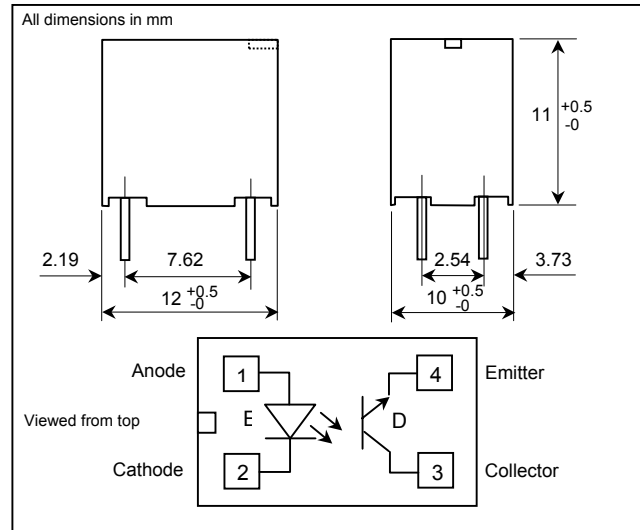
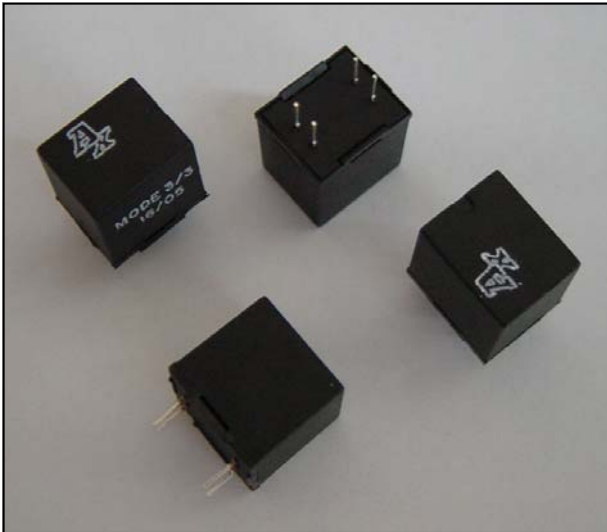


Non-Mercury Tilt Sensor - Mode 3/5 – C12-1190

(Vertically Mounted, Normally Open, Omni-directional, 22°)

TuControls
Limited

The TuControls non-mercury, Mode 3/5, normally open tilt sensor is suitable for vertical PCB mounting & is housed in a small, robust moulded package, 11mm x 12mm x 10mm in size. The operate angle is $22^\circ \pm 2$ from the vertical omni-directionally in each axis for 360° . Using solid-state technology, this low powered device is suitable for CMOS logic. As a primary sensing device, the tilt sensor can be interfaced to standard TTL, or power devices & additional circuitry can be supplied for the operation of power transistors & FET's, enabling solenoids, motors & lamp loads to be switched.



Technical Characteristics						
Emitter						
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Fwd Voltage	V _F	-----	1.2	1.6	V	I _F = 20mA
Cont. Fwd Current	I _F	-----	20	50	MA	V _F =5V
Rev. Voltage	V _R	-----	-----	5	V	I _R =100μA
Power Dissipation	P _M	-----	-----	75	mW	-----
Detector						
Coll. Emitt. V	V	-----	-----	30	V	I _C =100μA
Emitt. Coll. B/D V	V _{ECO}	-----	-----	5	V	I _E =100μA
Coll. Emitt. Leak. I	I _{CEO}	-----	-----	100	nA	V _{CE} =20V
On-state Current	I _{C(ON)}	2	-----	4	mA	V _{CE} =5V
Coll. Emitt. Sat. V	V _{CE(SAT)}	-----	-----	0.4	V	I _C =0.5mA, I _B =100μA
Power Dissipation	P _M	-----	-----	75	mW	-----
Operating Specification						
Operating	Op	15	22	25	Deg	I _F =20mA
Release (from Op.)	Rel	9	11	13	Deg	I _F =20mA
Operating Temp.	Temp	-10	-----	+70	°C	I _F =20mA, I _C =10mA
Soldering Temp.	T _{SOL}	-----	-----	+260	°C	For 5 Seconds Max.
Switch operations	-----	1x10 ⁶	-----	-----	-----	I _F =20mA I _{C(ON)} =4mA

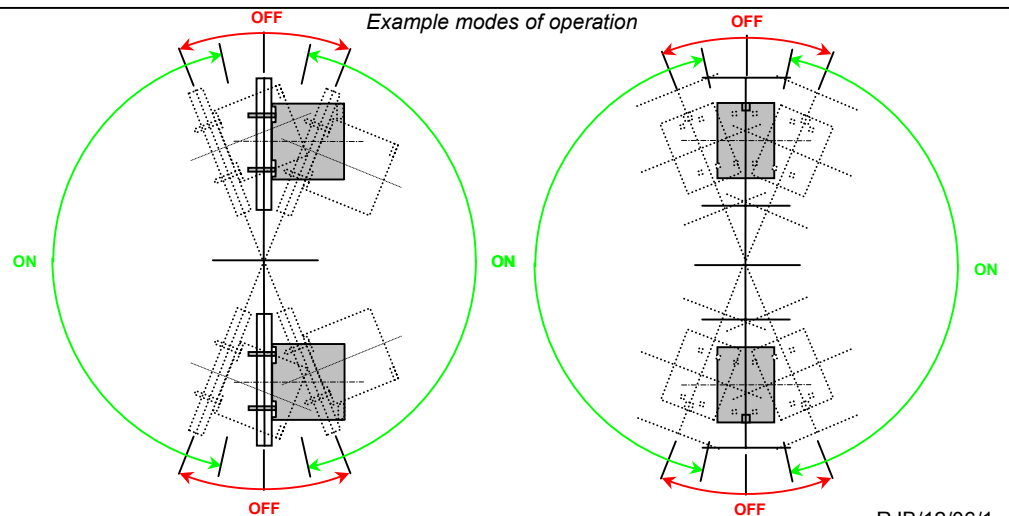
Features:

- RoHS Compliant
- Small robust construction
- Printed circuit board mounting
- Optical coupling
- Low power consumption
- Optional interface circuitry available
- Other tilt angles available
- Other "modes" of operation available

Typical Applications:

- Emergency shutdown
- Door / barrier position sensing
- Cam / motor position indicator
- Movement alarm

Important Note: Suitable for PCB washing, but not total immersion.



TuControls Limited reserve the right to change this data sheet without giving notice

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