PRODUCT BRIEF

MOVI-C Controller Family

Scalable portfolio for custom applications and MOVIKIT® software modules

MOVI-C® CONTROLLER **standard**: 2 interpolated, 6 auxiliary axes
MOVI-C® CONTROLLER **advanced**: 8 interpolated, 8 auxiliary axes
MOVI-C® CONTROLLER **progressive**: 16 interpolated, 16 auxiliary axes
MOVI-C® CONTROLLER **power**: 32 interpolated, 36 auxiliary axes

Interpolated axes: profile generation in MOVI-C CONTROLLER // Auxiliary axes: profile generation in inverter

General benefits		• Full integration into MOVI-C® platform, MOVISUITE engineering software and third-party devices • Centralized data management (for quick device replacement) • Can be connected to standard control systems via fieldbus • Routing of PROFIsafe and FSoE to the inverters • Use of MOVIRUN controller runtime and MOVIKIT software modules for speed and torque control, positioning, robotics, electronic cam, mechanically couples drives, and many more (see below)
Intro	standard	For simple motion tasks such as positioning or speed control
	advanced	For demanding motion tasks such as synchronous control with electronic gearing or electronic cam
	progressive	For complex motion tasks such as multi-axis control and robotics, as well as automation tasks such as visualizations
	power	For high-end motion control and line automation, robotics and automation tasks such as visualization
Communication protocols	standard/advanced	Without fieldbus – slave interface; EtherNet/IP slave or Modbus TCP/IP slave; PROFINET slave; EtherCAT slave when using another SBus^{PLUS} capable SEW Controller as a master
	progressive	Without fieldbus – slave interface; EtherNet/IP slave or Modbus TCP/IP slave, PROFINET slave; PROFINET IO master
	power	Without fieldbus – slave interface; EtherNet/IP slave or Modbus TCP/IP slave; PROFINET slave; ; PROFIBUS slave
Interfaces		All controllers are EtherCAT-/SBus^{PLUS} master to the MOVI-C inverters.
	standard	EtherCAT-/SBus^{PLUS} Master; 1 x CAN, non-isolated; Engineering via Ethernet; Fieldbus slave interface
	advanced	EtherCAT-/SBus^{PLUS} Master; 2 x CAN, 1 of which electrically isolated; Engineering via Ethernet; Ethernet port (reserved); 1 x RS485; fieldbus slave interface
	progressive	EtherCAT-/SBus^{PLUS} Master; 2 x CAN, 1 of which electrically isolated; 3 x Engineering via Ethernet; 3 x USB interface; Display Port interface
	power	EtherCAT-/SBus^{PLUS} Master; 1 x LAN interface; DVI interface, 7 x USB 2.0;
Software	Engineering	Engineering in modern interface: Codesys 3.5 IEC 61131-3
	Project planning	Full integration in MOVISUITE engineering software for project planning and configuration
	Runtime	MOVIRUN flexible: freely programmable software design and controller runtime MOVIRUN smart: (in preparation) purely parameterizable software design and controller runtime
	Software modules	MOVIKIT preprogrammed software modules for realizing common motion control functions available as purely parametrizable solutions with a standardized fieldbus interface or for integration into the IEC program with a user-friendly IEC interface

Single Axis
MOVIKIT® Velocity, MOVIKIT® Positioning, MOVIKIT® Gearing for controlling axis only though parametrization and a standardized fieldbus interface

MultiAxisController
MOVIKIT® MultiAxisController for centrally controlling any number of mechanically coupled drives. Many add-ons for reducing skew and optimize torque distribution.

Motion
Such as MOVIKIT® Encoder Interface provide specific motion control functions that can be used to advance functionalities

MultiMotion
MOVIKIT® MultiMotion for implementing universal motion control functions for interpolating axes. Add-ons for electronic camming, gearing, auxiliary axes, and encoder evaluation are available.

StackerCrane
MOVIKIT® StackerCrane for implementing ASRS systems with optimized travel cycles with multiple travel and hoists drives. Simple integration of telescopic and auxiliary axes with a standardized fieldbus interface

Robotics
MOVIKIT® Robotics for controlling many different kinds of robots with a focus on parametrization.

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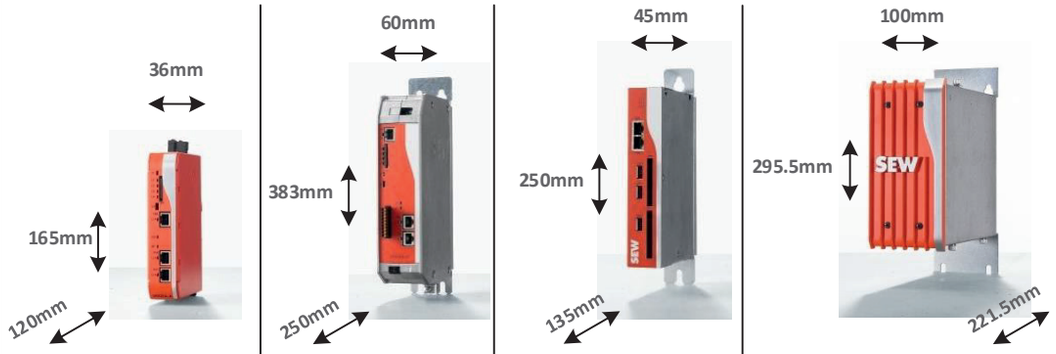
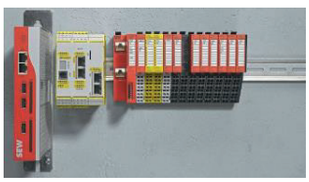
Processing power		
	standard / advanced	Program memory: 2MB for application; Data memory: 6MB CPU technology: DualCore ARM Cortex-A7, 1 GHz
	progressive	Program memory: 64MB for application; Data memory: 64MB CPU technology: Intel Atom® E3815 1.46 GHz, Intel Atom® E3825, 2 × 1.366 GHz, Intel Atom® E3845, 4 × 1.91 GHz
	power	Program memory: 16MB for application; Data memory: 64MB CPU technology: Intel Core2Duo 2.2 GHz
Windows OS		
	progressive/power	Configurable Windows Operating System e.g. for visualization
Data management		
	standard/advanced	SD memory card 512MB. Firmware updates in MOVISUITE
	progressive/power	Cfast memory card 16/32GB. Firmware updates with CFast card reader / MOVISUITE
Dimensions		
Ambient temperature		32 deg Fahrenheit - 122 deg Fahrenheit / 0 deg Celsius - 50 deg Celsius
Degree of protection		IP20 protection class
Power requirements		24V DC / 10W (standard) / 12W (advanced) / 30W progressive / 100W (power)
MOVI-C® I/O modules		I/Os expand the application's capabilities : high performance, latest functions, sophisticated mechanical concept  • Bus coupler • Digital inputs and outputs • Analog inputs and outputs • Safety modules • Function modules • Power supply and distribution modules
WOP11D Web Operator Panels **DOP21C Handheld Robotics Panel**		 WOP11D-70-0  WOP11D-100-0  WOP11D-150-0 • Chromium based HTML5 web browser • i.MX8 Quard Core CPU / Baytrail J1900 • Resolution WSVGA (1024 x 600), WXGA (1280x 800), FHD (1920x1080) • Brightness : 450 / 420 cd/m² • Capacitive Touch (PCAP)
		 DOP21C-T70-1 • 7" TFT WSVGA Display, WSVGA 600 x 1024 pixels • Analog resistiv Touch • Intel Celeron N2807 2*1.58GHz • 32GB SSD Flash, 4GB DDR3 RAM • Key Switch • 2 channel Stop-Button • 3 channel Acknowledge Button • Windows 10 IoT Enterprise • Ethernet • SEW Robot Monitor • MOVIKIT Visualization flexible