

SCRAPYARD MONITOR

WINKLE



Our Digital Magnet Monitor (DMM) is designed to detect when a lifting magnet's operating current is above or below predetermined set points. It evaluates the status of the entire magnet system by acquiring data from sensors and comparing it to pre-programmed constraints that warn the operator of an impending system breakdown or failure in real-time.

APPLICATIONS

Scrap yard machines; Sennebogen, Liebherr, CAT etc.

AVAILABILITY

GTS, KWG, and Hubbell Controlled Systems.

Digital Amp & Volt Meter Relays With Adjustable Set Points.

Door Mounted Warning Lights and Siren.

On/Off/Reset Selector Switch

Isolated Power Supply With a 9-36VDC Input Range Provides 24VDC Control Power for the Unit While Protecting the Circuitry.

Nema 12 Wall Mounted Enclosure for Mounting in Operator's Cab, 6.3"W X 3.5"H X 2.4"D, 35 Lbs.

Easily Installed on Winkle Designed Systems.



SPECIFICATIONS

The high current set point is calibrated to detect 125% of the total magnet cold current. This over current condition would indicate a shorted magnet or a fault in the magnet cabling system. The low current set point is calibrated to detect 65% of the total magnet cold current. A low current condition would indicate the magnet is overheated and needs to be removed from service or allowed to cool to avoid costly damage to the magnet.

The DMM will be supplied with a CANbus 8-pin connector for connection to a GTS MMI.

The DMM requires a 12vdc or a 24vdc connection from the battery after the ignition switch supplied by the customer/installer. Please provide generator KW when ordering and magnet cold amps.

OPERATING INSTRUCTIONS

The Scrapyard Monitor was designed to supply real-time voltage and amperage readings across the magnet. It is pre-programmed for your application to sound an alarm when the mag is drawing 65% of its cold amps. At this value the magnet should be taken out of service until it has cooled down. Using the magnet at values lower than 65% may cause damage to the windings. The monitor is also set to give an alarm when the amperage value rises above 125%. Currents over 125% of the cold amp nomenclature value indicate a potential issue with the magnet operating system and possibly the magnet itself. Operating the magnet over 125% will overheat conductors and possibly destroy components that were chosen based on the cold amps of the magnet in the design stage.

The Scrapyard Monitor comes with a 24vdc, 120w regulated power supply with an input range of 9-36vdc. The inputs have male bullet connectors, and the outputs have female bullet connectors attached to the cord ends. If the equipment being used has a 24vdc system battery the unit may be installed without the power supply, but it is not recommended unless the line voltage has been conditioned. The power supply has built in ripple and noise cancellation filters to produce clean 24vdc power for the unit.

The siren operates at 80 -108dB and can be adjusted by rotating the plastic shield affixed to the top of the device. It also flashes red when there is an alarm. On the front of the case there are 2-LED's the center "Green" light indicates that the magnet is energized. The light turns on when the voltage is >170vdc. The indicator light on the left side of the case turns "red" when there is an alarm state along with the siren/light combo mentioned above. The pushbutton on the right side of the case resets the alarms. The alarms will also turn off when the set points fall within normal operating conditions.