

Panasonic PIR Motion Sensors



Panasonic Electric Works

MP motion sensors are passive infrared sensors which detect changes in infrared rays when there is movement from a person or object. Intended as human body and animal detection with the world's smallest built-in amplifier design and small size. Perfect for connecting directly into a microprocessor. **Sensor Types:** • Standard Detection for most general purpose movement detection • Slight Detection for movements as low as 7.8" • Spot Detection for detecting movements in a much smaller area or focused spot. • 10 Meter Detection for long distance, wide area movement detection **Output Types:** • Digital for automated On-Off controls, energy saving for vending machines, ATMs, video games and theme parks • Analog for fine motion detection, slight movements and small detection • Lens color does not affect sensor operation

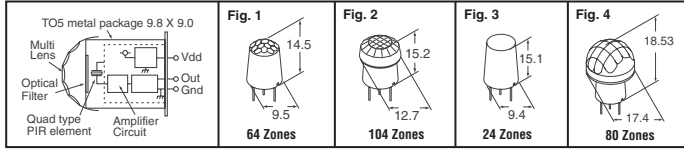


Fig.	Sensor Type	Detection Distance	Output Type	Lens Color	Digi-Key Part No.	Price Each 1	25	Panasonic Part No.
1	Standard Detection	16.4" Max	Digital - 5V	Black	255-1849-ND	34.69	31.86	AMN11111
			Digital - 5V	White	255-1812-ND	34.69	31.86	AMN11112
			Digital - 3V Low Power	Black	255-1808-ND	35.38	32.49	AMN44121
			Analog	Black	255-1815-ND	34.69	31.86	AMN22111
2	Slight Detection	6.56" Max	Digital - 5V	White	255-1813-ND	34.69	31.86	AMN12112
			Digital - 3V Low Power	Black	255-1809-ND	35.38	32.49	AMN44212
			Analog	Black	255-1816-ND	34.69	31.86	AMN22111
			Analog	White	255-1806-ND	34.69	31.86	AMN22112
3	Spot Detection	16.4" Max	Digital - 5V	Black	255-1850-ND	34.69	31.86	AMN13111
			Digital - 5V	White	255-1814-ND	34.69	31.86	AMN13112
			Digital - 3V Low Power	Black	255-1810-ND	35.38	32.49	AMN43121
			Analog	Black	255-1804-ND	35.38	32.49	AMN23111
4	10 meter Detection	32.8" Max	Digital - 5V	White	255-1803-ND	36.63	33.64	AMN14112
			Digital - 3V Low Power	Black	255-1811-ND	38.64	35.49	AMN44121
			Analog	Black	255-1817-ND	36.63	33.64	AMN24111
			Analog	White	255-1818-ND	36.63	33.64	AMN24112

TT electronics Switches

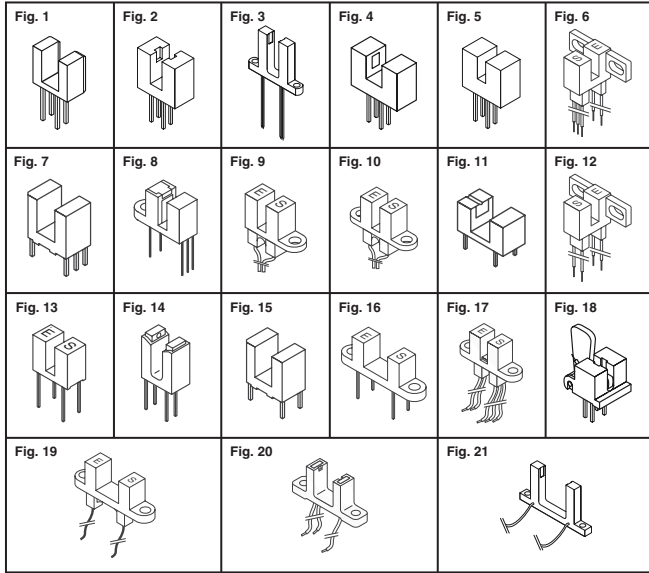


Fig.	Output Type	Slot Width Inch (mm)	Lead Spacing Inch (mm)	Digi-Key Part No.	Price Each 1	100	250	TT Electronics Part No.
Slotted Optical								
1	Rbe Phototransistor	.190 (4.83)	.320 (8.13)	365-1008-ND	2.15	1.25	1.20	OPB620
2	Phototransistor	.150 (3.81)	.300 (7.62)	365-1017-ND	2.17	1.27	1.22	OPB804
3	Phototransistor	.20 (5.08)	—	365-1260-ND	5.56	3.24	3.11	OPB817Z
4	Phototransistor	.200 (5.08)	.400 (10.16)	365-1019-ND	3.00	1.75	1.68	OPB818
5	Phototransistor	.100 (2.54)	.300 (7.62)	365-1021-ND	2.78	1.62	1.56	OPB848
6	Photologic	.125 (3.18)	—	365-1234-ND	7.10	4.13	3.97	OPB941W51Z
		.125 (3.18)	.320 (8.13)	365-1265-ND	7.07	4.12	3.96	OPB930W55Z
7	Photologic	.190 (4.83)	—	365-1090-ND	2.78	1.62	1.56	OPB625
		.125 (3.18)	.320 (8.13)	365-1111-ND	4.81	2.80	2.70	OPB970N11
8	Photologic	.125 (3.18)	—	365-1113-ND	4.24	2.47	2.37	OPB973N51
		.125 (3.18)	.320 (8.13)	365-1087-ND	3.91	2.28	2.19	OPB460L11
9	Phototransistor	.125 (3.18)	—	365-1341-ND	5.34	3.11	2.99	OPB880P51Z
10	Phototransistor	.125 (3.18)	—	365-1246-ND	6.22	3.62	3.48	OPB990T55Z
		.125 (3.18)	—	365-1235-ND	5.31	3.09	2.97	OPB891T51Z
11	Phototransistor	.125 (3.18)	—	365-1401-ND	5.17	3.01	2.90	OPB829CZ
		.205 (5.21)	.380 (9.65)	365-1105-ND	2.67	1.56	1.50	OPB855
12	Phototransistor	.125 (3.18)	—	365-1335-ND	5.75	3.35	3.22	OPB930W55Z
		.125 (3.18)	.320 (8.13)	365-1337-ND	7.34	4.28	4.11	OPB840W11Z
		.125 (3.18)	.320 (8.13)	365-1101-ND	4.02	2.34	2.25	OPB840L11
		.125 (3.18)	.320 (8.13)	365-1338-ND	5.78	3.36	3.24	OPB841W55Z
13	Phototransistor	.125 (3.18)	.220 (5.59)	365-1106-ND	4.26	2.48	2.39	OPB865N11
14	Phototransistor	.160 (4.06)	.300 (7.62)	365-1099-ND	2.31	1.35	1.30	OPB825
15	Phototransistor	.150 (3.81)	.275 (6.99)	365-1089-ND	2.15	1.25	1.20	OPB610
16	Photologic	.125 (3.18)	.320 (8.13)	365-1110-ND	4.92	2.87	2.76	OPB960T11
		.125 (3.18)	.320 (8.13)	365-1112-ND	4.04	2.36	2.27	OPB970T55
17	Photologic	.125 (3.18)	—	365-1402-ND	6.41	3.73	3.59	OPB981T51Z
		.125 (3.18)	—	365-1403-ND	6.30	3.67	3.53	OPB990T51Z
Slotted Optical Flag								
18	Transistor	.080 (2.03)	.275 (6.99)	365-1009-ND	5.34	3.11	2.99	OPB680
Wide Gap Slotted Optical								
16	Phototransistor	.375 (9.53)	570 (14.48)	365-1094-ND	3.25	1.89	1.82	OPB800L55
		.375 (9.53)	570 (14.48)	365-1095-ND	3.33	1.94	1.87	OPB810L51
		.375 (9.53)	570 (14.48)	365-1097-ND	3.19	1.86	1.79	OPB811L55
19	Phototransistor	.375 (9.53)	—	365-1331-ND	5.64	3.28	3.16	OPB810W51Z
		.375 (9.53)	—	365-1333-ND	5.39	3.14	3.02	OPB811W55Z
20	Phototransistor	.375 (9.53)	—	365-1400-ND	5.78	3.36	3.24	OPB815WZ
21	Phototransistor	1.26 (32)	—	365-1262-ND	7.78	4.53	4.36	OPB819Z

Sensors

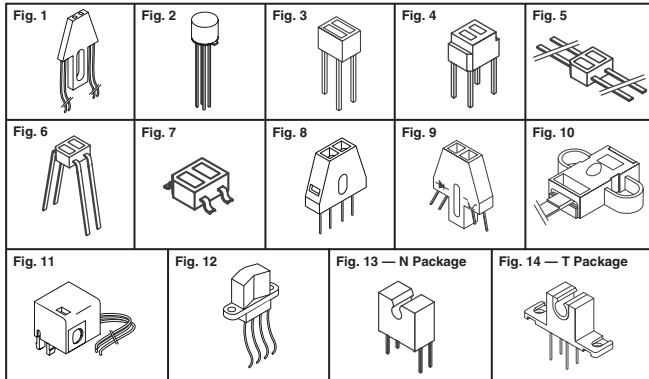


Fig.	Continuous Forward Curr. (mA)	Reverse DC Voltage	V(BR)/CEO Voltage (Min.)	Min. Lead Wire Length Inch (mm)	Digi-Key Part No.	Price Each 1	100	250	TT Electronics Part No.
5	50	5.0	30	.374 (9.5)	365-1407-ND	.50	.29	.28	OPB609AX
6	50	5.0	30	.370 (9.4)	365-1408-ND	.50	.29	.28	OPB609RA
7	50	5.0	30	.038 (.95)	365-1409-1-ND†	.85	.55	.47	OPB609GU
8	40	2.0	30	.15 (3.81)	365-1014-ND*	3.16	1.84	1.77	OPB742
				.15 (3.81)	365-1015-ND*	3.93	2.29	2.20	OPB745
9	40	2.0	30	.165 (4.19)	365-1091-ND	3.63	2.12	2.04	OPB704

‡ Cut Tape † Tape and Reel * Collector Emitter Voltage: OPB742: 30V; OPB745: 15V

Reflective Color Sensor

Fig.	Continuous Forward Current (mA)	Supply Voltage VDD	Digi-Key Part No.	Price Each 1	100	250	TT Electronics Part No.
10	30	5	365-1378-ND	24.92	14.50	13.94	OPB780Z

Photologic® Reflective Object Sensors

Fig.	Operating DC Supply Voltage	Minimum Lead Wire Length Inch (mm)	Digi-Key Part No.	Price Each 1	100	250	TT Electronics Part No.
11	4.75 - 5.25	18.0 (457.2)	365-1255-ND	9.35	5.44	5.24	OPB716Z
12	4.75 - 5.25	12.0 (304.8)	365-1258-ND	9.74	5.67	5.45	OPB707Z

Liquid Tube Sensors

Fig.	Continuous Forward Current (mA)	Reverse DC Voltage	V(BR)/CEO Voltage (Min.)	Min. Lead Wire Length Inch (mm)	Digi-Key Part No.	Price Each 1	100	250	TT Electronics Part No.
13	50	2.0	30	.33 (8.38)	365-1236-ND	6.93	4.04	3.88	OPB350
				.33 (8.38)	365-1237-ND	7.40	4.31	4.14	OPB350L187
				.33 (8.38)	365-1238-ND	7.40	4.31	4.14	OPB350L250
				.33 (8.38)	365-1405-ND	7.40	4.31	4.14	OPB350L062
				.24 (610)	365-1239-ND	9.65	5.62	5.40	OPB350W187Z
14	50	2.0	25	24 (610)	365-1240-ND	9.65	5.62	5.40	OPB350W250Z
				24 (610)	365-1406-ND	9.65	5.62	5.40	OPB350W062Z

Reflective Object Sensors

Fig.	Continuous Forward Curr. (mA)	Reverse DC Voltage	V(BR)/CEO Voltage (Min.)	Min. Lead Wire Length Inch (mm)	Digi-Key Part No.	Price Each 1	100	250	TT Electronics Part No.
1	100	2.0	25	18.0 (457.2)	365-1399-ND	12.35	7.19	6.91	OPB700ALZ
				4.0 (101.6)	365-1364-ND	10.92	6.36	6.11	OPB700Z
				18.0 (457.2)	365-1253-ND	14.27	8.31	7.99	OPB701ALZ
2	50	3.0	30	.50 (12.7)	365-1012-ND	8.36	4.87	4.68	OPB710
3	50	2.0	30	.45 (11.43)	365-1093-ND	3.69	2.15	2.07	OPB707A
				.45 (11.43)	365-1092-ND	2.86	1.67	1.60	OPB706A
4	50	2.0	30	.180 (4.57)	365-1088-ND	1.73	1.01	.97	OPB606A

Digi-Reel® Most SMT cutdown parts are available on a Digi-Reel®. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key® Services on page 2 for additional information.

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