

Cakmak Vinç San.ve Tic. A.Ş. www.cmak.com Tel: 0264 654 5959 Faks: 0264 654 5747



HOST SENSE+ Electronic Hoist Monitor&Control Unit



HoistSense+

A Game Changer in Crane Monitoring

Industry 4.0 application with HoistSense+ makes the whole crane transform from a regular one to an automatic crane supervisor.

HoistSense + can integrate into a generic industrial wifi or mobile data router and connect to the internet to start flow of information securely to CMAK cloud servers to monitor and create reports/alarms for the users in real-time.





Business Intelligence

How much of an experience and knowledge a person requires for crane supervision and monitoring ?

For HoistSense+, it is multiple decades of knowledge, which will give you the best insight about what is going on with your crane. With using multiple advanced sensors and historical data, it can predict the problems you might face, thus preemptively acting and advising you to take a proactive approach, letting you avoid or get rid of the electrical, mechanical and operational problems all together.

Reporting

HoistSense+ is a unique crane supervisor that works every day for you with minimum cost. It reports back to you instantly and with neat graphical reports every month, will let you know about how your crane is operating with performance values.

Monitoring

HoistSense+ is monitoring the current conditions of the crane including design working period calculations, load sharing, overloads, slackrope, faster speeds depending on the weight of the load, brake wear-tear, electrical and mechanical stability and much more, with the help of advanced sensors.







Features

Monthly Reporting

- Advise when to service and which points to check, make the user be proactive - Send monthly reports directly to whom is in charge, but each individual alarm and status report can be also sent to an email address. (if required)

Load Weighing

- Real-time display of the loads via strain gauge sensor

Real-time Monitoring

- Safe Working Period (SWP, DWP) according to FEM 9.755

- Monitor Hoisting and Cross-Travel motions
- Service time interval calculation

Ultraspeed function

- Increase nominal speeds on motions when the load is below certain set amount (can be adjusted to anything below 50% of nominal load)

Slack Rope Supervision

- Monitor if there is a slack rope

Overload Limiter

- 2 adjustable overload limits;

*1 is for ultimate limit

*2 can be utilized for illuminating a warning sign or sounding a siren (in default it is not used)

Using Inverters as advanced sensors

- Connect and listen to the inverters for arising errors of the Hoisting & CT Inverters.

Brake lining supervision

- Electro-magnetic brake sensors are mounted on the standard disc brakes and they let HoistSense + listen to those sensors for whether the brake-linings are worn out or not

Temperature sensors in control panels and motors

- Connect to PTC inside of the hoisting motor and check whether the motor is running properly - HoistSense + itself is also a temperature sensor, monitoring the temperature inside of the control panel.

Load Summation / Load sharing function

- Connect with other HoistSense+ to monitor total load of 2 or 3 hoists at a time - Use load sharing for overloading and both overload limiters engaging on shared load to avoid overloading the crane

Alarm options

HoistSense+ communicates with Inverters of the crane, and it lets it grab any error or alarm message immediately and send it to the end-users, depending on settings.

- *Mechanical compressions
- *Inverter faults
- *Overloads
- *Overheating and Over-temperature
- *Brake wear-tear
- *Short Circuits
- *Current and Voltage values and more

CMAK

Brake Lift Sensor Enable Imable Ground Short Circuit SCF3 Enable Brake Cat Sensor Enable Imable Drive Overheat OHF Enable Inverterresponse Enable 1 Imable Motor Overload OLF Enable	Get All Device In	formation	£	
Overload EnableImableBrake Feedback BRF EnableOverload 2 EnableImableImableOvercurrent OCF EnablePTC Threshhold EnableImableImableOverspeed SOF EnableTemperature Threshhold EnableImableImableMotor Short Circuit SCF1 EnableBrake Lift Sensor EnableImableImableGround Short Circuit SCF3 EnableBrake Cat Sensor EnableImableImableDrive Overheat OHF EnableInverterresponse Enable 1ImableImableMotor Short Circuit SCF3 EnableInverterresponse Enable 2ImableImableMotor Short Circuit SCF3 EnableInverterresponse Enable 3ImableImableImable	Alarm Options	Stat	e	
PTC Threshhold Enable Imable Overspeed SOF Enable Temperature Threshhold Enable Enable Motor Short Circuit SCF1 Enable Brake Lift Sensor Enable Enable Ground Short Circuit SCF3 Enable Brake Cat Sensor Enable Enable Drive Overheat OHF Enable Inverterresponse Enable 1 Enable Motor Short Circuit SCF3 Enable Inverterresponse Enable 2 Enable Motor Overload OLF Enable Inverterresponse Enable 3 Enable Overbraking OBF Enable	Overload Enable			Brake Feedback BRF Enable
Temperature Threshhold Enable Image: Senable Motor Short Circuit SCF1 Enable Brake Lift Sensor Enable Image: Senable Ground Short Circuit SCF3 Enable Brake Cat Sensor Enable Image: Senable Drive Overheat OHF Enable Inverterresponse Enable 1 Image: Senable Motor Short Circuit SCF3 Enable Inverterresponse Enable 2 Image: Senable Motor Overload OLF Enable Inverterresponse Enable 3 Image: Senable Overbraking OBF Enable	Overload 2 Enable	V	Enable	Overcurrent OCF Enable
Brake Lift Sensor Enable Imable Ground Short Circuit SCF3 Enable Brake Cat Sensor Enable Imable Drive Overheat OHF Enable Inverterresponse Enable 1 Enable Motor Overload OLF Enable Inverterresponse Enable 2 Enable Motor Short Circuit SCF5 Enable Inverterresponse Enable 3 Enable Overbraking OBF Enable	PTC Threshhold Enable	~	Enable	Overspeed SOF Enable
Brake Cat Sensor Enable Image: Cat Sensor Enable Image: Cat Sensor Enable Drive Overheat OHF Enable Inverterresponse Enable 1 Image: Cat Sensor Enable 2 Image: Enable 2 Image: Cat Sensor Enable 2 Inverterresponse Enable 2 Image: Enable 2 Image: Enable 2 Image: Enable 2 Image: Enable 2 Inverterresponse Enable 3 Image: Enable 3 Image: Enable 2 Image: Enable 3 Image: Enable 3	Temperature Threshhold Enab	le 🗸	Enable	Motor Short Circuit SCF1 Enable
Inverterresponse Enable 1 🗸 Enable Motor Overload OLF Enable Inverterresponse Enable 2 V Enable Motor Short Circuit SCF5 Enable Inverterresponse Enable 3 V Enable Overbraking OBF Enable	Brake Lift Sensor Enable	~	Enable	Ground Short Circuit SCF3 Enab
Inverterresponse Enable 2 🗸 Enable Motor Short Circuit SCF5 Enable Inverterresponse Enable 3 V Enable Overbraking OBF Enable	Brake Cat Sensor Enable	~	Enable	Drive Overheat OHF Enable
Inverterresponse Enable 3 🗸 Enable Overbraking OBF Enable	Inverterresponse Enable 1	~	Enable	Motor Overload OLF Enable
	Inverterresponse Enable 2	~	Enable	Motor Short Circuit SCF5 Enabl
Slack Rope Supervision 🗸 Enable	Inverterresponse Enable 3	~	Enable	Overbraking OBF Enable
	Slack Rope Supervision	~	Enable	

HoistSense+ User Interface Alarm Options Overview

What are included in HS+ MK-I, MK-II and MK-III packages?

	HoistSense+MK-I (Base Product)	HoistSense+MK-II	HoistSense+MK-III
WIFI + GPRS (Industry 4,0)	Not Present	Not Present	Present
Monthly Reporting	Not Present	Not Present	Present
Load Weighing	Present	Present	Present
Real-time Monitoring	Present	Present	Present
Ultraspeed function	Present (Hoisting & C-T)	Present (All motions)	Present (All motions)
Slack Rope Supervision	Present	Present	Present
Overload Limiter	Present	Present	Present
Using Inverters as advanced sensors	Present (Hoisting & C-T inverters)	Present (All inverters)	Present (All inverters)
Hoist Brake Lining Monitoring	Not Present	Present	Present (Upgrade to MK-II)
Temperature sonsors in control panels and motors	Present	Present	Present
Load Summation / Load sharing function	Optional	Optional	Optional



			AB	OUT LANGUAGE -	×
1100	55 ADMIN PAGE				
State	e	5	Stat	te	
1	Enable	Brake Control BLF Enable	~	Enable	
1	Enable	One Output Phase Loss OPF1 Enable	~	inable	
~	Enable	Three Out PH LOSS OPF 2 Enable	~	Inable	
1	Enable	Mains Overvoltage OS Enable	~	Enable	
1	Enable	PTC Fault OTFL Enable	~	Enable	
1	Enable	Torque Current Lim SS Enable	~	Inable	
1	Enable	IGBT Overheat TJF Enable	~	Enable	
1	Enable	Input Phase Loss PHF Enable	~	Inable	
~	Enable	Undervoltage USF Enable	1	Enable	
		Set			
WL 🛃	SWL-LT 🖌 ISO 🖌	ISO-CT 🛃 ISO-LT 🛃 Tare-Weight 🛃	C	Calib-Load 🛃 Block-Weight 🛃	