



# **Wiring Accessories and Spare Parts**

**Third Edition  
09 July 2002**

**MAN0347-04**



## PREFACE

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**Note: The programming examples shown in this manual are for illustrative purposes only. Proper machine operation is the sole responsibility of the system integrator.**

## Revisions to this Manual

1. Revised Section 1.1 and 1.2 by adding the Color Touch OCS.
2. Moved the SmartStack Wiring Accessories section from Chapter 2 into its own chapter (Chapter 3).
3. Added new terminal options to SmartStack Wiring Accessories for DIQ935 and DIQ937 and renumbered the chapter accordingly. Added example hookup and example wiring and have provided connector dimensions.
4. Moved Spare Parts from Chapter 3 to Chapter 5.
5. Expanded index to include individual part numbers.



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## CHAPTER 1: INTRODUCTION

### 1.1 Scope

This manual covers wiring accessories and spare parts that are available for use with Control Station products (e.g., OCS, RCS, Mini OCS, Graphic OCS, FOX, Color Touch OCS, SmartStack and MINI I/O Modules).

### 1.2 References

<b>Table 1.1 –References / Manuals for Control Station Products</b>
<b><u>Control Station</u></b> Operator Control Station, (OCS1xx-2xx) Graphic OCS (OCS250) Remote Control Station (RCS2xx) FOX104, FOX404, FOX100, SFX100
<b><u>Color Touch OCS</u></b> (OCS3xx)
<b><u>Mini OCS/RCS Hardware Manual</u></b> OCSxxx / RCSxxx (Contains individual data sheets for various models.)
<b><u>SmartStack Supplement</u></b> (Contains individual data sheets for various models.)
<b><u>Cscape Programming Reference (OSW232)</u></b>
<b><u>OCS DeviceNet Manual</u></b> (OCS/RCS products in used in DeviceNet applications.)

### 1.3 Technical Support

For assistance, contact Technical Support at the following locations:

**North America:**

(317) 916-4274 or visit our website at [www.heapg.com](http://www.heapg.com).

**Europe:**

(+) 353-21-4321-266

NOTES

## CHAPTER 2: WIRING ACCESSORIES

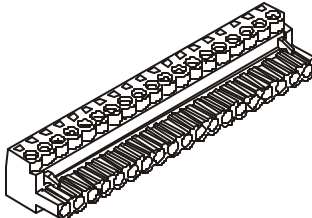
### I/O CONNECTORS AND PLUGS

#### 2.1 Screw-Type Cage Clamps

For users who prefer screw-type cage clamp I/O plugs instead of spring clamps, which are standard on SmartStack Modules, the following part numbers are provided in **Table 2.1**.

**Note:** Horner plugs are available *individually* or in *packages of ten*.

To select the appropriate cage clamp part number, determine which I/O module is going to be used and refer to **Table 2.4** for SmartStack Modules. The appropriate part numbers are shown for the selected I/O module.



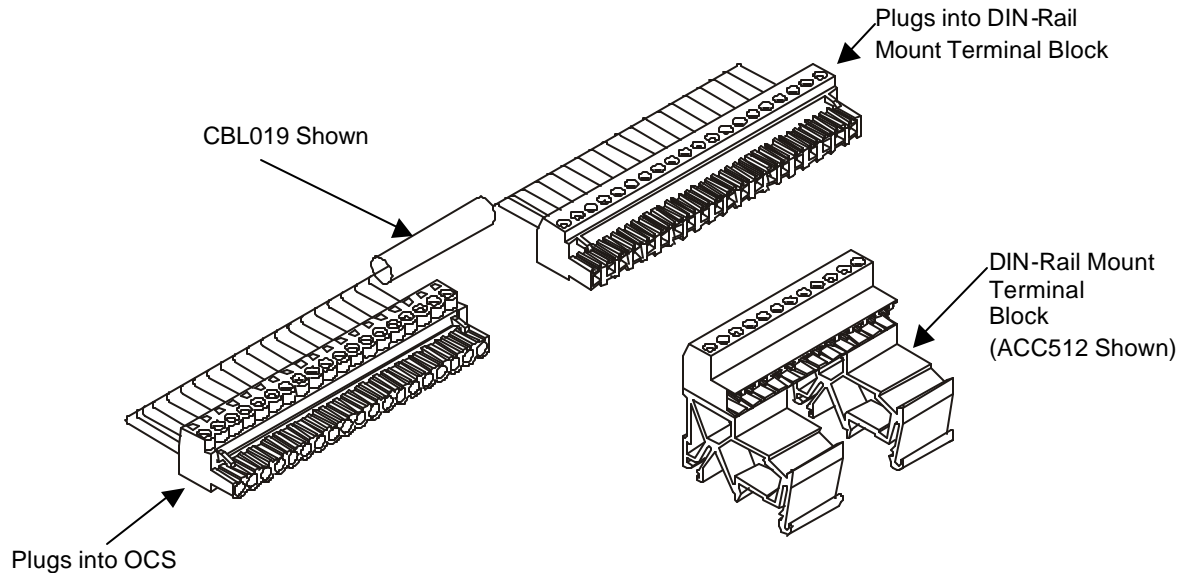
**Figure 2.1 - Screw-Type Cage Clamp**  
(ACC019 is shown.)

<b>Table 2.1 – Screw-Type Cage Clamps</b> (Available individually or in packages of 10)	
<b>Part#</b>	<b>Description</b>
ACC006	Screw-Clamp I/O Plug, 6 Pin
ACC008	Screw-Clamp I/O Plug, 8 Pin
ACC012	Screw-Clamp I/O Plug, 12 Pin
ACC014	Screw-Clamp I/O Plug, 14 Pin
ACC016	Screw-Clamp I/O Plug, 16 Pin
ACC019	Screw-Clamp I/O Plug, 19 Pin
ACC106	Screw-Clamp I/O Plug, 6 Pin (10 pk)
ACC108	Screw-Clamp I/O Plug, 8 Pin (10 pk)
ACC112	Screw-Clamp I/O Plug, 12 Pin (10 pk)
ACC114	Screw-Clamp I/O Plug, 14 Pin (10 pk)
ACC116	Screw-Clamp I/O Plug, 16 Pin (10 pk)
ACC119	Screw-Clamp I/O Plug, 19 Pin (10 pk)

## 2.2 DIN-Rail Mount Terminal Block / Cables

For users who prefer to terminate I/O wiring on a pre-wired DIN Rail Mounted Terminal Strip instead of directly wiring to I/O modules, the following part numbers are provided in **Table 2.2** and **Table 2.3**.

To select the appropriate DIN Rail Mounted Terminal Block / cable part numbers, determine which I/O module is going to be used and the length of the cable required. Refer to **Table 2.4** (for SmartStack Modules) or **Table 2.5** (for Mini OCS). The appropriate part numbers are shown for the selected I/O module, and the cable required is indicated.



**Figure 2.2 - Connectors for DIN-Rail Mount Terminal Block Termination**

Table 2.2 – DIN-Rail Mount Terminal Block	
Part#	Description
ACC512	DIN-Rail Mount Terminal Block, 12-pin
ACC519	DIN-Rail Mount Terminal Block, 19-pin

Table 2.3 – Extension Cable	
Part#	Description
CBL012	I/O Extension Cable (Analog), 12 Pin, .5M
CBL022	I/O Extension Cable (Digital), 12 Pin, 0.5M
CBL112	I/O Extension Cable (Analog), 12 Pin, 1.0M
CBL122	I/O Extension Cable (Digital), 12 Pin, 1.0M
CBL212	I/O Extension Cable (Analog), 12 Pin, 2.0M
CBL222	I/O Extension Cable (Digital), 12 Pin, 2.0M
CBL019	I/O Extension Cable , 19 Pin, .5M
CBL119	I/O Extension Cable, 19 Pin, 1.0M
CBL219	I/O Extension Cable, 19 Pin, 2.0M

2.3 I/O Modules Parts List

To select the appropriate part number(s), determine which I/O module is going to be used and refer to **Table 2.4** (for SmartStack Modules) or **Table 2.5** (for Mini OCS). The appropriate part numbers are shown for the selected I/O module.

**Note:** Pre-wired terminal cables are available in three lengths. Tables 2.4 and 2.5 list the appropriate cables for each SmartStack module and Mini OCS respectively. The Pre-wired Terminal Cable part numbers shown have an "x" in place of the digit that indicates length. **When ordering the cable, the "x" is replaced by "0" for a 0.5m cable, "1" for a 1.0m cable, and "2" for a 2.0m cable.**

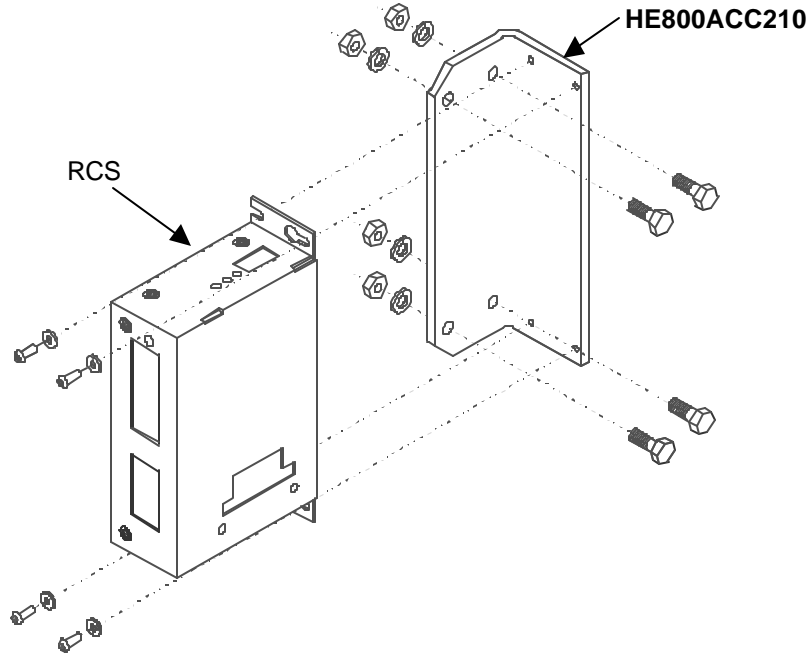
<b>Table 2.4 – Cross-Reference Parts List for SmartStack I/O Modules</b>				
<b>Standard Density Digital I/O Modules</b>				
<b>SmartStack Module</b>	<b>Cage Clamp I/O Terminal (single)</b>	<b>Cage Clamp I/O Terminal (10-pack)</b>	<b>DIN-rail mount Terminal Strip</b>	<b>Pre-wired Terminal Cable</b>
DIM210	HE800ACC016	HE800ACC116	n/a	n/a
DQM202	HE800ACC018	HE800ACC118	n/a	n/a
DIQ611	HE800ACC019	HE800ACC119	HE800ACC519	HE800CBLx19
DIQ612	HE800ACC019	HE800ACC119	HE800ACC519	HE800CBLx19
DIQ616	HE800ACC019	HE800ACC119	HE800ACC519	HE800CBLx19
DIQ622	HE800ACC019	HE800ACC119	HE800ACC519	HE800CBLx19
DIQ624	HE800ACC019	HE800ACC119	HE800ACC519	HE800CBLx19
HSC600	HE800ACC019	HE800ACC119	HE800ACC519	HE800CBLx19
HSC601	HE800ACC019	HE800ACC119	HE800ACC519	HE800CBLx19
<b>High Density Digital I/O Modules</b>				
<b>SmartStack Module</b>	<b>Cage Clamp I/O Terminal (single)</b>	<b>Cage Clamp I/O Terminal (10-pack)</b>	<b>DIN-rail mount Terminal Strip</b>	<b>Pre-wired Terminal Cable</b>
DIQ711 (trm A) (trm B)	HE800ACC019 HE800ACC019	HE800ACC119 HE800ACC119	HE800ACC519 HE800ACC519	HE800CBLx19 HE800CBLx19
DIQ712 (trm A) (trm B)	HE800ACC019 HE800ACC012	HE800ACC119 HE800ACC112	HE800ACC519 HE800ACC512	HE800CBLx19 HE800CBLx22
DIQ716 (trm A) (trm B)	HE800ACC019 HE800ACC019	HE800ACC119 HE800ACC119	HE800ACC519 HE800ACC519	HE800CBLx19 HE800CBLx19
DIQ722 (trm A) (trm B)	HE800ACC019 HE800ACC012	HE800ACC119 HE800ACC112	HE800ACC519 HE800ACC512	HE800CBLx19 HE800CBLx22
<b>Mixed Digital &amp; Analog Modules</b>				
<b>SmartStack Module</b>	<b>Cage Clamp I/O Terminal (single)</b>	<b>Cage Clamp I/O Terminal (10-pack)</b>	<b>DIN-rail mount Terminal Strip</b>	<b>Pre-wired Terminal Cable</b>
MIX901 (trm A) (trm B)	HE800ACC019 HE800ACC008	HE800ACC119 HE800ACC108	HE800ACC519 n/a	HE800CBLx19 n/a
MIX902 (trm A) (trm B)	HE800ACC019 HE800ACC008	HE800ACC119 HE800ACC108	HE800ACC519 n/a	HE800CBLx19 n/a
MIX905 (trm A) (trm B)	HE800ACC019 HE800ACC008	HE800ACC119 HE800ACC108	HE800ACC519 n/a	HE800CBLx19 n/a

<b>Table 2.4 Continued: Cross-Reference Parts List for SmartStack I/O Modules</b>				
<i>Analog I/O Modules</i>				
<b>SmartStack Module</b>	<b>Cage Clamp I/O Terminal (single)</b>	<b>Cage Clamp I/O Terminal (10-pack)</b>	<b>DIN-rail mount Terminal Strip</b>	<b>Pre-wired Terminal Cable</b>
ADC010	HE800ACC006	HE800ACC106	n/a	n/a
ADC020	HE800ACC006	HE800ACC106	n/a	n/a
ADC110	HE800ACC012	HE800ACC112	HE800ACC512	HE800CBLx12
ADC120	HE800ACC012	HE800ACC112	HE800ACC512	HE800CBLx12
ADC920	HE800ACC019	HE800ACC119	HE800ACC519	HE800CBLx19
DAC001	HE800ACC006	HE800ACC106	n/a	n/a
DAC002	HE800ACC006	HE800ACC106	n/a	n/a
DAC101	HE800ACC012	HE800ACC112	HE800ACC512	HE800CBLx12
DAC102	HE800ACC012	HE800ACC112	HE800ACC512	HE800CBLx12
MIX011	HE800ACC006	HE800ACC106	n/a	n/a
MIX022	HE800ACC006	HE800ACC106	n/a	n/a
MIX111	HE800ACC012	HE800ACC112	HE800ACC512	HE800CBLx12
MIX122	HE800ACC012	HE800ACC112	HE800ACC512	HE800CBLx12
RTD000	HE800ACC008	HE800ACC108	n/a	n/a
RTD100	HE800ACC016	HE800ACC116	n/a	n/a
THM000	HE800ACC006	HE800ACC106	n/a	n/a
THM100	HE800ACC014	HE800ACC114	n/a	n/a
<i>Specialty Modules</i>				
<b>SmartStack Module</b>	<b>Cage Clamp I/O Terminal (single)</b>	<b>Cage Clamp I/O Terminal (10-pack)</b>	<b>DIN-rail mount Terminal Strip</b>	<b>Pre-wired Terminal Cable</b>
HSC600	HE800ACC019	HE800ACC119	HE800ACC519	HE800CBLx19
HSC601	HE800ACC019	HE800ACC119	HE800ACC519	HE800CBLx19
STP100	HE800ACC019	HE800ACC119	HE800ACC519	HE800CBLx19

Table 2.5 – Cross-Reference Parts List for Mini OCS Modules		
Mini OCS Models	DIN-rail mount Terminal Strip	Pre-wired Terminal Cable
OCS031	HE800ACC519	HE800CBLx19
OCS032	HE800ACC519	HE800CBLx19
OCS033	HE800ACC519	HE800CBLx19
OCS034	HE800ACC519	HE800CBLx19
OCS035	HE800ACC519	HE800CBLx19
OCS036	HE800ACC519	HE800CBLx19
OCS037	HE800ACC519	HE800CBLx19
OCS041 (trm A)	HE800ACC519	HE800CBLx19
(trm B)	HE800ACC519	HE800CBLx19
OCS042 (trm A)	HE800ACC519	HE800CBLx19
(trm B)	HE800ACC519	HE800CBLx19
OCS45 (trm A)	HE800ACC519	HE800CBLx19
(trm B)	HE800ACC512	HE800CBLx22
OCS47 (trm A)	HE800ACC519	HE800CBLx19
(trm B)	HE800ACC512	HE800CBLx22
OCS052 (trm A)	HE800ACC519	HE800CBLx19
(trm B)	n/a	n/a
OCS053 (trm A)	HE800ACC519	HE800CBLx19
(trm B)	n/a	n/a
OCS056 (trm A)	HE800ACC519	HE800CBLx19
(trm B)	n/a	n/a
OCS061	HE800ACC519	HE800CBLx19
OCS062	HE800ACC519	HE800CBLx19
OCS063	HE800ACC519	HE800CBLx19
OCS064	HE800ACC519	HE800CBLx19
OCS065	HE800ACC519	HE800CBLx19
OCS066	HE800ACC519	HE800CBLx19
OCS067	HE800ACC519	HE800CBLx19
OCS071 (trm A)	HE800ACC519	HE800CBLx19
(trm B)	HE800ACC519	HE800CBLx19
OCS072 (trm A)	HE800ACC519	HE800CBLx19
(trm B)	HE800ACC519	HE800CBLx19
OCS075 (trm A)	HE800ACC519	HE800CBLx19
(trm B)	HE800ACC512	HE800CBLx22
OCS077 (trm A)	HE800ACC519	HE800CBLx19
(trm B)	HE800ACC512	HE800CBLx22
OCS082 (trm A)	HE800ACC519	HE800CBLx19
(trm B)	n/a	n/a
OCS083 (trm A)	HE800ACC519	HE800CBLx19
(trm B)	n/a	n/a
OCS086 (trm A)	HE800ACC519	HE800CBLx19
(trm B)	n/a	n/a

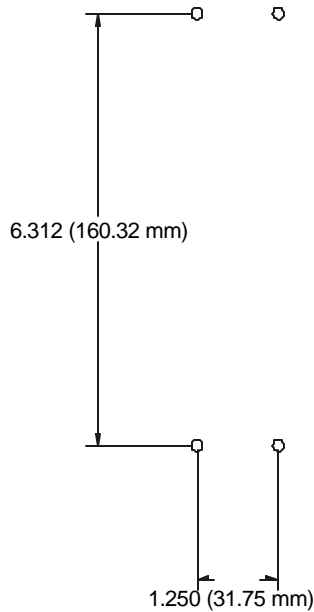
### 2.4 RCS Mounting Bracket (HE800ACC210)

The optional mounting bracket is used with SmartStack modules that have connectors located on two sides. (Note that many SmartStack modules only have connectors on one side.) **Figure 2.3** depicts how to mount the bracket to an RCS.



**Figure 2.3 – RCS and Optional Mounting Bracket**

**NOTE:** Use #8-32 mounting hardware consisting of four 8-32 pan head screws with external tooth Lock washers.



**Figure 2.4 – Drill Pattern for the RCS Optional Mounting Bracket (HE800ACC210)**



## CHAPTER 3: SMARTSTACK WIRING ACCESSORIES

### 3.1. DIQ935 and DIQ937 Termination Options

The following termination options are available for the DIQ935 and DIQ937. The **DIQ935** is a 32 in / 40 out DC I/O module featuring two 44-pin high density D-Subs for wiring termination. The **DIQ937** features four 26-pin **IDC** ribbon connectors for wiring termination.

#### DIQ935

- Option A. Customer construction of a custom wiring harness assembly.
- Option B. Pre-fabricated round cable, terminated to DIN-rail mount terminal strips.

#### DIQ937

- Option C. Pre-fabricated ribbon cables, terminated to DIN-rail mount terminal strips.
- Option D. Pre-fabricated ribbon cables, terminated to DIN-rail mount signal conditioners.

### 3.2 DIQ935 Termination Options

**Note:** Prior to the DIQ937, the DST935 was used for termination for the DIQ935.

#### Option A: Customer Constructed Wiring Harness

For construction of a custom wiring harness, the D-sub connectors and pins can be obtained from a variety of sources including Digi-Key Corporation (1-800-344-4539). The part numbers are:

Description	Manufacturer	Manufacturer Part #	Digi-Key Part #
D-Sub Connector 44 (Male)	AMP	748366-1	A2078-ND
D-Sub Pin for D-Sub Connector (22-28 AWG), 30m Gold	AMP	748333-4	A2088-ND

#### Option B: Pre-Fabricated Round Cable, Terminated To DIN-Rail Mount Terminal Strips.

For this option, the customer terminates his I/O wiring to passive, DIN-rail mount terminal strips. These strips are connected to the DIQ935 via a round cable 0.5m, 1.0m, or 2.0m in length. To increase the panel layout flexibility of this option, the 44-pins of termination are divided into two DIN-rail mounted terminal strips (24 pin and 20 pin). The required cable is constructed in a "Y" configuration, with a 44-pin D-sub on one end, and a 24-pin connector and 20-pin connector on the other end. The part numbers for the cables and terminal strip are shown in the following table. Note that it takes **two** cables, and **two** sets of ACC544 terminal strips to wire all 32 inputs and 40 outputs of a DIQ935 module. This wiring option is passive. The terminal strips provide no filtering or signal conditioning to improve noise immunity.

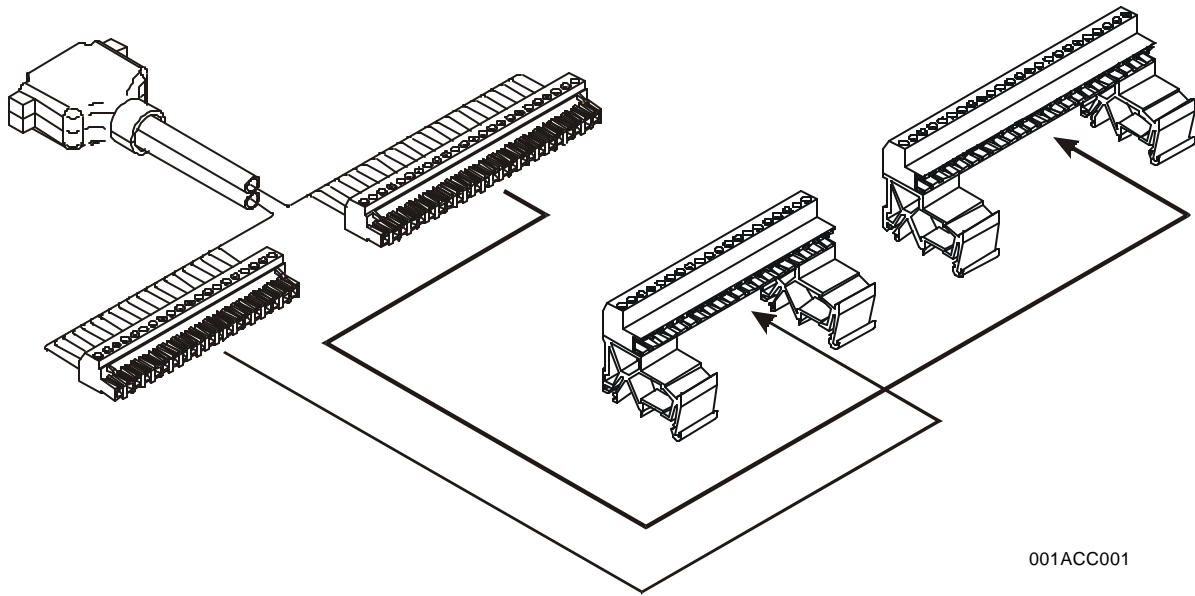
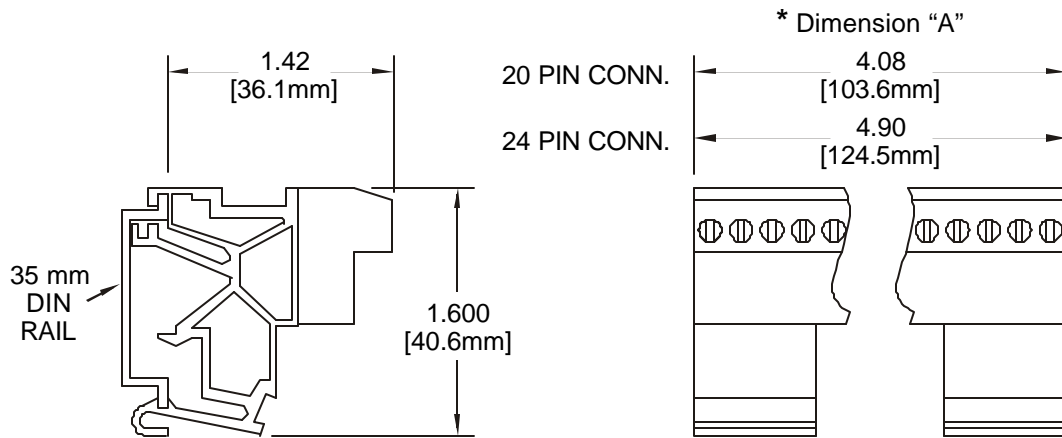


Figure 3.1 - Round Cable and ACC544



Close-up of ACC544

Figure 3.2 - End View

Figure 3.3 - Top View

Table 3.1 - Dimensions of Din-Rail Mount Terminal Block		
Part Number	Description	* Dimension "A":
ACC512	12-PIN	2.40" (60.96mm)
ACC519	19-PIN	3.80" (96.52mm)
ACC544	44-PIN (Consists of 2 connectors)	
	44-PIN (Total)	9.00" (228.6mm)
	20-PIN	4.08" (103.6mm)
	24-PIN	4.90" (124.5mm)

Table 3.2 - Pin-out for Connection of HE800CBLx44 between DIQ935 SmartStack Module and HE800ACC544				
DIQ935 I/O Signal Name	ACC544 DIN-Rail Terminal Strip Number		DIQ935 I/O Signal Name	ACC544 DIN-Rail Terminal Strip Number
Common	1		Input/Output 22	23
Input/Output 1	2		Common	24
Input/Output 2	3		Common	25
Input/Output 3	4		Input/Output 23	26
Input/Output 4	5		Input/Output 24	27
Input/Output 5	6		Input/Output 25	28
Input/Output 6	7		Input/Output 26	29
Input/Output 7	8		Input/Output 27	30
Input/Output 8	9		Input/Output 28	31
Input/Output 9	10		Input/Output 29	32
Input/Output 10	11		Input/Output 30	33
Input/Output 11	12		Input/Output 31	34
Input/Output 12	13		Input/Output 32	35
Input/Output 13	14		Input NC/Output 33	36
Input/Output 14	15		Input NC/Output 34	37
Input/Output 15	16		Input NC/Output 35	38
Input/Output 16	17		Input NC/Output 36	39
Input/Output 17	18		Input NC/Output 37	40
Input/Output 18	19		Input NC/Output 38	41
Input/Output 19	20		Input NC/Output 39	42
Input/Output 20	21		Input NC/Output 40	43
Input/Output 21	22		Common	44

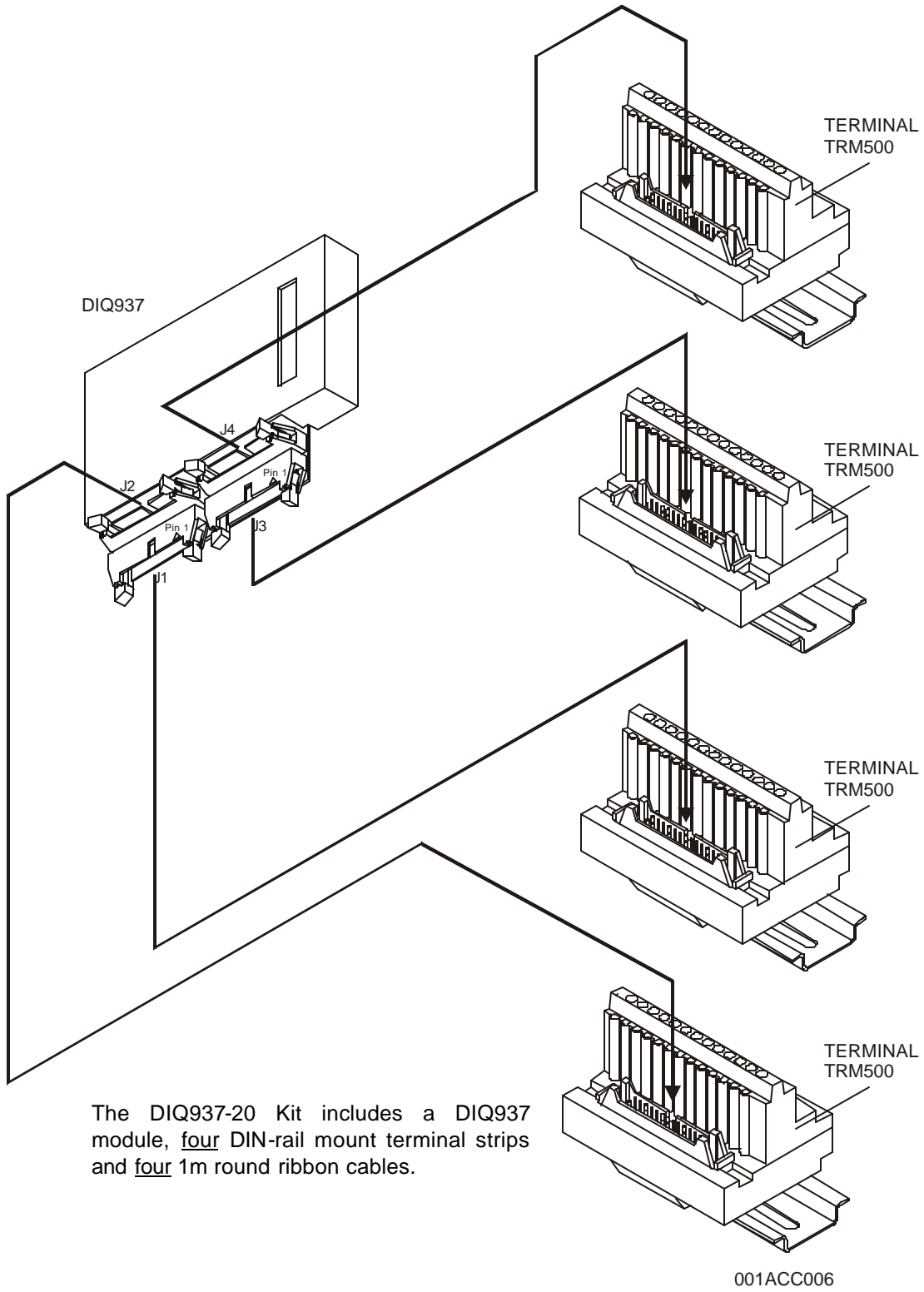
**Note:** To connect to all 32 inputs and 40 outputs of the DIQ935 module, a total of two CBLx44s and two ACC544s are required.

### 3.3 DIQ937 Termination Options

#### **Option C: Pre-Fabricated Ribbon Cable, Terminated To DIN-Rail Mount Terminal Strips.**

This option is very similar to Option B, but utilizes ribbon cables instead of round cables. The DIQ937 High-Density I/O utilizes four 26-pin ribbon connectors instead of two High-Density D-sub connectors. Two of the ribbon connectors are used for inputs (16 inputs each), and two of the ribbon connectors are used for outputs (16 outputs each). Because ribbon cables are used, a different DIN-rail mount terminal strip is used. Note that it takes **four** ribbon cables and **four** DIN-rail mount terminal strips to wire 32 inputs and 40 outputs of a DIQ937 module. This wiring option is passive. The terminal strips provide no filtering or signal conditioning to improve noise immunity.

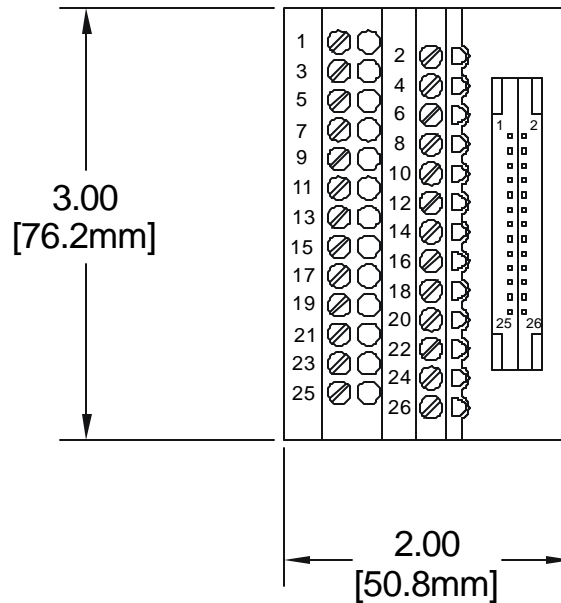
**Note:** The DIQ937 plus the necessary cables and terminal strips to wire 32 inputs and 40 outputs are available as a single kit. The DIQ937-20 part number was created for this purpose.



The DIQ937-20 Kit includes a DIQ937 module, four DIN-rail mount terminal strips and four 1m round ribbon cables.

Figure 3.4 - DIQ937-20 110 Kit

Table 3.3 – TRM500 AND DIQ937 I/O PINS (Refer To Figure 3.4 For Diq937 Jack Locations)				
TRM500 Pin	DIQ937 J1	DIQ937 J2	DIQ937 J3	DIQ937 J4
1	Input 1	Input 17	Output 1	Output 17
2	Input 2	Input 18	Output 2	Output 18
3	Input 3	Input 19	Output 3	Output 19
4	Input 4	Input 20	Output 4	Output 20
5	Input 5	Input 21	Output 5	Output 21
6	Input 6	Input 22	Output 6	Output 22
7	Input 7	Input 23	Output 7	Output 23
8	Input 8	Input 24	Output 8	Output 24
9 & 10	Common (GND)	Common (GND)	Common (GND)	Common (GND)
11	NC	NC	Output 33	Output 37
12			Output 34	Output 38
13			Output 35	Output 39
14			Output 36	Output 40
15 & 16	Common (GND)	Common (GND)	Common (GND)	Common (GND)
17	Input 16	Input 32	Output 16	Output 32
18	Input 15	Input 31	Output 15	Output 31
19	Input 14	Input 30	Output 14	Output 30
20	Input 13	Input 29	Output 13	Output 29
21	Input 12	Input 28	Output 12	Output 28
22	Input 11	Input 27	Output 11	Output 27
23	Input 10	Input 26	Output 10	Output 26
24	Input 9	Input 25	Output 9	Output 25
25 & 26	NC	NC	NC	NC



001ACC002-R1

Figure 3.5 - TRM500

**Option D: Pre-fabricated ribbon cable, terminated to DIN-rail mount signal conditioners and output devices.**

This option is very similar to Option C, but it utilizes active signal conditioners instead of passive terminal strips. Once again, the use of a DIQ937 is required. Two of the ribbon connectors are used for inputs (16 inputs each). For each set of 16 inputs, a DIN-rail mount input conditioner (INP935) is used. This input conditioner provides protective circuitry for the DIQ937 inputs. Two of the ribbon connectors on the DIQ937 are used for outputs (16 outputs each). For each set of 16 outputs, a DIN-rail mount relay output device (RLY160) is used. This output device provides 16 high current relays, each with isolated normally open contacts, which can accept an AC or DC load. Note that with this option, **outputs 33-40 are not accessible**. The part numbers for the cables, input conditioners, and relay output conditioner is shown in the table below. Note that it takes **four** ribbon cables, **two** input conditioners, and **two** relay output devices to wire 32 inputs and 32 outputs of a DIQ937 module.

**Note: The devices shown in this figure can be ordered as a kit (DQT935).**

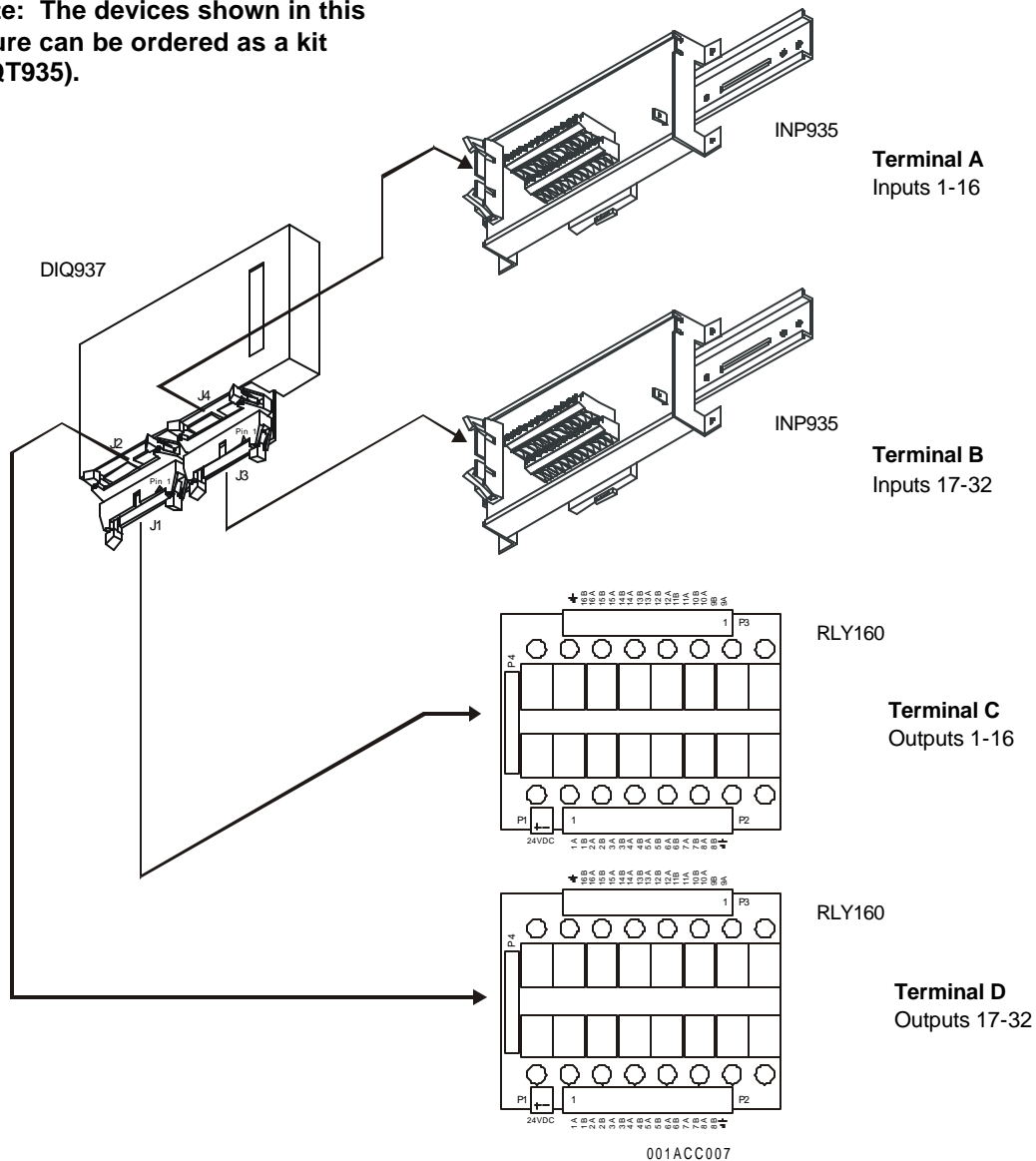
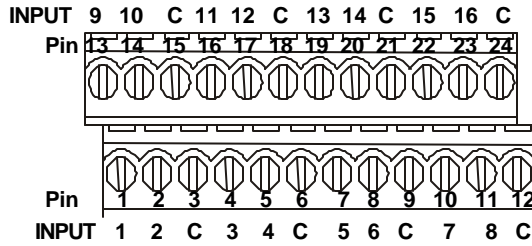


Figure 3.6 – Example Hookup of the DIQ935, INP935, and RLY160 (Kit: DQT935)

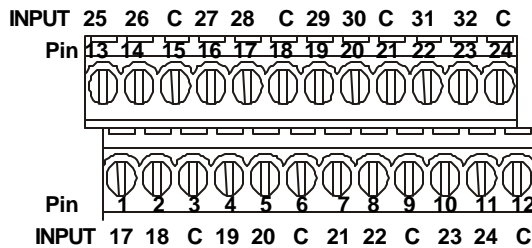
**Pin-outs and Wiring for Example Hookup in Figure 3.6**

**Terminal A Inputs 1-16 (INP935)**



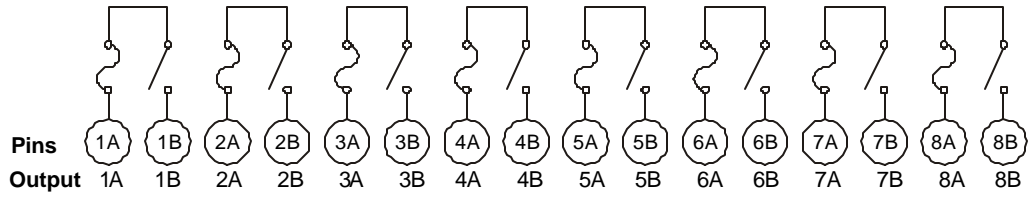
Pin	Description	Pin	Description
1	Input 1	13	Input 9
2	Input 2	14	Input 10
3	Common (GND)	15	Common (GND)
4	Input 3	16	Input 11
5	Input 4	17	Input 12
6	Common (GND)	18	Common (GND)
7	Input 5	19	Input 13
8	Input 6	20	Input 14
9	Common (GND)	21	Common (GND)
10	Input 7	22	Input 15
11	Input 8	23	Input 16
12	Common (GND)	24	Common (GND)

**Terminal B Inputs 17-32 (INP935)**

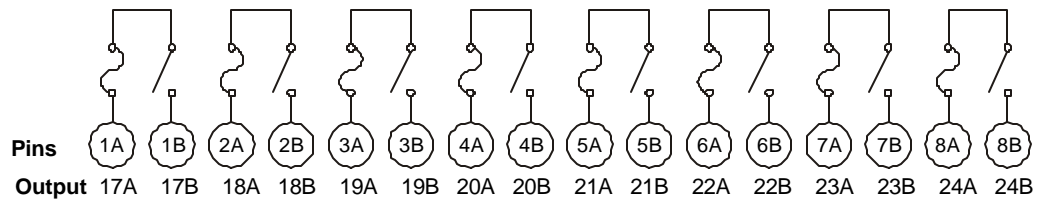
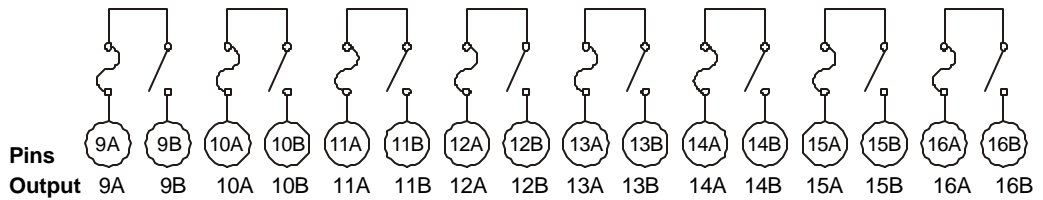


Pin	Description	Pin	Description
1	Input 17	13	Input 25
2	Input 18	14	Input 26
3	Common (GND)	15	Common (GND)
4	Input 19	16	Input 27
5	Input 20	17	Input 28
6	Common (GND)	18	Common (GND)
7	Input 21	19	Input 29
8	Input 22	20	Input 30
9	Common (GND)	21	Common (GND)
10	Input 23	22	Input 31
11	Input 24	23	Input 32
12	Common (GND)	24	Common (GND)

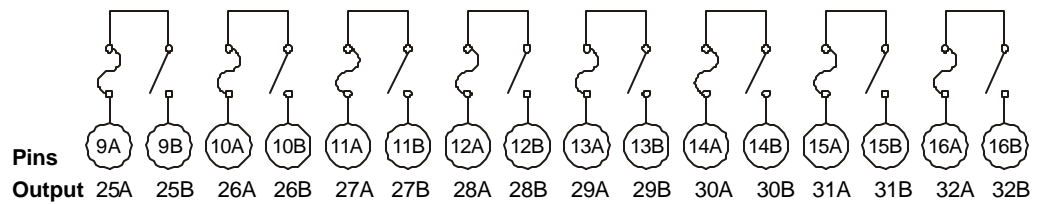
**Continued: Pin-outs and Wiring for Example Hookup in Figure 3.6**



**Terminal C  
Outputs 1-16  
(RLY160)**



**Terminal D  
Outputs 17-32  
(RLY160)**





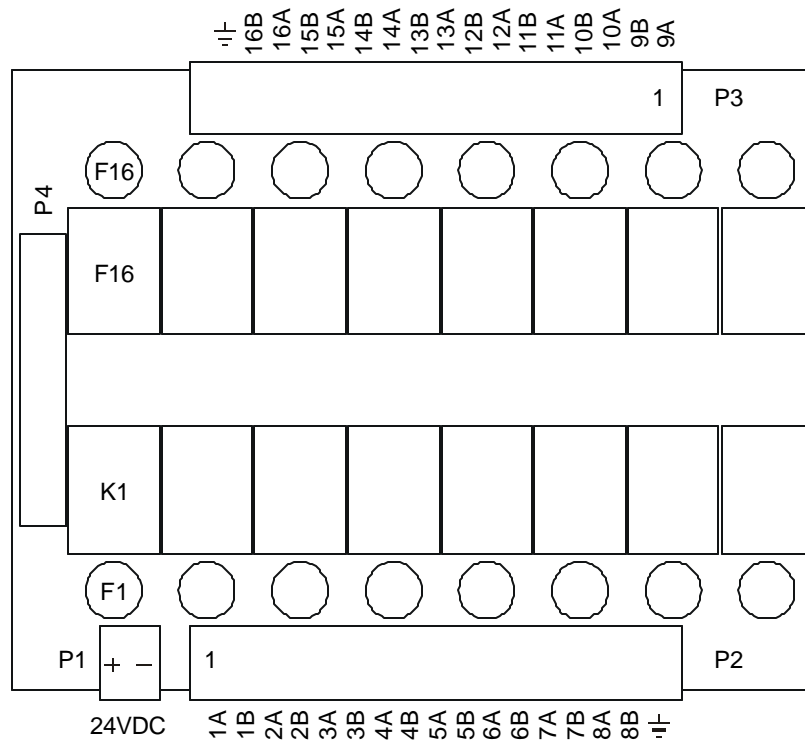
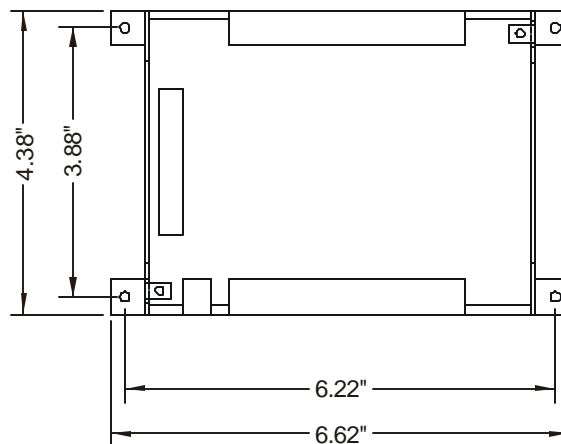


Figure 3.7 – RLY160



001ACC008

Figure 3.8 – RLY160 Dimensions

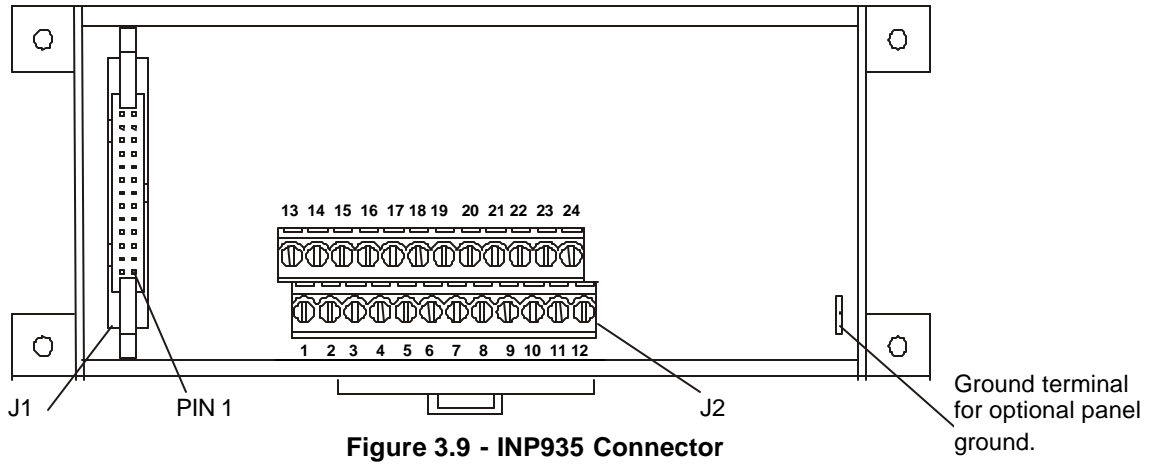
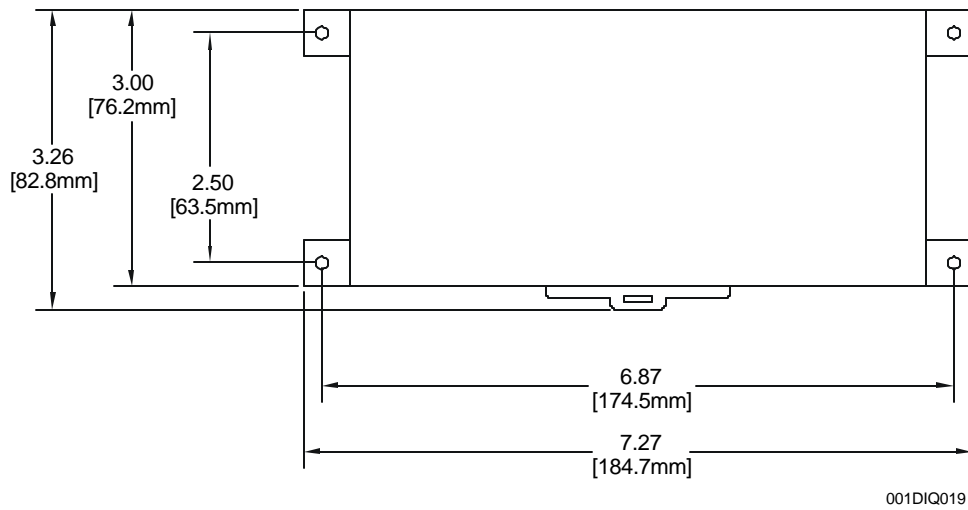


Figure 3.9 - INP935 Connector



001DIQ019

Figure 3.10 - INP935 Connector Dimensions

**CHAPTER 4: SPARE PARTS**

<b>Table 4.1 – Spare Parts</b>	
<b>Customer Part Number</b>	<b>Description</b>
<b>Spare I/O Plugs - SmartStack</b>	
HE800TRM006	Spring-clamp style I/O plug, 6-terminal. (Qty 1). Spare or replacement for a standard SmartStack plug.
HE800TRM008	Spring-clamp style I/O plug, 8-terminal, spare. (Qty 1)
HE800TRM012	Spring-clamp style I/O plug, 12-terminal, spare. (Qty 1)
HE800TRM014	Spring-clamp style I/O plug, 14-terminal, spare. (Qty 1)
HE800TRM016	Spring-clamp style I/O plug, 16-terminal, spare. (Qty 1)
HE800TRM019	Spring-clamp style I/O plug, 19-terminal, spare. (Qty 1)
<b>Spare I/O Plugs - MiniOCS</b>	
HE800TRM308	Cage-clamp (screw) style I/O plug, 8-terminal. (Qty 1). Spare or replacement for a standard miniOCS plug.
HE800TRM312	Cage-clamp (screw) style I/O plug, 12-terminal. (Qty 1). Spare or replacement for a standard miniOCS plug.
HE800TRM319	Cage-clamp (screw) style I/O plug, 19-terminal. (Qty 1). Spare or replacement for a standard miniOCS plug.
<b>Spare Plugs - OCS/RCS/MiniOCS</b>	
HE800TRM005	Cage-clamp (screw) style Network plug, 5-terminal, spare for OCS/RCS/miniOCS. (Qty 1)
HE800TRM002	Cage-clamp (screw) style Power plug, 2-terminal, spare for OCS100/200/250. (Qty 1)
HE800TRM003	Cage-clamp (screw) style Power/Ground plug, 3-terminal, spare for RCS/miniOCS. (Qty 1)
HE800TRM006	Cage-clamp (screw) style RS-485 / RS-232 plus, 6-terminal, spare for OCS250 (Qty. 1)
<b>Spare Battery - OCS/RCS/MiniOCS</b>	
HE500BAT005	Replacement Battery for OCS/RCS.

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