

CTL-S700 series

Safety controller for mobile machines

Applications

- Mobile Cranes
- Truck-mounted Cranes
- Knuckle Boom Cranes
- Forestry Equipment

Special Features

- For use in safety-critical applications acc. to:
 - IEC/EN 61508 Parts 1-7:2015 SIL 2
 - EN ISO 13849:2015 PL d
 - EN 62061:2005 + AC:2010 + A1:2013 + A2:2015 SILCL 2
- 32-Bit Tri-Core processor
- up to 64 inputs and 56 outputs
- 4 CAN interfaces
- up to 2 Ethernet interfaces
- Programmable according to IEC 61131-3 with CODESYS 3.5



CTL-S701 controller

Description

The CTL-S700 safety controller lifts safety to new heights! Especially developed for demanding tasks of mobile machines, the user is offered countless application possibilities.

The controller is ready for use in safety-critical applications and offers many interfaces and I/Os for safety-relevant machine control tasks.

With an IP66/67 protection rating, a robust aluminum cast housing and high shock- and vibration-resistance, CTL-S700 is perfectly equipped for use in harsh environments.

Technical Specifications

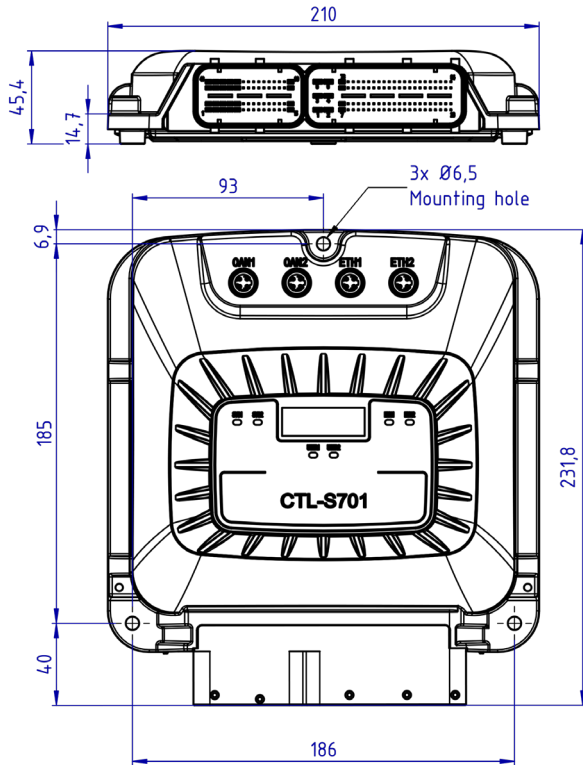
CTL-S700 series						
Processor	Aurix TC299TX, 300 MHz, Tri-Core lockstep CPU, 32 bit					
Flash	8 MB, internal/ optionally 64 MB external					
SRAM	2.7 MB, internal					
FRAM	32 kB, external					
Programming interface	CoDeSys 3.5 SIL 2					
I/O and Interface	Variant	S701	S702	S703*	S704	S705
Order #		83902699	83902700	--	83902701	83902702
Analog input <ul style="list-style-type: none"> • 12bit, accuracy <1% FS in full temperature range. • Configurable via software to <ul style="list-style-type: none"> • 4...20mA • 0...10V • 0...32V 	Safety	24	24	24	16	8
Digital input <ul style="list-style-type: none"> • Configurable via software to <ul style="list-style-type: none"> • Digital input high-side • Digital input low-side 	Safety	22	18	18	10	10
Digital input HSC <ul style="list-style-type: none"> • Configurable via software to <ul style="list-style-type: none"> • Digital input high-side • Digital input low-side • Frequency input: <ul style="list-style-type: none"> Pulse range 0.1Hz-15kHz Input voltage threshold 0.3V-4-5V 	Non-safety	12	12	12	8	8
Digital input <ul style="list-style-type: none"> • Configurable via software to <ul style="list-style-type: none"> • Digital input high-side • Digital input low-side • Resistor input: <ul style="list-style-type: none"> Input: 0-10kΩ Accuracy: ±2% FS in full temperature range 	Non-safety	6	6	6	4	4
Digital output 4A@24V <ul style="list-style-type: none"> • Configurable via software to <ul style="list-style-type: none"> • High-side MOSFET • PWM Output frequency: 50-1000Hz 	Safety	18	16	12	10	6
Digital output 4A@24V <ul style="list-style-type: none"> • Configurable via software to <ul style="list-style-type: none"> • DO high-side MOSFET • PWM Output frequency: 50-1000Hz • Digital output with constant current 	Safety	24	20	12	12	6

*currently not available

CTL-S700 series						
	Variant	S701	S702	S703*	S704	S705
Digital output 4A <ul style="list-style-type: none"> Configurable via software to <ul style="list-style-type: none"> DO high-side MOSFET PWMH (safety) Output frequency: 50-1000Hz DOCC (safety) H-Bridge (safety) Used for motor rotation DO low-side MOSFET (non-safety) PWML (non-safety) 	Safety	12	8	6	6	4
Relay output NO <ul style="list-style-type: none"> 5A@24V 	Safety	2	2	2	2	2
PVG output <ul style="list-style-type: none"> Configurable via software to <ul style="list-style-type: none"> PVG output: 10-90% of BAT+ Voltage output: 0-100% of BAT+ 0...10V 0...32V 	Non-Safety	2	2	2	2	2
Auxiliary power supply 5V/ 1A	Safety	1	1	1	1	1
Auxiliary power supply 10V/ 500mA	Safety	1	1	1	1	1
Parameter storage	Safety	32kB	32kB	32kB	32kB	32kB
RTC	Non-Safety	RTC	-	-	-	-
CANopen Safety	Safety	4	4	4	4	4
Ethernet	Non-Safety	2	2	1	2	1
Environmental						
Operation temperature	-40...+85°C					
Storage temperature	-40...+105°C					
Power supply	10...36 VDC					
Protection class	IP66/67					
Shock	EN 60068-27					
Vibration	EN 60068-6					
Housing material	Aluminum cast					
Certification						
Safety performance level / Safety integrity level	IEC/EN 61508 Parts 1-7:2015 SIL 2 EN ISO 13849:2015 PL d EN 62061:2005 + AC:2010 + A1:2013 + A2:2015 SILCL 2					
CE marking	EN 61000-4-2, EN 61000-4-4, EN 61000-4-5, EN 61000-6-2, EN 61000-6-7					

*currently not available

Dimensions: CTL-S701 and CTL-S702



Dimensions: CTL-S704 and CTL-S705

