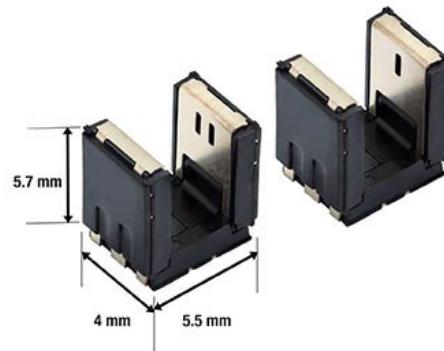


# Offered in Compact 5.5 mm x 4 mm x 5.7 mm SMD Package, High Dome Single- and Dual-Channel Transmissive Sensors Offer Greater Vertical Headroom and Design Flexibility for Position Sensing and Optical Encoding Industrial and Consumer Applications

## Product Benefits:

- Single- and dual-channel devices available
- Compact 5.5 mm by 4 mm by 5.7 mm surface-mount package
- Typical output current of 1.5 mA
- Operate at a wavelength of 950 nm
- 3 mm gap width
- 0.3 mm aperture width
- Typical rise and fall times of 14  $\mu$ s and 21  $\mu$ s, respectively
- Moisture Sensitivity Level rating of 1 (MSL1)
- Compatible with lead (Pb)-free reflow solder processes according to JEDEC-STD-020
- Halogen-free, RoHS-compliant, and Vishay Green



## Market Applications:

- Position sensors for encoders in industrial automation systems and drives and tools; consumer entertainment products, appliances, and health and care devices; switches, relays, and antennas; and mobile broadband routers

## The News:

Vishay Intertechnology expands its transmissive sensor family with the introduction of two new surface-mount devices for industrial, consumer, and telecom applications. Offered in a compact 5.5 mm by 4 mm by 5.7 mm package, the Vishay Semiconductors single-channel VT171P and dual-channel VT172U feature a 42 % increased dome height compared with previous-generation industrial devices.

- Thanks to their high dome height, the devices allow for increased flexibility in mechanical designs, while offering more vertical headroom for large code wheels in turn-and-push applications
- Both sensors can detect motion and speed. With dual channels, the VT172U can also be used to detect direction
- The single-channel VT171P includes an infrared emitter and phototransistor detector located face-to-face in a surface-mount package, while the dual-channel VT172U includes an infrared emitter and two phototransistor detectors



## NEW PRODUCT INFORMATION

Product Group: Vishay Semiconductors, Sensors / January 2026



### The Key Specifications:

Part number	VT171P	VT172U
Channels	Single	Dual
Dimensions (mm)	5.5 x 4 x 5.7	
Output current (mA)	1.5	
Gap width (mm)	3	
Aperture width (mm)	0.3	
Typical rise time (μs)	14	
Typical fall time(μs)	21	

### Availability:

Samples and production quantities of the transmissive sensors are available now, with lead times of 10 weeks.

To access the product datasheets on the Vishay Website, go to

<http://www.vishay.com/ppg?80507> (VT171P)

<http://www.vishay.com/ppg?80508> (VT172U)

### Contact Information:

#### THE AMERICAS

Jim Toal

[jim.toal@vishay.com](mailto:jim.toal@vishay.com)

#### EUROPE

Boris Lazic

[boris.lazic@vishay.com](mailto:boris.lazic@vishay.com)

#### ASIA/PACIFIC

Jason Soon

[jason.soon@vishay.com](mailto:jason.soon@vishay.com)