



# TRANSMISSIVE SENSORS

## SURFACE-MOUNT

**3 mm** Wide gap of 3 mm

Moisture sensitivity level (MSL) of 1  
Surface-mount package  
Rugged, single piece construction

**Output current of 1.6 mA**

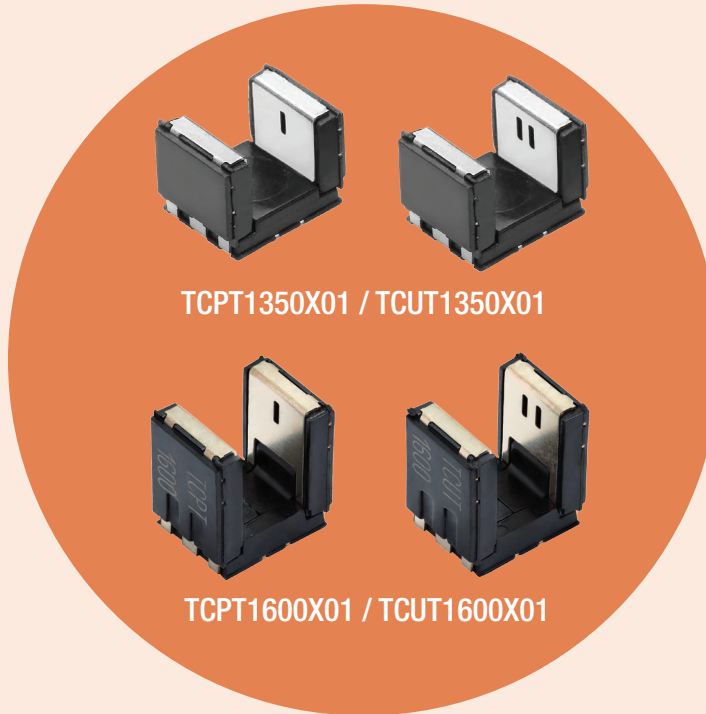
1.6 mA

Compact size, 5.5 mm x 4.0 mm x 4.0 mm  
Automotive qualified, AEC-Q101

**9 μs** Rise time of 9 μs, typical

**Deep slot for turn and push function**

**Operating temperature up to +125°C**



### APPLICATIONS

- Gear shift
- Ignition lock
- Adaptive headlight control
- Climate control knobs
- Latches
- Simple encoders
- Switches
- Motor speed and travel distance



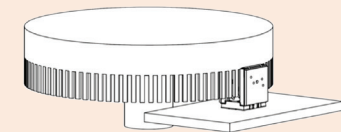
**AUTOMOTIVE**

### COMPETITIVE ADVANTAGE

- Extremely high operating temperature
- Package design ensures alignment of emitter and detector
- High photo current output allows lower forward current of emitter



Part Number	TCPT1350X01	TCUT1350X01	TCPT1600X01	TCUT1600X01
Single Channel	•		•	
Dual Channel		•		•
Slot Depth	2.8	2.8	4.5	4.5
L x W x H	5.5 mm x 4 mm x 4 mm		5.5 mm x 4 mm x 5.7 mm	
Function	Presence of object determines speed of turn	Determines speed and direction of turn	Turn and push function presence of object determines speed of turn	Turn and push function determines speed and direction of turn
Gap	3 mm			
Operating Temperature	-40 °C to +125 °C		-40 °C to +105 °C	
Output Current	1.6 mA at I <sub>F</sub> = 15 mA			
On / Off Time	9 μs, 16 μs			



How it works: simple encoder drawings

