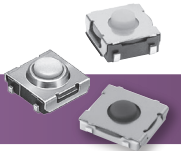# OMRON

Electronic/Mechanical Components

Selection 2021

Sensor
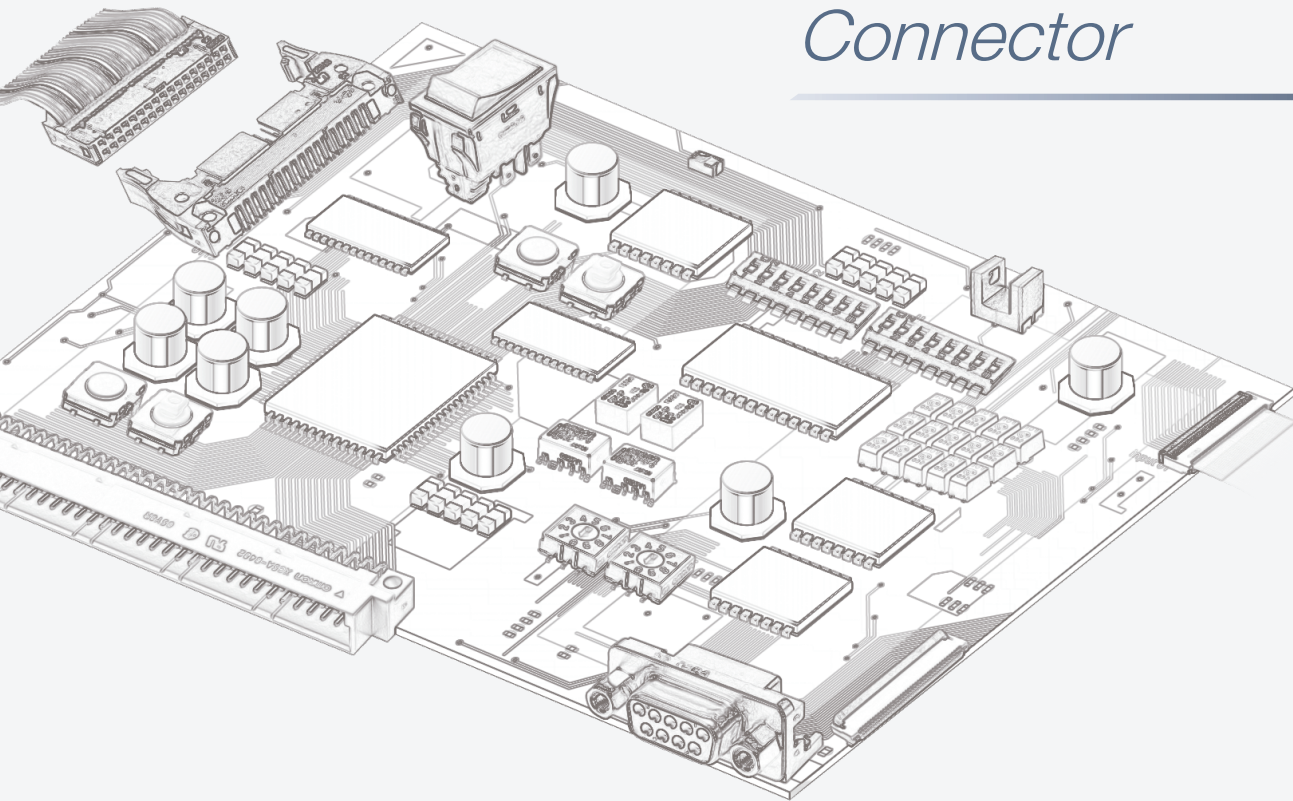
Switch

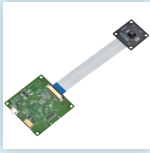*Relay*

Connector

Sensor

■ Human Vision Components (HVC)

B5T

HVC incorporates ten different image sensing functions, for example face recognition in a small board.
Choose between wide-angle and long-distance types depending on detection distance or range needs. Evaluation software and development tools can be downloaded from the website.

■ Touch Sensor

W7ED

Capacitive sensors can be turned ON/OFF with just a light touch.
Four types are available depending on the electrode shape or the presence or absence of an FG terminal.

■ Environment Sensor

2JCIE

Senses ambient environmental information such as temperature, humidity, illumination, barometric pressure, and noise.
A multi-function subminiature sensor capable of wireless communication.
Available in three types.

■ MEMS Thermal Sensor

D6T

Measures the temperature of people and objects in a non-contact manner. New lineup of a 200°C high-temperature detection type and a high-resolution type with 32 × 32 elements.
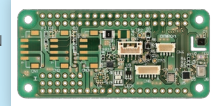
■ Photomicro Sensor

EE-SX
Transmissive (SMD type)

Wide product lineup with detection distance (slot width) ranging from 2 to 5 mm.
Compact and space-saving.
Photo-IC type is also available.

EE-SX
Transmissive (Connector type)

Three shapes for use in X, Y, and Z-axis directions.
Screw-mounted for easier setup.
Connector type for easier maintenance.

■ MEMS Flow Sensor

D6F

A gas flow sensor for measuring air, fuel gas, etc.
Lineup of a flow rate type and a differential pressure type.

■ Seismic Sensor

D7S

Digital seismic sensor. Output at seismic intensity level 5 or higher.
High-precision earthquake detection in the world's smallest* class size.
Comes standard with communication functionality that provides IoT connectivity.
*As of April 2016 according to OMRON's research

■ 3D TOF Sensor Module

B5L

Real-time 3D sensing of distance to humans or objects.
High ambient light immunity and flexible assembly.

■ Light convergent Reflective Sensor

B5W-LB

Reliable detection of shiny, black or transparent objects. Unaffected by backgrounds.
The 24 VDC power supply voltage type and digital output type are idea for integration into devices.

■ Sensor Evaluation Board

2JCIE-EV

Easy evaluation of OMRON sensors (light convergent reflective sensor, MEMS flow sensor and MEMS non-contact thermal sensor).
Available with three types that support Raspberry Pi [*1] and Arduino [*2] platforms.
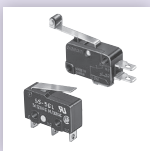
[*1]. Raspberry Pi is a registered trandmark of the Raspberry Pi Foundation.
[*2]. Arduino is a registered trademark of Auduino LLC and Arduino SRL.

Switch

Switches for Detection

■ Basic Switch

V/SS

A wide choice of product variations ranging from a 0.1 A micro-load type to a 21 A switching type. V series is also available with a heat-resistant type.

D2F-5

A 5 A switching type is added to D2F ultra subminiature basic switches. Contributes to further miniaturization and thinning of devices.

■ Rocker Switch

A8GS

Smallest class in the industry. With reset function triggered with external signals. Lineup of double-pole types for switching ON/OFF both micro-loads and high-capacity loads.

Switches for Operation

■ Tactile Switch

B3FS-4000/B3W-4000

B3FS-4000 series are 12-mm square surface-mounting switches, featuring distinctive snapping action and extended durability. B3W-4000 series are 12 mm-square through-hole mounting switches, featuring an IP67 sealed structure that provides excellent environmental resistance.

B3SE/B3SN/B3FS/B3SL

6-mm square surface mounting. B3SE, B3SN, B3FS, and B3SL series are available.
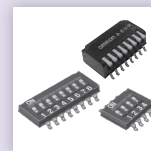
■ Pushbutton Switch

A3□

Wide lineup of illuminated types and non-illuminated types.
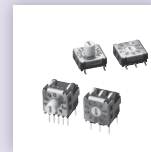A series of rectangular body types that can be mounted on boards is also available.

Switches for Settting

■ DIP Switch

A6H/A6HF/A6HR

Half-pitch side and piano types are also available.

A6KS/A6KSV/A6RS

Rotary type surface mounting. Top/side-actuated models available.
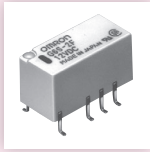
■ Thumbwheel Switch

A7□ Series

Available in a wide range of shapes, terminals, and mounting types for everything from miniature to large devices. There are also spare units with engraved characters or symbols that can be used for indicating units, such as time and length.

Learn more at "https://components.omron.com/"
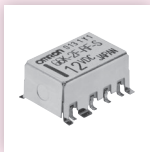
Relay

Mechanical Relay

■ Signal Relay

G6S

Miniature double-pole relay with switching current of 2 A. Lineup of products compatible with both surface mounting (inner L bending, outer L bending) and through-hole mounting. Also available with 1-winding and 2-winding latching types.

G6K

A double-pole 1 A switching relay with low profile and world's smallest class mounting area. Delivers high-sensitivity with a power consumption of approximately 100 mW.

G6K-RF

A surface-mount type miniature relay that supports high frequencies of 1 GHz, 3 GHz (-T) and 8 GHz (-V). The 1 GHz type is also available with through-hole mounted products. Characteristic impedance is 50 Ω.

■ PCB Power Relay

G2RL/G2RL-E2

Lineup of single-pole relays with high switching current of 10 A, 16 A, etc. Enables 100,000 operations durability at high-capacity 23 A switching.
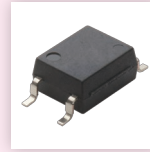
G6DN

A single-pole 5 A switching power relay with an ultra-slim size of just 5 mm. Achieves low power consumption of approx. 110 mW. Lineup of a long-life type (-L) with an electrical durability of 100,000 operations.
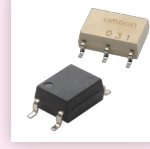
G9KA

High power and high temperature type. Power relay with 800 VAC 200 A breaking and ultra-low contact resistance.

Semiconductor Relay
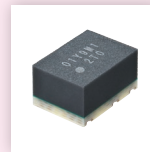
■ MOS FET Relay

G3VM-61VY3/351VY

SOP4 (special) package. A general purpose type that can be used for various applications. Lineup of 60 V and 350 V load voltage types.

G3VM-61VR/101HR2

Delivers high-capacity switching and low on-resistance comparable to miniature mechanical relays. Lineup of 1.4 A and 3 A continuous load current types.

■ MOS FET Relay Module

G3VM-□M□

MOS FET relay in module package with SPDT (1c).

Connector

Board to FPC/FFC

■ FPC/FFC Connector

XF2M/XF3M

A rotary backlock mechanism provides improved insertion of FPC/FFC cables. XF3M features an improved sure-lock feel. Available with 0.5-mm and 1.0-mm pitch types.

■ Flexible Flat Cable

XY3F

Purchasable in units of 100 pcs. 0.5 mm pitch between conductors. Gold-plated type with FFC thickness of 0.3 mm. Lineup of three cable lengths (insulation lengths): 50/100/300 mm.

External Connection

■ D-sub Connector

XM3□

D-sub connector series. A wide range of accessories such as hood.

■ Round Water-Resistant Connector

XS5/XS2/XS3

IP67 protective structure. Ideal for waterproof connections between sensors/actuators and control panels. Also available with smart click types that enable mating in approximately 1/8th of a turn.

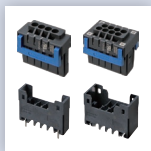## Board to Wire

■ MIL Connector

XG4M-U

An original type connector that locks on the harness side. Connection and disconnection with one hand, saving space.

XG5N

Discrete wire crimp sockets for trouble-free discrete-wire termination. Also available with a locking type (-U) that can be inserted and removed with just one hand.

■ PCB Terminal Blocks

XW4M/XW4N

3.5 mm-pitch push-in terminal block PCB connectors to greatly improve the efficiency of connector inserting & removing and cable wiring.

■ Easy-wire Connectors for Industrial Components

XN2

Easy-wire connectors with e-CON specifications; ideal for connecting sensors. No special tools required for wiring and repairing.
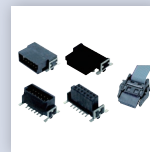
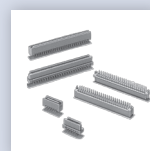## Board to Board

■ DIN Connector

XC4/XC5/XC7

A highly reliable connector compliant to DIN standard. Lineup of products suitable for various applications involving signals and large currents.

■ Half-Pitch SMT Connector

XH5-N

Surface-mount type connectors with 1.27-mm pitch. A wide variety of board-to-board and board-to-wire connections.

XH3/XH4

1.27-mm pitch board-to-board connector. Stacking heights supported in the range of 5 to 20 mm at 1-mm increments. Lineup of surface-mounting/DIP terminals.

Learn more at "https://components.omron.com/"

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