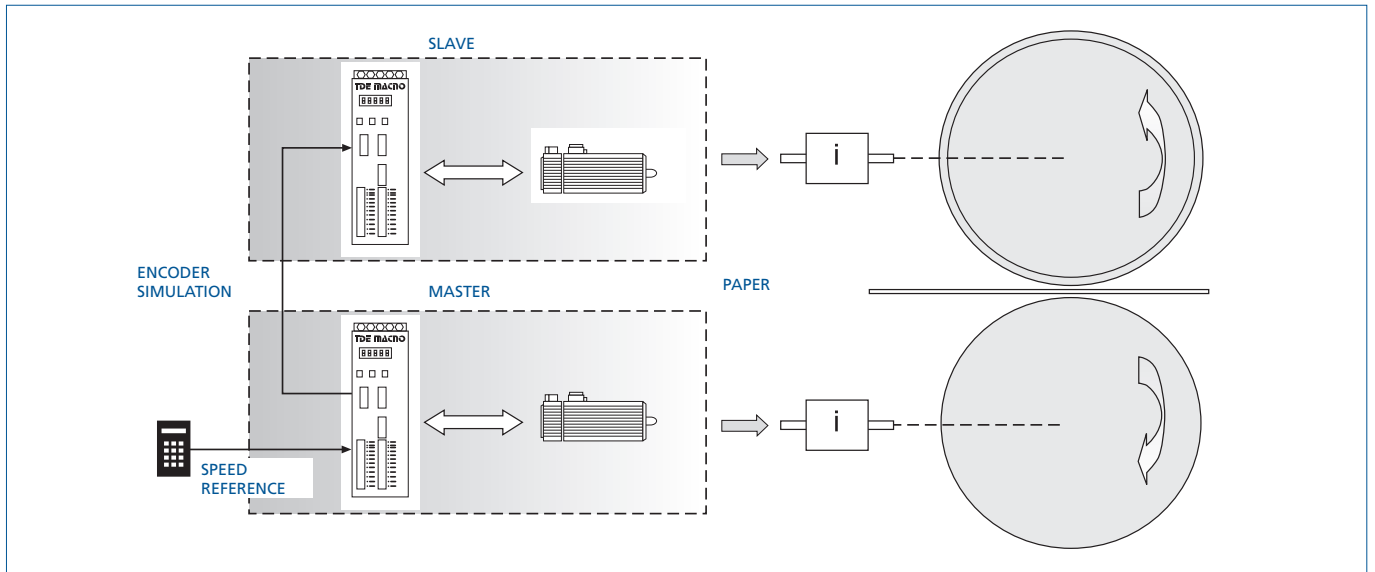
Technical data

Size		SDB 03	SDB 07	SDB 12	SDB 15	SDB22	SDB32	SDB40
Rated current	A rms	3	7	12	15	22	32	40
Peak current (for 2, 5 sec)	A rms	6	14	24	30	44	64	80
Dimensions								
H = 310 mm, P = 240 mm	L (mm)	86	86	113	113	134	190	190
H = 310 mm, P = 240 mm (with field bus)	L (mm)	113	113	113	113	134	190	190
Main supply								
Nominal voltage supply	Vac	3 x 200 Vac ÷ 3 x 440 Vac ±10%						
Line frequency	Hz	50 ÷ 60 ±5%						
Regulation voltage supply	Vdc	24 Vdc ±5%						
Power supply from external dc bus	Vdc	260 V ÷ 680V						
Environment temperature	°C	0 ÷ 45						

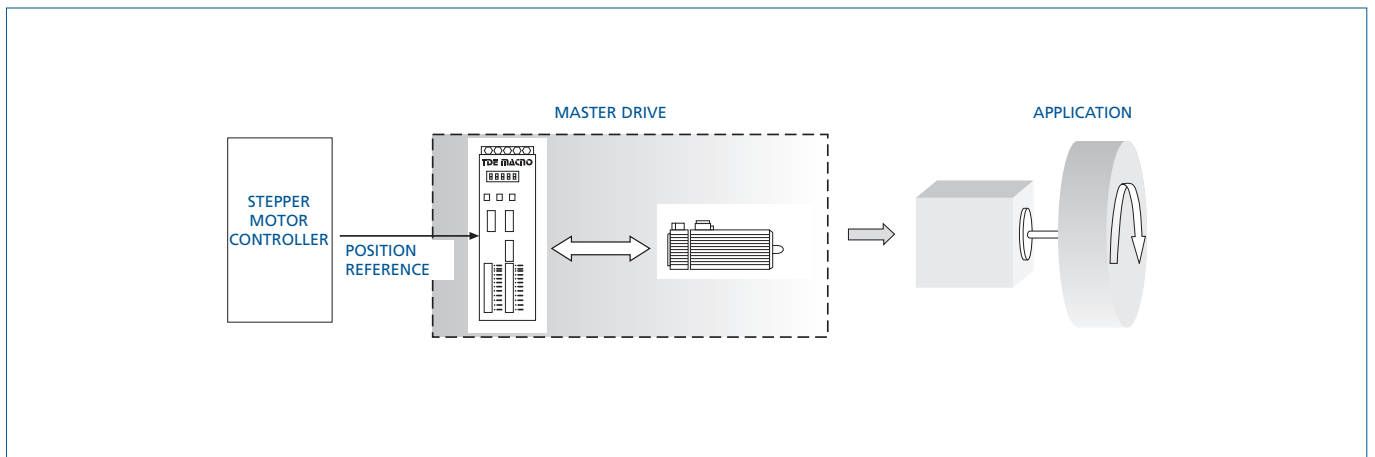
Any change in the technical data could be introduced without any prior written advice from Tde Macno

SOME APPLICATIONS

ELECTRONIC GEARING



STEPPER MOTOR FUNCTION



MULTIPOSITIONING

