

# NEC

## Safety Standard Certificate for Photocoupler

### *PS256x, PS256xA, PS2571*



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#### ● UL Certificate

Standard  
File No.

UL1577  
E72422 (S) Vol1. Sec.10

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D E S C R I P T I O NPRODUCT COVERED:

Double Protection - Optical isolated switches, Types 2561, 2562, 2565, 2566; may be followed by L, L1, L2 and/or -1, -2, -3, -4; may be followed by -V, may have a prefix of "PS."

Double Protection - Optical isolated switches, Type 2571; may be followed by L, L1, L2; followed by -1 or -4; may have a prefix of "PS"

\* Double Protection - Optical isolated switches, Type 2561A-1, 2561AL1-1, 2561AL-1, 2561AL2-1 may have a prefix of "PS."

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

These devices are optically coupled isolating switches with gallium arsenide light emitting diodes optically coupled to photo detectors. The solid state portion of these devices is encapsulated in a silicon or epoxy compound. The light emitting diode and detector are separated by an insulating window. Internal "chips" are provided with terminals molded into the enclosure.

Use - For use only in products where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Conditions of Acceptability - Each device shall be reviewed with respect to the following conditions of acceptability:

1. The short-circuit interrupting capacity, or behavior under short-circuit conditions, has not been evaluated for these devices. Accordingly, the end-use circuit should contain suitable impedance to eliminate the need for such testing, or appropriate tests should be conducted.
2. The device shall be installed in compliance with the enclosure, mounting, spacings, and segregation requirements of the ultimate application. No spacings are specified for the device.
3. The electrical and outer surface temperature ratings recorded below shall be acceptable in the ultimate application.

4. The suitability of use when exposed to oil, chemicals and the like has not been determined by this investigation.
5. If a particular end use application requires evaluation of "as received" case material properties not contemplated under the scope of this investigation, such properties will have to be separately investigated. (For application data, see ILLS.)
6. The suitability of the connections shall be determined in the end use application.
7. The capability of the device to control a load has not been investigated.
8. The suitability of the device to be mounted over dead metal or metal of opposite polarity has not been investigated.
9. The device is intended for factory installation in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application.
10. The optical isolator enclosure is considered acceptable for only one level of protection. The double protection requirements for the end-use product are to be given further consideration with regards to the optical isolator enclosure.

RATINGS:

<u>Type Designation</u>	<u>Line V ac</u>	<u>Current Max,</u>		<u>Isolation VAC</u>	<u>Temp. 0C</u>
		<u>mA, I<sub>F</sub> (mA)</u>	<u>I<sub>C</sub> (mA)</u>		
PS2561-1	377	80/80		5000	-0 to 100
PS2561	377	80/80		5000	-0 to 100
PS2565-1	377	80/80		5000	-0 to 100
PS265	377	80/80		5000	-0 to 100
PS2561-2, -3, -4	377	80/80		5000	-0 to 100
PS2561	377	80/80		5000	-0 to 100
PS2565-2, -3, -4	377	80/80		5000	-0 to 100
PS2562-1	377	80/200		5000	-0 to 100
PS2562	377	80/200		5000	-0 to 100
PS2566-1	377	80/200		5000	-0 to 100
PS2566	377	80/200		5000	-0 to 100
PS2562-2, -3, -4	377	80/160		5000	-0 to 100
PS2566-2, -3, -4	377	80/160		5000	-0 to 100

KP/DM:msm  
SCDLS

Model No.	Current, mA		Power, mW		Isolation Voltage (ac)	Maximum Operating Temp °C
	Diode	Detector	Diode	Detector		
2571-1	50	40	70/ch	150/ch	5000	100
2571-4	50	40	55/ch	120/ch	5000	100
*2561A-1	30	30	150	150	5000	100
*2561AL-1	30	30	150	150	5000	100
*2561AL1-1	30	30	150	150	5000	100
*2561AL2-1	30	30	150	150	5000	100

The junction temperature of the models described in this section is 125°C.

CONSTRUCTION DETAILS:

General - The general design, shape, and arrangement shall be as illustrated in the following descriptive pages. All dimensions are approximate.

\* Model Differences - All models are similar, except for ratings and creepage and/or clearance distance between the photo emitting and photo detecting terminals as noted in the body of the Report.

Types 2561, 2562, 2565, and 2566 series may have suffixes of -1, -2, -3, and -4 describing number of optional isolators in package. Prefix PS represents type of package.

All types may be provided with suffix "-V" denoting the addition of a VDE mark on the device.

Type 2571 is similar to Types 2561, -62, -65, -66, except for the output chip.

L, L1, L2 represent lead bending variations.