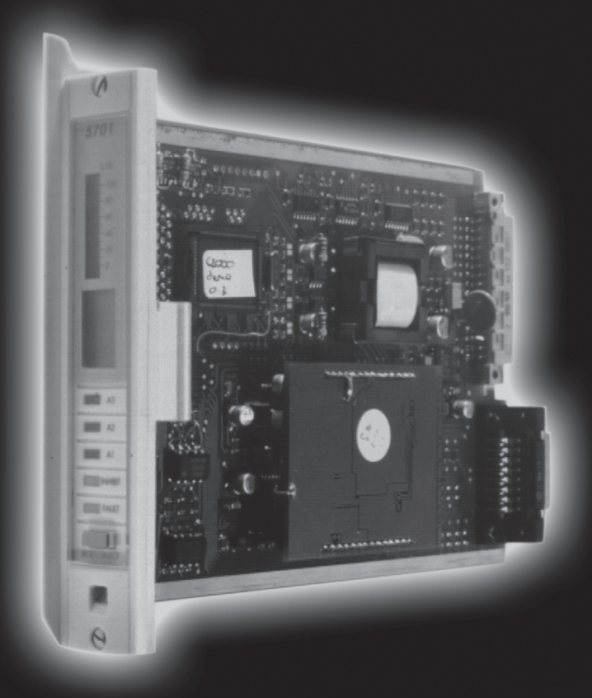
Operating Instructions

Honeywell

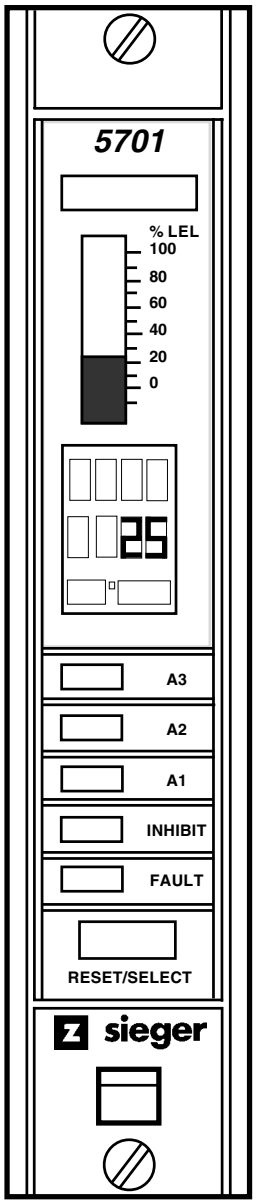


Sieger System 57
5701 Control System

CHAPTER 2 - SYSTEM DESCRIPTION

4. SINGLE CHANNEL CONTROL CARDS

4.1 General



The 5701 Single Channel Control Card provides control, display and alarm facilities for a connected gas detector. The front panel display indicates the gas reading and channel status while LEDs are used for alarms. A push-button is provided for resetting the alarms and selecting the card for use with the Engineering Card.

The operation of the control card is microprocessor controlled and is fully definable for a wide range of connected gas detectors and application requirements. The software configuration setup is stored in an EEPROM.

There are two types of control card depending on the type of gas detector being fitted to the system:

a. Single Channel Control Card 4 - 20mA. Part Number 05701-A-0301.

b. Single Channel Control Card Catalytic. Part Number 05701-A-0302.

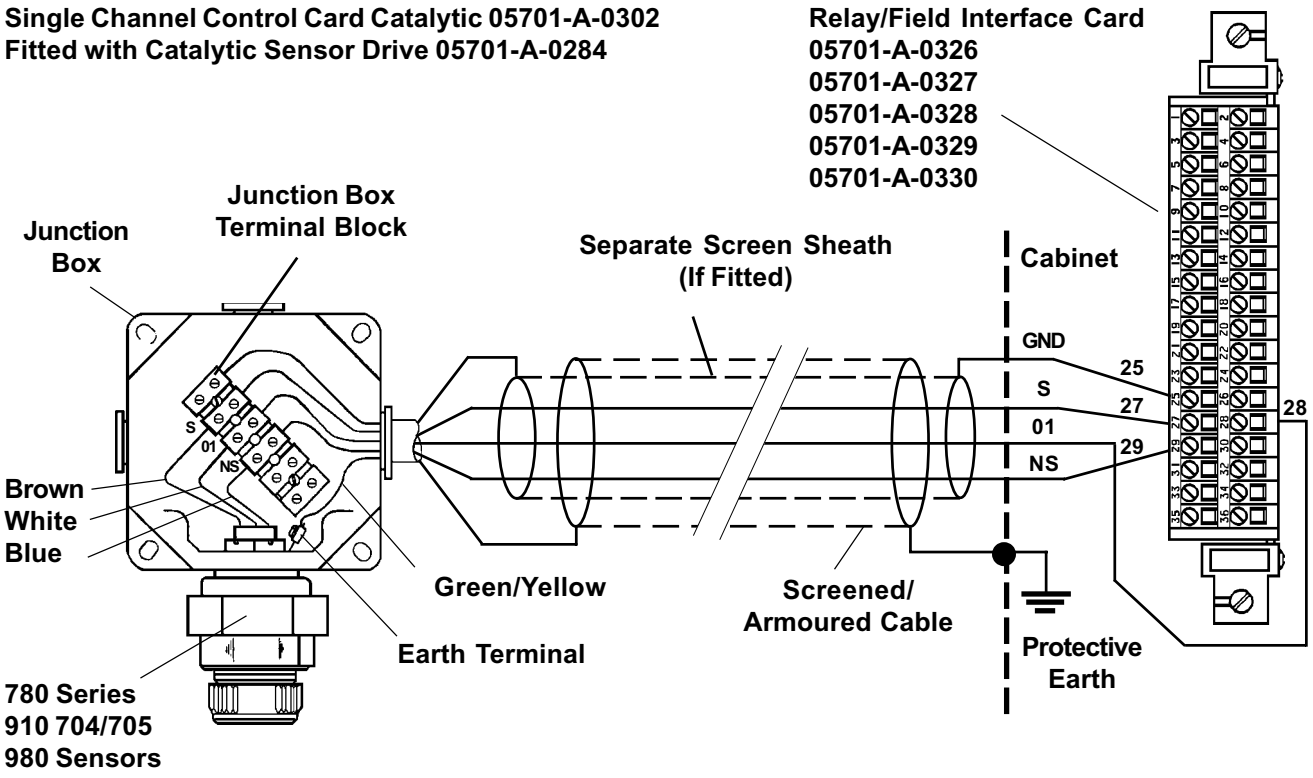
Each of the above control cards consist of a single channel control card fitted with the respective plug-in sensor drive module.

An optional Analogue Output Module can also be plugged into the single channel control card to provide a remote output of the channel card readings.

CHAPTER 4 - INSTALLATION INSTRUCTIONS

The sensor cable screen or steel wire armour (or braid), as appropriate, should be connected to the system (protective) earth. This can be achieved where the cable enters the cabinet by using a metal cable gland, or by other suitable means, and avoiding any screen 'tails' within the cabinet.

Where the cable consists of a separate screen sheath and wire armour (or braid), the armour should be connected, at the cabinet entry, to the protective earth and the screen sheath should be connected to the GROUND terminal of the Field Interface/Relay Card or to a suitable instrument earth point.

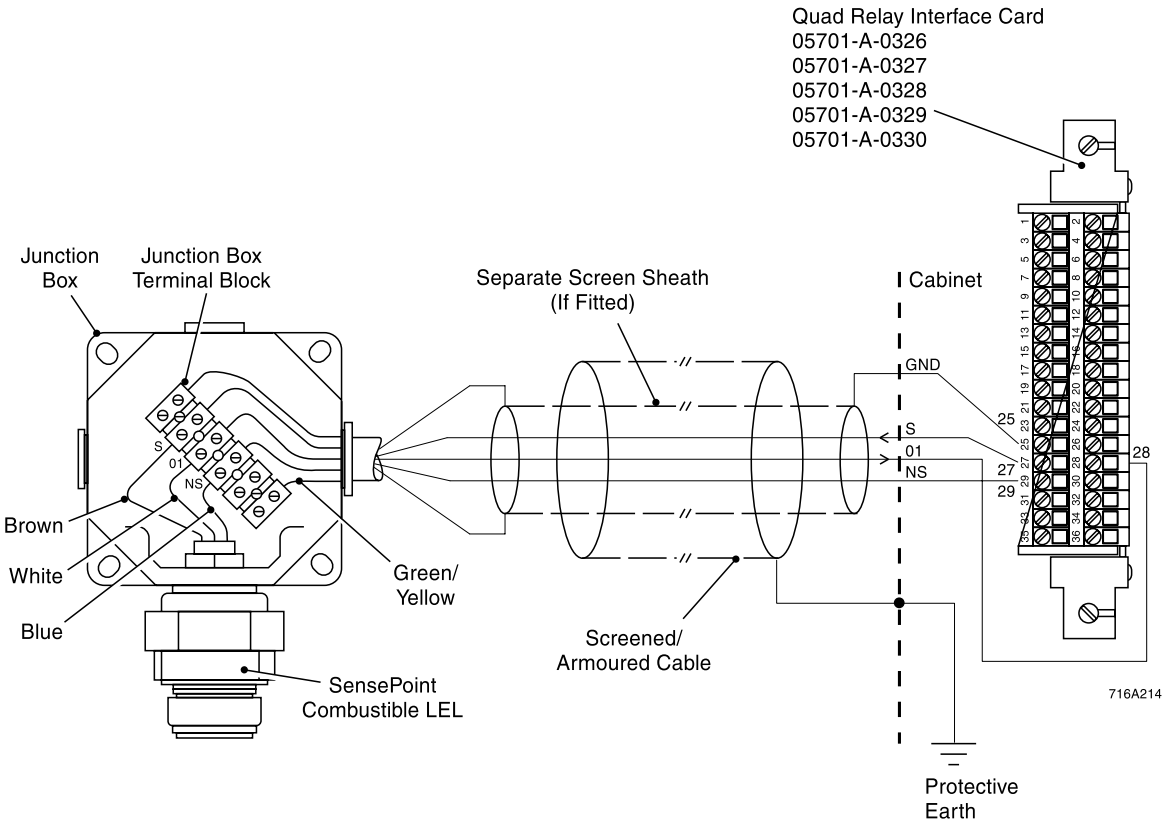


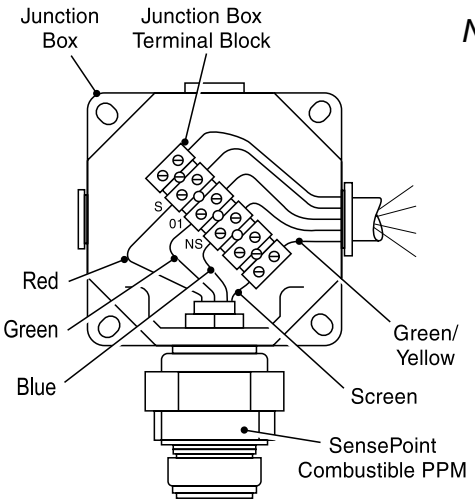
Note: Where a sensor is earthed locally, either to the Earth Stud or through the sensor casing or mounting, to avoid earth loops the screen sheath of the cable should only be connected at one end, i.e., at the sensor or at the Interface/Relay Card.

Combustible Sensor, Junction Box and Terminal Block Connections

CHAPTER 4 - INSTALLATION INSTRUCTIONS

Single Channel Control Card Catalytic 05701-A-0302
Fitted with Catalytic Sensor Drive 05701-A-0284





Note: Where a sensor is earthed locally, either to the Earth Stud or through the sensor casing or mounting, to avoid earth loops the screen sheath of the cable should only be connected at one end, i.e., at the sensor or at the Interface/Relay Card.

SensePoint Combustible Sensor, Junction Box and Terminal Block Connections

CHAPTER 4 - INSTALLATION INSTRUCTIONS

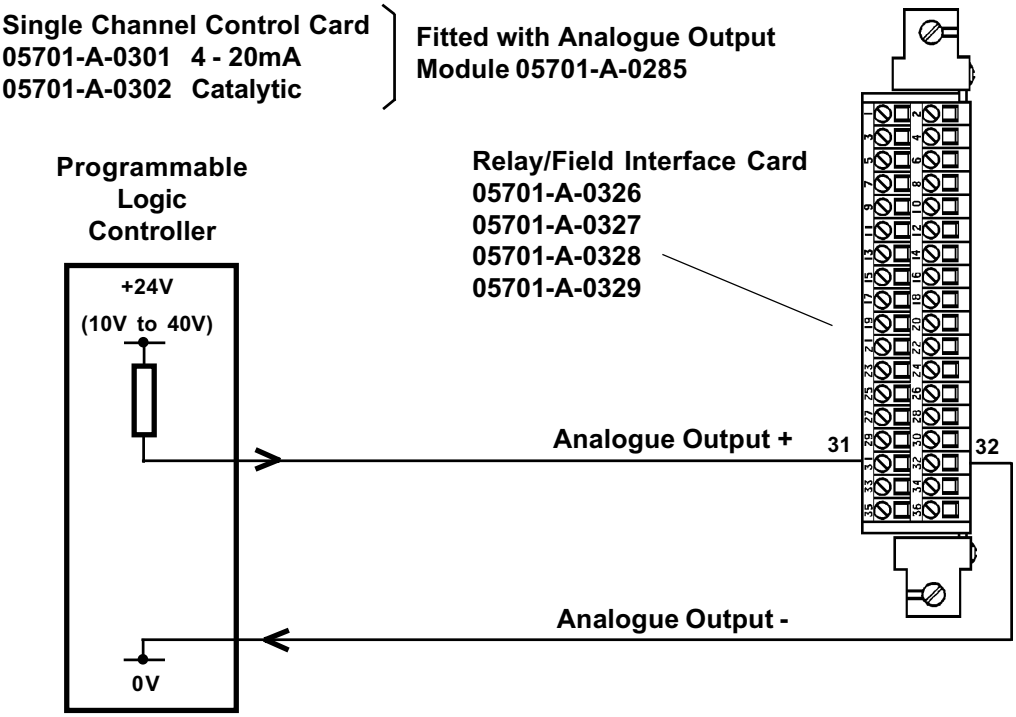
The alarm relays may be configured for either normally de-energised or normally energised operation. Check the configuration sheet supplied with the system to determine the operating mode of the relays on each channel. The energisation mode of the relays can be reconfigured easily using a computer attached to the Engineering Port. Contact Zellweger Analytics or your local agent for more information.

14.2 Analogue Output

CAUTION

Connecting the analogue output to a loop voltage in excess of 40V may cause permanent damage to the analogue output module.

The Analogue Output Module provides an isolated current loop output that follows the sensor signal level. The output circuit is a passive current control element that can be operated with loop voltages up to 40V. The recommended connections are shown below:

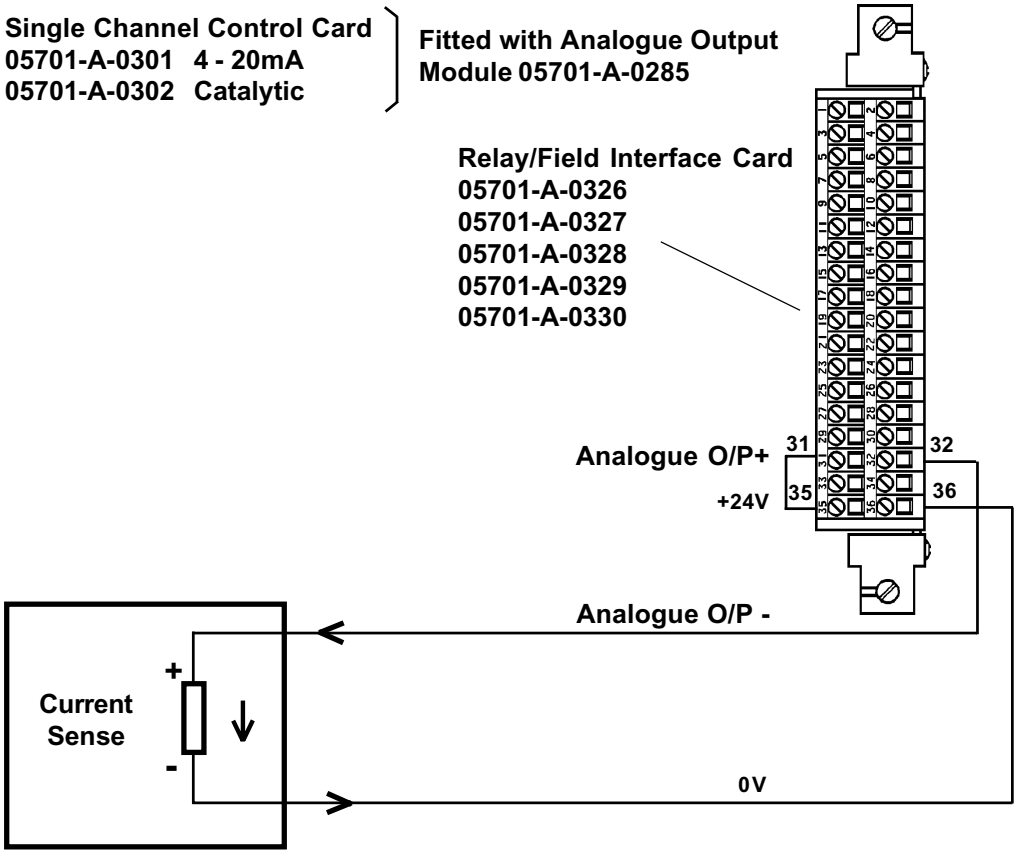


Isolated Analogue Output Connection with Power Sourced from Programmable Logic Controller

CHAPTER 4 - INSTALLATION INSTRUCTIONS

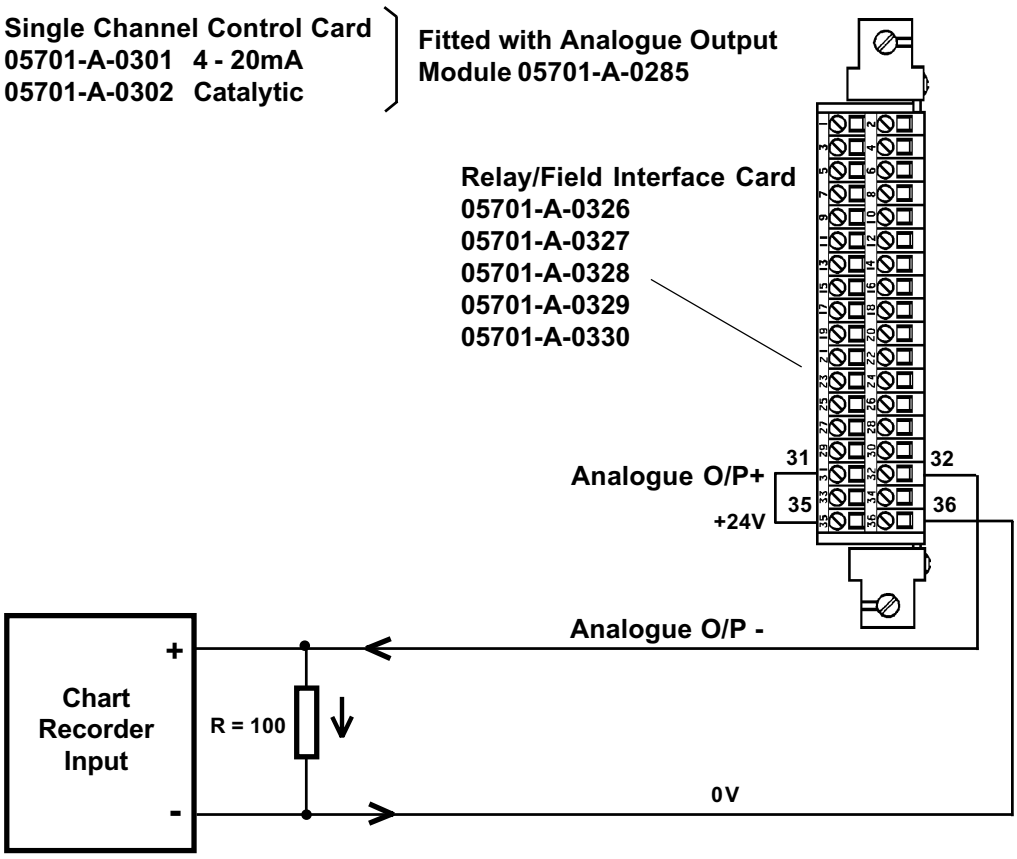
The analogue output can be configured for 0 - 20mA or 4 - 20mA output modes. Check the configuration sheet supplied with the system to determine the factory configured operating mode. The operating mode can be reconfigured easily using a computer attached to the Engineering Port. Contact Zellweger Analytics or your local agent for more information.

The analogue output can be connected to voltage input device (eg. chart recorders) by including an external sense resistor in series with the loop and connecting the device input in parallel with the resistor. ie. Use a 100 ohm resistor and select an input range of 2V on the chart recorder.



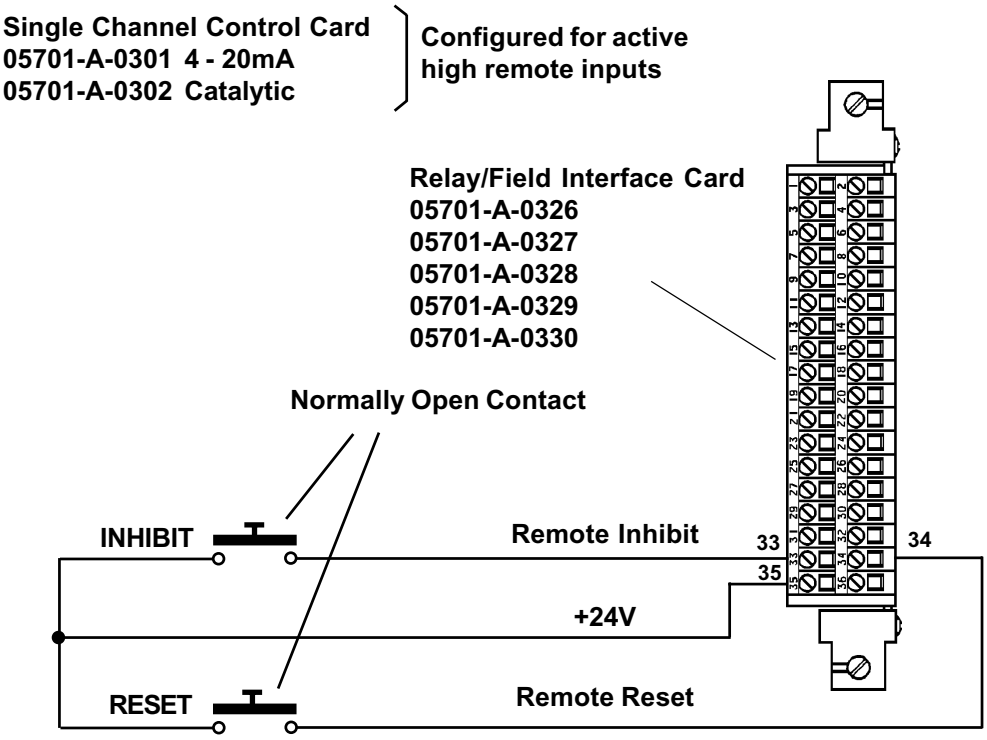
Non-isolated Analogue Output Connection with Power from System 57.

CHAPTER 4 - INSTALLATION INSTRUCTIONS

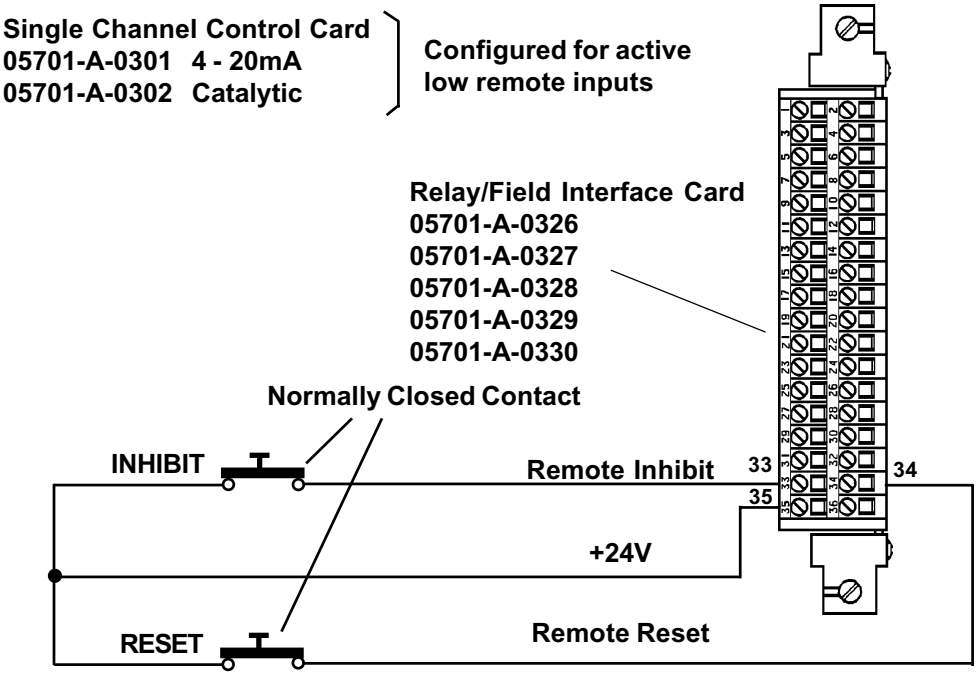


Analogue Output Connection with 100 Ohm Sense Resistor and Parallel Chart Recorder

CHAPTER 4 - INSTALLATION INSTRUCTIONS

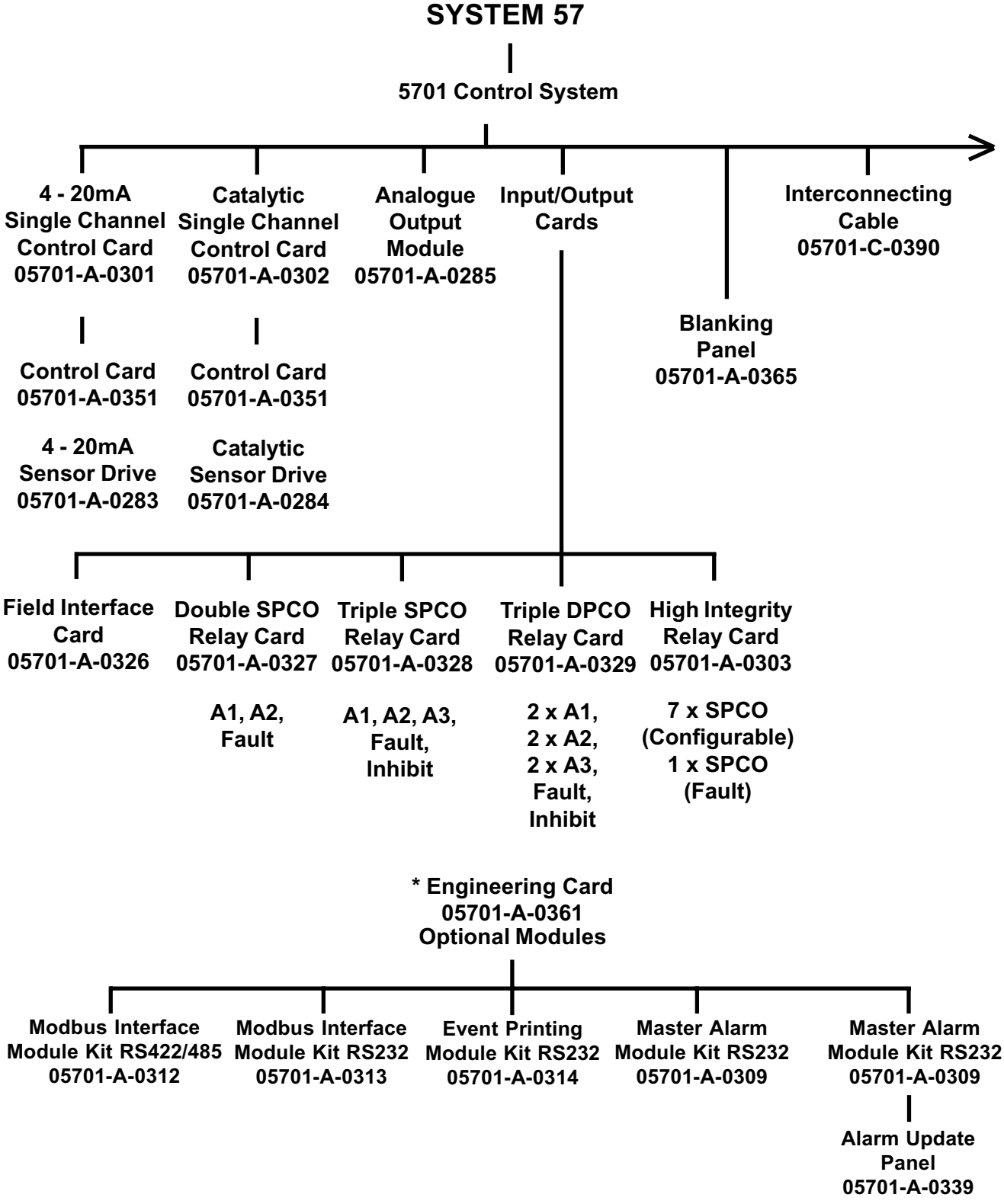


Active High Remote Input Connected via Normally Open Voltage Free Contact to +24V



Active Low Remote Input Connected via Normally Closed Voltage Free Contact to +24V

CHAPTER 9 - ORDERING INFORMATION



5701 Control System Parts - Sheet 1