Smart Control Systems – SCS10

Description

E-T-A's SCS (Smart Control Systems) product group includes smart systems, power distribution modules and components with the capability to communicate. These smart devices can be flexibly integrated into existing systems. The capability to communicate provides more flexibility and safety.

The SCS10 is one of the smallest devices of this product family. This CAN mini control unit in a relay design can be flexibly integrated into existing systems via a customer-specific software.

The SCS10 mini control unit is suitable for standard automotive relay sockets according to ISO 7588 (ISO MINI).

This data sheet mainly describes the hardware. The software and the requirements are specified in direct cooperation with our customers. Upon request, we can also support you with programming the devices via a software with an intuitive graphic user interface.

Applications

The SCS10 is suitable for DC 12 V and DC 24 V applications.

Typical applications:
- Trucks
- Specialty vehicles
- Buses
- Construction machinery and emergency cars
- Agricultural vehicles and forestry equipment

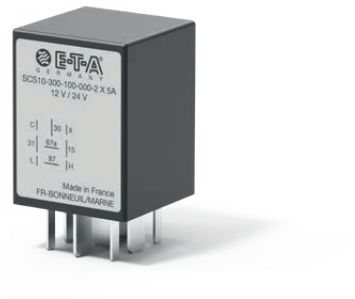
Typical applications:
- Extension option of an existing CAN system according to ISO 11898, SAE J1939
- Integration of sensors or equipment options, which can be queried or controlled by the central control system
- Voltage monitoring function by using an analogue input
- Can be used in combination with E-T-A power relays to make them CAN capable

Benefits

- Thanks to the customer-specific software, the SCS10 provides fast and reliable workarounds for many problems that can occur during the vehicle's development, reconstruction or customisation.
- The entire system can be planned less complicated and more efficient thanks to switching and measuring functions perfectly adapted to the customer's application. The product is the perfect solution to enable many vehicle options.
- The two power outputs provide all benefits of modern semi-conductor technology. The device's typical life is significantly higher than with mechanical contacts.

Product versions

- **SCS10 - 3 0 0 - 2 0 0 - 0 0 0 - 2 x 5 A**



SCS10-300-200-000-2x5A

Technical data (25 °C) SCS10-300-200-000-2x5 A

Rated voltage	12 V / 24 V
Operating voltage	9 V…30 V power supply
Current consumption	< 100 mA operating condition
Communication	CAN
Operating temperature	-40 °C…-85 °C
Mass	28 g
Materials	
Blade terminals	5 x DIN 46244 – A6.3 x 0.8 4 x DIN 46244 – A2.8 x 0.8 CuZn 37 F37
Housing material	PA6GF

Inputs / Outputs

Description	Input voltage range	Input or output (I/O)	Features
PIN 15	max. 10 V	I	analogue 12 bit resolution
PIN X	max. 32 V	I	analogue 12 bit resolution
PIN C	max. 10 V	I/O	Input: analogue 12 bit resolution
	max. 16 V		Input: digital
	max. 32 V max. 1 kHz		Input: Frequency measurement
	max. 60 mA		Output: digital • Low side driver • Incl. overload detection

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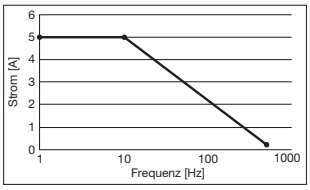
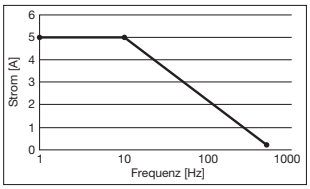
Technical data (25 °C) SCS10-300-200-000-2x5 A

Outputs			
PIN 87	max. 5 A	O	digital • High Side Driver • Current measurement
	max. 500 Hz		PWM • High Side Driver • Duty cycle 0…100 % • Frequency characteristic for PWM operation - up to 10 Hz: 5 A - 500 Hz: 0.2 A - 10 - 500 Hz linear function 
PIN 87a	max. 5 A	O	digital • High Side Driver • Current measurement
	max. 500 Hz		PWM • High Side Driver • Duty cycle 0…100 % • Frequency characteristic for PWM operation - up to 10 Hz: 5 A - 500 Hz: 0.2 A - 10 - 500 Hz linear function 
CAN interface			
PIN H	CAN High	CAN 2.0	
PIN L	CAN Low		

Tolerance specification generally for all values:
- Voltage: 5 %
- Current: 10 %
- Frequency: 1 %

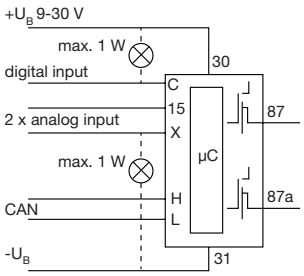
Depending on the maximum value and the entire range.

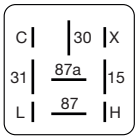
Qualifications

SCS10-300-200-000-2 x 5 A	
Degree of protection	IP52
Noise immunity	ECE-R10
E1 number	Upon request

Schematic diagram / Pin assignment

SCS10-300-200-000-2 x 5 A





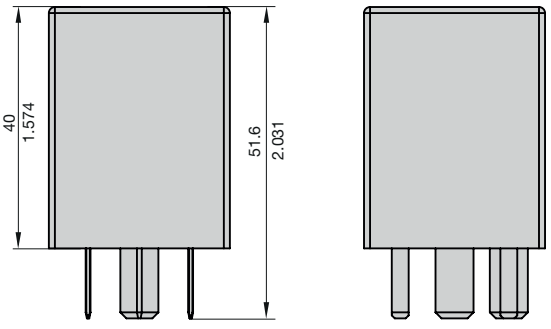
15, 30, 31, 87, 87a: 6.3 x 0.8 mm
C, X, L, H: 2.8 x 0.6 mm

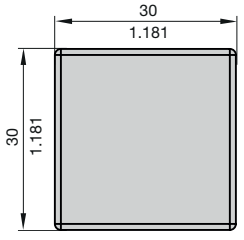
Ordering number code

Type No.									
SCS10	Smart Control Systems								
	Operating voltage								
	3	12 V / 24 V							
		Inputs / Outputs (Low Power I/Os)							
		0	3 I/Os max. 1 W						
			HSD outputs						
			0	2 x HSD 5 A					
				Standard					
				200-000-	Harsh Environment CAN				
				Custom designed versions					
				049	Project index number depending on the region (according to the country code) e.g.:				
				049	Germany +49				
				033	France +33				
				351	Portugal +351				
				001	USA +1				
					Project number part 2				
					001	Serial number			
						Main outputs - Current ratings			
						2 x 5 A	SCS10-300-...		
SCS10 -	3	0	0	- 200-000	- 2 x 5 A	Ordering example			

Dimensions

9 PIN





footprint to ISO 7588