

# OMRON Amplified Optical Sensors

Omron's optical sensors are designed to meet the needs of positioning, detection, robotic controls and presence detection. Amplified sensors are not influenced by internal or external lighting and can be powered by a wide supply voltage. Great for plug and play applications such as conveyor sensing and directly interfacing with PLC and Industrial controllers.

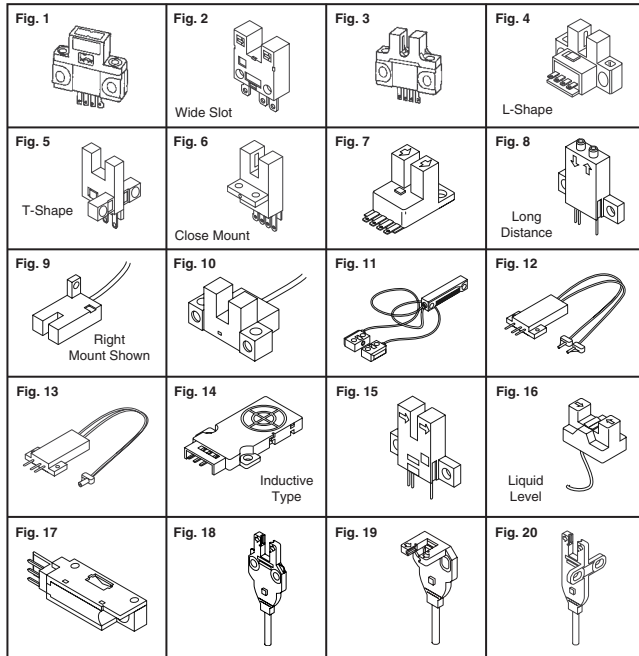


Fig.	Sensor Type/Features	Sensing Distance	Configuration	Digi-Key Part No.	Price Each 1	Price Each 25	Omron Part No.
	Reflective (General Purpose)	5mm	Light-On	OR506-ND	20.25	18.23	EE-SB5V
	Reflective (General Purpose)	5mm	Dark-On	OR507-ND	20.25	18.23	EE-SB5VC
	Reflective (General Purpose)	5mm	Light-On	OR867-ND	20.25	18.23	EE-SB5M
	Reflective (General Purpose)	19mm	Light-On	OR519-ND	28.28	25.45	EE-SB5V-E
	Reflective (Side Detecting)	5mm	Light-On	OR535-ND	54.81	49.33	EE-SPY311
1	Reflective (Side Detecting)	5mm	Light-On	OR536-ND	54.81	49.33	EE-SPY411
	Reflective (Top Detecting)	5mm	Dark-On	OR572-ND	54.81	49.33	EE-SPY312
	Reflective (Top Detecting)	5mm	Light-On	OR868-ND	54.81	49.33	EE-SPY402
	Reflective (Top Detecting)	5mm	Light-On	OR573-ND	54.81	49.33	EE-SPY412
	Reflective (Side Detecting)	5mm	Light/Dark-On	OR531-ND†	32.79	29.52	EE-SY671
	Reflective (Top Detecting)	5mm	Light/Dark-On	OR532-ND†	32.79	29.52	EE-SY672
2	Wide Slot (13mm Slot)	13mm	Dark-On	OR533-ND	58.58	52.73	EE-SPX303
	Wide Slot (13mm Slot)	13mm	Light-On	OR534-ND	58.58	52.73	EE-SPX403
3	Slot (Dust Proof Slit)	5mm	Light/Dark-On	OR528-ND	29.12	26.21	EE-SX670
	Slot - NPN	5mm	Light/Dark-On	OR611-ND	27.27	24.55	EE-SX670A
	Slot - PNP	5mm	Light/Dark-On	OR870-ND	27.27	24.55	EE-SX670P
4	Slot (L-Shaped) - NPN	5mm	Light-On	OR869-ND	28.62	25.76	EE-SX471
	Slot (L-Shaped, Dust Proof Slit)	5mm	Light/Dark-On	OR529-ND	27.77	25.00	EE-SX671
	Slot (L-Shaped, Dust Proof Slit)	5mm	Light/Dark-On	OR612-ND	27.77	25.00	EE-SX671A
5	Slot (T-Shaped, Dust Proof Slit)	5mm	Light/Dark-On	OR530-ND	28.11	25.31	EE-SX672
	Slot (T-Shaped, Dust Proof Slit)	5mm	Light/Dark-On	OR613-ND	26.63	23.97	EE-SX672A
	Slot (T-Shaped) - PNP	5mm	Light/Dark-On	OR871-ND	28.11	25.31	EE-SX672P
6	Slot (Close Mounting) - NPN	5mm	Light/Dark-On	OR549-ND	29.12	26.21	EE-SX673
	Slot (Close Mounting) - NPN	5mm	Light/Dark-On	OR614-ND	27.58	24.82	EE-SX673A
7	Slot (Close Mount) - NPN	5mm	Light/Dark-On	OR597-ND	29.95	26.96	EE-SX674
	Slot (Close Mount) - NPN	5mm	Light/Dark-On	OR872-ND	32.13	28.92	EE-SX674A
	Slot (Close Mount) - PNP	5mm	Light/Dark-On	OR873-ND	33.09	29.79	EE-SX674R
8	Reflective (Long Distance)	200mm	Dark-On	OR538-ND	73.65	66.29	EE-SPZ301A
	Reflective (Long Distance)	200mm	Light-On	OR539-ND	73.65	66.29	EE-SPZ401A
9	Slot (Left Mount with 1M Cable)	3.6mm	Dark-On	OR541-ND	83.69	75.32	EE-SPX302-W2A
	Slot (Right Mount with 1M Cable)	3.6mm	Dark-On	OR542-ND	90.38	81.35	EE-SPX304-W2A
10	Slot (Top Mount with 1M Cable)	5mm	Dark-On	OR543-ND	93.73	84.36	EE-SPX305-W2A
	Slot (Top Mount with 1M Cable)	5mm	Light-On	Z2357-ND	60.74	56.24	EE-SPX405-W2A
11	Slot (Wide Sensing Distance)	300mm	Dark-On	OR546-ND	217.59	195.83	EE-SPW321
	Slot (Wide Sensing Distance)	300mm	Light-On	OR547-ND	217.59	195.83	EE-SPW421
12	Fiber (19° Optical Fiber)	30mm	Dark-On	OR552-ND	100.83	90.75	EE-SPZ301W-01
	Fiber (19° Optical Fiber)	30mm	Light-On	OR553-ND	100.83	90.75	EE-SPZ401W-01
13	Reflective (11° Optical Fiber)	1-3mm	Dark-On	OR554-ND	105.45	94.91	EE-SPZ301Y-01
	Reflective (11° Optical Fiber)	1-3mm	Light-On	OR555-ND	105.45	94.91	EE-SPZ401Y-01
14	Inductive (Detects Ferrous Metal)	5mm	N/O Output	OR560-ND	37.86	34.08	E2R-A01
15	Slot (General Purpose)	3.6mm	Dark-On	OR574-ND	56.49	50.84	EE-SPX301
	Slot (General Purpose)	3.6mm	Light-On	OR575-ND	56.49	50.84	EE-SPX401
16	Slotted Liquid Level Detector	6-13mm	Dark/Light-On	OR579-ND	161.09	144.98	EE-SPX613
17	Reflective (General Purpose)	11mm	Dark-On	OR580-ND	16.81	15.13	EE-SPY415
18	Slot Type with 2M Cable - NPN	5mm	Dark-On	OR605-ND	36.40	32.76	EE-SX770
	Slot Type with 2M Cable - PNP	5mm	Dark-On	OR874-ND	36.40	32.76	EE-SX770P
	Slot Type with 2M Cable - NPN	5mm	Light-On	OR606-ND	36.40	32.76	EE-SX870
19	L-Shaped with 2M Cable - NPN	5mm	Dark-On	OR607-ND	38.50	34.65	EE-SX771
	L-Shaped with 2M Cable - NPN	5mm	Light-On	OR608-ND	38.50	34.65	EE-SX871
20	T-Shaped with 2M Cable - NPN	5mm	Dark-On	OR609-ND	40.17	36.16	EE-SX772
	T-Shaped with 2M Cable - NPN	5mm	Light-On	OR610-ND	40.17	36.16	EE-SX872

◆ RoHS Compliant † Built-in sensitivity adjuster

Description	Digi-Key Part No.	Price Each 1	Price Each 25	Omron Part No.
<b>Optical Sensor Accessories</b>				
IR Reflector for Fig. 8, 60 x 40mm	OR540-ND	20.20	18.18	E39-R1
3 Pin Connector with 1 Meter Cable for Fig. 15	OR561-ND	9.46	8.52	E22-01
Converter from NPN to PNP Output for Amp Sensors	OR550-ND	35.98	32.38	EE-2001
Converter from NPN to PNP Output for AMP Sensors	OR551-ND	35.98	32.38	EE-2002
4 Pin Connector for Fig. 1-6	OR527-ND	3.67	3.31	EE-1001
4 Pin Connector with 2 Meter Cable for Fig. 1-6	OR559-ND	17.23	15.51	EE-1006
Panel Mount Holder Clip for OR559-ND	OR576-ND	5.18	4.67	EE-1006A
3 Pin Connector for Fig. 8, 12, 13 and 16	OR537-ND	3.67	3.31	EE-1002
3 Pin Connector with 2 Meter Cable for Fig. 4, 12 and 13	OR558-ND	6.52	5.87	EE-1003
Panel Mount Holder Clip for OR558-ND	OR583-ND	2.00	1.80	EE-1003A

◆ RoHS Compliant

## Unamplified Optical Sensors

Omron's unamplified optical sensors are low cost detection sensors for design in processes. Inputs generally require a current limiting resistor and care must be taken with reducing external lighting influences. Outputs switch at very high speeds and operating lifetimes extend beyond 10,000 operating hours.

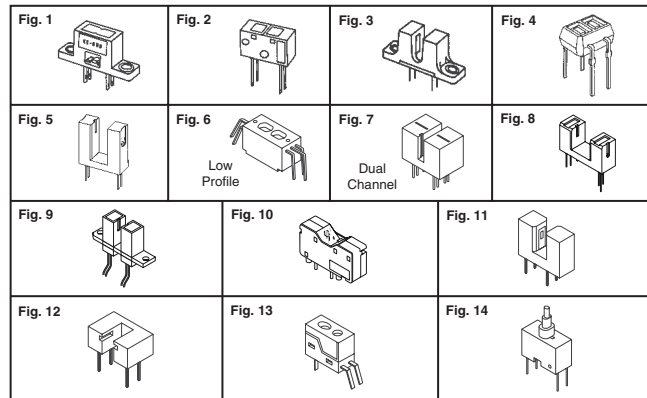
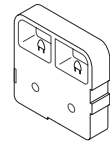


Fig.	Sensing Method	Sensing Distance	Terminal Type	Typical on/off (µsec.)	Digi-Key Part No.	Price Each 1	Price Each 25	Price Each 100	Omron Part No.
1	Reflective	5mm	Solder PC Board	30/30	OR500-ND	5.30	4.78	3.82	EE-SB5
	Reflective	5mm	Solder PC Board	30/30	OR501-ND	5.30	4.78	3.82	EE-SB5-B
2	Reflective	5mm	Solder PC Board	30/30	OR502-ND	5.21	4.69	3.76	EE-SF5
	Reflective	5mm	Solder PC Board	30/30	OR503-ND	5.21	4.69	3.76	EE-SF5-B
3	Slot	3.6mm	Solder PC Board	4/4	OR504-ND	3.98	3.58	2.87	EE-SG3
	Slot	3.4mm	Solder PC Board	4/4	OR713-ND	3.97	3.58	2.86	EE-SH3
	Slot	3.4mm	Solder PC Board	4/4	OR714-ND	4.92	4.44	3.55	EE-SV3
	Slot	3.4mm	PC Board	4/4	OR715-ND	5.08	4.58	3.67	EE-SX305
	Slot	3.6mm	PC Board	4/4	OR505-ND	3.98	3.58	2.87	EE-SG3-B
4	Reflective	1mm	PC Board SMT	35/25	OR520-ND	2.10	1.90	1.52	EE-SY124
	Reflective	1mm	SMT	35/25	OR557-ND	2.10	1.90	1.52	EE-SY125
5	Slot	5mm	PC Board	4/4	OR518-ND	1.85	1.67	1.34	EE-SX1042
	Slot	4.6mm	500Hz PC Board	500Hz	OR556-ND	2.15	1.94	1.56	EE-SX1061
	Slot	3mm	PC Board	70/70	OR601-ND	2.15	1.94	1.56	EE-SX298
6	Reflective	5mm	PC Board	50Hz	OR525-ND	3.83	3.45	2.76	EE-SY310
	Reflective	5mm	PC Board	50Hz	OR526-ND	3.83	3.45	2.76	EE-SY410
	Reflective	4.4mm	PC Board	3/20	OR603-ND	4.10	3.69	2.95	EE-SY313
	Reflective	4.4mm	PC Board	3/20	OR604-ND	4.10	3.69	2.95	EE-SY413
7	Slot	3.4mm	PC Board	4/4	OR523-ND	4.53	4.08	3.27	EE-SX1031
8	Slot	8mm	PC Board	3KHz	OR716-ND	2.45	2.21	1.77	EE-SX3070
	Slot	8mm	PC Board	3KHz	OR524-ND	2.14	1.93	1.55	EE-SX4070
	Slot	8mm	PC Board	3KHz	OR571-ND	1.85	1.67	1.34	EE-SX1070
9	Vertical Slot	3.4mm	61cm Wires	4/4	OR562-ND	7.19	6.48	5.18	EE-SX1088-W1
	Horizontal Slot	3.4mm	61cm Wires	4/4	OR563-ND	11.55	10.40	8.32	EE-SX1096-W1
10	Reflect./Vert.	4.5mm	PC Board	30/30	OR564-ND	11.82	10.64	8.52	EE-SY190
	Reflect./Horz.	4.5mm	PC Board	30/30	OR565-ND	11.82	10.64	8.52	EE-SY191
11	Slot	3.4mm	PC Board	4/4	OR569-ND	3.52	3.18	2.54	EE-SJ3-D
	Slot	2.8mm	PC Board	4/4	OR598-ND	2.26	2.04	1.63	EE-SX1025
	Slot	5.2mm	PC Board	4/4	OR599-ND	2.35	2.12	1.70	EE-SX1035
12	Slot	3mm	PC Board	4/4	OR570-ND	3.22	2.90	2.32	EE-SX1046
	Slot	2mm	PC Board	3/20	OR600-ND	3.26	2.94	2.35	EE-SX493
13	Red LED Reflect	4 mm	PC Board	30/30	OR581-ND	11.67	10.51	8.41	EE-SY169
	IR Reflective	4 mm	PC Board	30/30	OR582-ND	10.45	9.41	7.53	EE-SY169A
14	Actuator	Contact	PC Board	—	OR712-ND	3.09	2.78	2.23	EE-SA105

## D6A Air Flow Sensor

The industry first D6A filter sensor contains a microprocessor with a complex algorithms that provides a temperature reference point to see if a filter fan is moving the right amount of air. If the sensor indicates it is not, then the user knows the filter is clogged. With its sensing capabilities, the D6A provides reliability protection, ensuring the dependability of continued operation of expensive equipment. This clogged filter sensor is excellent for servers, high end routers and network devices. Other applications include uninterruptible power supplies, cash registers and other types of machines that use a filter fan.



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Specifications: • Supply Voltage: DC12V • Current Consumption: 60mA (Maximum)

Description	Digi-Key Part No.	Price Each 1	Price Each 25	Price Each 50	Omron Part No.
Air Flow Sensor - .5 - 1.5M/1 Second	Z2002-ND	57.90	45.90	44.11	D6A-N

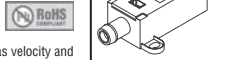
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## D6F Gas Flow Sensors



The D6F is a new supersensitive gas flow sensor. It is able to measure both gas velocity and direction at extremely low flow rates, and is ideal for looking at low pressure medical gases, boiler emissions, and HVAC system airflow. It is suitable for measuring the amount of oxygen and nitrogen dioxide, consumed from a respiratory apparatus in surgery. It can also be used for monitoring air circulation in a building and thus improving the performance and efficiency of air conditioning and building comfort systems. The extreme sensitivity is achieved with a tiny heating element, associated with temperature sensors on both sides. The deviation is temperature measured by the two sensors and used to calculate the gas flow and direction, generating a non-linear analogue output in the range of 1V - 5V.

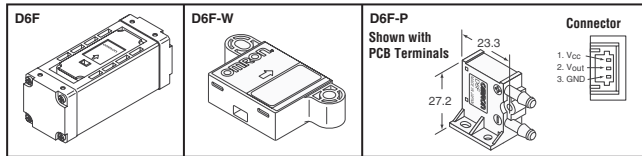
Case Material	Suitable Gas	Flow Range	Digi-Key Part No.	1	Price Each 25	50	Omron Part No.	
PPS	Air	0-1 Liter/minute	Z1671-ND	173.36	156.03	138.70	D6F-01A1-110	
PPS	Air	0-2 Liter/minute	Z1672-ND	173.36	156.03	138.70	D6F-02A1-110	
Aluminum	LNG*	0-5 Liter/minute	Z1673-ND†	210.17	189.16	168.14	D6F-05N2-000	
PPS	Air	0-3 Liter/minute	Z2717-ND	265.28	238.76	212.23	D6F-03A3-0000	
Connector with 2M Cable for D6F Sensors.....				Z2718-ND	8.87	7.99	7.10	D6F-CABLE2

\* Liquid Natural Gas † D6F-05 is a 1/4" pipe thread version using British Taper (Rc) standard.

## D6F Air Flow Sensors



Omron's mass flow sensor will detect flows of 1 - 10 liters per minute up to a 1 - 50 liter per minute version. They use a wide supply voltage range of 5 - 26.4VDC and will output an analog voltage of 0.5 - 5VDC. Perfect for medical apparatus, fuel cell monitoring and measuring instruments.



Description	Digi-Key Part No.	1	Price Each 25	50	Omron Part No.
Flow Sensor 0 - 10 Liters per minute	Z2206-ND	300.25	270.23	240.20	D6F-10A5-000
Flow Sensor 0 - 20 Liters per minute	Z2207-ND	300.25	270.23	240.20	D6F-20A5-000
Flow Sensor 0 - 50 Liters per minute	Z2208-ND	300.25	270.23	240.20	D6F-50A5-000
Dustproof Flow Sensor 0-1 Liter, PCB	Z2785-ND	63.01	56.71	50.41	D6F-P0010A1
Dustproof Flow Sensor 0-1 Liter, Connector	Z2786-ND	63.01	56.71	50.41	D6F-P0010A2
Flow Sensor 0 - 1 Meters per second	Z2631-ND	102.36	92.13	81.89	D6F-W01A1
Flow Sensor 0 - 4 Meters per second	Z2632-ND	102.36	92.13	81.89	D6F-W04A1
Flow Sensor 0 - 3 Meters per second	Z2629-ND	40.94	36.85	32.76	D6F-V03A1
Cable for Air Flow Sensors	Z2209-ND	8.87	7.99	7.10	D6F-CABLE1
Cable for Air Flow Sensors (D6F-W)	Z2630-ND	5.12	4.61	4.10	D6F-W CABLE

## D8M Pressure Sensors



D8M pressure sensors are precise detecting change of air pressure sensors with outputs of either Analog or Digital signals. Perfect for water level monitoring, liquid level monitoring and HVAC monitoring in the air flow. Features: High Noise Immunity • Pressure Range: D8M-D1= 0 - 5.88kPa, D8M-A1= 0 - 4.9Pa • Current Consumption: D8M-D1= 150mA at output 3VDC, D8M-A1= 2.5mA • Temperature Range: -30° - 70°C • Protection Structure: IP40 • Characteristics: • Output Resolution: 0.01kPa/1 pulse • Output Frequency Range: 150 - 450kHz

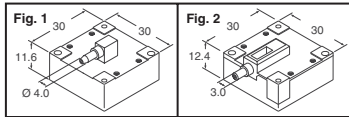


Fig.	Pressure Type	Range	Output	Digi-Key Part No.	1	Price Each 25	50	Omron Part No.
1	Gauge	0 - 4.9kPa	Analog	Z2013-ND	55.47	43.97	42.26	D8M-A1
2	Gauge	0 - 5.88kPa	Digital	Z2014-ND	83.15	63.35	60.33	D8M-D1
—	Gauge	0 - 196.13Pa	Frequency	Z2017-ND	140.83	126.76	112.67	D8M-R1

## Inductive Proximity Sensors

Omron's line of inductive sensors are designed for detecting the presence or absence of ferrous metal close to the sensor and provide an output when detected. Because inductive sensors use electromagnetic fields, they excel over photo type sensors in environments containing water, oil, dust and dirt. Shielded sensors are made with a shielding plate around the ferrite core to focus ferrous metal sensing at the sensors head. It also allows the sensor to be located or mounted close to surrounding metals.

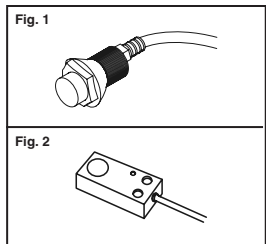


Fig.	Sensing Distance Maximum	Description	Terminal Type	Output Type	Digi-Key Part No.	1	Price Each 25	50	Omron Part No.	
1	0.8mm	4mm Diameter, Short Barrel DC Proxy, Stainless Steel, Shielded	3-Wire	NPN	Z1651-ND	97.00	89.82	83.83	E2E-CR8C1	
	1mm	M5, Short Barrel DC Proxy, Nickel Plated Brass, Shielded	3-Wire	NPN	Z1652-ND	94.18	87.21	81.40	E2E-X1C1	
	1mm	5.4mm Diameter, Short Barrel DC Proxy, Nickel Plated Brass, Shielded	3-Wire	NPN	Z1653-ND	97.00	89.82	83.83	E2E-C1C1	
	1.5mm	M8, Short Barrel DC Proxy, Nickel Plated Brass, Shielded	3-Wire	NPN	Z1062-ND	68.99	63.89	59.63	E2E-X1R5E1	
	1.5mm	M8, Short Barrel AC Proxy, Nickel Plated Brass, Shielded	2-Wire	NPN	Z1063-ND	93.09	86.19	80.45	E2E-X1R5Y1	
	2mm	M8, Short Barrel DC Proxy, Nickel Plated Brass, Shielded	2-Wire	NPN	Z1064-ND	71.18	65.91	61.52	E2E-X2D1-N	
	2mm	M12, Short Barrel DC Proxy, Nickel Plated Brass, Shielded	3-Wire	NPN	Z1085-ND	68.99	63.89	59.63	E2E-X2E1	
	2mm	M12, Short Barrel AC Proxy, Nickel Plated Brass, Shielded	2-Wire	NPN	Z1066-ND	82.13	76.05	70.98	E2E-X2Y1-US	
	3mm	M12, Short Barrel DC Proxy, Nickel Plated Brass, Shielded	2-Wire	NPN	Z1067-ND	72.28	66.93	62.47	E2E-X3D1-N	
	5mm	M18, Short Barrel DC Proxy, Nickel Plated Brass, Shielded	3-Wire	NPN	Z1068-ND	71.18	65.91	61.52	E2E-X3E1	
	5mm	M18, Short Barrel AC Proxy, Nickel Plated Brass, Shielded	2-Wire	NPN	Z1069-ND	87.61	81.12	75.72	E2E-X5Y1-US	
	7mm	M18, Short Barrel DC Proxy, Nickel Plated Brass, Shielded	2-Wire	NPN	Z1070-ND	74.47	68.96	64.36	E2E-X7D1-N	
	10mm	M30, Short Barrel DC Proxy, Nickel Plated Brass, Shielded	3-Wire	NPN	Z1654-ND	75.56	69.97	65.31	E2E-X10E1	
	10mm	M30, Short Barrel AC Proxy, Nickel Plated Brass, Shielded	2-Wire	NPN	Z1655-ND	93.09	86.19	80.45	E2E-X10Y1-US	
	1.5mm	M8, Short Barrel DC Proxy, Plastic Body, Shielded	3-Wire	NPN	Z1075-ND	72.07	66.73	62.29	E2F-X1R5E1	
2	1.5mm	M8, Short Barrel AC Proxy, Plastic Body, Shielded	2-Wire	NPN	Z1076-ND	82.70	76.58	71.48	E2F-X1R5Y1	
	2mm	M12, Short Barrel DC Proxy, Plastic Body, Shielded	3-Wire	NPN	Z1078-ND	66.54	61.62	57.51	E2F-X2E1	
	2mm	M12, Short Barrel AC Proxy, Plastic Body, Shielded	2-Wire	NPN	Z1079-ND	82.70	76.58	71.48	E2F-X2Y1	
	5mm	M18, Short Barrel DC Proxy, Plastic Body, Shielded	3-Wire	NPN	Z1080-ND	67.67	62.66	58.48	E2F-X5E1	
	5mm	M18, Short Barrel AC Proxy, Plastic Body, Shielded	2-Wire	NPN	Z1081-ND	84.85	78.57	73.33	E2F-X5Y1-US	
	10mm	M30, Short Barrel DC Proxy, Plastic Body, Shielded	3-Wire	NPN	Z1077-ND	77.38	71.66	66.88	E2F-X10E1	
	1.5mm	Flat Low Profile DC Proxy, Aluminum Body, Unshielded	3-Wire	PNP	Z1082-ND	59.72	55.30	51.61	TL-W1R5MB1	
	1.5mm	Flat Low Profile DC Proxy, Aluminum Body, Unshielded	3-Wire	NPN	Z1083-ND	59.72	55.30	51.61	TL-W1R5MC1	
	3mm	Flat Low Profile DC Proxy, Plastic Body, Unshielded	3-Wire	NPN	Z1084-ND	63.35	58.66	54.75	TL-W3MC1	
	3mm	Flat Low Profile DC Proxy, Plastic Body, Unshielded	3-Wire	PNP	Z1189-ND	61.55	57.00	53.20	TL-W3MB1	
	5mm	Flat Low Profile DC Proxy, Plastic Body, Unshielded	3-Wire	PNP	Z1085-ND	54.13	50.13	46.79	TL-W5MB1	
	5mm	Flat Low Profile DC Proxy, Plastic Body, Unshielded	3-Wire	NPN	Z1086-ND	54.13	50.13	46.79	TL-W5MC1	
	20mm	Flat Low Profile DC Proxy, Aluminum Body, Unshielded	3-Wire	NPN	Z1660-ND	88.74	82.17	76.69	TL-W20ME1	
	Mounting Bracket, Fits M8 Size Sensors.....					Z1656-ND	3.47	3.22	3.01	Y92E-B8
	Mounting Bracket, Fits M12 Size Sensors.....					Z1657-ND	3.47	3.22	3.01	Y92E-B12
Mounting Bracket, Fits M18 Size Sensors.....					Z1658-ND	3.47	3.22	3.01	Y92E-B18	

◆ RoHS Compliant

## D7A/D7E Vibration Sensors



These vibration sensors are perfect for quick detection of movements that could cause damage to equipment or can be used to safely shut down critical operations. Sensors are auto-resettable and require no manual resetting. D7A is a horizontal keeping vibration sensor that is PC mounted. D7E vibration sensors are low cost sealed vibration sensors with various sensitivities. Use these sensors for industrial equipment, cranes, forklifts, industrial manufacturing and boilers. Use in natural gas meter shutoffs, vending machines, conveyor systems, earthquake sensors or any circuits that require safety shutoff during a period of vibration or tilting.

Fig. 1 — D7A

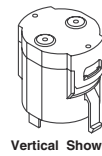
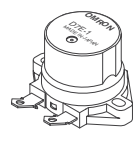


Fig. 2 — D7E



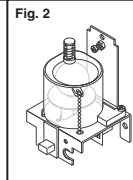
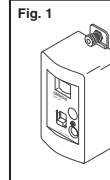
Specifications: • Various sensitivities • Contact Capacity: (D7A) 5µA - 1mA@3VDC; (D7E) 100mA@5-30VDC • Contact Form: (D7A) SPST-NO; (D7E) SPST-NC • Operating Temperature: (D7A) -30°C - 70°C; (D7E) -25°C - 60°C • Dielectric Strength: AC250V 50/60Hz

Fig.	Description	Digi-Key Part No.	1	Price Each 25	50	Omron Part No.
1	90 - 170 gal. Vertical Switch, 1mA	Z2004-ND	39.79	35.82	31.84	D7A-1
	90 - 170 gal. Horizontal Switch, 1mA	Z2005-ND	39.79	35.82	31.84	D7A-2
	90 - 170 gal. Chassis Mount Switch, 1mA	Z2006-ND	42.27	38.05	33.82	D7A-3
2	130 - 200 gal. Vibration Switch, 0.1A	Z2007-ND	11.62	10.46	9.30	D7E-1
	100 - 170 gal. Vibration Switch, 0.1A	Z2008-ND	6.50	5.86	5.21	D7E-2
	50 - 80° Tilt Switch, 0.1A	Z2009-ND	16.63	14.97	13.31	D7E-3

## D7H Equipment Vibration Sensors



These vibration switches feature a highly durable stainless steel diaphragm that allows detection of very small movements. Used to prevent secondary damage after earthquakes and to replace mercury with a simple mechanical system. Manually resettable, vertically mounted sensor in either an enclosed case or open sensor.

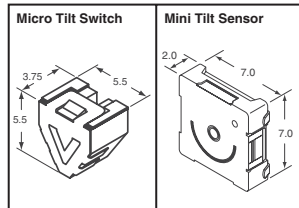


Specifications: • 100 - 170 gallon, 10A 125VAC, 0.1A 30VDC • Operating Temperature: -10°C - 70°C

Fig.	Description	Digi-Key Part No.	1	Price Each 25	50	Omron Part No.
1	Enclosed Vibration Detection Switch - 10A	Z2010-ND	279.46	251.52	223.57	D7H-A1
2	Open Cased Vibration Detection Switch - 10A	Z2011-ND	85.73	77.16	68.59	D7H-B1
	Open Cased Vibration Detection Switch - 0.1A	Z2012-ND	85.73	77.16	68.59	D7H-B2

## D6B Tilt Switch

Ideal for equipment tilt detection. Will give you a separate output when tilted left or right. Perfect for signaling a screen to rotate from portrait to landscape view in keeping with product orientation. Can be used in space heaters.



Specifications: • Output Current: 1mA • Oper. Temperature: -10°C - 60°C • Characteristics: • Supply Voltage: D6B- 2.7V - 3.3V; D6B-N: 2.4V - 3.6V • Output High Voltage: D6B- Vdd - 0.5V min.; D6B-N- Vdd - 0.4V min. • Output Low Voltage: D6B- 0.5V max.; D6B-N: 0.4V max. • Current Consumption: D6B- 20µA max.; D6B-N: 10µA max. • Oper. Angle: D6B- 45° - 75°; D6B-N: 40° - 80°

Description	Digi-Key Part No.	1	Price Each 25	50	Omron Part No.
Micro SMD Tilt Switch - Left/Right	Z2003-ND	14.25	12.83	11.40	D6B-1
Micro SMD Tilt Switch - Left/Right	Z2506CT-ND	6.46	5.78	5.13	D6B-2P
Mini SMD Tilt Sensor - Left/Right	Z2676CT-ND	5.14	4.63	4.11	D6B-N-IP
	Z2676TR-ND	6421.56/2,500			D6B-N-IP

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