

INSTRUCTION MANUAL
582-10 DATA SWITCH
AND
582-11 DATA SWITCH

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TABLE OF CONTENTS

| | PAGE |
|-------------------------------------|-------------|
| 1.1 Equipment Description | 3 |
| 1.2 Technical Specifications | 3 |
| 2.0 Installation | 4 |
| 2.1 Input/Output Connectors | 4 |
| 2.2 Controls and Indicators | 5 |
| 2.3 Mechanical | 7 |
| 2.4 Installation | 7 |

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INSTRUCTION MANUAL 582-10, 582-11 DATA SWITCH

1.1 Equipment Description

The 582-10 and 582-11 detect the presence of data on a main (DATA 1) and secondary (DATA 2) data channel by detecting positive level transitions on both inputs. If no data is detected on the DATA 1 channel (or CH1) for 1 to 9 minutes (adjustable in 1 minute increments), an alarm will occur causing the switch to transfer the DATA 2 channel (or CH2) to the SELECTED DATA output. If the DATA 2 channel also has an alarm, no switching will occur or switching can always be forced to the DATA 2 channel. Once the DATA 1 channel alarm clears, the switch returns to the DATA 1 channel. Switching is accomplished using a relay. If power is removed from the 582-10, a jumper selects signal continuity from either the DATA 1 or DATA 2 channel to the SELECTED DATA output. The channels can be manually switched by closures to ground. The PC power supply provides power to the 582-10 and 582-11. External redundant DC can be used. The unit is housed on a standard size PCI card.

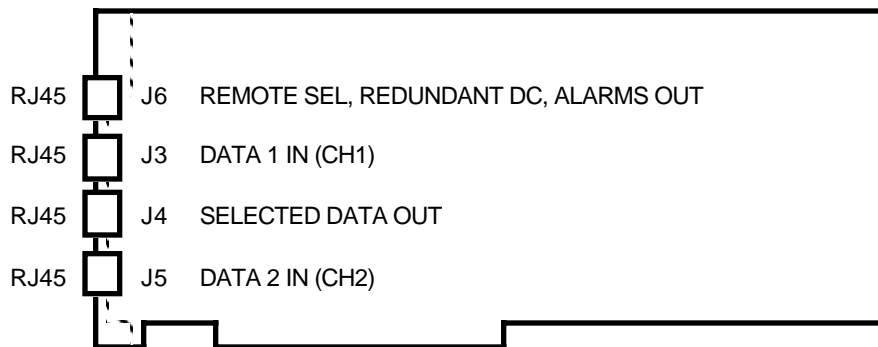


FIGURE 1.0 582-10, 582-11 DATA SWITCH

1.2 Technical Specifications

Data Characteristics

| | |
|--------------|--------------|
| Input/Output | RS232C |
| Data rate | 128 kB/s max |
| Connector | RJ45, female |

Switch Characteristics

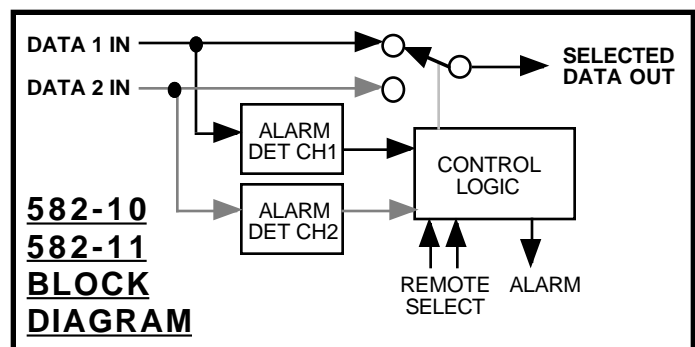
| | |
|---------------------|--|
| Type | Relay |
| Signal pin switched | Pin 2 |
| Isolation | > 40 dB |
| Switch time | ≤ 10 milliseconds |
| Contact resistance | ≤ 10Ω, < 1Ω typ |
| Configuration | SPDT |
| Switch after alarm | Settable for 0 to 9 minutes in 1 minute increments |

Controls

| | |
|---------------|--------------------------------------|
| Remote Select | Closures to ground select CH1 or CH2 |
|---------------|--------------------------------------|

Other

| | |
|------------|---|
| Mechanical | 3/4 Length Standard PCI Card; 4.2" high X 9.5" long |
| Power | +12V, 200ma; -12V, 100ma |



2.0 Installation

2.1 **Input/Output Connectors** - The following are the input and output connectors.

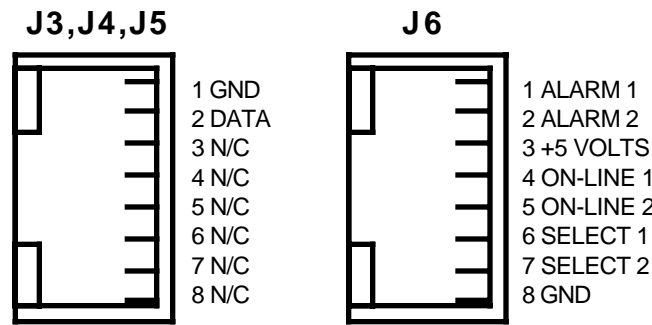


FIGURE 2.0 INPUT/OUTPUT RJ45 PINOUTS

TABLE 2.0 DATA INPUT/OUTPUT CONNECTORS J3, J4, J5 (FIGURE 2.0)

| <u>Pin Number</u> | <u>Function</u> | <u>Description</u> |
|-------------------|-----------------|--------------------------------|
| 1 | GND | Ground |
| 2 | DATA | Data In (J3, J5) Data Out (J4) |
| 3,4,5,6,7,8 | N/C | Not Connected |

TABLE 2.1 CONTROL/INDICATOR I/O CONNECTORS J6 (FIGURE 2.0), J15 (FIGURES 2.1 & 2.2)

| <u>Pin Number</u> | <u>Function</u> | <u>Description</u> |
|-------------------|-----------------|---|
| 1 | ALARM 1 | CH1 ALARM Indicator - Open collector output to Ground when CH1 is in ALARM condition. |
| 2 | ALARM 2 | CH2 ALARM Indicator - Open collector output to Ground when CH2 is in ALARM condition. |
| 3 | +5 VOLTS | +5 Volt Supply |
| 4 | ON-LINE 1 | CH1 ONLINE Indicator - Open collector output to Ground when CH1 is ONLINE. |
| 5 | ON-LINE 2 | CH2 ONLINE Indicator - Open collector output to Ground when CH2 is ONLINE |
| 6 | SELECT 1 | Selects CH1 when tied to Ground. |
| 7 | SELECT 2 | Selects CH2 when tied to Ground. |
| 8 | GND | Ground |

2.2 **Controls and Indicators** - The following are the controls and indicators.

2.2 Controls and Indicators - The following are the controls and indicators.

TABLE 2.2 ON-CARD CONNECTORS - 582-10 ONLY (FIGURE 2.1)

| <u>Item</u> | <u>Function</u> | <u>Description</u> |
|-------------|-----------------|---|
| J7 | MANUAL SELECT | The 1-2 position selects CH1. The 2-3 position selects CH2. With no pins connected the unit operates as normal (AUTO). |
| J8 | REMOTE SELECT | Pin 1 tied to Ground selects CH1. Pin 2 tied to Ground selects CH2. |
| J9 | CH2 ONLINE LED | Pin 2 - Open collector output to Ground when CH2 is online. Pin 1 - 300Ω pull-up to +5 Volts. Allows for LED across Pins 1 & 2 (see Figure 2.1) |
| J10 | CH1 ONLINE LED | Pin 2 - Open collector output to Ground when CH1 is online. Pin 1 - 300Ω pull-up to +5 Volts. Allows for LED across Pins 1 & 2 (see Figure 2.1) |
| J11 | MANUAL LED | Pin 2 - Open collector output to Ground when CH1 or CH2 is manually selected. Pin 1 - 300Ω pull-up to +5 Volts. Allows for LED across Pins 1 & 2 (see Figure 2.1) |
| J12 | REMOTE LED | Pin 2 - Open collector output to Ground when CH1 or CH2 is remotely selected. Pin 1 - 300Ω pull-up to +5 Volts. Allows for LED across Pins 1 & 2 (see Figure 2.1) |
| J13 | CH1 ALARM LED | Pin 2 - Open collector output to Ground when CH1 is in the ALARM condition. Pin 1 - 300Ω pull-up to +5 Volts. Allows for LED across Pins 1 & 2 (see Figure 2.1) |
| J14 | CH2 ALARM LED | Pin 2 - Open collector output to Ground when CH2 is in the ALARM condition. Pin 1 - 300Ω pull-up to +5 Volts. Allows for LED across Pins 1 & 2 (see Figure 2.1) |

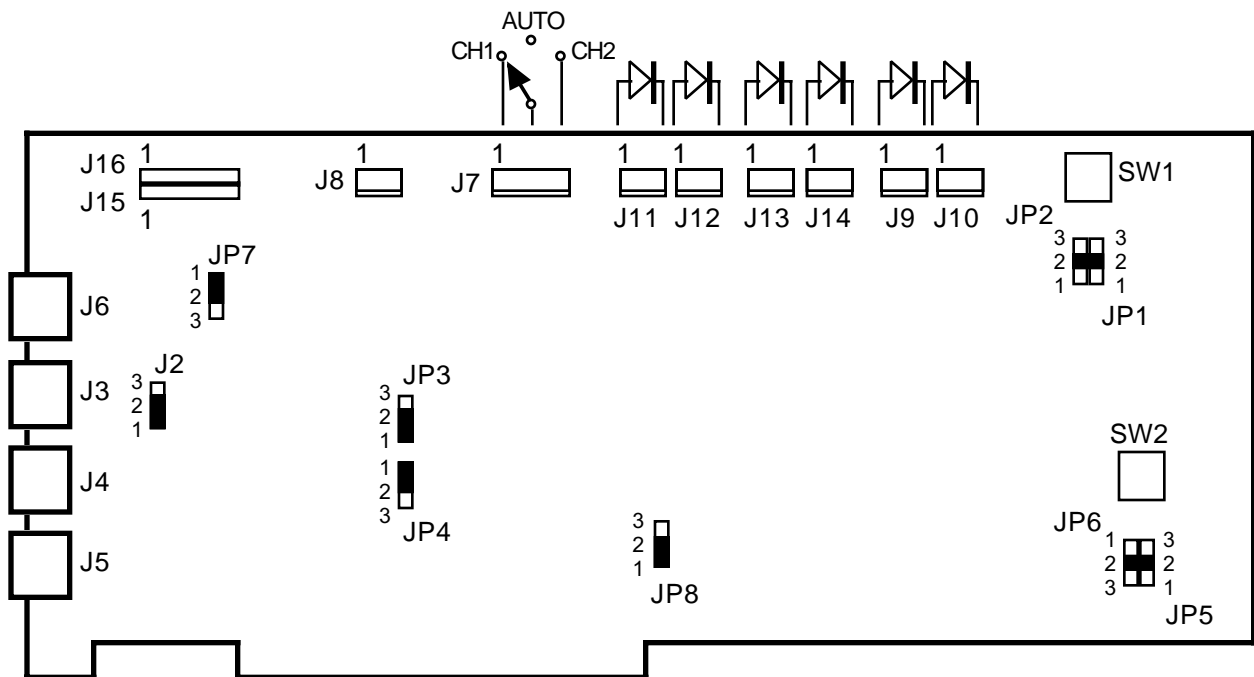


FIGURE 2.1 582-10 CONTROLS/INDICATORS PARTS LOCATIONS

TABLE 2.3 ON-CARD SETTINGS - 582-10 & 582-11 (FIGURES 2.1 & 2.2)

| <u>Item</u> | <u>Function</u> | <u>Description</u> |
|-------------|---|--|
| J15 | CONTROL & INDICATOR I/O HEADER | Same pinout and signals as J6 (see Table 2.1). |
| J16 | GROUND | All 8 pins are connected to Ground. |
| JP1, JP2 | FOR TEST | Factory Set. |
| JP5, JP6 | FOR TEST | Factory Set. |
| JP3 | TRANSIENT SUPPRESSION CH1 | The 1-2 position selects ON (Factory Set). The 2-3 position selects OFF. |
| JP4 | TRANSIENT SUPPRESSION CH2 | The 1-2 position selects ON (Factory Set). The 2-3 position selects OFF. |
| JP7 | SWITCH TO CH2 | The 1-2 position switches to CH2 if NO ALARM on CH2 (Factory Set). The 2-3 position selects switches to CH2 regardless of ALARM on CH2. |
| JP8 | SELECTS DATA OUT FOR POWER OFF (WITH J2) | The 1-2 position selects CH1 (Factory Set). The 2-3 position selects CH2. |
| J2 | SELECTS DATA OUT FOR POWER OFF (WITH JP8) | The 1-2 position selects CH1 (Factory Set). The 2-3 position selects CH2. |
| SW1 | ALARM CH1 TIMEOUT | Selects the time in minutes (0-9) of data absence in CH1 before an ALARM is indicated. |
| SW2 | ALARM CH2 TIMEOUT | Selects the time in minutes (0-9) of data absence in CH2 before an ALARM is indicated. |

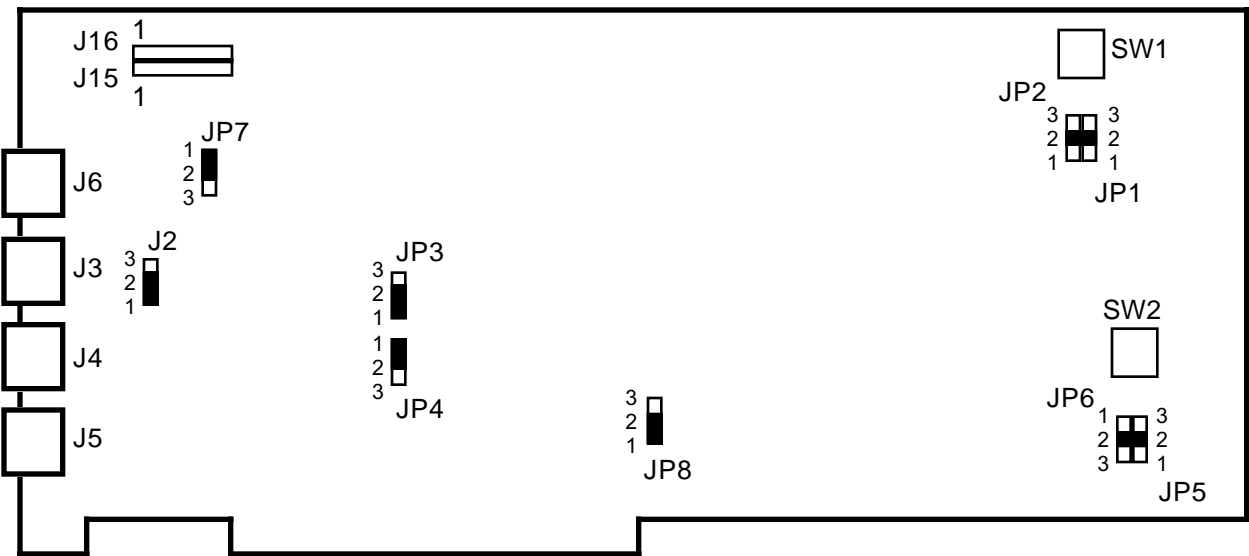


FIGURE 2.2 582-11 CONTROLS/INDICATORS PARTS LOCATIONS

2.3 Mechanical

The 582-10 and 582-11 are 3/4 length standard PCI cards, which measure 4.2" high by 9.5" long.

2.4 Installation

- a. Set the on-card controls as desired.
- b. Install the PCI card into the PCI slot.
- c. Connect data to the Data Input (CH1 and CH2) connectors (J3 and J5) and the Data Output (SELECTED DATA OUT) connector (J4).

*****WARNING - DO NOT CONNECT DATA TO THE MONITORS/CONTROLS INPUT (J6).*****

- d. Connect to signals on the MONITORS/CONTROLS connector, J6 and/or J15, as desired (see Figure 2.0, Table 2.1).
- e. Remove data to CH1 and insure automatic switching to CH2 occurs after time set. Connect data to CH1 and insure output switches back to CH1.