

CTL-S700 series

Safety controller for mobile machines

Applications

- Mobile Cranes
- Truck-mounted Cranes
- MEWP
- Knuckle Boom Cranes

Special Features

- For use in safety-critical applications acc. to
 - IEC 61508:2010 SIL 2
 - ISO 13849-1:2015 PL d
 - IEC 62061:2015 SIL 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

WIKAI Mobile Control's new safety controller CTL-S700 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 according to IEC 61508:2010 SIL 2, ISO 13849-1:2015 PL d and IEC 62061:2015 SIL 2 and offers many interfaces and I/Os for safety-relevant machine control tasks.

With an IP66/67 protection rating, a robust aluminium 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
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 treshold 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 <ul style="list-style-type: none"> Output frequency: 50-1000Hz 	Safety	16	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 <ul style="list-style-type: none"> Output frequency: 50-1000Hz Digital output with constant current 	Safety	24	20	12	12	6

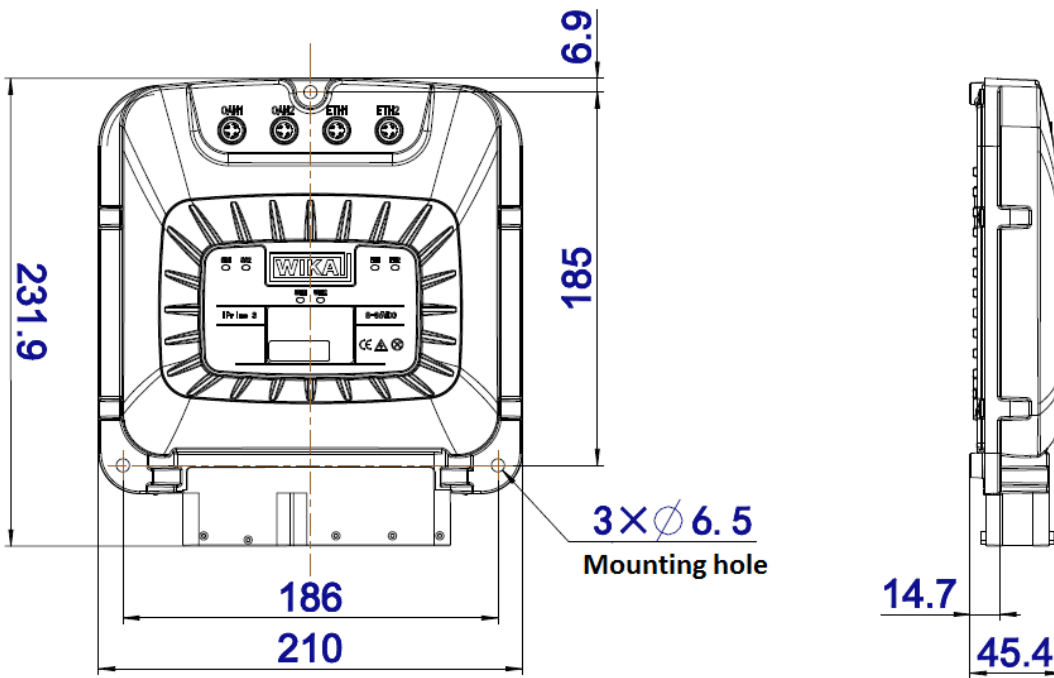
*currently not available

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
Data logger	Non-Safety	64 MB	-	-	-	-
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	Aluminium cast					
Certification						
Safety performance level	Acc. to EN 13849 PL-d Acc. to EN 61508 SIL2 Acc. to EN 62061 SIL2					
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

