Digital Lighting Systems, Inc.

PROTOCOL
PD104

1 x 4 A. outputs

PD104-120 : 1 x 500 Watts @ 120 VAC
PD104-277 : 1 x 1100 Watts @ 277 VAC

USER'S MANUAL

PD104
09/25

GENERAL DESCRIPTION

The **PD104** is a 1-channel **PROTOCOL** compatible dimmer pack. It is equivalent to one solid-state relay (SSR) and one **INT04** logic board, all assembled onto a single circuit board. Power is fed to the **PD104** from a breaker (20 A. Maximum).
The output is rated for a maximum output current of **4 amperes**.
The **PD104** dimmer module has an open plate frame and is designed to mount on a 2 Gang electric connection box: **2" deep**.
The logic signals are optically-isolated from all line voltage elements. The **PROTOCOL** Network DATA (2-wires) control cable connects directly to the board or via an optional **RJ45** jack. Several **PD** dimmers may be daisy-chained together. Each **PD104** may be easily set to a unique address with 2 hexadecimal selectors.
Each of the **PD104** outputs may be independently configured to dim or switch from the **PSF** wall station keypads.

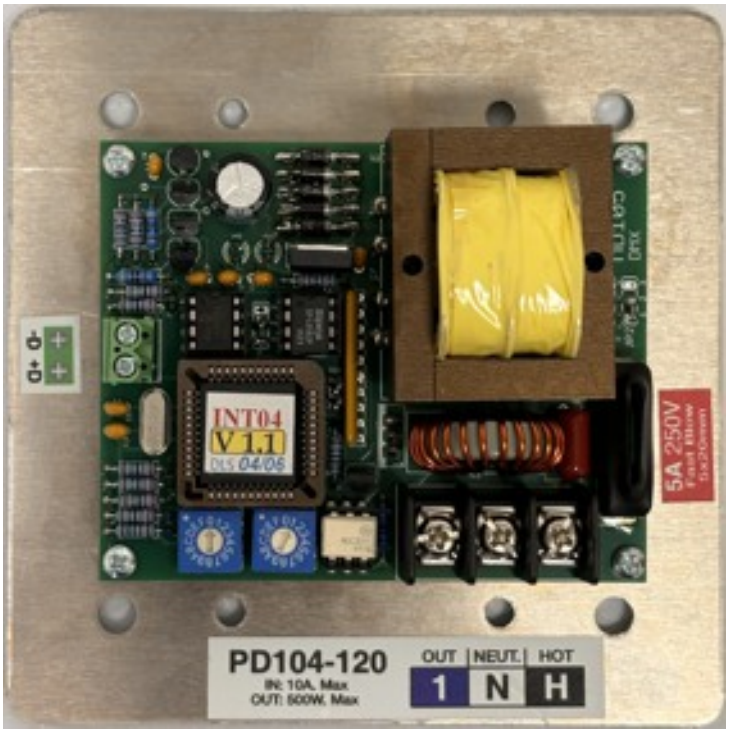
PD104 is available for 120VAC or 277VAC operation to provide full range dimming to:

LEDs and other ELV or electromagnetic loads loads.

PD104 Dimensional Diagram

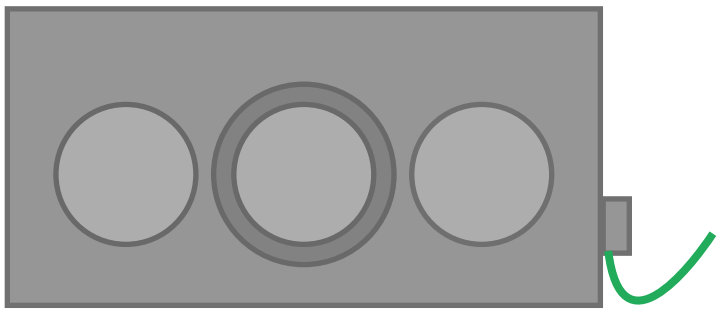
Dimension front panel

4.80" x 4.80"



Enclosure Installation:
Surface mount the dimmer pack in a well-ventilated area where the ambient temperature does **NOT** exceed **104° F** for full load operation.

To be **surface mounted** on a grounded 2-Gang Electric Junction Box: **2" Deep** (Not provided)



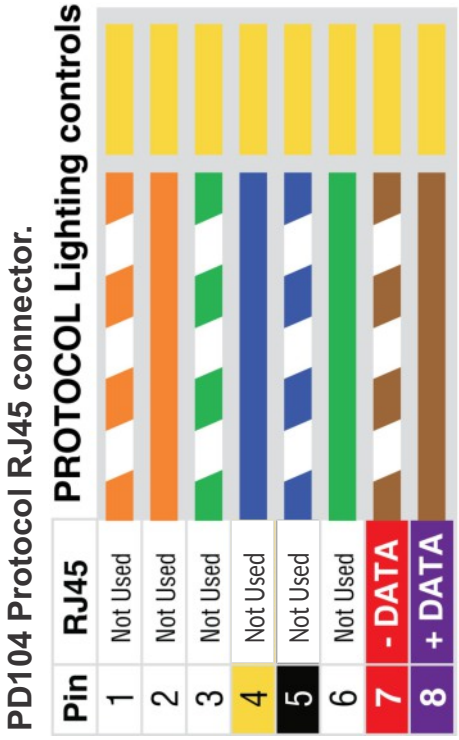
PD104 General Wiring Information

DO NOT EXCEED 500 W. (4 Amps. @ 120 VAC) per each dimmer output.

All wiring between the control stations, dimmers, and other system controllers (network bus) is low voltage (NEMA Class 2) and may be run with two, twisted pair, shielded #18 AWG wire. Control network bus may be Carol Cable #C3362 unless otherwise required.
PD104 dimmer units may be fed by up to a 20 A. (maximum) breaker.

(Up to four **PD104** dimmer units may be fed by a single 20 A. breaker).

CAUTION: **DO NOT** attempt to parallel outputs to increase capacity.
Installations must conform to local and/or NEC code requirements.
All line voltage wires must have copper conductors of adequate Gauge with 90° C wire insulation.
POWER EACH LOAD DIRECTLY BEFORE CONNECTING IT TO THE **PD104** TO ENSURE PROPER WIRING.



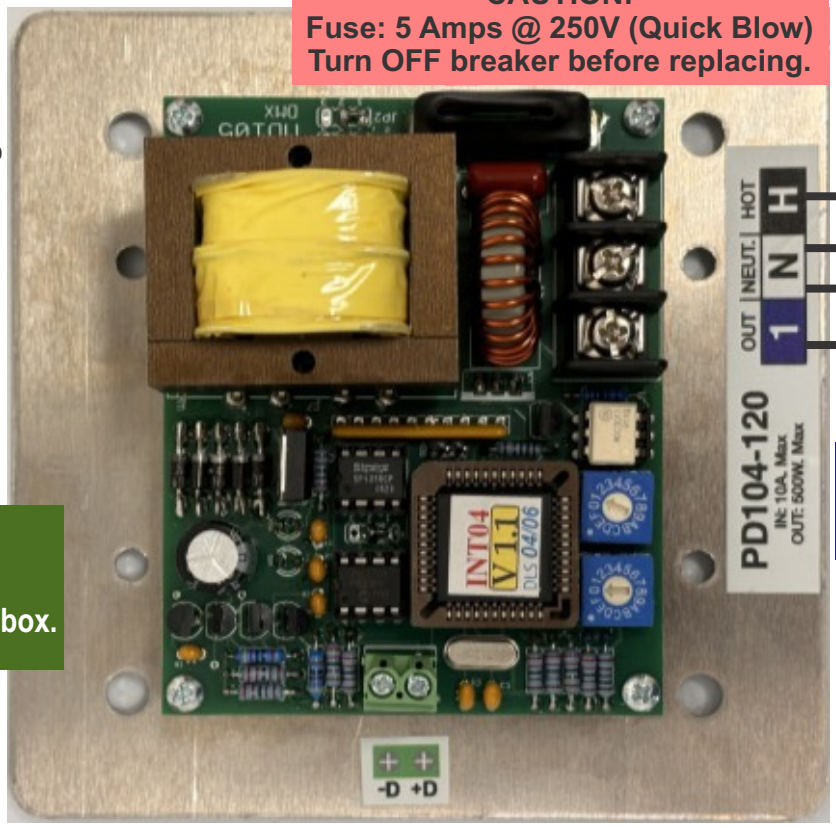
The **PD104** could be hard-wired to the PROTOCOL: **Data Bus**
or it could be connected with optional **RJ45** jacks with a pigtail

(OPTIONAL. not included)

CAUTION:
Fuse: 5 Amps @ 250V (Quick Blow)
Turn OFF breaker before replacing.

INPUT
1x20 A - MAX.
120 VAC
Breaker

CAUTION:
ONLY for PD104
120V A/C Models
120 VAC Wiring



HOT: IN — **ON** — **To Breaker**

NEUTRAL: IN / OUT

DIM: OUT

OUTPUT
500 Watts - MAX.
120 VAC

DIM:
To Lights

Mount on a grounded 2 gang metal box.

DATA connectors:
IN / OUT

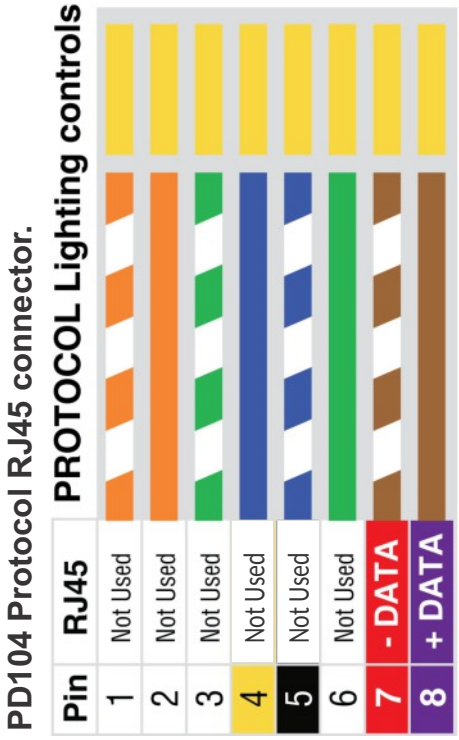
PD104 General Wiring Information

DO NOT EXCEED 1000 W. (4 Amps. @ 277 VAC) per each dimmer output.

All wiring between the control stations, dimmers, and other system controllers (network bus) is low voltage (NEMA Class 2) and may be run with two, twisted pair, shielded #18 AWG wire. Control network bus may be Carol Cable #C3362 unless otherwise required.
PD104 dimmer units may be fed by up to a 20 A. (maximum) breaker.

(Up to four **PD104** dimmer units may be fed by a single 20 A. breaker).

CAUTION: **DO NOT** attempt to parallel outputs to increase capacity.
Installations must conform to local and/or NEC code requirements.
All line voltage wires must have copper conductors of adequate Gauge with 90° C wire insulation.
POWER EACH LOAD DIRECTLY BEFORE CONNECTING IT TO THE **PD104** TO ENSURE PROPER WIRING.



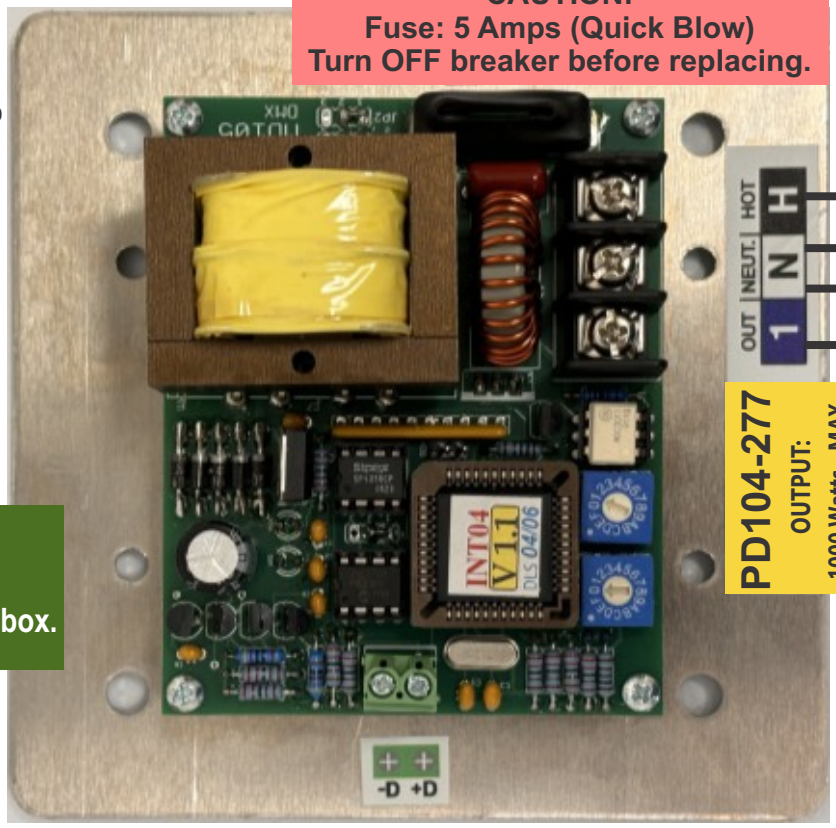
The **PD104** could be hard-wired to the PROTOCOL: **Data Bus**
or it could be connected with optional **RJ45** jacks with a pigtail

(OPTIONAL. not included)

CAUTION:
Fuse: 5 Amps (Quick Blow)
Turn OFF breaker before replacing.

INPUT
1x20 A - MAX.
277 VAC
Breaker

CAUTION:
ONLY for PD104
277V A/C Models
220 - 277 VAC Wiring



HOT: IN — **ON** — **To Breaker**

NEUTRAL: IN / OUT

DIM: OUT

PD104-277
OUTPUT:
1000 Watts - MAX.
277 VAC

DIM:
To Lights

Mount on a grounded 2 gang metal box.

DATA connectors:
IN / OUT

Table 4 - PROTOCOL PD Dimmer Address Selection

00 INVALID ADDRESS	**32** set S2,S1 to **2 , 0**
01 set S2,S1 to **0 , 1**	**33** set S2,S1 to **2 , 1**
02 set S2,S1 to **0 , 2**	**34** set S2,S1 to **2 , 2**
03 set S2,S1 to **0 , 3**	**35** set S2,S1 to **2 , 3**
04 set S2,S1 to **0 , 4**	**36** set S2,S1 to **2 , 4**
05 set S2,S1 to **0 , 5**	**37** set S2,S1 to **2 , 5**
06 set S2,S1 to **0 , 6**	**38** set S2,S1 to **2 , 6**
07 set S2,S1 to **0 , 7**	**39** set S2,S1 to **2 , 7**
08 set S2,S1 to **0 , 8**	**40** set S2,S1 to **2 , 8**
09 set S2,S1 to **0 , 9**	**41** set S2,S1 to **2 , 9**
10 set S2,S1 to **0 , A**	**42** set S2,S1 to **2 , A**
11 set S2,S1 to **0 , B**	**43** set S2,S1 to **2 , B**
12 set S2,S1 to **0 , C**	**44** set S2,S1 to **2 , C**
13 set S2,S1 to **0 , D**	**45** set S2,S1 to **2 , D**
14 set S2,S1 to **0 , E**	**46** set S2 S1 to **2 , E**
15 set S2,S1 to **0 , F**	**47** set S2,S1 to **2 , F**
16 set S2,S1 to **1 , 0**	**48** set S2,S1 to **3 , 0**
17 set S2,S1 to **1 , 1**	**49** set S2,S1 to **3 , 1**
18 set S2,S1 to **1 , 2**	**50** set S2,S1 to **3 , 2**
19 set S2,S1 to **1 , 3**	**51** set S2,S1 to **3 , 3**
20 set S2,S1 to **1 , 4**	**52** set S2,S1 to **3 , 4**
21 set S2,S1 to **1 , 5**	**53** set S2,S1 to **3 , 5**
22 set S2,S1 to **1 , 6**	**54** set S2,S1 to **3 , 6**
23 set S2,S1 to **1 , 7**	**55** set S2,S1 to **3 , 7**
24 set S2,S1 to **1 , 8**	**56** set S2,S1 to **3 , 8**
25 set S2,S1 to **1 , 9**	**57** set S2,S1 to **3 , 9**
26 set S2,S1 to **1 , A**	**58** set S2,S1 to **3 , A**
27 set S2,S1 to **1 , B**	**59** set S2,S1 to **3 , B**
28 set S2,S1 to **1 , C**	**60** set S2,S1 to **3 , C**
29 set S2,S1 to **1 , D**	**61** set S2,S1 to **3 , D**
30 set S2,S1 to **1 , E**	**62** set S2,S1 to **3 , E**
31 set S2,S1 to **1 , F**	**63** set S2,S1 to **3 , F**

NOTES:
Address: **0** Decimal // (S2 , SI = **0 , 0**) Hexadecimal is **not allowed** on any PROTOCOL device.

Minimum PD-INT04 Address: **1** Decimal // (S2 , S1 = **0 , 1**) Hexadecimal
Maximum PD-INT04 Address: **63** Decimal // (S2 , S1 = **3 , F**) Hexadecimal

LIMITED WARRANTY

Digital Lighting Systems, warrants to the purchaser that its products have been carefully manufactured and inspected and are warranted to be free from defects of workmanship and materials when used as intended. Any abuse or misuse contrary to normal operation shall void this warranty.

Digital Lighting Systems' obligation under this warranty shall be limited to replacement or repair of any units as shall within two years of date of invoice from **Digital Lighting Systems**, prove defective; and **Digital Lighting Systems** shall not be liable for any other damages, whether direct or consequential. **The implied warranties of merchantability and fitness for a particular purpose are limited to the duration of the expressed warranty**. Some states do not allow the exclusion of the limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, you may also have other legal rights which vary from state to state.

Defective merchandise may be returned to **Digital Lighting Systems**, prepaid, after prior notification has been given and approval obtained for the return. To obtain prior approval for the return of the defective items, contact your local Digital Lighting Systems distributor, representative, or:

Digital Lighting Systems, Inc.
12302 SW 128 Ct. Bay # 105
Miami, FL 33186

(305) 969-8442
info@digitallighting.com

Upon request, replacement unit(s) will be shipped as soon as available. Unless immediate shipment of replacement merchandise is requested, **Digital Lighting Systems** will not ship replacement merchandise until defective merchandise is received, inspected, and determined to be defective.

No labor charges in connection with warranty problems will be reimbursed by Digital Lighting Systems without prior written approval from the factory.

Digital Lighting Systems distributors and representatives have no authority to change this warranty without written permission.

Digital Lighting Systems reserves the right to determine the best method of correcting warranty problems.

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