

Digital Rod Position Indication Re-designed Circuit Cards

Background

Westinghouse's commitment to innovative solutions for customer demands is a key element in the conception, development, and commercialization of its technological products and services to address customer near- and long-term needs. Westinghouse's innovation program has sponsored the re-design and enhancement of several digital rod position indication (DRPI) circuit cards with the goals of increasing reliability, addressing obsolete components and adding functionality.

Description

Obsolete Motorola HTL chips have been eliminated on all Westinghouse re-designed DRPI cards. The re-designed cards utilize CMO Series 4000 logic components, which are more energy efficient, less sensitive to heat, and require a lower total component count on the board.

The cards lower profiles also create increased cooling, which results in a higher level of reliability. Furthermore, the components for the re-designed boards are readily available for production. The enhanced cards are a direct form, fit and function replacement for their respective predecessors.

Benefits

The following is a list of re-designed cards and additional features and enhancements.

DRPI Computer Input/Output (I/O) Card

- 2D82873G01/G02 replaces 1055E17G01/G02

- Troubleshooting test points have been added to the front card edge

Data I/O Card with Test/Monitor Function

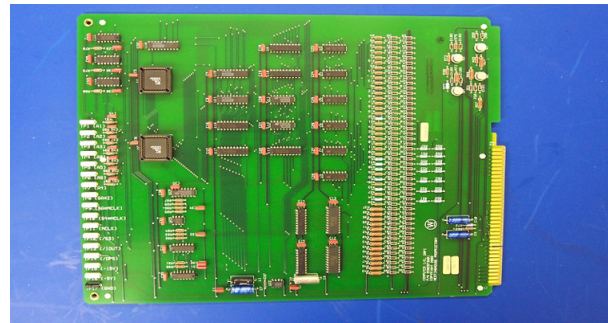
- 6D30477G01 replaces 1047F32G01
- Utilization of brighter LEDs
- Switch and LED panel assembly is more easily replaceable due to a ribbon cable interface instead of individually soldered wires

Data I/O Card without Test/Monitor Function

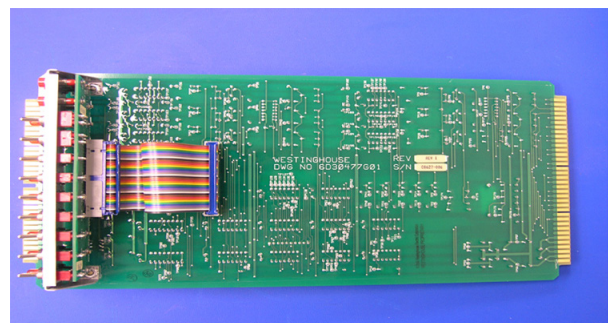
- 6D30478G01 replaces 1468F39G01

Test/Monitor Card

- 6D30479G01 replaces 1468F41G01



Computer I/O 2D82873G01



Data I/O with test/monitor 6D30477G01

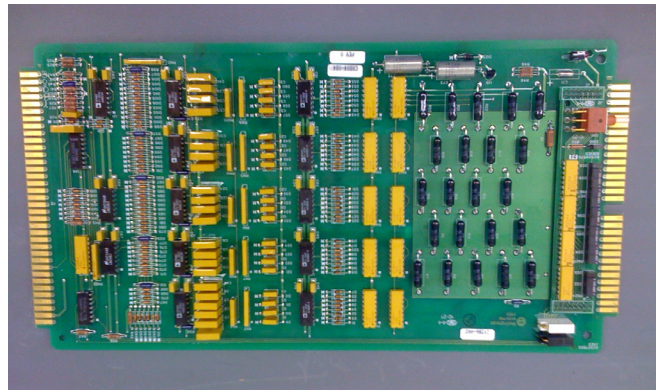
- Utilization of brighter LEDs

Detector/Encoder Card

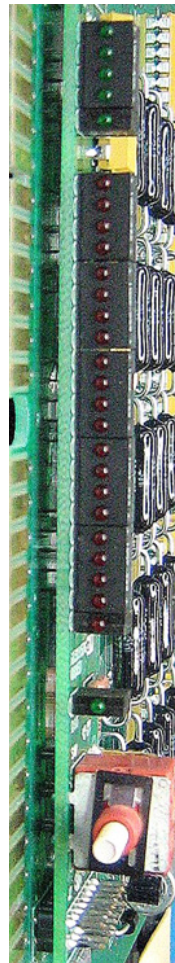
- Standard detector/encoder card 6D30782G01 (with LED daughterboard option)/G02 (without LED daughterboard option) are direct replacements for either 1047F28G01 or 1468F53G01
- Shutdown detector/encoder card 6D30781G01 (with LED daughterboard option)/G02 (without LED daughterboard option) are direct replacements for 1468F06G01
- LED daughterboard option is added to front card edge to indicate rod position and output data, as well as individual shorted- and open-coil locations
- Gray code encoding circuit is simplified

Card Extractors

- Reduces human error during card extraction
- Reduces possibility of card damage during extraction
- 10076D76H01 – Data Cabinet Card Extractor
- 10076D76H02 – Display and Rod Deviation Card Extractor
- 10076D76H03 – Central Control Card, Display I/O, and Computer I/O Card Extractor



Standard detector/encoder Card 6D30782G01 with daughterboard



6D30782G01 LED daughterboard



Card extractors.

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