

Contrôleur pas à pas WSERS - STÖGRA

www.rosier.fr

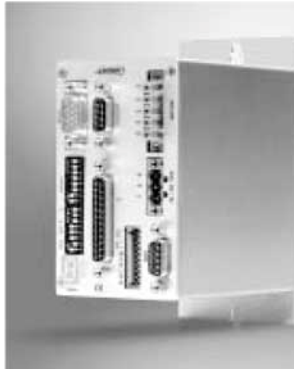
The stepping motor position control series WSERS controls 2-phases stepping motors.

A unit consists of a power amplifier, a micro-stepping power amplifier control and the position control. The communication with the position control is via an interface RS232C/V24, RS485, Profibus-DP, PROFdrive or CANopen.

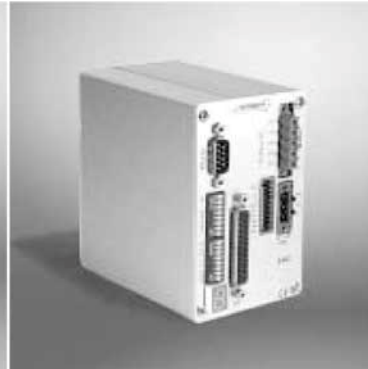
The WSERS guarantees an optimal, free of vibrations true running due to its microstepping operation with 12800 steps/revolution and the possibility to select different phase current characteristics to match the characteristics of the used stepping motor type.

The rough step by step operation of conventional stepping motor drives at low speed ranges has been improved extremely by the WSERS to a very smooth running (comparable with servo motors).

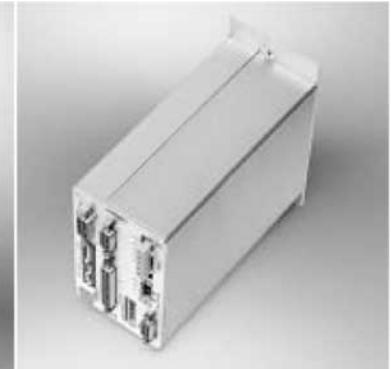
In standard version the WSERS can be operated in four different modes (see pages 24/25 – identical to series SERS).



WSERS 04.80 V01 E50 PB-DP /W
phase current 0 to 4,2A/phase
voltage supply 20 to 80VDC
also available as WSERS 08.80 ...
with 0 to 8,4A/phase



WSERS 08.80 V01
phase current 0 to 8,4A/phase
voltage supply 20 to 80VDC
also available as WSERS 04.80 ...
with 0 to 4,2A/phase



WSERS 06.230AC V01 E50 PB-DP /W
phase current 0 to 6,0A/phase
voltage supply 230VAC/50-60Hz
also available as WSERS 04.230AC ...
with 0 to 4,2A/phase

Functions of the WSERS:

The functions of the WSERS are identical to the series SERS (see descriptions on pages 26 to 31):

Inputs / Outputs (for WSERS xx.115AC and WSERS xx.230AC the analogue input is an option which must be ordered extra), optional load angle control E50, interfaces (RS232, RS485, Profibus-DP, PROFdrive, CANopen), position control, option »U« (separate logic supply), programming (via software and SERS Programmer).

As the series SERS, the power amplifier stage of the WSERS includes microstepping with 12800 steps/revolution (will be switched dynamically at higher speed).

Versions phase current and voltage supply:

type	phase current	voltage supply	internal motor operating voltage
WSERS 04.80...	0 – 4,2A/phase	20 – 80 VDC	20 – 80 VDC
WSERS 08.80...	0 – 8,4A/phase	20 – 80 VDC	20 – 80 VDC
WSERS 04.115AC...	0 – 4,2A/phase	115VAC/50-60Hz	162VDC
WSERS 06.115AC...	0 – 6,0A/phase	115VAC/50-60Hz	162VDC
WSERS 04.230AC...	0 – 4,2A/phase	230VAC/50-60Hz	325VDC
WSERS 06.230AC...	0 – 6,0A/phase	230VAC/50-60Hz	325VDC

The versions WSERS xx.115AC and WSERS xx.230AC are for direct connection to the mains 115VAC/60Hz (e.g. USA) respectively mains 230VAC/50Hz (e.g. Germany) – see also description and diagram for series WSE ...230VAC at page 10.

The AC-voltage is converted into a DC-voltage within the WSERS, resulting in a motor operating voltage of 162VDC (at 115VAC) respectively 325VDC (at 230VAC). The WSERS xx.115AC and WSERS xx.230AC may only be operated together with motors with sufficient and special insulation (e.g. from STÖGRA all motors of series SM 88, and series SM 87 and SM 107 from production date 07.2006). The motors must be suitable for being operated with 325VDC (insulation test voltage 2000VAC 1s according to VDE530-1).

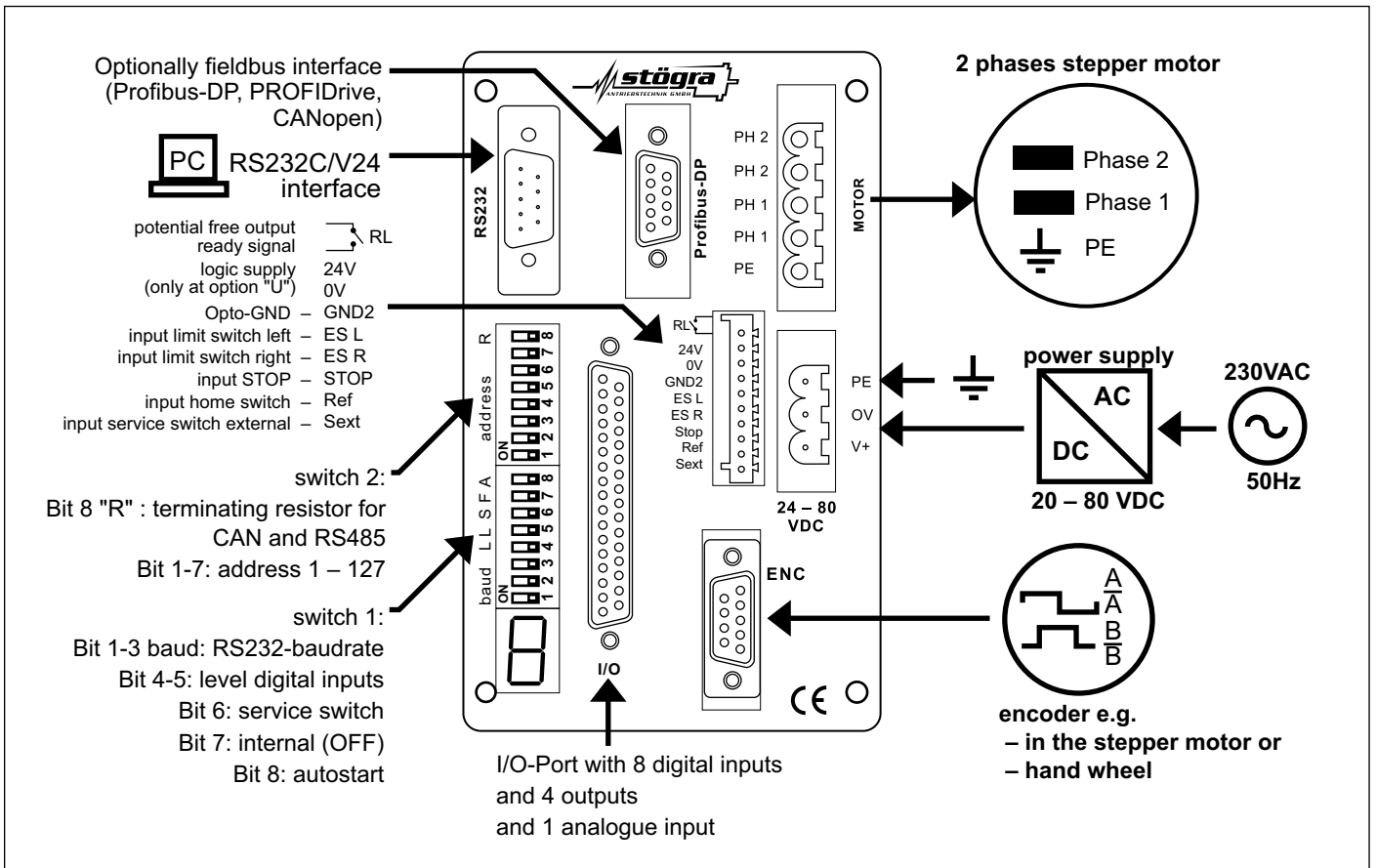
Versions for DIN rail and panel mounting:

The WSERS includes a closed metallic compact housing and is available in two different mounting versions:

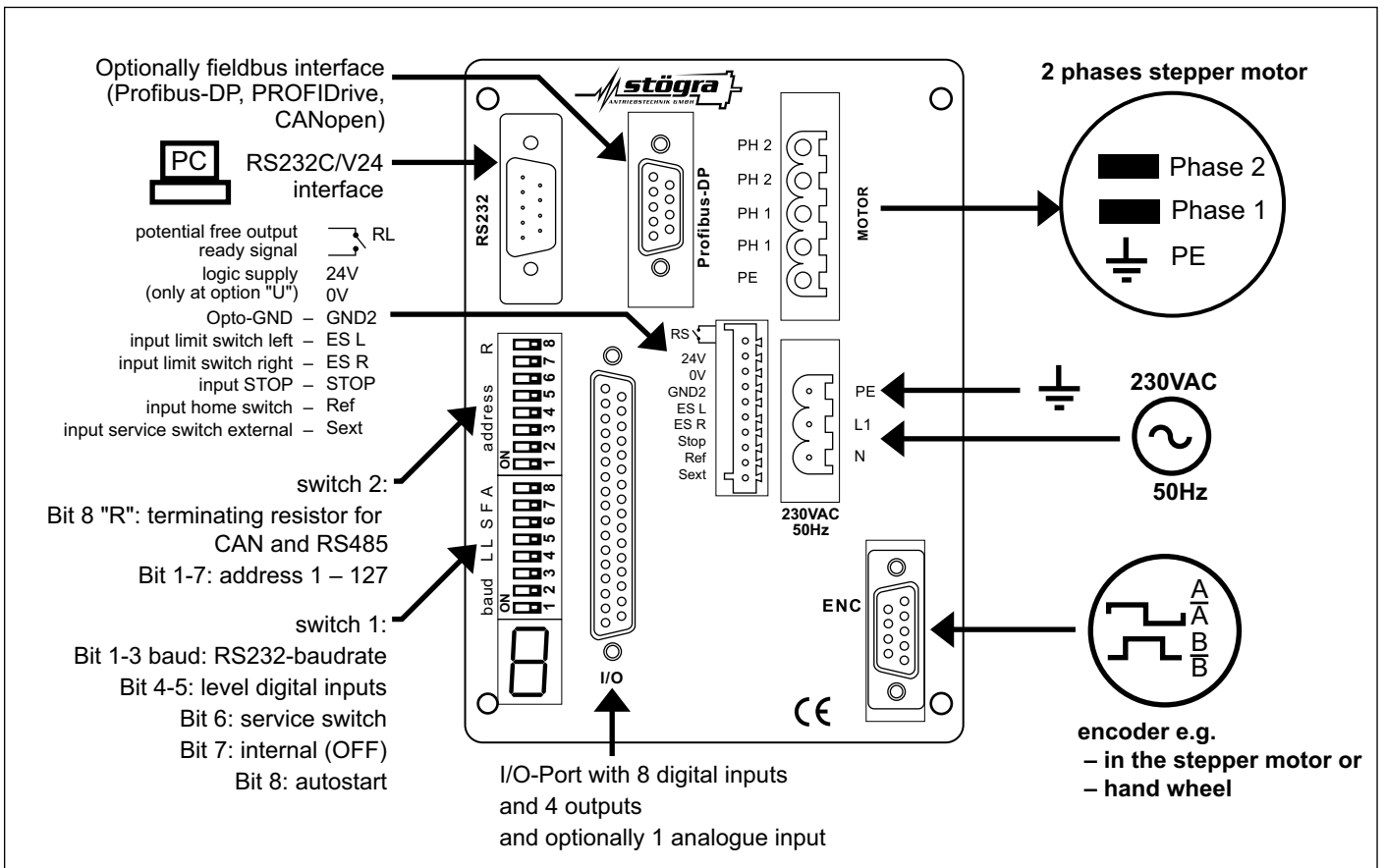
- version for DIN rail mounting via a rear side rail mounting clip
- version for panel mounting via a rear side panel mounting bracket

38 WSERS – connections

WSERS 04.80 and WSERS 08.80

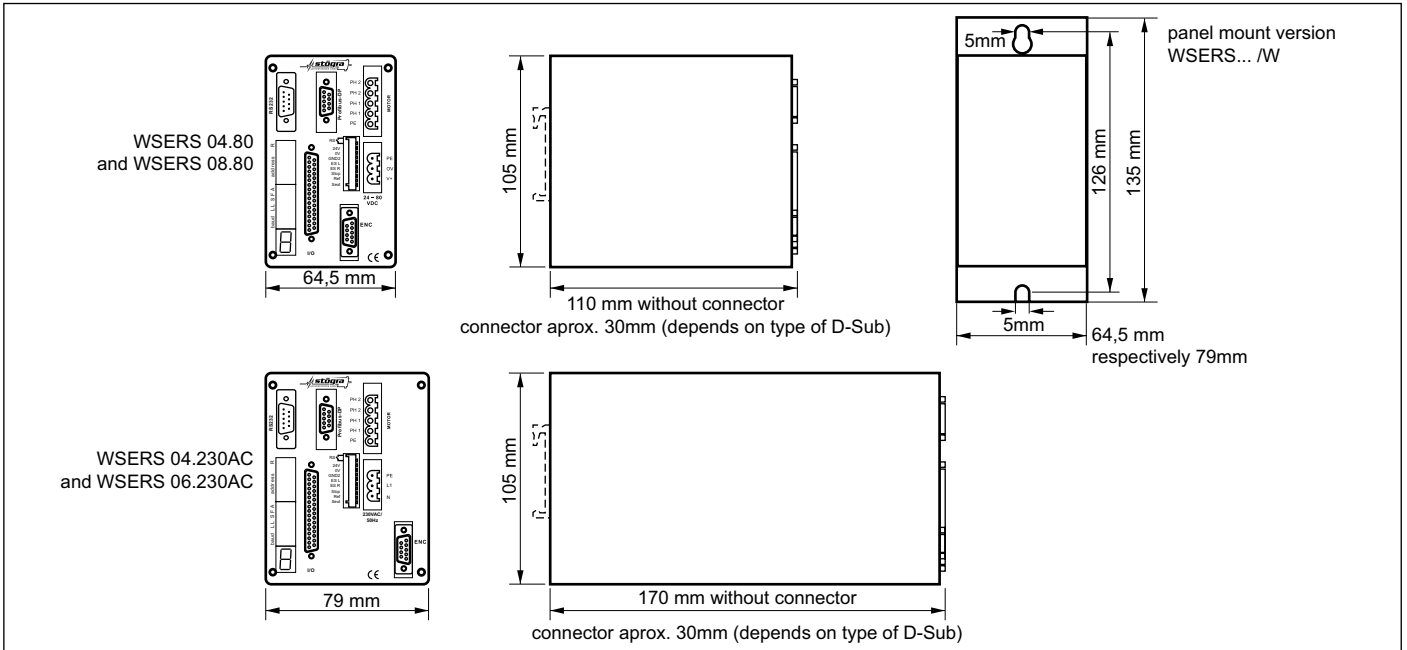


WSERS 04.230AC and WSERS 06.230AC

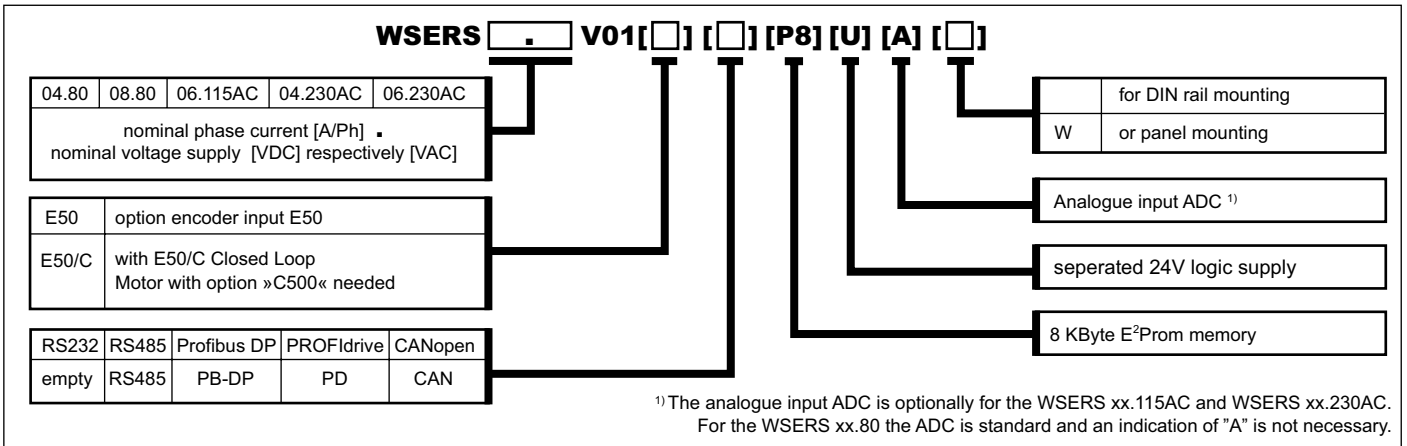


WSERS – dimensions, ordering key, specifications, equipment 39

dimensions



ordering key (e.g. WSERS 04.80 V01, WSERS 06.230AC V01 E50 PB-DP U, or WSERS 04.230AC V01 PD W)



specifications WSERS

protection of device	<ul style="list-style-type: none"> protection class SERS IP00 (ELK: IP20), and WSERS IP20 protection against short circuit (motor phases), over temperature (SERS / WSERS) and under voltage 			
weight	SERS 01 / 02 / 03	SERS 06 / 12	WSERS xx.80	WSERS xx.230AC
	0,30 kg	0,60 kg	0,65 kg	1,05 kg
ambient conditions	<ul style="list-style-type: none"> ambient temperature: 0°C to 50°C forced draft: for SERS necessary from 12A adjusted phase current, for WSERS 06.230AC from 6A 			
noise immunity	if correct installed according to EN 50082-2			
noise radiation	if correct installed and shielded lines according to EN 55011 Klasse B			
RoHs conformdirective to 2002/95/EC				

equipment for SERS position controls



Screw terminal block for DIN rail mounting with 25-pole D-Sub-connector for easy connection of SERS / WSERS input-/output signals via screw terminals
 Ordering key: **KBDS25**

Cabel (2m) with 25-pole D-Sub connector for connecting the I/Os of a SERS / WSERS with a screw terminal block KBDS25.
 Ordering key: **LDS25**



Cabel (2m) with 9-pole D-Sub connector and 1:1 wiring for the connection of the RS232-interface of a SERS / WSERS to a control (e.g. PC) with RS232-interface.
 Ordering key: **LDS9**



13 rue Sigmund Freud
69120 Vaulx en Velin
Tél. : 04 72 04 68 61

contact@rosier.fr

www.rosier.fr

Agence Paris

Tél. 01 30 25 12 02

Fax 01 30 25 12 27

