

eSys-SVCx Product Family

Up to Performance Level ASIL-C





We live electronics!



eSys-SVCx Product Family

Powerful electronic control units for safety-related applications up to ASIL-C. A rugged construction facilitate an optimal use in mobile machines.

Key Features

ASIL-C	Scalable safety controllers up to ASIL-C (acc. to ISO 26262)
32 bit	High performance 32-bit Dual-Core Microcontroller
CAN	4× CAN interface acc. to ISO 11898
lin	1×LIN
$\hat{\Phi}$	Up to 74 IOs
Õ	AUTOSAR compliant
67	Robust aluminium housing with automotive connectors
҂҉ҏ	Certificated acc. to ECE R10 (eSys-SVC3 xt)

eSys-SVCx product family

The Safety ECU family consists of two different high-end safety modules with different configuration options. The wide range of applications offers numerous possibilities for use in mobile machines such as trucks and trailers, as well as construction, agricultural and special-purpose machines.

Interfaces and safety-certified up to ASIL-C

A powerful 32-bit dual-core microcontroller with 160 MHz, up to four CAN, one LIN interface and 74 IOs (including PWM current control) can be used for applications up to Automotive Safety Integrity Level C (ASIL-C). The risk classification is defined by the ISO standard 26262 for safety-relevant electrical/electronic systems in motor vehicles. The electronics are protected by a robust die-cast aluminium housing and robust automotive connectors facilitate the connection to the control unit.

AUTOSAR-compliant software

The safety controllers are available with various software packages. Starting with QM (quality management) based software up to ASIL-C and AUTOSAR compliant software, you can choose which software architecture is required for your application. This flexibility allows you to use it for a wide range of applications and safety requirements. It always provides the customer with the optimum Safety-ECU – optimized for the individual application and the best possible cost-benefit ratio.

The AUTOSAR standard

AUTOSAR is an open and standardized software architecture for automotive ECUs (without infotainment). The architecture scales to different vehicle and platform variants, takes into account system availability and system safety requirements, and supports software transferability, sustainable use of natural resources, and ease of maintenance throughout the entire product life cycle.

Among other things you benefit from:

- Reduction of the number of ECUs in the vehicle by flexible assignment of ECU data with multiple functions
- Easier integration into the vehicle through a defined architecture
- Reusability of functions through fixed standards for important system functions and interfaces
- Easy scalability and expandability. This makes a functional development for smaller quantities interesting
- Function development possible, independent of the existing topology in specific vehicles

Technical Data

СРИ	eSys-SVC3 xt	eSys-SVC4 xt	
CPU	32-Bit microcontroller dual-core, 160 MHz		
RAM	128 KB internal		
Memory	1 MB internal		
Interfaces & Inputs/Outputs	eSys-SVC3 xt	eSys-SVC4 xt	
CAN	3× CAN interface accord. to ISO 11898 & CAN 2.0 B	4× CAN interface accord. to ISO 11898 & CAN 2.0 B	
LIN	1× (optional)	1×	
Analog inputs, Pulldown 0–5 V and 0–32 V	9× (6× SAFE); 0–5 V and 0–32 V	20× (14× SAFE); 0–5 V and 0–32 V	
Digital inputs or RPM inputs	2× (1× SAFE)	16× (1× SAFE)	
Pulse inputs	2×	6×	
PWM/HSS/LSS outputs	5× PWM (5× SAFE) current range 0 to 2.0 A 4× HSS current range 0 to 2.0 A 2× LSS current range 0 to 1.0 A	15× PWM current range 0 to 2.0 A 10× HSS current range 0 to 2.0 A 4× LSS current range 0 to 1.0 A	
Fixed voltage output	2×5 V, stabilized supply voltage, short-circuit proof		
Sensor voltage output	1×12.7 V (optional)	1× 12.7 V	
3D acceleration sensor	1× (optional)	1×	
Housing	eSys-SVC3 xt	eSys-SVC4 xt	
Plug	154-pin connector		
Housing	IP68 (opt. IP6K9K), die-cast aluminium		
Dimensions	approx. 170 mm × 214 mm × 34 mm	approx. 229 mm × 228 mm × 34 mm	

Operating temperature	−40 °C up to +85 °C housing temper	ature
Storage temperature	-40 °C up to +90 °C housing temper	ature

Supply Voltage	eSys-SVC3 xt	eSys-SVC4 xt	
Supply voltage	8–32 V (12 V or 24 V Board Version)		
Power consumption	Quiescent current approx. ca. 2.9 mA at 28.5 V, total current up to 41 A	Quiescent current approx. ca. 3 mA at 28.5 V, total current up to 80 A	





Mobile Automation



Industrial Automation



Diagnostics



Connectivity

We are looking forward to your enquiry!

Sontheim Electronic Systems L.P.

201 West 2nd Street 52801 Davenport, USA Phone: +1 563 888 1471 Email: info@sontheim-esys.com

Sontheim Industrie Elektronik GmbH

Georg-Krug-Straße 2 D-87437 Kempten Phone: +49 (0) 831 575900-0 Fax: +49 (0) 831 575900-72 Email: info@s-i-e.de

www.sontheim-esys.com