

# Photomicrosensors Technical Guide

## Definition of Terms

Term	Reference diagram	Explanation
Non-modulated light	---	Method used to detect light steadily emitted by the emitter element.
Modulated light	---	Method used to detect light emitted in pulses by the emitter element.
Sensing distance		The slot width, i.e., the distance between the opposing faces of the emitter and receiver, is the sensing distance.
		The minimum distance that can be set considering factors such as the variation between products and fluctuations in temperature. Note: The actual value under standard conditions for each method is longer than the rated sensing distance.
		The minimum distance that can be set for a standard sensing object (white paper) considering factors such as the variation between products and fluctuations in temperature. Note: The actual value under standard conditions for each method is longer than the rated sensing distance.
Differential distance		The difference in distance between the operating point and releasing point.
Response frequency		The frequency at which an object satisfying specified conditions (size, transparency rate, reflection factor, sensing distance, and power supply voltage) can be repeatedly detected.
Response time		The delay from the light input turning ON/OFF until the control output operation or release operation. The following equation generally applies. Operating time ( $T_{on}$ ) $\approx$ Releasing time ( $T_{off}$ )
Ambient illumination		The level of illumination on the sensing surface that enables stable operation of the Sensor.