

HOIST BLOCK II™

Digital Hoist Overload Controller with audible and visual alarms

- HOIST BLOCK II™ High Performance digital hoist overload
- 1-200+ tons
- **Factory Preset Hoist Load Limits available** to your requirement with **no** on-site test weights needed in most applications.
- **LED dome light (Green OK/Red Trip)** with audible trip alarm.
- **5 Digit on LED Display** on control box
- **6 Digit Remote Scoreboard option** 31"x10.5"x2.5" 13lbs 15' cable with wireless option available. 5" numbers. ISI Part # Display56
- Easy adjustments on front of the controller.
- **Dual Overload set-points** - Upper limit overload signal/relay and LOW Pre-alarm signal/relay allows for 2 different trip points which can be used for various reasons including pre-overload alarms etc. Controls the UP direction of the hoist.
- **Slack Rope Detection.** Using the LOW set point. Controls the DOWN hoist direction. This feature is normally used where large grabs and underhung attachments and/or with highly reeved hoists. Determine the load the hoist will "see" just prior to slack rope condition and set some % below that number (80-90%). A fraction of the weight of the underhung attachment needs to be used (not zero). For example where used: A large hoist with 24 reeves of rope, which if accidentally allowed to continue operation in the down direction could cause severe hoist service issues.
- Tare setting, low setting zero variable. Load Verification Accuracy ~0.5% controller, Load cell approximately 1-2% of full load, dependant on losses in hoist.
- ISI can also supply super flexible control cable with proper 2 twisted pair and shielding for extended length cabling including in festoon.
- **AC cranes** - standard unit. HOIST Load limit - 2 output relays - each Double Pole Double Throw Form C (N/O, Com, N/C)
- **DC crane** control available (larger controller module). DC powered with DC relays to switch DC hoist contactors.
- Other environmental requirements - ask for quotation.
- Not to be used as a primary personnel safety device. It is for increased reliability and efficiency and lower repair and maintenance costs of the Overhead equipment and other ancillary equipment.



fig2. **Rope Load Cell** attaches to the "dead end" of the hoist wire rope of those hoists with that type of reeving (most).

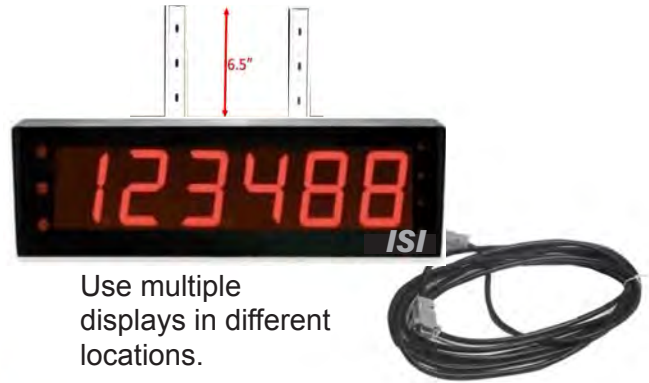
or



fig3. **Load pin** is placed in sheave/pulley of the hoist to transmit the load. Through 200+ ton.

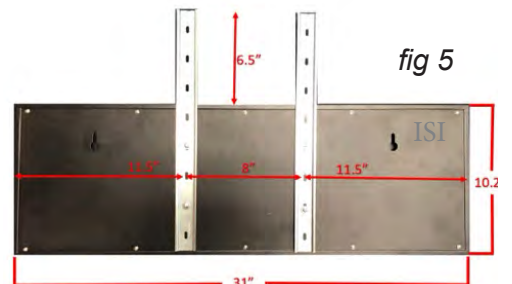


fig1. **Hoist Block II™ (HB2)** is a hoist load limit controller used with either an ISI Rope Load Cell or the ISI Load pin. 11.04 x 9.04 x 9.72 inches, 115VAC/230VAC powered (other available including 230 vdc or vac etc. NEMA 4X IP68 Polycarbonate with 2 form C relays for HIGH and LOW trips (Low can be used for Slack Rope). Can be placed on the hoist itself or where easily viewed. The dome on the top is a red/green visual indicator with audible alarm.



Use multiple displays in different locations.

fig 4. **OPTIONAL DISPLAY56** Large external Scoreboard(s) option 6 Digit LED-wired std 31"x10.5"x2.5" 13lbs 15' cable. 5" numbers. Mounting bars included (fig 5.see below).



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ISI Hoist Load Limits: HOIST BLOCK II™ or LL™

Table 1

Feature	Hoist-Block II	LL
Type of use:	Multi-use-purpose-precise settings	Simple/dedicated
AC hoist	Yes	Yes 1 N/C contact
DC crane	add HB2-DC option to HB2	add LL-DC option to LL
Hoist Overload trip	Yes	Yes
Overload + Pre-alarm Load trip	Yes	No
Slack Load trip	Yes, when hook touches ground DOWN direction stopped	No
Overload + Slack Load trip	Yes, when hook touches ground DOWN direction stopped	No
Option: Sum of multiple Hoist Loads and trips	With Mark3 Sum option added to each HB2 control	No
External Scoreboard Display	ISI# Display56 can be attached to the crane	No
Settable	Pushbutton loadable settings	Manual/screwdriver settings
Pre-settable Load(s) at ISI factory, reduce need for test weights in field	Yes - multiple	Yes - 1
Notifications	Audible Alarm and Red/Green Lights	Order with 3 wire option with N/O -for UP and N/C for use with external alarm
Options	Yes, many	Simple/dedicated
Custom features	Yes	No
Variables required to properly quote & order a system:		
# Falls Rope	# Falls _____ if Rope Load Cell used	# Falls _____
Rope Diameter required?	Load Pin - not used. Rope Load Cell used: size _____	size _____
High Load Trip	Lbs _____	Lbs _____
Low Load Trip	Lbs _____	N/A
Load Pin Dims	Critical: OB, OK, D,E, F Other: A,C,G,H,J	N/A
Maximum Hoist Load	Lbs _____	Lbs _____
Environmental info:		



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Fig. 2

Fig. 1 (left) The fully electronic Wire Rope Load cell pictured on the left for use with hoists with a dead end rope style; to be paired with the Hoist Block II™ (HB2™) see Fig. 2 giving a precision range of load adjustment, continuous output of load and visible display; along with easy electronic settings. System can additionally be outfitted with optional scoreboards ISI Part# Display56. The controls can be preset at ISI for your required Load(s) including Slack rope reducing the need for setting weights in the field. Load summing can be accomplished with additional ISI MARK 3™ Load summing option (send specifics). See Table 1.

Take into account US or Metric tons or list in Kgs.

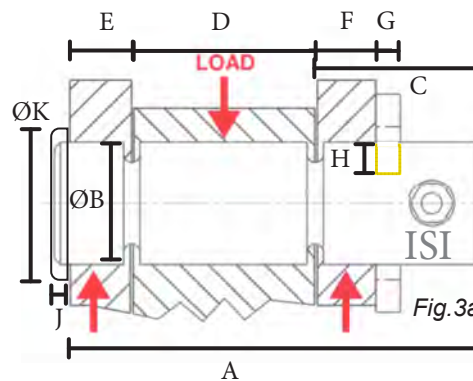


Fig. 3a

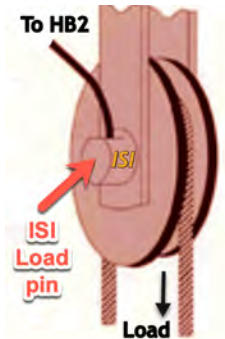


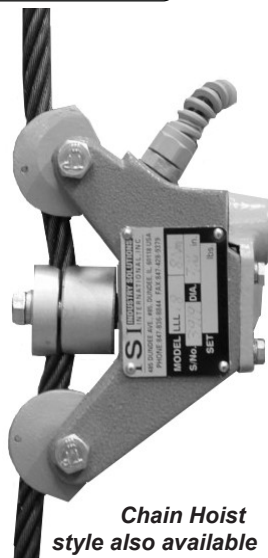
Fig. 3b

ISI LOAD-PIN

Fig. 3 Example of a load pin to replace the sheave pin in a hoist shackle/pulley to read the load on the hoist. For use with Hoist-Block II™ (HB2™) (see fig. 2) control and hoists without dead end rope. Note the holding plate notch is placed in the end of the load cell for a plate to stop the rotation of the load pin and lock it in place (user supplied) - H dimension. Draw the pin as you require with all dimensions. ISI will manufacture to your exact specification. Exact measurements are critical. Obtain L1 through L4 and OD and give full load of the hoist at full load on the Pin for proper manufacturing. ISI can supply Load pins for other applications. See Table 1 for dimensions. All sizes up to 200+ tons available. ISI can supply load pins for other devices mV, mA, 10v, etc.

LL™ series Fully Electromechanical Rope load limit

Fig. 4 Example of the ISI LL Series™ of Electromechanical Hoist overload device is shown on right. Utilizes simple setup with N/C contact connection to the UP direction control of the hoist. Straightforward mechanical adjustment These can be preset at ISI for your load trip point reducing the need for test weights. No controller or other equipment required. 3-wire option also has N/O contact. CHAIN HOIST STYLE ALSO AVAILABLE LLC Series™.



Chain Hoist style also available

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