

D-TYPE SOCKET ASSEMBLIES FOR HEAD-ON PMTs (ϕ 10mm TO ϕ 28mm)

(Applicable photomultiplier tubes are shown on page 7.)

Type No.	Outline and Diagram	Ground Potential Electrode	Maximum Ratings ^①			Leakage ^⑤ Current in Signal Max.	Total Voltage Divider Resistance	Maximum ^③ Linear Output in DC Mode	Signal Output	Applicable Photomultiplier Tubes
			Supply Voltage between Case and Pins (Vdc)	Supply Voltage between Power Supply Terminals (Vdc)	Voltage ^④ Divider Current (mA)					

For 10mm (3/8") Dia. PMTs

E1761-04	①	Anode	1500	1250	0.34	1×10^{-10}	3.67	¹⁷ (at 1250V)	DC/Pulse	R1635, R1893, R1894, etc.
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For 13mm (1/2") Dia. PMTs

E849-35⑤	②	Anode	1500	1250	0.34	1×10^{-10}	3.63	¹⁴ (at 1000V)	DC/Pulse	R647, R759, R1080, R1463, R1463P, R2102, etc.
E849-36⑤	②	Anode/Cathode	1500	1250	0.34	1×10^{-10}	3.63	¹⁴ (at 1000V)	DC/Pulse	

For 19mm (3/4") Dia. PMTs

E974-13	③	Anode	1800	1800	0.39	1×10^{-10}	3.81	¹³ (at 1000V)	DC/Pulse	R632, R821, R1166, R1464, R1617, R2801, etc.
E974-14	③	Cathode	1800	1800	0.39	—	3.81	—	Pulse	

For 25mm (1") Dia. PMTs

E2924	④	Anode	1500	1500	0.35	1×10^{-10}	4.3	¹² (at 1000V)	DC/Pulse	R1924, R1925, R3550, R5070, etc.
E2924-05	⑤	Cathode	1500	1500	0.35	—	4.3	—	Pulse	

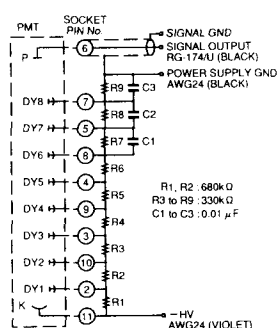
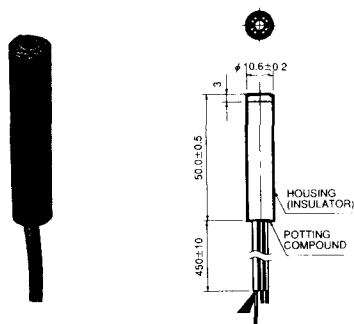
For 28mm (1-1/8") Dia. PMTs

E990-07	④	Anode	1500	1500	0.38	1×10^{-10}	3.96	¹³ (at 1000V)	DC/Pulse	R268, R292, R316, etc.
E990-08	⑥	Cathode	1500	1500	0.38	—	3.96	—	Pulse	R431S, R1104, R2228, etc.

The high voltage and signal cables can be optionally terminated with an SHV/MHV and BNC plugs respectively.

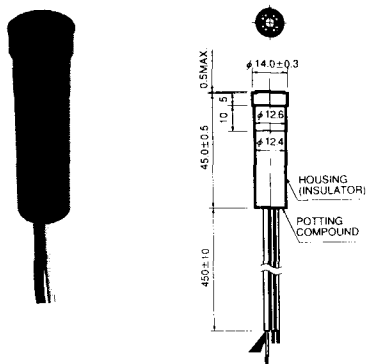
- NOTE
- ④ Measured with the maximum supply voltage.
 - ⑤ Measured with a supply voltage of 1000V.
 - ⑥ The current at which the output linearity is kept within $\pm 5\%$.
 - ⑦ Operating temperature range -20 to +50°C.
 - ⑧ Supplied with a separate mounting flange. See page 8 for assembled dimensions.

① E1761-04

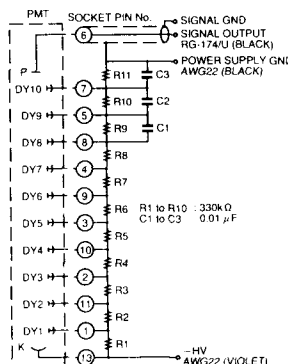


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② E849-35, -36

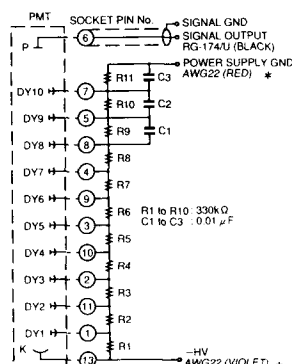


E849-35



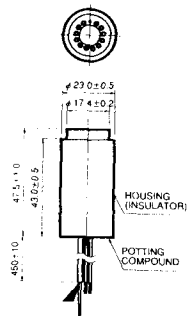
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- * Wiring diagram at left applies when -HV is supplied.
- * To supply +HV, connect the red lead to +HV, and the violet lead to the power supply GND.
- * A mounting flange is supplied as a standard accessory. See page 8 for mounting procedure.

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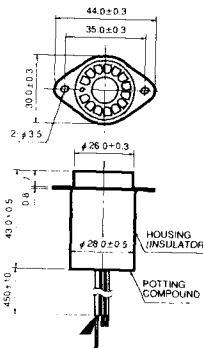


Diagram illustrating the pinout for the 74VHC00 (NAND gate) in a 14-pin DIP package. The package is shown with pins 1 through 14. The connections are as follows:

- Pin 1:** R1
- Pin 2:** R2
- Pin 3:** R3
- Pin 4:** R4
- Pin 5:** R5
- Pin 6:** R6
- Pin 7:** R7
- Pin 8:** R8
- Pin 9:** R9
- Pin 10:** R10
- Pin 11:** R11
- Pin 12:** R12
- Pin 13:** R13
- Pin 14:** R14

Additional connections and components shown:

- Pin 1:** Connected to **AWG27 (VIOLET)** (+5V).
- Pin 2:** Connected to **AWG22 (BLACK)** (POWER SUPPLY GND).
- Pin 3:** Connected to **AWG22 (BLACK)** (POWER SUPPLY GND).
- Pin 4:** Connected to **AWG22 (BLACK)** (POWER SUPPLY GND).
- Pin 5:** Connected to **AWG22 (BLACK)** (POWER SUPPLY GND).
- Pin 6:** Connected to **AWG22 (BLACK)** (POWER SUPPLY GND).
- Pin 7:** Connected to **AWG22 (BLACK)** (POWER SUPPLY GND).
- Pin 8:** Connected to **AWG22 (BLACK)** (POWER SUPPLY GND).
- Pin 9:** Connected to **AWG22 (BLACK)** (POWER SUPPLY GND).
- Pin 10:** Connected to **AWG22 (BLACK)** (POWER SUPPLY GND).
- Pin 11:** Connected to **AWG22 (BLACK)** (POWER SUPPLY GND).
- Pin 12:** Connected to **AWG22 (BLACK)** (POWER SUPPLY GND).
- Pin 13:** Connected to **AWG22 (BLACK)** (POWER SUPPLY GND).
- Pin 14:** Connected to **AWG22 (BLACK)** (POWER SUPPLY GND).

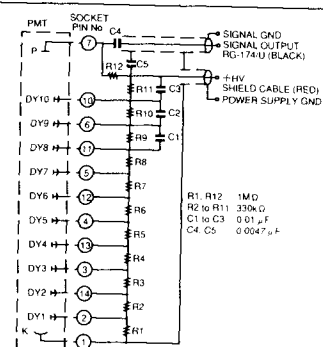
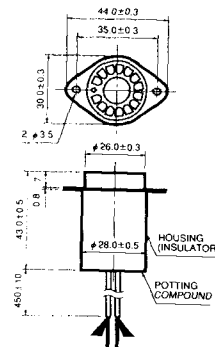
Legend:

- R1:** H2 to R1
- R2:** 1MΩ
- C1:** 100 pF
- C2:** 0.01 μF

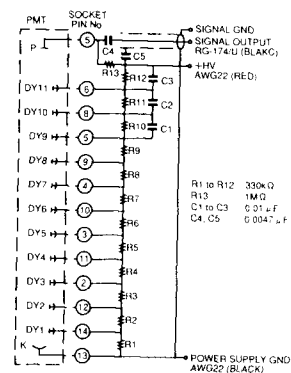
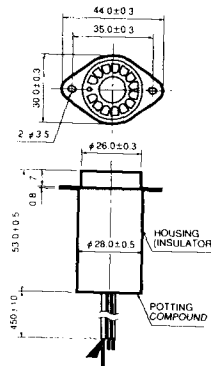
Diagram showing the pinout for the 6800 IC. The pins are numbered 1 through 14, corresponding to the SOCKET PIN NO. The connections are as follows:

- PMT:** Pin 14 is connected to PMT.
- SIGNAL GND:** Pin 13 is connected to SIGNAL GND.
- SIGNAL OUTPUT:** Pin 12 is connected to SIGNAL OUTPUT (RG 174 U) (BLACK).
- POWER SUPPLY GND:** Pin 11 is connected to POWER SUPPLY GND (AWG22 (BLACK)).
- Resistors and Capacitors:**
 - R1 is connected between pins 14 and 13.
 - R2 is connected between pins 13 and 12.
 - R3 is connected between pins 12 and 11.
 - R4 is connected between pins 11 and 10.
 - R5 is connected between pins 10 and 9.
 - R6 is connected between pins 9 and 8.
 - R7 is connected between pins 8 and 7.
 - R8 is connected between pins 7 and 6.
 - R9 is connected between pins 6 and 5.
 - R10 is connected between pins 5 and 4.
 - R11 is connected between pins 4 and 3.
 - R12 is connected between pins 3 and 2.
 - C1 is connected between pins 11 and 10.
 - C2 is connected between pins 10 and 9.
 - C3 is connected between pins 9 and 8.
- Other Connections:**
 - Pin 13 is also connected to R12 and C3.
 - Pin 12 is also connected to R11 and C2.
 - Pin 11 is also connected to R10 and C1.
 - Pin 10 is also connected to R9 and C3.
 - Pin 9 is also connected to R8 and C2.
 - Pin 8 is also connected to R7 and C1.
 - Pin 7 is also connected to R6 and C3.
 - Pin 6 is also connected to R5 and C2.
 - Pin 5 is also connected to R4 and C1.
 - Pin 4 is also connected to R3 and C3.
 - Pin 3 is also connected to R2 and C2.
 - Pin 2 is also connected to R1 and C1.
- Power Supply:** Pin 14 is connected to +V (AWG21 (VIOLET)).

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⑥ E990-08



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