



## EFFICIENT MOTION CONTROL

# Scalable motion control systems for basic automation applications

[siemens.com/servodrives](http://siemens.com/servodrives)

## A fantastic handshake for **basic automation systems**

Siemens offers a holistic system approach for motion control applications in the field of basic automation with its single-axis servo drive systems, SINAMICS S200, S210, and the new controller SIMATIC S7-1200 G2.



- Enhanced processing power with dedicated communication performance and extended memory
- Supports up to 31 PROFINET devices and synchronized program execution with PROFINET IRT
- High drive performance due to a fast current controller



- Control of single axes, coordinated axes, and simple kinematics
- Integrated motion control technology objects simplifying configuration
- Drive-integrated basic positioner function, SINAMICS EPOS



- A cost-optimized fail-safe safety hardware portfolio
- PROFIsafe communication for safe data exchange between the controller and the drive system for safety applications
- Drive-integrated basic and extended safety functionality up to SIL3, PLe and Category 4



- Near Field Communication (NFC) for wireless access to diagnostic and device data of the PLC
- SINAMICS Smart Adapter for wireless access between the drive-integrated webserver and mobile devices or to the SINAMICS Startdrive engineering software
- Drive-integrated webserver for easy commissioning

# Teamwork makes the automation application work

Configure your efficient motion control system for basic automation systems:

SINAMICS S200 servo drive system SIMATIC S7-1200 G2 controller		SINAMICS S210 servo drive system SIMATIC S7-1200 G2 controller		
				
<b>What is your Motion Control application?</b>		Moving, positioning, processing, handling		
<b>TIA Portal – The Technology Objects (TO) of SIMATIC S7-1200 G2</b>	 <b>Kinematics</b>  <b>Cam</b>  <b>Cam Track</b>	 <b>Measuring Input</b>  <b>External Encoder</b>  <b>Speed Axis</b>	 <b>Synchronous Axis</b>  <b>Output Cam</b>  <b>Positioning Axis</b>	
<b>Your controller for basic automation applications</b>	SIMATIC S7-1200 G2 SIMATIC S7-1200(F) G2	 <span style="background-color: #00aaff; color: white; padding: 2px 5px;">New</span>	SIMATIC S7-1200 G2 SIMATIC S7-1200(F) G2	 <span style="background-color: #00aaff; color: white; padding: 2px 5px;">New</span>
<b>The ideal servo motor</b>	<b>SIMOTICS S-1FL2</b>		<b>SIMOTICS S-1FK2</b> <b>SIMOTICS S-1FT2</b> <b>SIMOTICS S-1FS2</b>	
<b>The matching cables</b>	Dual-cable for SH20/30/40 <sup>1)</sup> , up to 30 m		One Cable Solution, up to 50 m	
<b>The optimum servo drive</b>	<b>SINAMICS S200 Basic</b>	<b>SINAMICS S200</b>	<b>SINAMICS S210</b>	
<b>Voltage range</b>	1/3AC 200 V: 0.1-1 kW 3AC 400 V: 0.2-7 kW	1/3AC 200 V: 0.1-1 kW 3AC 400 V: 0.2-7 kW	1AC 200 V: 0.1-0.75 kW 3AC 200/400 V: 0.4-7 kW	
<b>Speed controller</b>	125 µs		62.5 µs	
<b>Communications</b>	PROFINET IRT 250 µs			
<b>Motion control functions</b>	SIMAMICS EPOS basic positioner function via drive, Technology objects (TO) via controller			
<b>Safety Integrated functions</b>	–	STO via terminal (SIL3, PLe and Category 4)	Basic: STO, SS1-t, SBC Extended <sup>2)</sup> : SS1, SLS, SSM, SDI, SS2, SOS, SBT, SLA via PROFIsafe (SIL3, PLe and Category 4)	
<b>PROFIsafe/PROFInergy</b>	–	–	<input checked="" type="checkbox"/>	
<b>Integrated EMC filter</b>	–	–	<input checked="" type="checkbox"/>	
<b>DC-Link coupling</b>	–	–	<input checked="" type="checkbox"/> (For 3AC units)	
<b>Add the digital twin of the drive train to your machine simulation</b>	DriveSim Designer Software			
	DriveSim Designer, DriveSim Engineer Software <sup>2)</sup>			
<b>TIA Selection Tool – configuration of your Motion Control solution</b>	The Software TIA Selection Tool guides users quickly and easily to error-free device selection and configuration in every automation project: <a href="http://siemens.com/tia-selection-tool">siemens.com/tia-selection-tool</a>			

<sup>1)</sup> Not all listed, <sup>2)</sup> License required

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