

Jumpers for digital mounting boards

1781-STRAPxx series of jumpers for digital mounting boards are tin plated copper. They are used to connect the common terminals of digital mounting boards. All jumpers are made from 0.031 \pm 0.002" thick copper and plated with bright tin.

1781-STRAP8M is used with the standard-size series of mounting boards including the 1771-JMB, 1771-JMBH, 1771-JMB8, 1781-A4R, the 1781-A4T and the 1781-JMBX.

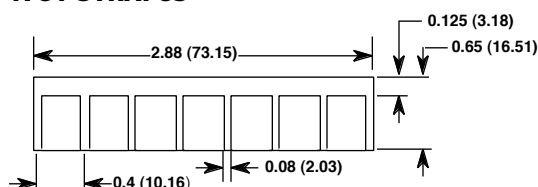
1781-STRAP8S is used with the Slim Line series of single point I/O mounting boards, 1781-A8A and up.

1781-STRAP4Q is used with the quad point I/O mounting boards.

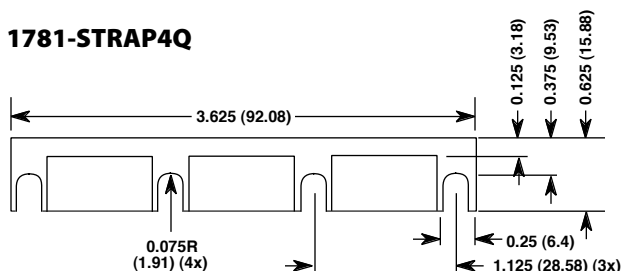
1781-STRAP8M



1781-STRAP8S



1781-STRAP4Q



Fuses

Fuses are provided in packages of 10 fuses for the rating specified.

1781-FUSE1 is a one-amp, very quick blow fuse used with mounting boards and various adapters. Littlefuse type 251001 or equivalent.

1781-FUSE3 is a three-amp, very quick blow fuse used with SmartMux. Littlefuse type 251003 or equivalent.

1781-FUSE4 is a four-amp, very quick blow fuse used with analog mounting boards. Littlefuse type 251004 or equivalent.

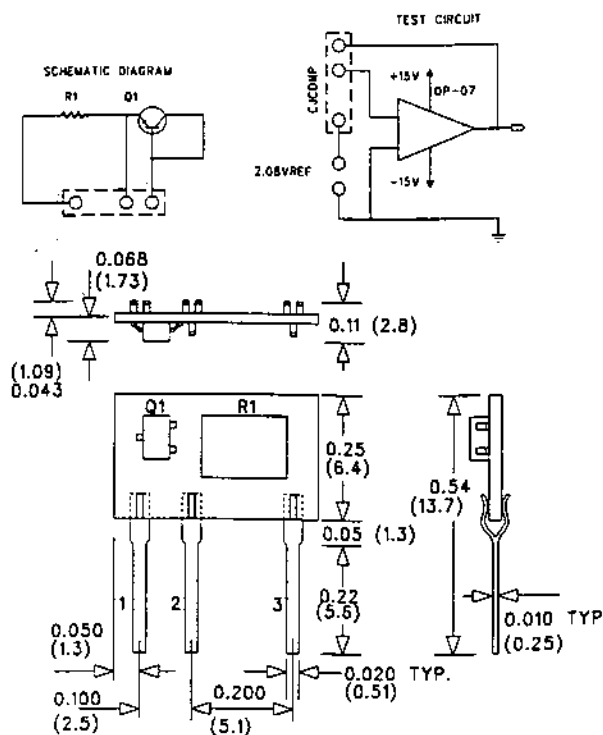
1781-FUSE5 is a five-amp, very quick blow fuse used with 1781 I/O module mounting boards. Littlefuse type 251005 or equivalent.

WRC4-FUSE1 is a one-amp, very quick blow round fuse used with WRC4 mounting boards and various adapters. Wickman 19373K.1A or equivalent.

WRC4-FUSE4 is a four-amp, very quick blow fuse used with WRC4 I/O modules and some 1781 mounting boards. Wickman 19373K.4A or equivalent.

WRC4-FUSE5 is a five-amp, very quick blow fuse used with WRC4 I/O modules and some 1781 mounting boards. Wickman 19373K.5A or equivalent.

WRC1361 Cold Junction Temperature Sensor



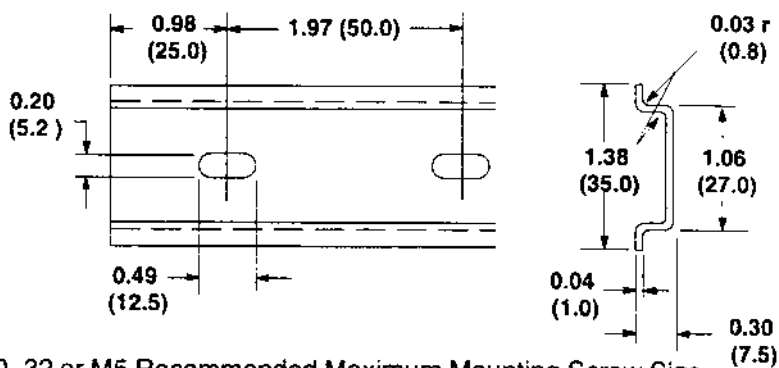
The WRC1361 is an integrated hybrid component used to sense ambient temperature. It is the component used in WRC 1781 and 1782 Series 5Bxx analog mounting boards to provide cold-junction compensation for the 1781-5B37 and 1781-5B47 thermocouple input modules. When connected in a mounting board with the above 1781-5B thermocouple modules, the voltage output of the sensor is: $V_{1-2} = 0.510 - 0.0025 * (T-25)$ volts

V1-2 is the voltage measured from pin 1 to pin 2 and T is the ambient temperature in Centigrade.

The accuracy of the WRC1361 is:

at 25°C:	0.3°C
+5°C to +45°C:	0.7°C
+0°C to +60°C:	1.0°C

WRC50022 DIN mounting rail



#10-32 or M5 Recommended Maximum Mounting Screw Size

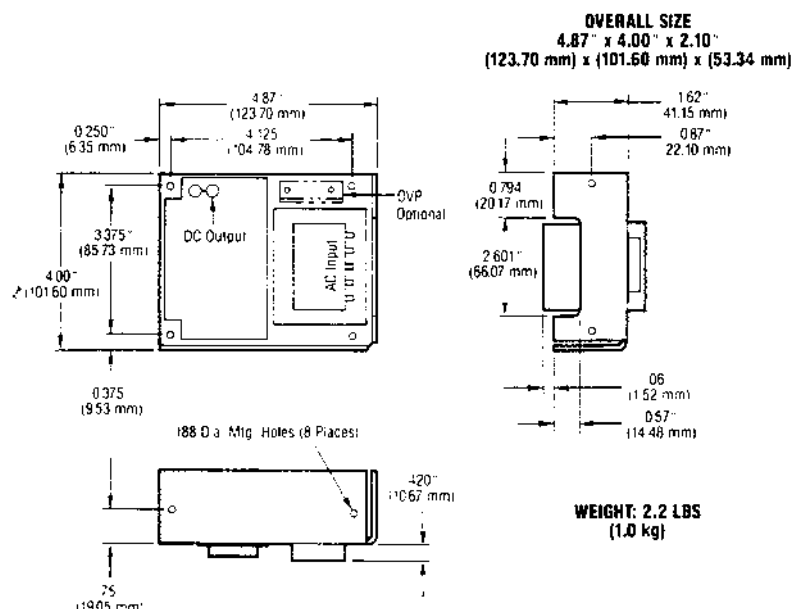
Description

- Symmetrical Rail
- 35 mm x 7.5 mm
- 3.28' (1m long)
- Zinc Plated, Yellow Chromated Steel

The 1781-PSx series of power supplies accept ac main power to supply the necessary regulated dc power to the SmartMux adapters and I/O. Select the power supply appropriate for the SmartMux adapter.

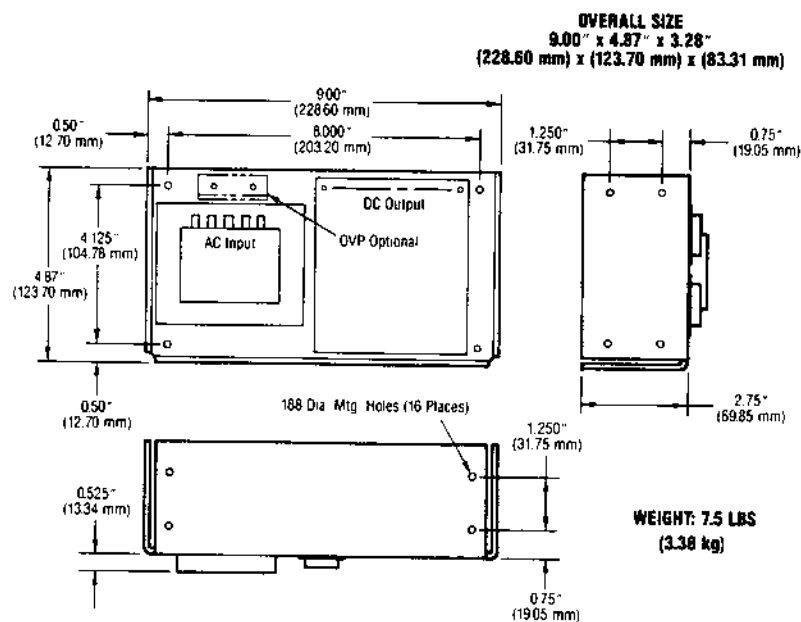
1781-PS1

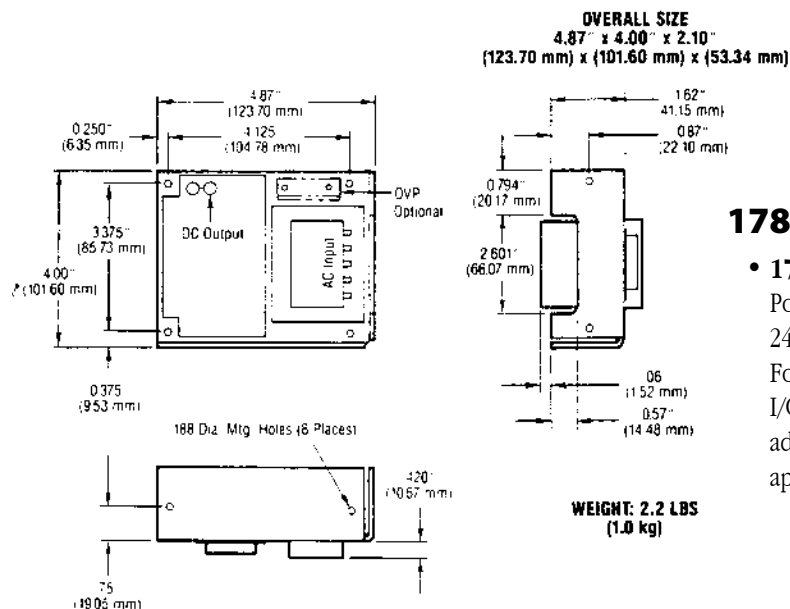
- **1781-PS1** Single Output Linear Power Supply:
 5 V dc @ 3 A
 For use with 1781-JxB adapters.



1781-PS2

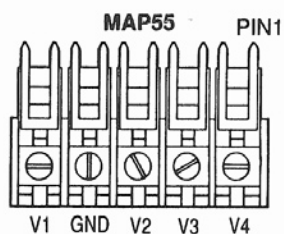
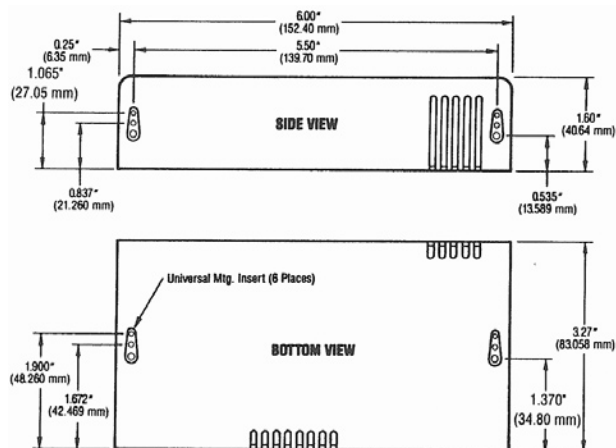
- **1781-PS2** Triple Output Linear Power Supply:
 5 V dc 6 A and ± 12 V dc @ 1 A
 For use with 1781-JxA adapters





1781-PS4

- **1781-PS4** Single Output Linear Power Supply:
 24 V dc @ 1.2 A
 For use with 1781-7B series analog I/O and 1781-JPA7 SmartPMux adapter, as well as all DeviceNet applications.



**SINGLE OUTPUT MODELS USE THE V1 PIN(S).
 MATES WITH MOLEX SERIES 2139 OR 6442**

1781-PS7-55

- **1781-PS7-55** Quad Output Switcher Power Supply:
 +5 V dc @ 6 A
 ±12 V dc @ .5 A
 +24 V dc @ 2.5 A

For use with 1781-JxA7 SmartPMux adapters.

Common Specifications

AC input voltage	Automatically adjusts from 90-264 Vac
Line regulation	±0.2% for a 10% line change
Load regulation	2% for a 50% load change
Output ripple	5 V dc: 3.0 mV peak-to-peak
Short circuit & overload protection	Automatic current limit/foldback with automatic recovery. Internal ac fuse provided.
Overvoltage	6.2 V ±0.4 V (on 5 V outputs only protection)
Operating temperature	0°C to 50°C full-rated, derated linearly to 50% from 50°C to 70°C
Storage temp.	-55°C
Temperature coefficient	0.03%/°C typical, 0.03%/°C maximum
Efficiency	75%
Shock & vibration	2 cG peak acceleration, 10 Hz to 2 KHz, 6.15 grms (3 axis)
Approvals	CE, CSA, cUL, EN, IEC, TUV, UL

Ribbon cables are used to connect analog and discrete mounting boards to SmartMux, SmartMux-Plus, SmartPMux, 1781-PxBxxx, Data acquisition boards and other devices. Select the cable from the choices below.

CABLE P/N	NUMBER OF	CONNECTOR	CONNECTOR	COMMENT	TYPICAL USES
1781-CxEE	50	Edge – F	Edge – F	Non-Polarized	Digital I/O board to controller
1781-CxEH	50	Edge – F	Header – F	Polarized	Digital I/O board to SmartMux, 1781-PxBxxx
1781-CxED	50	Edge – F	D-shell	Polarized	
1781-CxHH	50	Header – F	Header – F	Polarized	Digital I/O board to controller
1781-CxDD	50	D-shell	D-shell	Polarized	
1781-CxHD	50	Header – F	D-shell	Polarized	
1781-5Cx(y)*	26	Header – F	Header – F	(2)	Analog I/O board to SmartMux
1781-C7x	26	Header – F	25 D-shell (P)	Polarized – used with 1781-7B I/O	Analog I/O board to SmartMux
1781-C7xDD	25	25 D-shell (P)	25 D-shell (P)	Use with WRC1	Analog I/O board to SmartMux-Plus
1781-CSD	6	RJ11	25 D-shell (P)	Use with WRC1	ASCII port for SmartMux-Plus, 6-foot long

NOTES:

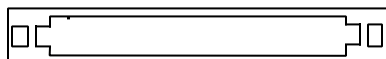
(1) x = cable length (default = 1)

(2) 1781-5Cx,y is a 26-conductor ribbon cable, each end equipped with a non-polarized, female header connector.

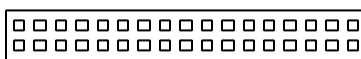
Used with WRC's SmartMux analog adapters and analog mounting boards. A single 1781-5Cx,y cable is required when a using 2 1781-5B08 or 1781-5B16 mounting boards. Specify connector location for each connector from the SmartMux end using suffixes as needed.
 x,y = cable length, default is 1 foot (For example, a 1781-5C3,2 is 3 feet long with an additional connector 2 feet from the SmartMux end.)

* Previously supplied as 1781-5B01-Cx(y).

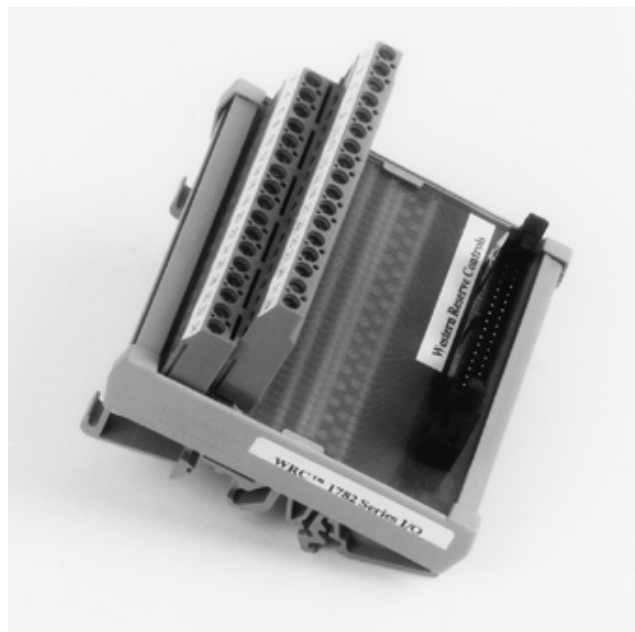
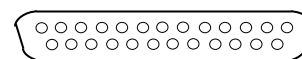
EDGE CONNECTOR



HEADER CONNECTOR



D-SHELL CONNECTOR



DIN-Rail mounted termination assemblies provide a convenient way to terminate ribbon cables using a screw termination for each conductor.

1782-fbk26

1782-FBK26 is used with 26-conductor ribbon cable for applications such as 1781-5B08T, 1781-5B16T, or 1781-JxA7 SmartMux adapters.

1782-fbk50

1782-FBK50 is used with 50 conductor ribbon cable such as used with any of the digital I/O mounting boards or to connect panel mount solid state relays to SmartMux adapters.

D-93-S12 is a steel mounting bracket designed to fit a standard 19" rack and to facilitate easy assembly and mounting of WRC products. Provision is made for attaching one of the following WRC discrete I/O mounting boards:

- 1771-JMB • 1781-A24A
- 1771-JMBJ • 1781-A16A
- 1771-JMBH • 1781-A16AJ
- 1771-JMBHJ • 1781-A8A

In addition, provision is made for mounting a 1781-PS1 power supply.

MOUNTING DIMENSIONS

