## DS-120 <br> tilt sensor / tilt switch

## - IJRAKOOL

- Non-mercury Tilt Switch/Sensor.
- Switching/sensing of tilt in mechanical linkages.
- Suitable for digital logic inputs or LED's.
- May be used to operate a relay (with suitable protection).

Contacts

| Contact number \& arrangement |  | SPST-NO (1 N/O), 1 Form A |
| :--- | ---: | :--- |
| Contact material |  | Ruthenium |
| Max. switching voltage | DC | 48 V |
| Rated load | W | 10 W |
| Maximum switching current | mA | 400 mA |
| Operating Angle | Operate | less than $-10^{\circ}$ (refer to Fig.3) |
|  | Release |  |


| General Data |  |  |
| :---: | :---: | :---: |
| Housing |  |  |
|  | Material | ABS |
|  | Color | Black |
|  | Sealing | IP65 |
| Dimensions | inches | Refer to Figs. 1 \& 2 |
| Lead cable |  |  |
| Length | inches (mm) | $2 \times 4.25$ " (108mm) |
|  | Termination | Skived end |
|  | Type | 20AWG XLPE (automotive grade) |
| Weight Color |  | Black |
|  |  | 0.036 pounds (16.3 grams) |
| Ambient temperature |  |  |
| Storage | ${ }^{\circ} \mathrm{C}$ | $-40^{\circ} \mathrm{C} \sim+85^{\circ} \mathrm{C}$ |
| Operating | ${ }^{\circ} \mathrm{C}$ | $-40^{\circ} \mathrm{C} \sim+85^{\circ} \mathrm{C}$ |
| Shock resistance | G | 30G for 11ms, half sine. |
| Vibration resistance | G | 3 axis @ 4G. 5-500Hz for 3hrs. |

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## Dimensions: DS-120-A (no stand-offs)



All dimensions in inches


Mounting \& Method of Operation
Fig. 3


Mounting:
On a vertical surface with mounting bracket on low side or alternatively oriented on high side of sensor body. If mounting on a non-magnetic surface, select DS-120-A with the thin screw bracket, but if mounting on steel or other magnetic materials then use $1 / 2^{\prime \prime}$ plastic spacers or select DS-120-B with integral spacers

Magnetic steel surfaces and ferrous magnetic parts should not be nearer than 1/2" from the sensor body. Care must be taken not locate other permanent magnets where they might affect the operation of the DS-120 sensor switch.

Notes

1) Do not use with relay coils without back emf protection.
2) Do not use to directly switch incandescent indicator lamps. (Consult factory)
3) Do not use to directly switch high inrush loads, capacitive or motor loads; nor, with wire runs longer than 100ft (Consult factory)
