

D E S C R I P T I O N



PRODUCT COVERED:

Auxiliary Devices, HW Series.

Contact unit, Type HW, followed by -C or -F, followed by B or L, followed by 0, 1, 2, 5, 6, 7, 8 or 9, followed by 0, 1, 2 or S.

For Use With Manufacturer's Operator Units and/or Lamps

Transformer for Pilot Light, Types HW-R, HW-F, and HW-M, for use with Manufacturer's Operator Units and Lamps.

Pilot Light without Transformer, Type HW-P.

HW Series Alternate Designation

(1) Contact block

HW-C10 - Normally open contact

* HW-C01 - Normally closed contact

* HW-C10R - Early make contact, normally open

* HW-C01R - Late break contact, normally closed

HW-F10 - With finger protection, normally open contact

HW-F01 - With finger protection, normally closed contact

HW-F10R - With finger protection, early make contact, normally open

HW-F01R - With finger protection, late break contact, normally closed

HW-G10 - Normally open contact

HW-G01 - Normally closed contact

HW-G10R - Early make contact, normally open

HW-G01R - Late break contact, normally closed

(2) Dummy block

* TW-DB

(3) Transformer

for illuminated type switch

TW - With/without finger protection

TWS - Half size, without finger protection

HW-L - With finger protection and screw-up terminal

HW-T - With finger protection and screw-up terminal

for pilot light

HW-R - Without finger protection

HW-F - With finger protection

HW-M - With finger protection and screw-up terminal

(4) Direct adapter

TW-DA1 - Without finger protection

TW-DA1F - With finger protection

Note) When 2 or 4 contact blocks are mounted, TW-DA1 or TW-DA1F is applied.



HW-DA1 - Without finger protection

HW-DA1F - With finger protection

Note: When 1 or 3 contact blocks are mounted, HW-DA1 or HW-DA1F is applied.

HW-GA1 - With finger protection and screw-up terminal

(5) Lamp

LED Lamp

LSPD-6D - Lamp rating: 6 V dc, 0.5 W

LSPD-6 - Lamp rating: 6 V ac, 0.5 W

LSPD-1 - Lamp rating: 12 V ac/dc, 0.5 W

LSPD-2 - Lamp rating: 24 V ac/dc, 0.5 W

* LSTD-6 - Lamp rating: 6 V ac/dc, 0.5 W

LSTD-1 - Lamp rating: 12 V ac/dc, 0.5 W

LSTD-2 - Lamp rating: 24 V ac/dc, 0.5 W

* LSTD-H2 - Lamp rating: 115/120 V ac, 2 VA max.

* LSTD-M4 - Lamp rating: 230/240 V ac, 3 VA max.

Incandescent Lamp

LS-6 - Lamp rating: 6.3 V, 1 W

LS-8 - Lamp rating: 18 V, 1 W

LS-2 - Lamp rating: 24 V, 1 W

LS-3 - Lamp rating: 30 V, 1 W

(6) Connecting Units

HW-CB1 - For non-illuminated type switch, when one contact block is stacked

HW-CB2 - For non-illuminated type switch, when two (2) or more contact blocks are stacked

HW-CBL - For non-illuminated type switch

GENERAL:

Contact unit and manufacturer's operator unit and/or lamp of the HW Series are assembled by the manufacturer to form the following devices:

- Pushbutton switch
- Selector switch
- Illuminated type switch
- Mono-lever switch



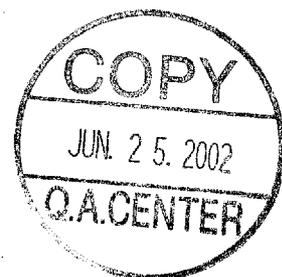
Operator unit and lamp may not be provided with contact unit at manufacturer.

The HW series is suitable for field wiring.
Wire Terminal/Torque - 7 in. lbs.

Contact block/dummy block, transformer/direct adapter, connecting unit, lamp, and/or operator units of the HW series alternate designation are shipped separately by the manufacturer. The above devices are assembled in the field to form the following devices:

- Pushbutton switch
- Selector switch
- Illuminated type switch
- * - Monolover switch

Instructions are provided by the manufacturer for assembly of individual units. See ILL. 3 for details.



ELECTRICAL RATINGS:

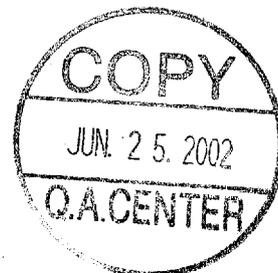
(1) Contact Rating: Heavy Pilot Duty 120-600 V ac or Code A600

(2) Lamp Rating and Operational Voltage

Operational Voltage	Without Transformer Type							With Transformer Type
	6 V ac/dc	12 V ac/dc	18 V ac/dc	24 V ac/dc	120 V ac/dc	115/120 V ac	230/240 V ac	100/110, 115, 120, 200/220, 230, 240, 380, 400/440 or 480 V ac, 50/60 Hz
Incandescent Lamp	6.3 V 1 W	18 V 1 W	24 V 1 W	30 V 1 W	-	-	-	6.3 V, 1 W
LED Lamp	6 V dc	12 V ac/dc	-	24 V ac/dc	120 V ac/dc	115/120 V ac	230/240 V ac	6 V ac



NOMENCLATURE:



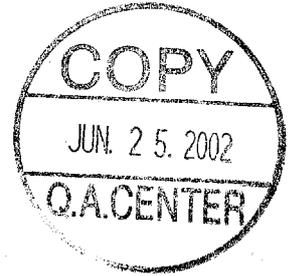
(1) Contact Units,

HW	-C	B	2	1
1	2	3	4	

- 1 - Series HW
- 2 - Finger-Protection (see "Note")
 - F - Finger-Protection Type
 - C - Normal Type
- 3 - Non-Illuminated/Illuminated Type
 - B - Non-Illuminated Type
 - L - Illuminated Type
- 4 - contact Arrangement
 - 10 - 1 NO
 - 01 - 1 NC
 - 11 - 1 NO - 1 NC
 - 20 - 2 NO
 - 21 - 2 NC
 - 22 - 2 NO - 2 NC
 - 1S - 1 NO - 1 NO (early make)
 - 2S - 1 NC - 1 NC (late break)
 - 5S - 1 NO - 1 NC - 1 NO (early make) -
1 NC (late break)
 - 6S - 2 NO - 1 NC - 1 NC (late break)
 - 7S - 1 NO (early make) - 1 NC (late break)
 - 8S - 2 NO (early make) - 2 NC (late break)
 - 9S - 1 NO - 2 NC - 1 NO (early make)

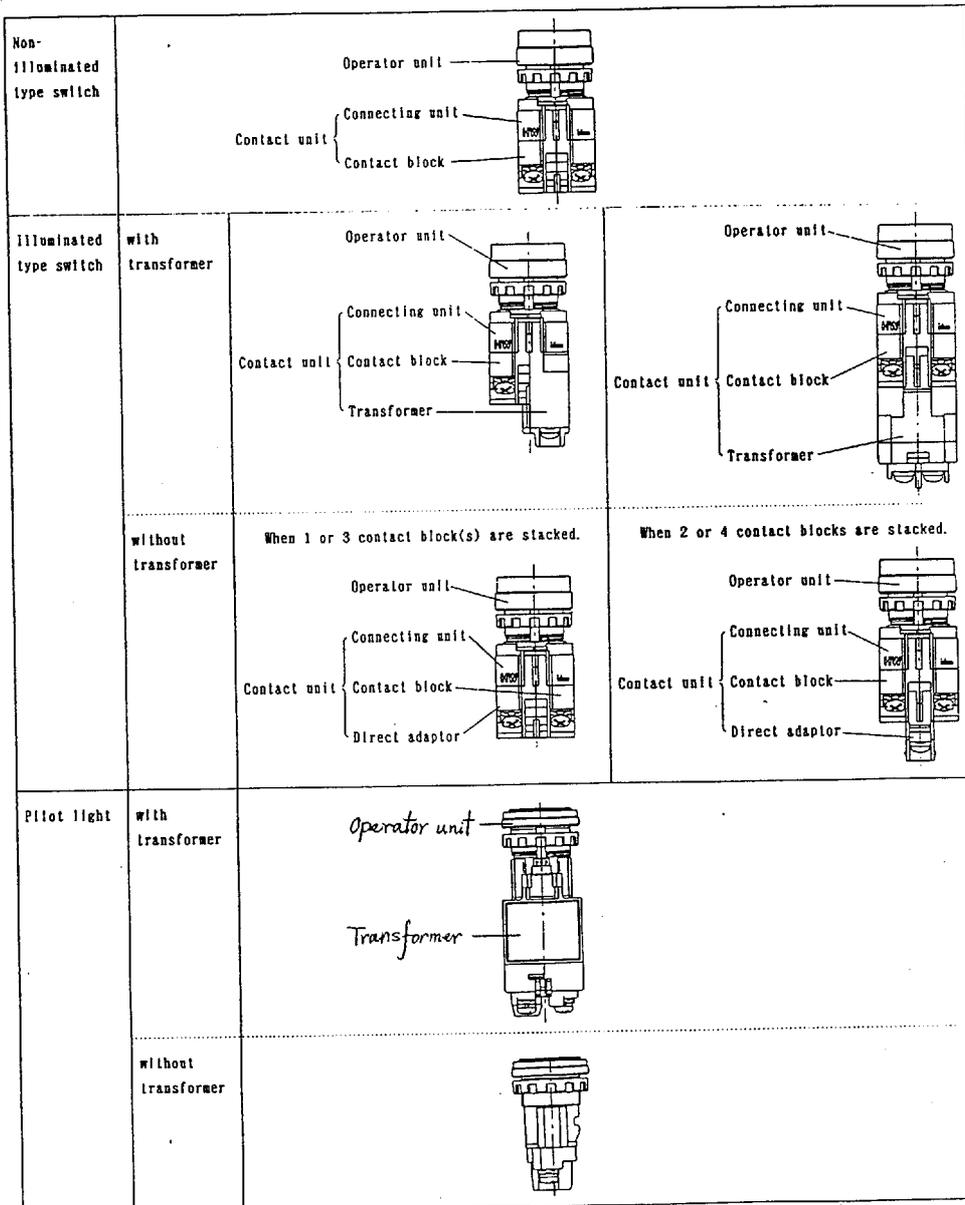
(2) Transformer for Pilot Light

Type HW-F - Finger-Protection Type
Type HW-R - Normal Type



CONSTRUCTION DETAILS:

HW Series Over View



The product shall be constructed in accordance with the following:

Corrosion Protection - All parts are of corrosion resistant material, plated or painted.

Spacings -

<u>Potential Involved In Volts</u>	<u>51-300</u>	<u>301-600</u>
Between any uninsulated live through air part and any uninsulated live part of opposite polarity,	1.6 mm	4.8 mm
Uninsulated grounded part other oversurface than the enclosure, or exposed metal part.	3.2 mm	9.6 mm

Markings - Company name or identification, series or type number and electrical ratings. Catalog number designation marking may be on each part or one catalog number designation covers entire assembly. The electrical markings are separate.

When each part is marked separately, an additional marking shall be included indicating all components that may be assembled together.

