



With our flexible epic-system®, we build your individual controller which exactly meets your requirements. According to your specifications, individually equipped, without compromises, cost-efficient and quick.

**Controller overview (click to enlarge):**

	SMC 9300	smc_lpc	smc_pc_pci	smc_mf	smc_gall	smc_glc	
controller type	Stand-alone controller, embedded single-board PC	Stand-alone controller, industrial PC with smc_ocpci	PCI PC-card	Programmable control module with integrated driver	Embedded controller	Programmable control module	
form factor	19" rack unit	19" rack unit	PCI-card	19" rack unit	19" rack unit	PCB	
max. # of axes	1/8	4 x # of PCI-slots	4	2 per card, 62 per interface	8	1	
stepper motor driver	Separate device, 2/3/5-phase types, individual compilation	Separate device, 2/3/5-phase types, individual compilation	Separate device, 2/3/5-phase types, individual compilation	Integrated, 2-phase only	Integrated (2-phase only) or separate device	Separate device, 2/3/5-phase types, individual compilation	
microstepping mode	Yes, depending on motor driver	Yes, depending on motor driver	Yes, depending on motor driver	Yes	Yes, depending on motor driver	Yes, depending on motor driver	
power supply	integrated (1 to 4 axes), powerpack (> 4 axes)	powerpack	powerpack	12VDC-48VDC or powerpack	20VDC-60VDC or powerpack	5VDC (module only) or powerpack	
operating system	WES7 (Windows embedded standard 7)	Windows XP/7/8 (32-bit only)	Windows XP/7/8 (32-bit only)	n.a.	n.a.	n.a.	
user interface	7" touch-sensitive color display	Keyboard/mouse and/or touch-sensitive monitor (optional)	Host PC	Control PC	Control PC	Control PC	
standalone operation	Yes	Yes	n.a.	Limited, software-dependent	Limited, software-dependent	n.a.	
standard interfaces	Ethernet, RS232	Ethernet, RS232	n.a.	RS485	Ethernet, RS232, USB	RS232	
programming	ASCII command set	ASCII command set	DLL-interface	ASCII command set	ASCII command set	ASCII command set	
joystick	USB-joystick	USB-joystick	Software-dependent	n.a.	yes	n.a.	
hand terminal	Yes, via RS232	Yes, via RS232	n.a.	Yes	n.a.	n.a.	
control input	Hard/soft limits, near home, home	Limits, near home, home	Limits, near home, home	User-programmable I/O's	Hard/soft limits, home	Hard limits, home	
digital I/O	Optional	8-bit opto-isolated I/Os per PCI-card	8-bit opto-isolated I/Os	User-programmable I/O's	8-bit opto-isolated I/Os	n.a.	
encoder	3-channel (A/B/Z), differential	3-channel (A/B/Z), differential	3-channel (A/B/Z), differential	n.a.	3-channel (A/B/Z), differential	n.a.	
encoder options	BISS/SSI/EnDat encoder interface (built-in or external iChaus USB-interface), Heidenhain E5B7 encoder interface (Ethernet)	BiSS/SSI/EnDat encoder interface (with iChaus USB-interface), Heidenhain E187 Ethernet encoder interface support, Heidenhain IK220 interface card support	Software-dependent	3-channel (A/B/Z), differential (order option "EE")	BiSS/SSI/EnDat encoder interface (can be ordered only 'per controller')	n.a.	
LabView compatible	Yes	Yes	Yes	Yes	Yes	Yes	
control system	SPEC, EPICS (ANL), BLU-ICE (SSRL), etc. software-dependent	SPEC, EPICS (ANL), BLU-ICE (SSRL), etc. software-dependent	Software-dependent	Software-dependent	Software-dependent	Software-dependent	
compatibility	TeamViewer online support	TeamViewer online support	TeamViewer online support	Analog input (10bit)	8 analog I/Os (12bit)	TeamViewer online support	
special features	software update via download/USB-stick	software update via download/USB-stick	software update via download/USB-stick	control of external hardware via USB/RS232	control of external hardware via USB/RS232	control of external hardware via USB/RS232	
options	Signal input for scintillation counter tube (TTL)	filter/half-screen device control for single-crystal diffraction	2nd USB-interface for accessories control	additional built-in 4-port USB-hub	Compatible to SMC 9300 control software.	USB-RS485 adapter.	Built-in USB-RS232 or Ethernet-RS232 adapter
custom control features	Yes, upon request	Yes, upon request	Yes, upon request	n.a.	n.a.	Yes, upon request	
custom design, individual compilation	Yes, upon request	Yes, upon request	Yes, upon request	Yes, upon request	Yes, upon request	Yes, upon request	
notes		Number of max. axes depending on number of PCI-slots	Requires PC with desired # of PCI-slots				