July - December 2026

# Core Product Catalog

## In Stock and Ready to Ship



OMRON

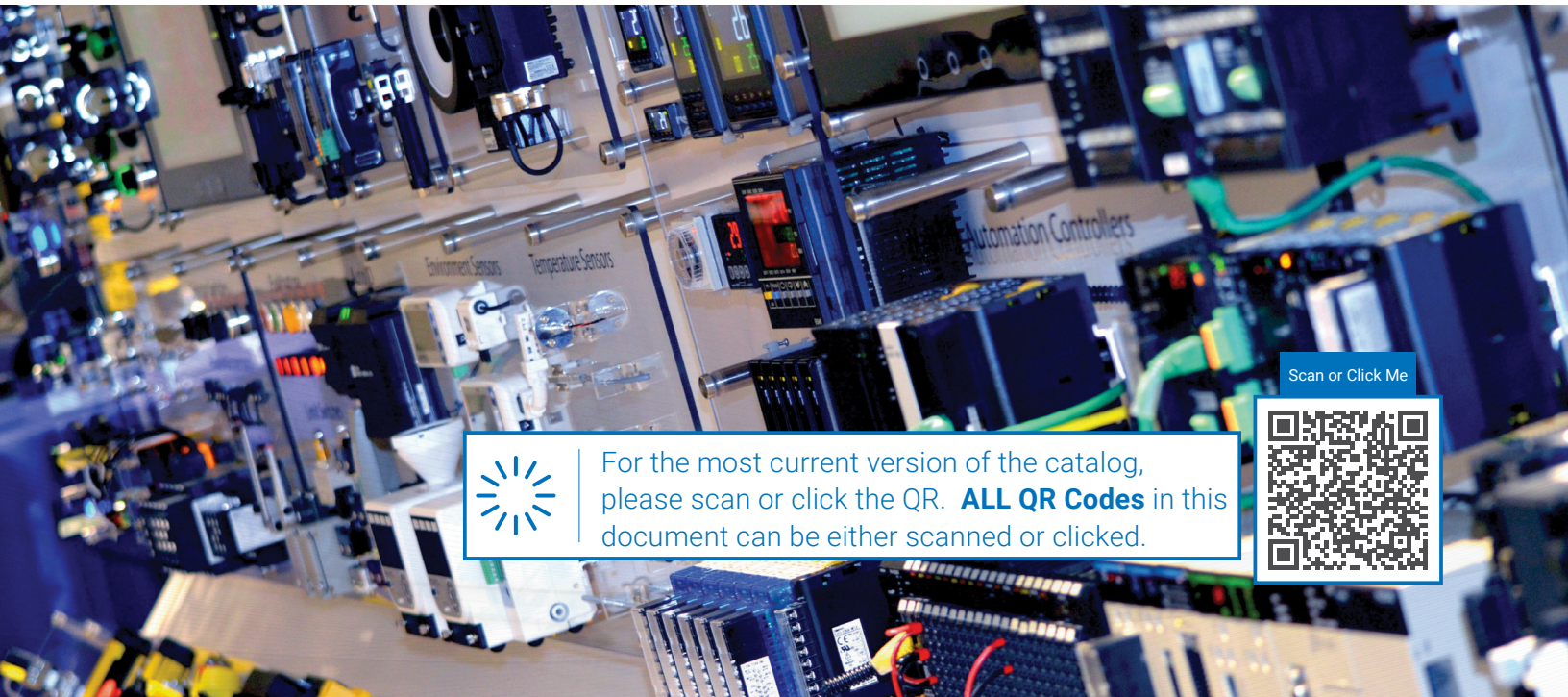
# Empowering People Through Automation

OMRON Automation is a global leader in automation technology.  At our core, we develop next-generation technologies that improve efficiency, productivity, and safety on the factory floor. We offer a comprehensive portfolio that includes sensing, control, safety, vision, and motion.

This product selection features our locally stocked products, ready to ship and supported by OMRON's global manufacturing capabilities.

**OUR MISSION:** To improve lives and contribute to a better society

| 90+ | 130 | 26,000+ | 5.1 |
|---|---|---|---|
| Years automation experience | Offices in 117 countries | Employees worldwide | Billion USD annual sales |



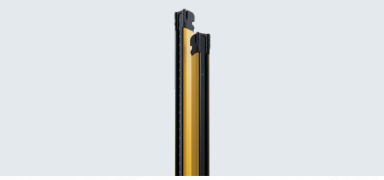
















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New Products

# M1 Inverter

## Compact Variable **Speed Drive**



The M1 inverter is a variable frequency drive designed to control the speed of AC motors by adjusting electromagnetic fields, making it a critical component in any application using an induction motor. Omron's M1 is available in three communication protocols, RS-485, EtherCAT®, and EtherNet/IP™ (EMP) and delivers a strong set of features to support a wide range of industrial needs. The EtherCAT® version, in particular, enables tight integration of safety and network control, allowing it to function as part of a broader motion control system within Omron's portfolio, all designed and managed through the Sysmac environment.

### KEY FEATURES

- Integrated Safety
- Network Integration
- Flexible Motor Control & Scalability

### KEY BENEFITS

- Seamless Sysmac + Network Integration
  - Native EtherCAT® integration within Sysmac
  - Multi-protocol support: EtherCAT®, EtherNet/IP™, RS-485
- Simplified Design & Faster Integration
  - Single-cable safety + control via EtherCAT®
  - Full integration into Sysmac streamlines development
- Reduced System Cost & Complexity
  - Eliminates external safety components (e.g., contactors)
  - Reduces wiring, panel space, and engineering time

### LEARN MORE

Scan or click here to discover our full range of Servos and Inverters.

Scan or Click Me

New Products

# S8NR

## **IP67** Power Supply




The S8NR is a reliable and efficient power solution designed to support a wide range of industrial automation applications. Engineered for consistent performance and easy integration, it delivers stable output, compact form factors, and flexible mounting options to meet the needs of modern control panels. With a focus on durability, energy efficiency, and simplified installation, the S8NR helps reduce downtime and streamline operations, making it an ideal choice for maintaining productivity across diverse manufacturing environments.

### KEY FEATURES

- Wide Input Voltage Range
- Stable Output Power Options
- IP67 Rated with Wide Operating Temperature Range

### KEY BENEFITS

- High Efficiency & Stable Output
  - Designed to deliver consistent, reliable power with excellent efficiency, helping reduce energy consumption and maintain system stability across demanding applications.
- Compact, Space-Saving Design
  - Optimized for modern control panels, the S8NR's slim footprint allows for flexible installation in space-constrained environments without compromising performance.
- Easy Installation & Robust Construction
  - Featuring user-friendly mounting and durable components, the S8NR simplifies setup and ensures long-lasting operation in industrial settings.

### LEARN MORE

Scan or click here to discover our full range of Power Supplies.

Scan or Click Me

New Products

# VHV5

## Fixed Mount **Inline Verifier**




The VHV5 Verifier is a high-performance code verification solution designed to ensure barcode quality and compliance with ISO standards across industrial production environments. It delivers highly accurate grading and repeatable verification results, enabling manufacturers to validate code quality at the point of production, removing the need for offline sampling. With advanced imaging, robust verification algorithms, and seamless integration into existing lines, the VHV5 helps eliminate downstream risk, improve traceability, and maintain compliance with global labeling requirements.

### KEY FEATURES

- ISO-Compliant Code Verification
  - Performs accurate barcode grading based on ISO standards (e.g., ISO/IEC 15415, 15416)
- Best-in-Class Verification Performance
  - Advanced imaging and grading algorithms deliver highly accurate, repeatable results—even on challenging codes
- High-Resolution Imaging + Advanced Optics
  - Captures detailed code images for precise analysis across a wide range of code types

### KEY BENEFITS

- Ensure Compliance & Reduce Risk
  - Confidently meet retailer and regulatory barcode standards, minimizing rejects, fines, and chargebacks
- Improve Traceability & Quality Assurance
  - Verify every code at the point of production to prevent downstream issues and maintain brand integrity
- Simple Deployment & Reliable Operation
  - Easy setup with consistent performance reduces downtime and operator dependency

### LEARN MORE

Scan or click here to discover our full range of Barcode Verifiers.

Scan or Click Me

New Products

# ZP-L

## Laser Displacement **Sensor**



The OMRON ZP-L Series is a laser displacement sensor that bridges the gap between standard photoelectric sensors and high-end measurement systems. It delivers stable, high-resolution displacement and position feedback for applications where photoeyes fall short in reliability, but advanced metrology solutions introduce unnecessary cost and complexity. A compact sensor head, wide-angle measurement capability, and advanced sensing algorithms enable dependable detection across a variety of materials and surface conditions. Intuitive OLED amplifiers, flexible analog and network outputs, and Wave Inspire support software streamline setup, reduce commissioning time, and simplify integration across multi-sensor systems.

### KEY FEATURES

- Easy to read screen with intuitive menu structure and setup
- Compact Size
- Detect wide range of materials with default setup

### KEY BENEFITS

- Stable sensing on difficult surfaces
  - Advanced algorithms with wide dynamic range support spot and line beam detection across varied materials.
- Right fit measurement performance
  - Up to 0.5 µm resolution with stable output for simple displacement and dimensional checks.
- Flexible, compact installation
  - Small sensor head with wide angle measurement up to ±85° for tight or non-ideal mounting.
- Fast setup and easy integration
  - OLED display, Wave Inspire software, and analog, EtherNet/IP™, and IO-Link® connectivity reduce commissioning time.

### LEARN MORE

Scan or click here to discover our full range of Sensors.

Scan or Click Me

Featured Products

# Sensors

## Engineered for **Precision**

OMRON's sensing solutions empower industrial automation with precision, reliability, and adaptability across a wide range of applications. From proximity and photoelectric sensors to fiber-optic and ultrasonic technologies, these components detect, measure, and analyze changes in position, appearance, and environment. With robust designs and smart connectivity options like IO-Link®, OMRON sensors help optimize productivity in even the most challenging conditions.









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**LEARN MORE**

Scan or click here to discover our full range of Sensing Solutions.

# **Smarter** sensing for **seamless** automation

## FEATURED PRODUCTS



**Best in Class Proximity Sensor E2E Next**

The next generation in enhanced sensing.



**High-Performance High-Speed Digital Fiber Amplifier - E3NX**

Smart tuning and power saving functions to keep the amplifier running more accurately.



**Advanced Time of Flight Sensor E3AS-HF**

High-Performance Long Distance Sensor with up to 6m range, ECOLAB and IP69K-rated

## PORTFOLIO HIGHLIGHTS

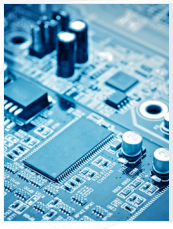
- 60 years of experience with a track record of superior quality.
- Versatile selection of photoelectric, proximity, fiber optic sensors and more, designed to meet unique automation requirements.
- Robust offering of IP rated, chemical resistant, heat resistant, and highly durable sensors, equipped to match any environment.

## REAL WORLD RESULTS



### Automotive/EV

E2E NEXT inductive proximity sensor for car frame placement confirmation in gantry.



### Electronics

E3NX-MA Dual-head fiber optic amplifier for precise wafer positioning.



### Logistics

E3AS-HF Time-of-Flight photoelectric sensor for continuous position of targets for robot pick-up.



### Food, Beverage & Commodities

E3AS-HL CMOS photoelectric sensor for part placement verification of difficult to sense objects, all in a single housing set-up.

# Proximity Sensor
# E2E Next Long Range DC 2 Wire

- Industry leading sensing distances with up to 4x the sensing range of standard models
- IO-Link® is standard with DC 3-wire PNP models
- Multiple connection Types (including M8 QD, M12 QD, M12 Pig-tail QD, PVC cable and PVC Robot Cable)
- Harsh condition robustness with IP67, IP69K, and IP67G



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WEBSITE

| DC 2-wire | | | | | | |
|---|---|---|---|---|---|---|
| **Size** | **Part Number** | **Shielded or Unshielded** | **Body** | **Detection Distance** | **Logic** | **Connection** |
| M8 | E2EX2D1M1TGJ03M | Shielded | Short | 2 mm | NO | 0.3 m pig-tail |
| | E2EX3D18M1TGJ03M | Shielded | Short | 3 mm | | |
| M12 | E2EX3D1M1TGJ03M | Shielded | Short | 7 mm | | |
| | E2EX7D112M1TGJ03M | Shielded | Short | 7 mm | | |
| M18 | E2EX11D118M1TGJ03M | Shielded | Short | 11 mm | | |
| | E2EX7D1M1TGJ03M | Shielded | Short | 7 mm | | |
| M30 | E2EX10D1M1TGJ03M | Shielded | Short | 10 mm | | |
| | E2EX20D130M1TGJ03M | Shielded | Short | 20 mm | | |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Proximity Sensor
# E2E Next Long Range DC 3 Wire

- Industry leading sensing distances with up to 4x the sensing range of standard models
- IO-Link® is standard with DC 3-wire PNP models Multiple connection types
- Multiple connection Types (including M8 QD, M12 QD, M12 Pig-tail QD, PVC cable and PVC Robot Cable)
- Harsh condition robustness with IP67, IP69K, and IP67G



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WEBSITE

| DC 3-wire | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Size** | **Part Number** | **Shielded or Unshielded** | **Body** | **Detection Distance** | **Output** | **Logic** | **Connection** |
| M8 | E2EX1R5C18M1 | Shielded | Short | 1.5 mm | NPN | NO | M12 connector |
| | E2EX1R5B1D8M1 | Shielded | Short | 1.5 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX1R5C282M | Shielded | Short | 1.5 mm | NPN | NC | 2 m cable |
| | E2EX1R5B28M1 | Shielded | Short | 1.5 mm | PNP | NC | M12 connector |
| | E2EX2MC18M1 | Unshielded | Short | 2 mm | NPN | NO | M12 connector |
| | E2EX2MB1D8M1 | Unshielded | Short | 2 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX2C18M1 | Shielded | Short | 2 mm | NPN | NO | M12 connector |
| | E2EX2B1T8M1 | Shielded | Short | 2 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX2B28M1 | Shielded | Short | 2 mm | PNP | NC | M12 connector |
| | E2EX3C182M | Shielded | Short | 3 mm | NPN | NO | 2 m cable |
| | E2EX4C182M | Shielded | Short | 4 mm | NPN | NO | 2 m cable |
| | E2EX4B1T8M1 | Shielded | Short | 4 mm | PNP; IO-Link® | NO | M12 connector |
| M12 | E2EX2B1DL12M1 | Shielded | Long | 2 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX2C112M1 | Shielded | Short | 2 mm | NPN | NO | M12 connector |
| | E2EX2B1T12M1 | Shielded | Short | 2 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX2C1L12M1 | Shielded | Long | 2 mm | NPN | NO | M12 connector |
| | E2EX2B212M1 | Shielded | Short | 2 mm | PNP | NC | M12 connector |
| | E2EX2C2122M | Shielded | Short | 2 mm | NPN | NC | 2 m cable |
| | E2EX4B212M1 | Shielded | Short | 4 mm | PNP | NC | M12 connector |
| | E2EX4B3D12M1 | Shielded | Short | 4 mm | PNP; IO-Link® | NO+NC | M12 connector |
| | E2EX4B3DL12M1 | Shielded | Long | 4 mm | PNP; IO-Link® | NO+NC | M12 connector |
| | E2EX4C1L12M1 | Shielded | Long | 4 mm | NPN | NO | M12 connector |
| | E2EX4C212M1 | Shielded | Short | 4 mm | NPN | NC | M12 Connector |
| | E2EX4B1DL12M1 | Shielded | Long | 4 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX4C112M1 | Shielded | Short | 4 mm | NPN | NO | M12 connector |
| | E2EX4B1T12M1 | Shielded | Short | 4 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX5MC1L12M1 | Unshielded | Long | 5 mm | NPN | NO | M12 connector |
| | E2EX5MB212M1 | Unshielded | Short | 5 mm | PNP; IO-Link® | NC | M12 connector |
| | E2EX5MC2122M | Unshielded | Short | 5 mm | NPN | NC | 2 m cable |
| | E2EX5MB1DL12M1 | Unshielded | Long | 5 mm | PNP; IO-link | NO | M12 connector |
| | E2EX5MC112M1 | Unshielded | Short | 5 mm | NPN | NO | M12 connector |
| | E2EX5MB1T12M1 | Unshielded | Short | 5 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX6B1T12M1 | Shielded | Short | 6 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX6B1TL12M1 | Shielded | Long | 6 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX6C1122M | Shielded | Short | 6 mm | NPN | NO | 2 m cable |
| | E2EX8MC1L12M1 | Unshielded | Long | 8 mm | NPN | NO | M12 connector |
| | E2EX8MC112M1 | Unshielded | Short | 8 mm | NPN | NO | M12 connector |
| | E2EX8MB212M1 | Unshielded | Short | 8 mm | PNP | NC | M12 connector |
| | E2EX8MB1TL12M1 | Unshielded | Long | 8 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX8MB1T12M1 | Unshielded | Short | 8 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX9B1D122M | Shielded | Short | 9 mm | PNP; IO-Link® | NO+NC | 2 m cable |
| | E2EX9B1D12M1 | Shielded | Short | 9 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX9B2122M | Shielded | Short | 9 mm | PNP | NC | 2 m cable |
| | E2EX9C1122M | Shielded | Short | 9 mm | NPN | NO | 2 m cable |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Proximity Sensor
# E2E Next Long Range DC 3 Wire

- Industry leading sensing distances with up to 4x the sensing range of standard models
- IO-Link® is standard with DC 3-wire PNP models Multiple connection types
- Multiple connection Types (including M8 QD, M12 QD, M12 Pig-tail QD, PVC cable and PVC Robot Cable)
- Harsh condition robustness with IP67, IP69K, and IP67G



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WEBSITE

| DC 3-wire | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Size** | **Part Number** | **Shielded or Unshielded** | **Body** | **Detection Distance** | **Output** | **Logic** | **Connection** |
| M18 | E2EX5C1L182M | Shielded | Long | 5 mm | NPN | NO | 2 m cable |
| | E2EX5B1DL18M1 | Shielded | Long | 5 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX5C118M1 | Shielded | Short | 5 mm | NPN | NO | M12 connector |
| | E2EX5B1D18M1 | Shielded | Short | 5 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX5B218M1 | Shielded | Short | 5 mm | PNP | NC | M12 connector |
| | E2EX5C2182M | Shielded | Short | 5 mm | NPN | NC | 2 m cable |
| | E2EX8B2L18M1 | Shielded | Long | 8 mm | PNP | NC | M12 connector |
| | E2EX8B1DL18M1 | Shielded | Long | 8 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX8C3L18M1 | Shielded | Long | 8 mm | NPN | NO+NC | M12 connector |
| | E2EX8C1182M | Shielded | Short | 8 mm | NPN | NO | 2 m cable |
| | E2EX8B1T18M1 | Shielded | Short | 8 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX10MB1D18M1 | Unshielded | Short | 10 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX10MB1DL18M1 | Unshielded | Long | 10 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX10MB2L18M1 | Unshielded | Long | 10 mm | PNP | NC | M12 connector |
| | E2EX10MC118M1 | Unshielded | Short | 10 mm | NPN | NO | M12 connector |
| | E2EX10MC1L18M1 | Unshielded | Long | 10 mm | NPN | NO | M12 connector |
| | E2EX14B1D18M1 | Shielded | Short | 14 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX16MC118M1 | Unshielded | Short | 16 mm | NPN | NO | M12 connector |
| | E2EX16MB1TL18M1 | Unshielded | Long | 16 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX16MB1T182M | Unshielded | Short | 16 mm | PNP; IO-Link® | NO | 2 m cable |
| M30 | E2EX10C130M1 | Shielded | Short | 10 mm | NPN | NO | M12 connector |
| | E2EX10B1D30M1 | Shielded | Short | 10 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX10B1DL30M1 | Shielded | Long | 10 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX15B3DL30M1 | Shielded | Long | 15 mm | PNP; IO-Link® | NO+NC | M12 connector |
| | E2EX15C130M1 | Shielded | Short | 15 mm | NPN | NO | M12 connector |
| | E2EX15B3D30M1 | Shielded | Short | 15 mm | PNP; IO-Link® | NO+NC | M12 connector |
| | E2EX18MB1D30M1 | Unshielded | Short | 18 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX18MB230M1 | Unshielded | Short | 18 mm | PNP | NC | M12 connector |
| | E2EX18MC130M1 | Unshielded | Short | 18 mm | NPN | NO | M12 connector |
| | E2EX22B3D30M1 | Shielded | Short | 22 mm | PNP; IO-Link® | NO+NC | M12 connector |
| | E2EX30MB1DL30M1 | Unshielded | Long | 30 mm | PNP; IO-Link® | NO | M12 connector |
| | E2EX30MC1L30M1 | Unshielded | Long | 30 mm | NPN | NO | M12 connector |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Metal Face Proximity Sensor
# E2EW DC 2-Wire

- Extended sensing range, models from 1x to 4x standard sensing range
- Factor 1 sensing of ferrous and non-ferrous metals[1]
- Weld field immunity[1]
- IP67 rating for environmental robustness
- Proprietary spatter resistant coating
- IO-Link® configurability and output monitoring[1]

1: Premium models only




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| Size | Part Number | Spatter Resistant Coating | Detection Distance | Logic | Connection |
|---|---|---|---|---|---|
| M12 | E2EWX2D112M1TGJT03M | | 2 mm | NO | M12 pigtail Smartclick connector |
| | E2EWX2D1122M | | 2 mm | NO | 2m cable |
| | E2EWX3D1122M | | 3 mm | NO | 2m cable |
| | E2EWQX3D1122M | Spatter Resistant | 3 mm | NO | 2m cable |
| | E2EWX3D112M1TGJT03M | | 3 mm | NO | M12 pigtail Smartclick connector |
| | E2EWQX3D112M1TGJT03M | Spatter Resistant | 3 mm | NO | M12 pigtail Smartclick connector |
| M18 | E2EWX5D118M1TGJT03M | | 5 mm | NO | M12 pigtail Smartclick connector |
| | E2EWQX5D118M1TGJT03M | Spatter Resistant | 5 mm | NO | M12 pigtail Smartclick connector |
| | E2EWX7D118M1TGJT03M | | 7 mm | NO | M12 pigtail Smartclick connector |
| | E2EWQX7D118M1TGJT03M | Spatter Resistant | 7 mm | NO | M12 pigtail Smartclick connector |
| M30 | E2EWX10D130M1TGJT03M | | 10 mm | NO | M12 pigtail Smartclick connector |
| | E2EWX10D1302M | | 10 mm | NO | 2m cable |
| | E2EWX12D130M1TGJT03M | | 12 mm | NO | M12 pigtail Smartclick connector |
| | E2EWQX12D130M1TGJT03M | Spatter Resistant | 12 mm | NO | M12 pigtail Smartclick connector |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Metal Face Proximity Sensor
# E2EW DC 3-Wire

- Extended sensing range, models from 1x to 4x standard sensing range
- Factor 1 sensing of ferrous and non-ferrous metals[1]
- Weld field immunity[1]
- IP67 rating for environmental robustness
- Proprietary spatter resistant coating
- IO-Link® configurability and output monitoring[1]

1: Premium models only




Scan or Click Me

WEBSITE

| Size | Part Number | Spatter Resistant Coating | Detection Distance | Output | Logic | Connection |
|---|---|---|---|---|---|---|
| M12 | E2EWX2C112M1 | | 2 mm | NPN | NO | M12 Connector |
| | E2EWQX3B112M1TJ03M | Spatter Resistant | 3 mm | PNP | NO | M12 Pre-wired Smartclick connector |
| | E2EWQX7B1T12M1 | Spatter Resistant | 7 mm | PNP | NO | M12 Connector |
| M18 | E2EWX5B118M1 | | 5 mm | PNP | NO | M12 Connector |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Photoelectric Sensor
# E3Z

- General purpose photoelectric family with all common sensing modes at long range
- Minimal optical axis deviation for easy alignment
- IP67 for water resistance
- Intensive shielding for highest noise immunity (EMC)
- Multiple molding housing for high mechanical resistance



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| | Part Number | Light Source | Range | Output | Connection |
|---|---|---|---|---|---|
| Background suppression | E3ZLL612M | Red laser class 1 | 300 mm | NPN | 2m cable |
| | E3ZLL812M | Red laser class 1 | 300 mm | PNP | 2m cable |
| | E3ZLL66 | Red laser class 1 | 300 mm | NPN | M8 4-pin connector |
| | E3ZLL86 | Red laser class 1 | 300 mm | PNP | M8 4-pin connector |
| | E3ZLS61 | Red LED | 200 mm | NPN | 2 m cable |
| | E3ZLS66 | Red LED | 200 mm | NPN | M8 4-pin connector |
| | E3ZLS81 | Red LED | 200 mm | PNP | 2 m cable |
| | E3ZLS86 | Red LED | 200 mm | PNP | M8 4-pin connector |
| | E3ZLS88 | Red LED | 80 mm | PNP | M8 4-pin connector |
| Diffuse | E3ZD61 | Red LED | 100 mm | NPN | 2 m cable |
| | E3ZD62 | Infrared LED | 1 m | NPN | 2 m cable |
| | E3ZD66 | Red LED | 100 mm | NPN | M8 4-pin connector |
| | E3ZD67 | Infrared LED | 1 m | NPN | M8 4-pin connector |
| | E3ZD81 | Red LED | 100 mm | PNP | 2 m cable |
| | E3ZD82 | Infrared LED | 1 m | PNP | 2m cable |
| | E3ZD86 | Red LED | 100 mm | PNP | M8 4-pin connector |
| | E3ZD87 | Infrared LED | 1 m | PNP | M8 4-pin connector |
| | E3ZL86 | Red LED | 90 ± 30 mm | PNP | M8 4-pin connector |
| Transparent Object Detect Retro-reflective | E3ZB61 | Red LED | 500 mm | NPN | 2 m cable |
| | E3ZB81 | Red LED | 500 mm | PNP | 2 m cable |
| | E3ZB86 | Red LED | 500 mm | PNP | M8 4-pin connector |
| | E3ZB87 | Red LED | 2 m | PNP | M8 4-pin connector |
| Retro-reflective | E3ZR61 | Red LED | 4 m | NPN | 2 m cable |
| | E3ZR66 | Red LED | 4 m | NPN | M8 4-pin connector |
| | E3ZR81 | Red LED | 4 m | PNP | 2 m cable |
| | E3ZR86 | Red LED | 4 m | PNP | M8 4-pin connector |
| | E3ZLR612M | Red laser class 1 | 15 m | NPN | 2 m cable |
| | E3ZLR812M | Red laser class 1 | 15 m | PNP | 2 m cable |
| | E3ZLR81M1J03M | Red laser class 2 | 16 m | PNP | M12 pigtail connector |
| | E3ZLR86 | Red laser class 1 | 15 m | PNP | M8 4-pin connector |
| Through-beam | E3ZLT61 | Red laser class 1 | 60 m | NPN | 2m cable |
| | E3ZLT66 | Red laser class 1 | 60 m | NPN | M8 4-pin connector |
| | E3ZLT812M | Red laser class 1 | 60 m | PNP | 2m cable |
| | E3ZLT81M1J03M | Red laser class 2 | 60 m | PNP | M12 pigtail connector |
| | E3ZLT86 | Red laser class 1 | 60 m | PNP | M8 4-pin connector |
| | E3ZT61 | Infrared LED | 15 m | NPN | 2 m cable |
| | E3ZT61M1J03M | Infrared LED | 15 m | NPN | M12 pigtail connector |
| | E3ZT61A | Red LED | 10 m | NPN | 2 m cable |
| | E3ZT61AM1J03M | Red LED | 10 m | NPN | M12 pigtail connector |
| | E3ZT66 | Infrared LED | 15 m | NPN | M8 4-pin connector |
| | E3ZT66A | Red LED | 10 m | NPN | M8 4-pin connector |
| | E3ZT81 | Infrared LED | 15 m | PNP | 2 m cable |
| | E3ZT81A | Red LED | 10 m | PNP | 2 m cable |
| | E3ZT81M1J | Infrared LED | 15 m | PNP | M12 pigtail connector |
| | E3ZT86 | Infrared LED | 15 m | PNP | M8 4-pin connector |
| | E3ZT86A | Red LED | 10 m | PNP | M8 4-pin connector |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Photoelectric Sensor
# E3FA

- Simplicity in selection and installation
- Compact size with flush mounting option
- IP67, IP69K for wash down resistance
- Straight or right angle (E3RA) models in cylindrical M18 plastic housing
- Background suppression, Limited Distance and Transparent detection models available



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| Detection method | Part Number | Light Source | Range | Output | Connection |
|---|---|---|---|---|---|
| Diffuse | E3FADN122M | Red LED | 300 mm | NPN | 2 m cable |
| | E3FADN21 | Red LED | 100 mm | NPN | M12 connector |
| | E3FADN22 | Red LED | 300 mm | NPN | M12 connector |
| | E3FADN23 | Red LED | 1 m | NPN | M12 connector |
| | E3FADN25 | Infrared LED | 300 mm | NPN | M12 connector |
| | E3FADP112M | Red LED | 100 mm | PNP | 2 m cable |
| | E3FADP122M | Red LED | 300 mm | PNP | 2m cable |
| | E3FADP21 | Red LED | 100 mm | PNP | M12 connector |
| | E3FADP22 | Red LED | 300 mm | PNP | M12 connector |
| | E3FADP23 | Red LED | 1 m | PNP | M12 connector |
| | E3FADP25 | Infrared LED | 300 mm | PNP | M12 connector |
| Transparent Object Detect Retro-reflective | E3FABP21 | Red LED | 500 mm | PNP | M12 connector |
| | E3FABP22 | Red LED | 2m | PNP | M12 connector |
| Retro-reflective | E3FARN112M | Red LED | 4 m | NPN | 2 m cable |
| | E3FARN21 | Red LED | 4 m | NPN | M12 connector |
| | E3FARP112M | Red LED | 4 m | PNP | 2 m cable |
| | E3FARP21 | Red LED | 4 m | PNP | M12 connector |
| Through-beam | E3FATN21 | Red LED | 20 m | NPN | M12 connector |
| | E3FATP112M | Red LED | 20 m | PNP | 2 m cable |
| | E3FATP21 | Red LED | 20 m | PNP | M12 connector |
| | E3FATP22 | Infrared LED | 15 m | PNP | M12 connector |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Photoelectric Sensor
# E3Z-F

- Visible alignment spot simplifies set-up
- Popular M18 nose mounting
- Models with infrared LEDs available
- Offers various types of sensing distances



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| | Part Number | Light Source | Detection Range | Output | Connection |
|---|---|---|---|---|---|
| Diffuse | E3ZFDP21 | RedLED | 100mm | PNP | M12 connector |
| | E3ZFDP22 | Red LED | 300 mm | PNP | M12 connector |
| | E3ZFDP23 | Red LED | 500 mm | PNP | M12 connector |
| | E3ZFDP24 | Red LED | 1 m | PNP | M12 connector |
| Retro-reflective | E3ZFRN21 | Red LED | 4 m | NPN | M12 connector |
| | E3ZFRP21 | Red LED | 4 m | PNP | M12 connector |
| Through-beam | E3ZFTN112M | Red LED | 20 m | NPN | 2 m cable |
| | E3ZFTP112M | Red LED | 20 m | PNP | 2 m cable |
| | E3ZFTP22 | Red LED | 20 m | PNP | M12 connector |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Photoelectric Sensor
# E3AS-HF

- Minimal color influence on sensing distance
- Detection of difficult to sense objects at long distances in a single housing
- Adjustable diffuse or spot beam
- IP67, IP69K and IP67G, ECOlab certified
- Available in PNP with IO-Link® and NPN, all models include Analog output
- Easy to use OLED screen, single button teach



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| Part Number | Light Source | Beam type | Sensing Distance | Output | Connection |
|---|---|---|---|---|---|
| E3ASHF6000DMT2MOMS | Red laser class 1 | Diffused beam type | 6000 mm | PNP; IO-Link® | 2 m cable |
| E3ASHF6000DMTM1HOMS | Red laser class 1 | Diffused beam type | 6000 mm | PNP; IO-Link® | M12 connector (horizontal) |
| E3ASHF6000DMTM1VOMS | Red laser class 1 | Diffused beam type | 6000 mm | PNP; IO-Link® | M12 connector (vertical) |
| E3ASHF6000SMT2MOMS | Red laser class 1 | Spot beam type | 6000 mm | PNP; IO-Link® | 2 m cable |
| E3ASHF6000SMTM1HOMS | Red laser class 1 | Spot beam type | 6000 mm | PNP; IO-Link® | M12 connector (horizontal) |
| E3ASHF6000SMTM1VOMS | Red laser class 1 | Spot beam type | 6000 mm | PNP; IO-Link® | M12 connector (vertical) |
| E3ASHF6000SMTM1TJ03MOMS | Red laser class 1 | Spot beam type | 6000 mm | PNP; IO-Link® | M12 pigtail Smartclick connector |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Photoelectric Sensor
# E3AS-HL

- Limited effect of color or reflectivity
- Small and complex object detection
- Line and spot beam for 150mm and 500mm sensing distances
- IP69K and IP67G
- Ecolab tested and certified detergent resistance
- Advanced ease-of-use, single teach button, OLED screen
- IO-Link® distance output monitoring and configuration



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| Part Number | Light Source | Beam Type | Sensing Distance | Output | Connection |
|---|---|---|---|---|---|
| E3ASHL150MT2M | Red laser class 1 | Spot beam | 35-150 mm | PNP; IO-Link® | 2m cable |
| E3ASHL150MTM3 | Red laser class 1 | Spot beam | 35-150 mm | PNP; IO-Link® | M8 connector 4-pin |
| E3ASHL150LMTM3 | Red laser class 1 | Line beam | 35-150 mm | PNP; IO-Link® | M8 connector 4-pin |
| E3ASHL150MTM1TJ03M | Red laser class 1 | Spot beam | 35-150 mm | PNP; IO-Link® | M12 pigtail Smartclick connector |
| E3ASHL150LMTM1TJ03M | Red laser class 1 | Line beam | 35-150 mm | PNP; IO-Link® | M12 pigtail Smartclick connector |
| E3ASHL150MN2M | Red laser class 1 | Spot beam | 35-150 mm | NPN | 2m cable |
| E3ASHL150MNM1TJ03M | Red laser class 1 | Spot beam | 35-150 mm | NPN | M12 pigtail Smartclick connector |
| E3ASHL150MNM3 | Red laser class 1 | Spot beam | 35-150 mm | NPN | M8 connector 4-pin |
| E3ASHL500LMT2M | Red laser class 1 | Line beam | 35-500 mm | PNP; IO-Link® | 2m cable |
| E3ASHL500LMTM1TJ03M | Red laser class 1 | Line beam | 35-500 mm | PNP; IO-Link® | M12 pigtail Smartclick connector |
| E3ASHL500LMTM3 | Red laser class 1 | Line beam | 35-500 mm | PNP; IO-Link® | M8 connector 4-pin |
| E3ASHL500MTM1TJ03M | Red laser class 1 | Spot beam | 35-500 mm | PNP; IO-Link® | M12 pigtail Smartclick connector |
| E3ASHL500MTM3 | Red laser class 1 | Spot beam | 35-500 mm | PNP; IO-Link® | M8 connector 4-pin |
| E3ASHL500LMNM3 | Red laser class 1 | Line beam | 35-500 mm | NPN | M8 connector 4-pin |
| E3ASHL500MNM1TJ03M | Red laser class 1 | Line beam | 35-500 mm | NPN | M12 pigtail Smartclick connector |
| E3ASHL500MNM3 | Red laser class 1 | Spot beam | 35-500 mm | NPN | M8 connector 4-pin |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Photoelectric Sensor
# E3AS-F

- Minimal color influence on sensing distance
- 50mm to 1500mm sensing range
- IP69K and IP67G
- Ecolab tested and certified detergent resistance
- Single teach button
- IO-Link® distance output monitoring and configuration



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| Part Number | Material | Light Source | Sensing Distance | Output | Connection |
|---|---|---|---|---|---|
| E3ASF1000IMTM1TJ03M | Stainless steel | Infrared laser class 1 | 1000 mm | PNP; IO-Link® | M12 pigtail Smartclick connector |
| E3ASF1000IPTM3 | Plastic body | Infrared laser class 1 | 1000 mm | PNP; IO-Link® | M8 4-pin connector |
| E3ASF1500IMNM1TJ03M | Stainless steel | Infrared laser class 1 | 1500 mm | NPN | M12 pigtail Smartclick connector |
| E3ASF1500IMTM3 | Stainless steel | Infrared laser class 1 | 1500 mm | PNP; IO-Link® | M8 4-pin connector |
| E3ASF1500IPTM1TJ03M | Plastic body | Infrared laser class 1 | 1500 mm | PNP; IO-Link® | M12 pigtail Smartclick connector |
| E3ASF1500IPTM3 | Plastic body | Infrared laser class 1 | 1500 mm | PNP; IO-Link® | M8 4-pin connector |

# Color Mark Detection Sensor
# E3S-DC

- High signal to noise ratio detects subtle color differences
- High luminance, three-element (RGB) LED light source for greater light intensity
- Highly efficient optics technology provides high power and enables stable detection even of subtle color differences



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| Type | Sensor Distance | Connection | Output | Baud Rate (IO-Link®) | Model |
|---|---|---|---|---|---|
| Diffuse - reflective (mark detection) | 10 ± 3mm | M12 Connector | PNP | COM 3 (230, 4 kbps) | E3SDCP21IL3 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Measurement Sensor
# ZP-L

- Sensing performance delivering stable detection with initial configuration left intact
- User interface requiring no manuals for ease of use
- Support software allowing quick test without loggers
- EtherNet/IP™ and Serial communication adapters available



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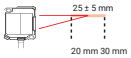
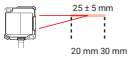
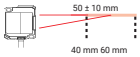
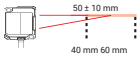
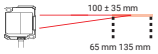
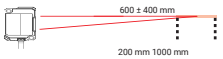
| Appearance | Optical system | Beam shape | Measurement distance | Resolution[1] | Cable length | Model |
|---|---|---|---|---|---|---|
|  | Diffuse-reflective | Line beam |  | 0.5 µm | 2 m | ZPLS025L2M |
| | | Spot beam |  | 0.6 µm | 2 m | ZPLS025S2M |
| | | Line beam |  | 0.7 µm | 2 m | ZPLS050L2M |
| | | Spot beam |  | 0.8 µm | 2 m | ZPLS050S2M |
| | | Line beam |  | 1.2 µm | 2 m | ZPLS100L2M |
| | | Spot beam |  | 1.3 µm | 2 m | ZPLS100S2M |
|  | Diffuse-reflective | Line beam |  | 4 µm | 2 m | ZPLS300L2M |
| | | Spot beam |  | 4 µm | 2 m | ZPLS300S2M |
| | | Line beam |  | 14 µm | 2 m | ZPLS600L2M |
| | | Spot beam |  | 14 µm | 2 m | ZPLS600S2M |

1. This shows the width of the variation of measured values when OMRON's standard target (white diffuse object) is measured at a reference distance with a measurement cycle of 1 ms and an average rate of 128 times.

| Amplifier Unit | | | | | |
|---|---|---|---|---|---|
| **Master/Slave[1]** | **Analog output** | **Judgment output[2]** | **External input[3]** | **Input/output type** | **Model** |
| Master unit | Yes | Yes | Yes | NPN | ZP-L3000 |
| | | | | PNP | ZP-L3050 |
| | No | Yes | Yes | NPN | ZP-L3010 |
| | | | | PNP | ZP-L3060 |
| Slave unit | No | Yes | Yes | NPN | ZP-L3510 |
| | | | | PNP | ZP-L3560 |
| Slave unit | No | No | No | — | ZP-L3590 |

1. First amplifier unit must be master unit.In a system with multiple amplifier units connected together, there can only be one master unit. Power supply connection is required for master unit only. All power supplied to slave and communication units is supplied from master unit.
2. HIGH/PASS/LOW
3. Zero reset, LD-off, timing, reset, bank

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# High Speed Digital Fiber Amplifier
# E3NX-FA/MA

- Easy teaching by Smart tuning within a few seconds
- New N-Smart technology provides significant improvement for sensing distance, minimum object detection and speed
- Easy and transparent information about sensor status by Solution Viewer and Change Finder function
- EtherCAT® Communication unit for high-speed field bus connectivity
- E3NX-MA offers a Dual fiber head amplifier to reduce space requirements in a control cabinet



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| Setting/Function | Sensing Range | Part Number | Inputs/Outputs | Connection | Output |
|---|---|---|---|---|---|
| Standard | Depends on fiber optic model | E3NXFA412M | 1 Output | 2 m cable | PNP |
| | | E3NXFA112M | | | NPN |
| | | E3NXFA11AN2M | 2 Output (1 Analog) | | NPN |
| | | E3NXFA8 | 1 Output | System Connector | PNP |
| | | E3NXFA6 | | | NPN |
| Advanced | | E3NXFA512M | 1 Output + 1 Input | 2m cable | PNP |
| | | E3NXF212M | | | NPN |
| | | E3NXFA54 | | M8 Connector | PNP |

| E3NX-MA Dual head Amplifier | | | | | |
|---|---|---|---|---|---|
| **Setting/Function** | **Sensing Range** | **Part Number** | **Inputs/Outputs** | **Connection** | **Output** |
| Standard | Depends on fiber optic model | E3NXMA112M | 2 Outputs | 2 m cable | NPN |
| | | E3NXMA412M | | | PNP |
| | | E3NXMA6 | | System Connector | NPN |

# Advanced Fiber Amplifier
# E3X-ZV / MZV

- Simple one-button smart tuning for sensor threshold and light intensity
- Confirm settings and status easily with dual digital display
- Automatic compensation for large objects and low reflectance dark targets



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| Setting/Function | Sensing Range | Part Number | Inputs/Outputs | Connection | Output |
|---|---|---|---|---|---|
| Standard | Depends on fiber optic model | E3XZV412M | 1 Output | 2m cable | PNP |
| | | E3XZV112M | | | NPN |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Fiber Optic Amplifiers
# E3X-NA / SD

- Easy adjustment with potentiometer
- Mutual interference prevention
- Enhanced water resistance types




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| Setting / Function | Distance | Connection | PNP Model | NPN Model |
|---|---|---|---|---|
| Potentiometer and Bargraph | Depending on the fiber optic model | 2m Cable | E3XNA41 | E3XNA11 |
| Teach Button and digital display | | | E3XSD51 | E3XSD21 |

# Color Mark Fiber Amplifier
# E3NX-CA

- High signal to noise ratio makes subtle color difference detection easy
- Able to handle glossy materials
- Transmit RGB values via E3NW network unit to troubleshoot color variation in real-time



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| Model | Sensor Distance | Connection | Inputs / Outputs | PNP Model |
|---|---|---|---|---|
| Standard Model | Sensor distance depends on selected fiber model | 2m Cable | 1 output | E3NXCA412M |
| Advanced Model | Sensor distance depends on selected fiber model | 2m Cable | 1 input/ 2 outputs | E3NXCA512M |

For fiber options, or models for special applications, refer to the E32 fibers catalog on the OMRON website.

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Color Mark Detection Sensor
# E3ZM-V

- Compact SUS 316L colormark photoelelctric sensor
- Ideal for high contrast colormark detection in a small package
- IP69K and IP67 rated for environmental robustness
- 50 us response time
- Single teach button



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| Type | Sensor Distance | Connection | PNP | NPN |
|---|---|---|---|---|
| Diffuse - reflective (color mark detection) | 12 ± 2mm | Pre-wired | E3ZMV812M | E3ZMV612M |
| | | M8 Connector | E3ZMV86 | E3ZMV66 |

# Connectors and Cordsets
# XS2, XS3, XS5

- Standard PVC or PUR cordsets for a wide variety of applications
- M8 and M12 connector sizes with 3 and 4 pin configurations
- Straight, right angle, and double ended variations available
- 2m, 5m, and 10m cordset lengths are available. Alternative lengths are also available



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**XS3 M8 Cordsets**

| Connector | Cable Specification | Cable Length | Number of Pins | Coding | Part Number |
|---|---|---|---|---|---|
| M8 straight socket (female) | PVC robot cable | 2 m | 4-poles | A - Coded | XS3FM421402A |
| | PVC standard cable | | 4-poles | A - Coded | XS3FM421402R |
| | PVC robot cable | 5 m | 3-poles | A - Coded | XS3FM321305R |
| | PVC standard cable | | 4-poles | A - Coded | XS3FM421405A |
| | PVC robot cable | | 4-poles | A - Coded | XS3FM421405R |
| | PUR fire-retardant halogen free cable | 2 m | 3-poles | A - Coded | XS3FM8PUR3S2M |
| | | | 4-poles | A - Coded | XS3FM8PUR4S2M |
| | | 5 m | 3-poles | A - Coded | XS3FM8PUR3S5M |
| | | | 4-poles | A - Coded | XS3FM8PUR4S5M |
| | | 10 m | 3-poles | A - Coded | XS3FM8PUR3S10M |
| | | | 4-poles | A - Coded | XS3FM8PUR4S10M |
| | PVC fire-retardant cable | 2 m | 3-poles | A - Coded | XS3FM8PVC3S2M |
| | | | 4-poles | A - Coded | XS3FM8PVC4S2M |
| | | 5 m | 3-poles | A - Coded | XS3FM8PVC3S5M |
| | | | 4-poles | A - Coded | XS3FM8PVC4S5M |
| | | 10 m | 4-poles | A - Coded | XS3FM8PVC4S10M |
| | | | 3-poles | A - Coded | XS3FM8PVC3S10M |
| M8 right-angle socket (female) | PVC standard cable | 2 m | 4-poles | A - Coded | XS3FM422402A |
| | | 5 m | 4-poles | A - Coded | XS3FM422405A |
| | PVC robot cable | 5 m | 4-poles | A - Coded | XS3FM422405R |
| | PUR fire-retardant halogen free cable | 2 m | 3-poles | A - Coded | XS3FM8PUR3A2M |
| | | | 4-poles | A - Coded | XS3FM8PUR4A2M |
| | | 5 m | 3-poles | A - Coded | XS3FM8PUR3A5M |
| | | | 4-poles | A - Coded | XS3FM8PUR4A5M |
| | | 10 m | 3-poles | A - Coded | XS3FM8PUR3A10M |
| | | | 4-poles | A - Coded | XS3FM8PUR4A10M |
| | PVC fire-retardant cable | 2 m | 3-poles | A - Coded | XS3FM8PVC3A2M |
| | | | 4-poles | A - Coded | XS3FM8PVC4A2M |
| | | 5 m | 3-poles | A - Coded | XS3FM8PVC3A5M |
| | | | 4-poles | A - Coded | XS3FM8PVC4A5M |
| | | 10 m | 4-poles | A - Coded | XS3FM8PVC4A10M |
| | | | 3-poles | A - Coded | XS3FM8PVC3A10M |

Continued on the next page

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

Continued from the previous page

**XS2 M12 Standard Cordsets**

| Connector | Cable Specification | Cable Length | Number of Pins | Coding | Part Number |
|---|---|---|---|---|---|
| M12 straight socket (female) | PVC fire-retardant robot cable | 1 m | 4-poles | A - Coded | XS2FD421C80F |
| | | 2 m | 4-poles | B - Coded | XS2FA421D90F |
| | | | 4-poles | A - Coded | XS2FD421D80F |
| | | | 4-poles (2-cores, 1-4) | A - Coded | XS2FD421DA0F |
| | | | 4-poles (3-cores, 1-3-4) | A - Coded | XS2FD421DC0F |
| | | 3 m | 4-poles | A - Coded | XS2FD421E80F |
| | | 5 m | 4-poles | B - Coded | XS2FA421G90F |
| | | | 4-poles | A - Coded | XS2FD421G80F |
| | | | 4-poles (2-cores, 1-4) | A - Coded | XS2FD421GA0F |
| | | | 4-poles (3-cores, 1-3-4) | A - Coded | XS2FD421GC0F |
| | | 10 m | 4-poles | A - Coded | XS2FD421J80F |
| | PVC standard cable | 2 m | 5-poles | A - Coded | XS2FD521DG0A |
| | | 5 m | 5-poles | A - Coded | XS2FD521GG0A |
| | | 10 m | 5-poles | A - Coded | XS2FD521JG0A |
| | | 15 m | 5-poles | A - Coded | XS2FD521KG0A |
| | | 20 m | 5-poles | A - Coded | XS2FD521LG0A |
| | PUR fire-retardant halogen free cable | 2 m | 4-poles | A - Coded | XS2FM12PUR4S2M |
| | | 5 m | 4-poles | A - Coded | XS2FM12PUR4S5M |
| | | 10 m | 4-poles | A - Coded | XS2FM12PUR4S10M |
| | PVC fire-retardant cable | 2 m | 3-poles | A - Coded | XS2FM12PVC3S2M |
| | | | 4-poles | A - Coded | XS2FM12PVC4S2M |
| | | 5 m | 3-poles | A - Coded | XS2FM12PVC3S5M |
| | | | 4-poles | A - Coded | XS2FM12PVC4S5M |
| | | | 5-poles | A - Coded | XS2FM12PVC5S5M |
| | | 10 m | 3-poles | A - Coded | XS2FM12PVC3S10M |
| | | | 4-poles | A - Coded | XS2FM12PVC4S10M |
| M12 right-angle socket (female) | PVC fire-retardant robot cable | 2 m | 4-poles(2-cores, 1-4) | A - Coded | XS2FD422DA0F |
| | | 5 m | 4-poles | A - Coded | XS2FD422G80F |
| | | | 4-poles (2-cores, 1-4) | A - Coded | XS2FD422GA0F |
| | | | 4-poles (3-cores, 1-3-4) | A - Coded | XS2FD422GC0F |
| | PUR fire-retardant halogen free cable | 2 m | 4-poles | A - Coded | XS2FM12PUR4A2M |
| | | | 5-poles | A - Coded | XS2FM12PUR5A2M |
| | | 5 m | 4-poles | A - Coded | XS2FM12PUR4A5M |
| | | 10 m | 4-poles | A - Coded | XS2FM12PUR4A10M |
| | PVC fire-retardant cable | 2 m | 3-poles | A - Coded | XS2FM12PVC3A2M |
| | | | 4-poles | A - Coded | XS2FM12PVC4A2M |
| | | 5 m | 3-poles | A - Coded | XS2FM12PVC3A5M |
| | | | 4-poles | A - Coded | XS2FM12PVC4A5M |
| | | | 5-poles | A - Coded | XS2FM12PVC5A5M |
| | | 10 m | 3-poles | A - Coded | XS2FM12PVC3A10M |
| | | | 4-poles | A - Coded | XS2FM12PVC4A10M |

**XS5 M12 Smart Click Cordsets**

| Connector | Cable Specification | Cable Length | Number of Pins | Coding | Part Number |
|---|---|---|---|---|---|
| Smartclick M12 straight socket (female) | PVC fire-retardant robot cable | 2 m | 4-poles | A - Coded | XS5FD421D80F |
| | | 3 m | 4-poles | A - Coded | XS5FD421E80F |
| | | 5 m | 4-poles | A - Coded | XS5FD421G80F |
| | | 10 m | 4-poles | A - Coded | XS5FD421J80F |
| | PVC oil-resistant robot cable | 10 m | 4-poles | A - Coded | XS5FD421J80XR |
| | PE spatter-resistant cable | 2 m | 4-poles | A - Coded | XS5FD421D80SA |
| | | 5 m | 4-poles | A - Coded | XS5FD421G80SA |
| Smartclick M12 right-angle socket (female) | PVC fire-retardant robot cable | 2 m | 4-poles | A - Coded | XS5FD422D80F |
| | | 5 m | 4-poles | A - Coded | XS5FD422G80F |
| | | 10 m | 4-poles | A - Coded | XS5FD422J80F |

**Cable with connectors on both cable ends**

| Connector | Cable Specification | Length | Number of Pins | A - Coded | Part Number |
|---|---|---|---|---|---|
| M12 straight socket (female) to M12 straight plug (male) | PVC fire-retardant robot cable | 0.5 m | 4-poles | A - Coded | XS2WD421B81F |
| | | 1 m | 4-poles | A - Coded | XS2WD421C81F |
| | | 2 m | 4-poles | A - Coded | XS2WD421D81F |
| | | 3 m | 4-poles | A - Coded | XS2WD421E81F |
| | | 5 m | 4-poles | A - Coded | XS2WD421G81F |
| | | 10 m | 4-poles | A - Coded | XS2WD421J81F |
| | PVC spatter-resistant cable | 5 m | 4-poles | A - Coded | XS2WD421G81SA |
| M12 right-angle socket (female) to M12 straight plug (male) | PVC fire-retardant robot cable | 2 m | 4-poles | A - Coded | XS2WD424D81F |
| | | 5 m | 4-poles | A - Coded | XS2WD424G81F |
| Smartclick M12 straight socket (female) to Smartclick M12 straight plug (male) | PVC fire-retardant robot cable | 1 m | 4-poles | A - Coded | XS5WD421C81F |
| | | 2 m | 4-poles | A - Coded | XS5WD421D81F |
| | | 3 m | 4-poles | A - Coded | XS5WD421-E81-F |
| | | 5 m | 4-poles | A - Coded | XS5WD421G81F |
| | | 10 m | 4-poles | A - Coded | XS5WD421J81F |
| | | 20 m | 4-poles | A - Coded | XS5WD421L81F |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

Featured Products

# Components

## **Reliable** Compact Performance

OMRON's industrial control panel components deliver high-performance control in compact, space-saving designs. From relays and timers to power supplies and temperature controllers, these products are engineered for reliability, efficiency, and seamless integration. With decades of innovation behind them, they help panel builders and OEMs reduce build time, improve safety, and optimize machine performance in any environment.







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# Automation Starts and Ends with the **Highest Quality** Components

## FEATURED PRODUCTS



**Smart Power Supply: S8AS2**

Intelligent DC power for smart panel design.



**Thermal Condition Monitor - K6PM**

Thermal imaging camera and controller with EtherNet/IP™ Communications.



**IO-Link® AD Converter: K3CV**

IO-Link® converter with quick-connect simplified connection

## PORTFOLIO HIGHLIGHTS

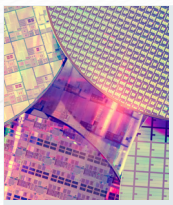
- Decades of experience manufacturing reliable and durable limit switches for the most extreme operating conditions
- OMRON is a global leader in industrial relays and has manufactured over 1B relays for various industries
- OMRON builds high-performance temperature controllers to deliver fast and precise temperature control so our customers can produce higher quality products
- Our relays meet the industry standards for each region of the globe and offer excellent quality and reliability
- Faster wiring and better vibration resistance with Push-In Plus technology

## REAL WORLD RESULTS



### Automotive/EV

Implementing continuous thermal monitoring allows you to increase your response time, reduce unplanned downtime and focus on predictive maintenance.



### Semiconductor

Predictive maintenance is crucial for fabs to ensure equipment reliability, minimize downtime, and maintain a competitive edge.



### Automotive

Centralizing Power Monitoring is critical in EV manufacturing as it reduces maintenance costs by minimizing premature power supply replacement and preventing unexpected downtime.



### Food, Beverage & Commodities

E5CC Temperature Controlers ensure precise temperature control for quality seals.

# Power Supply
# S8NR-S

- IP67-rated power supply
- A lineup of 90 W, 360 W, and 600 W models allows optimal power supply selection according to equipment scale
- Installation outside control panels shortens wiring distances, helping to reduce wiring and installation work
- Smart click connectors simplify wiring work

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| Capacity | Input Voltage | Output Voltage | Maximum Tripping Output Current per a branch output | Output branch | Communication | Model |
|---|---|---|---|---|---|---|
| 90 W | Single-phase 100 to 240 VAC | 24 V | --- | --- | --- | S8NR-S09024-A1L0 |
| 360 W | | | M12-A: 3.8 A<br>M12-L: 10 A | 2 connectors 4 outputs<br>Connector 1: 10 A, 10 A<br>Connector 2: 10 A, 10 A | IO-Link® | S8NR-S36024-A0L2-IL3 |
| | | | | 3 connectors 4 outputs<br>Connector 1: 3.8 A (Class 2)<br>Connector 2: 3.8 A (Class 2)<br>Connector 3: 10 A, 10 A | | S8NR-S36024-A2L1-IL3 |
| 600 W | Single-phase 200 to 240 VAC | | | 3 connectors 6 outputs<br>Connector 1: 10 A, 10 A<br>Connector 2: 10 A, 10 A<br>Connector 3: 10 A, 10 A | | S8NR-S60024-A0L3-IL3 |
| | | | | 4 connectors 6 outputs<br>Connector 1: 3.8 A (Class 2)<br>Connector 2: 3.8 A (Class 2)<br>Connector 3: 10 A, 10 A<br>Connector 4: 10 A, 10 A | | S8NR-S60024-A2L2-IL3 |

| Mounting Brackets (Sold separately) | |
|---|---|
| **Name** | **Model** |
| DIN-Rail mounting brackets (for S8NR-S09024) | S82Y-NRS01DIN |
| DIN-Rail mounting brackets (for S8NR-S36024 and S8NR-S60024) | S82Y-NRS02DIN |

| Waterproof Caps (Sold separately) | |
|---|---|
| **Name** | **Model** |
| Waterproof caps for socket connectors | XS5Z-12 |
| Waterproof caps for plug connectors | XS5Z-13 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Power Supply
# S8AS2

- Power supply, protection, and connection three functions integrated into one package (compact/reduce wiring work)
- Stabilizes the power supply circuit with excellent tripping characteristics
- Equipped with multiple electronic circuit protectors and a wealth of connection terminals



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| Capacity | Input Voltage | Output Voltage | Maximum Output current (Per Output Branch) | Total Output Current | Number of Output Branches | Parameter Settings | Model |
|---|---|---|---|---|---|---|---|
| 240 W | 100 to 240 VAC | 24 V | 3.8 A | 10 A | 6 | Changeable | S8AS2-24024-06S |
| | | | | | | Not Changeable | S8AS2-24024-06SN |
| 480 W | | | | 20 A | 8 | Changeable | S8AS2-48024-08S |
| | | | | | | Not Changeable | S8AS2-48024-08SN |

# Power Supply
# S8VK

- Compact single-phase and three-phase power supplies
- Operating Temperature: -40°C to 70°C (S8VK-G and S8VK-T) and -25°C to 60°C (S8VK-C)
- 5 year warranty
- Power Boost Function: 120% for 10s (S8VK-G/T)



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| Line | Power | Output Voltage | Output Current | Capacity | Model |
|---|---|---|---|---|---|
| Economy Single-Phase | 100 to 240 VAC<br>90 to 350 VDC | 24V | 2.5 A | 60 W | S8VK-C06024 |
| | | | 5 A | 120 W | S8VK-C12024 |
| | | | 10 A | 240 W | S8VK-C24024 |
| | | | 20 A | 480 W | S8VK-C48024 |
| General Purpose Single-phase | | 5V | 3 A | 15 W | S8VK-G01505 |
| | | 12V | 2.5 A | 30 W | S8VK-G03012 |
| | | 24V | 1.3 A | 30 W | S8VK-G03024 |
| | | | 2.5 A | 60 W | S8VK-G06024 |
| | | | 5 A | 120 W | S8VK-G12024 |
| | | | 10 A | 240 W | S8VK-G24024 |
| | | | 20 A | 480 W | S8VK-G48024 |
| | | 48V | 10 A | 480 W | S8VK-G48048 |
| Three-phase | 380 to 480 VAC<br>450 to 600 VDC | 24V | 5 A | 120 W | S8VK-T12024 |
| | | | 10 A | 240 W | S8VK-T24024 |
| | | | 20 A | 480 W | S8VK-T48024 |
| | | | 40 A | 960 W | S8VK-T96024 |
| Environmentally Resistant 3-Phase Power Supply with Reduced Footprint and Predictive Maintenance Features | 380V to 480 VAC<br>450 to 600 VDC" | 24VDC | 10A | 240W | S8VK-WB24024 |
| | | 48VDC | 5A | | S8VK-WB24048 |
| | | 24VDC | 20A | 480W | S8VK-WB48024 |
| | | 48VDC | 10A | | S8VK-WB48048 |
| | | 24VDC | 60A | 960W | S8VK-WB96024 |
| | | 48VDC | 30A | | S8VK-WB96048 |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Power Supply
# S8VK-X with EtherNet/IP™

- Product replacement time, output voltage, output current, and more can be monitored remotely on the EtherNet/IP™ network
- Product status can be checked on-site using the indication monitor
- Remote monitoring with included software tool



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| Line | Power | Output Voltage | Output Current | Capacity | Model |
|---|---|---|---|---|---|
| EtherNet/IP™ Communication With Display | 100 to 240 VAC<br>90 to 350 VDC | 24V | 3.75 A | 90 W | S8VK-X09024A-EIP |
| | | | 5 A | 120 W | S8VK-X12024A-EIP |
| | | | 10 A | 240 W | S8VK-X24024A-EIP |
| EtherNet/IP™ Communication Without Display | | | 2.5 A | 60 W | S8VK-X06024-EIP |
| | | | 3.75 A | 90 W | S8VK-X09024-EIP |
| | | | 5 A | 120 W | S8VK-X12024-EIP |
| | | | 10 A | 240 W | S8VK-X24024-EIP |
| | | | 20 A | 480 W | S8VK-X48024-EIP |

# Electronic Circuit Protector
# S8V-CP

- Compact design saves panel space compared to standard circuit breakers
- 3-step LED indicators for easy identification of channel status
- 4 and 8 channel models available with individual output current adjustments for various loads
- Available UL Class-2 output model



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| Power | Output Voltage | Number of Outputs | Maximum Input Current | Adjustment Output Current | Model |
|---|---|---|---|---|---|
| 24 VDC | 24 VDC | 4 | 40A | 2 A up to 10 A | S8V-CP0424 |
| | | 4 | | 2 A up to 10 A | S8V-CP0424S |
| | | 8 | 70A | 2 A up to 10 A | S8V-CP0824 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Digital Counter
# H7CC

- The H7CC is a new and improved version of our digital counter with an available tachometer function
- Improved LED Display makes the screen easier to read
- LED indicators built into the push buttons for visual feedback
- Preventative maintenance features alert you when the product is nearing the end of its life
- Simple and easy to use programming interface saves time




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| Type | Classification | External Connections | Outputs | Power Supply Voltage | Model |
|---|---|---|---|---|---|
| H7CC-A | Preset Counter | 11 Pin | Contact output (SPDT) | 100 to 240 VAC | H7CC-A11 |
| | | Screw Terminals | Contact output (SPDT) | 100 to 240 VAC | H7CC-A |
| | | | Contact output (SPDT) | 24 VAC / 12 to 48 VDC | H7CC-AD |
| | Preset Counter / Tachometer | | Contact output (SPST+SPDT) | 100 to 240 VAC | H7CC-AW |
| | | | Contact output (SPST+SPDT) | 24 VAC / 12 to 48 VDC | H7CC-AWD |
| H7CC-R | Tachometer | 11 Pin | Contact output (SPDT) | 100 to 240 VAC | H7CC-R11 |

# Digital Timer
# H5CC

- The H5CC is the improved version of our digital timer with added visual clarity
- 15 different timing modes
- Replacement time notification function alert the user of potential maintenance needs.
- User-friendly interface in a white LCD screen
- Status indicators integrated into front buttons.




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| Power Supply | Terminal Type | Outputs | Model |
|---|---|---|---|
| 100-240 VAC | Screw Terminal | Contact Output (time-limit SPDT) | H5CC-A |
| | | Contact Output (SPDT) + Transistor Output (SPST) | H5CC-AU |
| | 11-pin Socket | | H5CC-A11 |
| 12-48 VDC / 24 VAC | Screw Terminal | Contact Output (time-limit SPDT) | H5CC-AD |
| | | Contact Output (SPDT) + Transistor Output (SPST) | H5CC-AUD |
| 24-240 VDC / VAC | 11-pin Socket | Contact Output (time-limit SPDT) | H5CC-A11F |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Electromechanical Relays
# G2RV-ST

- Push-in plus Technology for easy wiring
- Lockable test switch models available for circuit troubleshooting
- LED/mechanical flag available for checking operation
- Slim 6mm width – space saving
- Gold plate contact models available for micro loads



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| Terminal (Wire Connection) | Classification | Latching Lever (Test Switch) | Rated Input Voltage (V) | | Model |
|---|---|---|---|---|---|
| Push-In Plus Terminal | Standard | No | DC | 12 | G2RVST500DC12 |
| | | | | 24 | G2RVST500DC24 |
| | | | AC/DC | 24 | G2RVST500ACDC24 |
| | | | | 48 | G2RVST500ACDC48 |
| | | | AC | 100 | G2RVST500AC100 |
| | | | | 110 | G2RVST500AC110 |
| | | | | 200 | G2RVST500AC200 |
| | | | | 230 | G2RVST500AC230 |
| | | Yes | DC | 24 | G2RVST501DC24 |
| | | | AC/DC | 24 | G2RVST501ACDC24 |
| | | | | 24 | G2RVST500APDC24 |
| | | | AC/DC | 24 | G2RVST500AP24VACVDC |
| | | | | 48 | G2RVST500APACDC48 |
| | | | AC | 100 | G2RVST500APAC100 |
| | | | | 110 | G2RVST500APAC110 |
| Screw terminal | Standard | No | DC | 12 | G2RVST700DC12 |
| | | | | 24 | G2RVST700DC24 |
| | | | AC/DC | 24 | G2RVST700ACDC24 |
| | | | | 48 | G2RVST700ACDC48 |
| | | | AC | 100 | G2RVST700AC100 |
| | | | | 110 | G2RVST700AC110 |
| | | | | 200 | G2RVST700200VAC |
| | | Yes | DC | 24 | G2RVST70124VDC |
| | | | AC/DC | 24 | G2RVST701ACDC24 |
| | Microloads | No | DC | 12 | G2RVST700APDC12 |
| | | | | 24 | G2RVST700APDC24 |
| | | | AC/DC | 48 | G2RVST700APACDC48 |
| | | | AC | 230 | G2RVST700APAC230 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Solid State Relays
# G3RV-ST

- 60% space saving from G2R series with 6.2 mm width
- 60%* reduction in wiring time and user-friendly with a low insertion force thanks to Push-In Plus Technology
- Larger hole and angled structure contribute to efficient wiring and standardization of wires up to AWG14, 2.5 mm²
- Easy maintenance with improved LED visibility and color stopper voltage line identification
- Low cutting force of short bars contribute to reducing health issues such as Tenosynovitis.



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| Terminal (Wire Connection) | Applicable Output Load | Zero Cross Function | Rated Input Voltage (V) | | Model |
|---|---|---|---|---|---|
| Push-In Plus Terminal | DC load | — | DC | 24 | G3RVST500DDC24 |
| | AC load | Yes | DC | 24 | G3RVST500ADC24 |
| Screw terminal | DC load | — | DC | 24 | G3RVST700DDC24 |
| | | | AC/DC | 24 | G3RVST700DACDC24 |
| | AC load | Yes | DC | 24 | G3RVST700ADC24 |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Electromechanical Relays
## LY

- Wiring work can be shortened by as much as 60%* compared to conventional screw terminal sockets by combining with push-in plus terminal sockets (PYF-☐-PU) that feature light insertion force and strong pullout strength to achieve less wiring work
- The standard models include models that are compliant with the UL, CSA, and SEV safety standards and with the Electrical Appliances and Material Safety Act
- Equipped with an arc barrier for arc interruption
- Withstand voltages up to 2,000 V
- New built-in diode and built-in CR circuit models have joined the series
- The lineup also includes models that are compliant with the LR and VDE safety standards



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| Terminal / Mounting Type | Coil Voltage | Contact Rating | Contact Form | Features | Relay Socket Model | Relay Model |
|---|---|---|---|---|---|---|
| Case-Surface Mount | 24 VAC | 10 A | 3PDT | Standard | N/A (Panel Mount) | LY3FAC24 |
| Case-Surface Mount | 24 VDC | 10 A | 3PDT | Standard | N/A (Panel Mount) | LY3FDC24 |
| Case-Surface Mount | 110/120 VAC | 10 A | DPDT | Standard | N/A (Panel Mount) | LY2FAC110120 |
| Case-Surface Mount | 12 VDC | 10 A | DPDT | Standard | N/A (Panel Mount) | LY2FDC12 |
| Case-Surface Mount | 220/240 VAC | 10 A | DPDT | Standard | N/A (Panel Mount) | LY2FAC220240 |
| Case-Surface Mount | 24 VAC | 10 A | DPDT | Standard | N/A (Panel Mount) | LY2FAC24 |
| Case-Surface Mount | 24 VDC | 10 A | DPDT | Standard | N/A (Panel Mount) | LY2FDC24 |
| Case-Surface Mount | 110/120 VAC | 15 A | SPDT | Standard | N/A (Panel Mount) | LY1FAC110120 |
| Case-Surface Mount | 12 VDC | 15 A | SPDT | Standard | N/A (Panel Mount) | LY1FDC12 |
| Case-Surface Mount | 220/240 VAC | 15 A | SPDT | Standard | N/A (Panel Mount) | LY1FAC220240 |
| Case-Surface Mount | 24 VAC | 15 A | SPDT | Standard | N/A (Panel Mount) | LY1FAC24 |
| Case-Surface Mount | 24 VDC | 15 A | SPDT | Standard | N/A (Panel Mount) | LY1FDC24 |
| PCB Terminals | 24 VDC | 10 A | 3PDT | Standard | N/A (PCB Mount) | LY30DC24 |
| PCB Terminals | 24 VDC | 10 A | 4PDT | Standard | N/A (PCB Mount) | LY40DC24 |
| PCB Terminals | 100/110 VDC | 10 A | DPDT | Standard | N/A (PCB Mount) | LY20DC100110 |
| PCB Terminals | 110/120 VAC | 10 A | DPDT | Standard | N/A (PCB Mount) | LY20AC110120 |
| PCB Terminals | 12 VDC | 10 A | DPDT | Standard | N/A (PCB Mount) | LY20DC12 |
| PCB Terminals | 220/240 VAC | 10 A | DPDT | Standard | N/A (PCB Mount) | LY20AC220240 |
| PCB Terminals | 24 VDC | 10 A | DPDT | Standard | N/A (PCB Mount) | LY20DC24 |
| PCB Terminals | 48 VDC | 10 A | DPDT | Standard | N/A (PCB Mount) | LY20DC48 |
| PCB Terminals | 12 VDC | 15 A | SPDT | Standard | N/A (PCB Mount) | LY10DC12 |
| PCB Terminals | 24 VDC | 15 A | SPDT | Standard | N/A (PCB Mount) | LY10DC24 |
| Plug-in | 110/120 VAC | 10 A | 3PDT | LED Indicator | PTF11A | LY3NAC110120 |
| Plug-in | 12 VDC | 10 A | 3PDT | Standard | PTF11A | LY3DC12 |
| Plug-in | 120 VAC | 10 A | 3PDT | Standard | PTF11A | LY3AC120 |
| Plug-in | 24 VAC | 10 A | 3PDT | Standard | PTF11A | LY3AC24 |
| Plug-in | 24 VAC | 10 A | 3PDT | LED Indicator | PTF11A | LY3NAC24 |
| Plug-in | 24 VDC | 10 A | 3PDT | Standard | PTF11A | LY3DC24 |
| Plug-in | 24 VDC | 10 A | 3PDT | LED Indicator & Diode | PTF11A | LY3ND2DC24 |
| Plug-in | 24 VDC | 10 A | 3PDT | LED Indicator | PTF11A | LY3NDC24 |
| Plug-in | 100/110 VAC | 10 A | 4PDT | Standard | PTF-14-PU-L / PTF14A-E | LY4AC100110 |
| Plug-in | 12 VDC | 10 A | 4PDT | Standard | PTF-14-PU-L / PTF14A-E | LY4DC12 |
| Plug-in | 12 VDC | 10 A | 4PDT | LED Indicator | PTF-14-PU-L / PTF14A-E | LY4NDC12 |
| Plug-in | 120 VAC | 10 A | 4PDT | LED Indicator | PTF-14-PU-L / PTF14A-E | LY4NAC120 |
| Plug-in | 200/220 VAC | 10 A | 4PDT | LED Indicator | PTF-14-PU-L / PTF14A-E | LY4NAC200220 |
| Plug-in | 100/110 VDC | 10 A | 4PDT | Standard | PTF-14-PU-L / PTF14A-E | LY4DC100110 |
| Plug-in | 110/120 VAC | 10 A | 4PDT | LED Indicator | PTF-14-PU-L / PTF14A-E | LY4NAC110120 |
| Plug-in | 12 VDC | 10 A | 4PDT | LED Indicator & Diode | PTF-14-PU-L / PTF14A-E | LY4ND2DC12 |
| Plug-in | 120 VAC | 10 A | 4PDT | Standard | PTF-14-PU-L / PTF14A-E | LY4AC120 |
| Plug-in | 24 VAC | 10 A | 4PDT | Standard | PTF-14-PU-L / PTF14A-E | LY4AC24 |
| Plug-in | 24 VAC | 10 A | 4PDT | LED Indicator | PTF-14-PU-L / PTF14A-E | LY4NAC24 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

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- Equipped with an arc barrier for arc interruption
- Withstand voltages up to 2,000 V
- New built-in diode and built-in CR circuit models have joined the series
- The lineup also includes models that are compliant with the LR and VDE safety standards



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| Terminal / Mounting Type | Coil Voltage | Contact Rating | Contact Form | Features | Relay Socket Model | Relay Model |
|---|---|---|---|---|---|---|
| Plug-in | 24 VDC | 10 A | 4PDT | Standard | PTF-14-PU-L / PTF14A-E | LY4DC24 |
| Plug-in | 24 VDC | 10 A | 4PDT | Diode | PTF-14-PU-L / PTF14A-E | LY4DDC24 |
| Plug-in | 24 VDC | 10 A | 4PDT | LED Indicator & Test Button | PTF-14-PU-L / PTF14A-E | LY4I4NDC24 |
| Plug-in | 24 VDC | 10 A | 4PDT | LED Indicator & Diode | PTF-14-PU-L / PTF14A-E | LY4ND2DC24 |
| Plug-in | 24 VDC | 10 A | 4PDT | LED Indicator | PTF-14-PU-L / PTF14A-E | LY4NDC24 |
| Plug-in | 240 VAC | 10 A | 4PDT | Standard | PTF-14-PU-L / PTF14A-E | LY4AC240 |
| Plug-in | 240 VAC | 10 A | 4PDT | LED Indicator | PTF-14-PU-L / PTF14A-E | LY4NAC240 |
| Plug-in | 48 VDC | 10 A | 4PDT | Standard | PTF-14-PU-L / PTF14A-E | LY4DC48 |
| Plug-in | 100/110 VAC | 10 A | DPDT | Standard | PTF-08-PU / PTF08A-E | LY2AC100110 |
| Plug-in | 100/110 VAC | 10 A | DPDT | LED Indicator | PTF-08-PU / PTF08A-E | LY2NAC100110 |
| Plug-in | 100/110 VAC | 10 A | DPDT | LED Indicator & CR Circuit | PTF-08-PU / PTF08A-E | LY2NCRAC100110 |
| Plug-in | 100/110 VDC | 10 A | DPDT | Standard | PTF-08-PU / PTF08A-E | LY2DC100110 |
| Plug-in | 100/110 VDC | 10 A | DPDT | Diode | PTF-08-PU / PTF08A-E | LY2DDC100110 |
| Plug-in | 110/120 VAC | 10 A | DPDT | Standard | PTF-08-PU / PTF08A-E | LY2AC110120 |
| Plug-in | 110/120 VAC | 10 A | DPDT | LED Indicator | PTF-08-PU / PTF08A-E | LY2NAC110120 |
| Plug-in | 110/120 VAC | 10 A | DPDT | LED Indicator & CR Circuit | PTF-08-PU / PTF08A-E | LY2NCRAC110120 |
| Plug-in | 12 VAC | 10 A | DPDT | Standard | PTF-08-PU / PTF08A-E | LY2AC12 |
| Plug-in | 12 VDC | 10 A | DPDT | Standard | PTF-08-PU / PTF08A-E | LY2DC12 |
| Plug-in | 12 VDC | 10 A | DPDT | Diode | PTF-08-PU / PTF08A-E | LY2DDC12 |
| Plug-in | 12 VDC | 10 A | DPDT | LED Indicator & Diode | PTF-08-PU / PTF08A-E | LY2ND2DC12 |
| Plug-in | 12 VDC | 10 A | DPDT | LED Indicator | PTF-08-PU / PTF08A-E | LY2NDC12 |
| Plug-in | 200/220 VAC | 10 A | DPDT | LED Indicator | PTF-08-PU / PTF08A-E | LY2NAC200220 |
| Plug-in | 220/240 VAC | 10 A | DPDT | Standard | PTF-08-PU / PTF08A-E | LY2AC220240 |
| Plug-in | 220/240 VAC | 10 A | DPDT | LED Indicator | PTF-08-PU / PTF08A-E | LY2NAC220240 |
| Plug-in | 24 VAC | 10 A | DPDT | Standard | PTF-08-PU / PTF08A-E | LY2AC24 |
| Plug-in | 24 VAC | 10 A | DPDT | LED Indicator & Test Button | PTF-08-PU / PTF08A-E | LY2I4NAC24 |
| Plug-in | 24 VAC | 10 A | DPDT | LED Indicator | PTF-08-PU / PTF08A-E | LY2NAC24 |
| Plug-in | 24 VDC | 10 A | DPDT | Standard | PTF-08-PU / PTF08A-E | LY2DC24 |
| Plug-in | 24 VDC | 10 A | DPDT | Diode | PTF-08-PU / PTF08A-E | LY2DDC24 |
| Plug-in | 24 VDC | 10 A | DPDT | LED Indicator & Test Button | PTF-08-PU / PTF08A-E | LY2I4NDC24 |
| Plug-in | 24 VDC | 10 A | DPDT | LED Indicator & Diode | PTF-08-PU / PTF08A-E | LY2ND2DC24 |
| Plug-in | 24 VDC | 10 A | DPDT | LED Indicator | PTF-08-PU / PTF08A-E | LY2NDC24 |
| Plug-in | 24 VDC | 5 A | DPDT | Bifurcated Contacts & LED Indicator | PTF-08-PU / PTF08A-E | LY2ZNDC24 |
| Plug-in | 48 VDC | 10 A | DPDT | Standard | PTF-08-PU / PTF08A-E | LY2DC48 |
| Plug-in | 110/120 VAC | 15 A | SPDT | Standard | PTF-08-PU / PTF08A-E | LY1AC110120 |
| Plug-in | 110/120 VAC | 15 A | SPDT | LED Indicator | PTF-08-PU / PTF08A-E | LY1NAC110120 |
| Plug-in | 12 VDC | 15 A | SPDT | Standard | PTF-08-PU / PTF08A-E | LY1DC12 |
| Plug-in | 24 VAC | 15 A | SPDT | Standard | PTF-08-PU / PTF08A-E | LY1AC24 |
| Plug-in | 24 VAC | 15 A | SPDT | LED Indicator | PTF-08-PU / PTF08A-E | LY1NAC24 |
| Plug-in | 24 VDC | 15 A | SPDT | Standard | PTF-08-PU / PTF08A-E | LY1DC24 |
| Plug-in | 24 VDC | 15 A | SPDT | Diode | PTF-08-PU / PTF08A-E | LY1DDC24 |
| Plug-in | 24 VDC | 15 A | SPDT | LED Indicator & Diode | PTF-08-PU / PTF08A-E | LY1ND2DC24 |
| Plug-in | 24 VDC | 15 A | SPDT | LED Indicator | PTF-08-PU / PTF08A-E | LY1NDC24 |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Electromechanical Relays
# G2R-S

- Lockable test switch models available for circuit troubleshooting
- LED/mechanical flag available for checking operation
- Available DIN-rail mount relay sockets
- Slim 16mm design with socket




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WEBSITE

| Coil Voltage | Contact Rating | Contact Form | Features / Classification | Relay Socket Model | Relay Model |
|---|---|---|---|---|---|
| 110 VAC | 10 A | SPDT | General-purpose | P2RFZ-05E/P2RF-05-PU | G2R1SAC110S |
| 120 VAC | 10 A | SPDT | General-purpose | P2RFZ-05E/P2RF-05-PU | G2R1SAC120S |
| 240 VAC | 10 A | SPDT | General-purpose | P2RFZ-05E/P2RF-05-PU | G2R1SAC240S |
| 24 VAC | 10 A | SPDT | General-purpose | P2RFZ-05E/P2RF-05-PU | G2R1SAC24S |
| 12 VDC | 10 A | SPDT | General-purpose | P2RFZ-05E/P2RF-05-PU | G2R1SDC12S |
| 24 VDC | 10 A | SPDT | General-purpose | P2RFZ-05E/P2RF-05-PU | G2R1SDC24S |
| 48 VDC | 10 A | SPDT | General-purpose | P2RFZ-05E/P2RF-05-PU | G2R1SDC48S |
| 6 VDC | 10 A | SPDT | General-purpose | P2RFZ-05E/P2RF-05-PU | G2R1SDC6S |
| 24 VDC | 10 A | SPDT | Diode | P2RFZ-05E/P2RF-05-PU | G2R1SDDC24S |
| 110 VAC | 10 A | SPDT | LED Indicator | P2RFZ-05E/P2RF-05-PU | G2R1SNAC110S |
| 120 VAC | 10 A | SPDT | LED Indicator | P2RFZ-05E/P2RF-05-PU | G2R1SNAC120S |
| 240 VAC | 10 A | SPDT | LED Indicator | P2RFZ-05E/P2RF-05-PU | G2R1SNAC240S |
| 24 VAC | 10 A | SPDT | LED Indicator | P2RFZ-05E/P2RF-05-PU | G2R1SNAC24S |
| 12 VDC | 10 A | SPDT | LED Indicator | P2RFZ-05E/P2RF-05-PU | G2R1SNDC12S |
| 24 VDC | 10 A | SPDT | LED Indicator | P2RFZ-05E/P2RF-05-PU | G2R1SNDC24S |
| 12 VDC | 10 A | SPDT | LED & Diode | P2RFZ-05E/P2RF-05-PU | G2R1SNDDC12S |
| 24 VDC | 10 A | SPDT | LED & Diode | P2RFZ-05E/P2RF-05-PU | G2R1SNDDC24S |
| 24 VDC | 10 A | SPDT | LED, Diode, Test Button | P2RFZ-05E/P2RF-05-PU | G2R1SNDIDC24S |
| 120 VAC | 10 A | SPDT | LED & Test Button | P2RFZ-05E/P2RF-05-PU | G2R1SNIAC120S |
| 24 VAC | 10 A | SPDT | LED & Test Button | P2RFZ-05E/P2RF-05-PU | G2R1SNIAC24S |
| 24 VDC | 10 A | SPDT | LED & Test Button | P2RFZ-05E/P2RF-05-PU | G2R1SNIDC24S |
| 120 VAC | 5 A | DPDT | General-purpose | P2RFZ-08E/P2RF-08-PU | G2R2SAC120S |
| 240 VAC | 5 A | DPDT | General-purpose | P2RFZ-08E/P2RF-08-PU | G2R2SAC240S |
| 24 VAC | 5 A | DPDT | General-purpose | P2RFZ-08E/P2RF-08-PU | G2R2SAC24S |
| 12 VDC | 5 A | DPDT | General-purpose | P2RFZ-08E/P2RF-08-PU | G2R2SDC12S |
| 24 VDC | 5 A | DPDT | General-purpose | P2RFZ-08E/P2RF-08-PU | G2R2SDC24S |
| 24 VDC | 5 A | DPDT | Diode | P2RFZ-08E/P2RF-08-PU | G2R2SDDC24S |
| 110 VAC | 5 A | DPDT | LED Indicator | P2RFZ-08E/P2RF-08-PU | G2R2SNAC110S |
| 120 VAC | 5 A | DPDT | LED Indicator | P2RFZ-08E/P2RF-08-PU | G2R2SNAC120S |
| 230 VAC | 5 A | DPDT | LED Indicator | P2RFZ-08E/P2RF-08-PU | G2R2SNAC230S |
| 240 VAC | 5 A | DPDT | LED Indicator | P2RFZ-08E/P2RF-08-PU | G2R2SNAC240S |
| 24 VAC | 5 A | DPDT | LED Indicator | P2RFZ-08E/P2RF-08-PU | G2R2SNAC24S |
| 12 VDC | 5 A | DPDT | LED Indicator | P2RFZ-08E/P2RF-08-PU | G2R2SNDC12S |
| 24 VDC | 5 A | DPDT | LED Indicator | P2RFZ-08E/P2RF-08-PU | G2R2SNDC24S |
| 12 VDC | 5 A | DPDT | LED & Diode | P2RFZ-08E/P2RF-08-PU | G2R2SNDDC12S |
| 24 VDC | 5 A | DPDT | LED & Diode | P2RFZ-08E/P2RF-08-PU | G2R2SNDDC24S |
| 24 VDC | 5 A | DPDT | LED, Diode, Test Button | P2RFZ-08E/P2RF-08-PU | G2R2SNDIDC24S |
| 120 VAC | 5 A | DPDT | LED & Test Button | P2RFZ-08E/P2RF-08-PU | G2R2SNIAC120S |
| 24 VAC | 5 A | DPDT | LED & Test Button | P2RFZ-08E/P2RF-08-PU | G2R2SNIAC24S |
| 24 VDC | 5 A | DPDT | LED & Test Button | P2RFZ-08E/P2RF-08-PU | G2R2SNIDC24S |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Electromechanical Relays
## MY-GS-R

- DPDT type 10 A / 4PDT type 5 A
- Vibration resistance and reduced wiring time with push in plus technology
- Mechanical operation indicator
- Industry standard global certifications UL, CSA, IEC (VDE certification), and CQC
- Lockable test switch models available for circuit troubleshooting
- Low power switching (1 mA at 5 VDC) / Bifurcated 4PDT (0.1 mA at 1 VDC)




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| Coil Voltage | Contact Rating | Contact Form | Features | Relay Socket Model | Relay Model |
|---|---|---|---|---|---|
| 110/120 VAC | 10 A | DPDT | Mechanical Indicator | PYFZ-08-E / PYF-08-PU | MY2GSRAC110120 |
| 220/240 VAC | 10 A | DPDT | Mechanical Indicator | PYFZ-08-E / PYF-08-PU | MY2GSRAC220240 |
| 24 VAC | 10 A | DPDT | Mechanical Indicator | PYFZ-08-E / PYF-08-PU | MY2GSRAC24 |
| 12 VDC | 10 A | DPDT | Mechanical Indicator | PYFZ-08-E / PYF-08-PU | MY2GSRDC12 |
| 24 VDC | 10 A | DPDT | Mechanical Indicator | PYFZ-08-E / PYF-08-PU | MY2GSRDC24 |
| 24 VDC | 10 A | DPDT | LED & Mechanical Indicators & Latching Lever | PYFZ-08-E / PYF-08-PU | MY2INGSRDC24 |
| 12 VDC | 10 A | DPDT | LED & Mechanical Indicators & Diode | PYFZ-08-E / PYF-08-PU | MY2ND2GSRDC12 |
| 24 VDC | 10 A | DPDT | LED & Mechanical Indicators & Diode | PYFZ-08-E / PYF-08-PU | MY2ND2GSRDC24 |
| 110/120 VAC | 10 A | DPDT | LED & Mechanical Indicators | PYFZ-08-E / PYF-08-PU | MY2NGSRAC110120 |
| 220/240 VAC | 10 A | DPDT | LED & Mechanical Indicators | PYFZ-08-E / PYF-08-PU | MY2NGSRAC220240 |
| 24 VAC | 10 A | DPDT | LED & Mechanical Indicators | PYFZ-08-E / PYF-08-PU | MY2NGSRAC24 |
| 24 VDC | 10 A | DPDT | LED & Mechanical Indicators | PYFZ-08-E / PYF-08-PU | MY2NGSRDC24 |
| 110/120 VAC | 6 A | 4PDT | Mechanical Indicator | PYFZ-14-E / PYF-14-PU | MY4GSRAC110120 |
| 24 VAC | 6 A | 4PDT | Mechanical Indicator | PYFZ-14-E / PYF-14-PU | MY4GSRAC24 |
| 100/110 VDC | 6 A | 4PDT | Mechanical Indicator | PYFZ-14-E / PYF-14-PU | MY4GSRDC100110 |
| 12 VDC | 6 A | 4PDT | Mechanical Indicator | PYFZ-14-E / PYF-14-PU | MY4GSRDC12 |
| 24 VDC | 6 A | 4PDT | Mechanical Indicator | PYFZ-14-E / PYF-14-PU | MY4GSRDC24 |
| 110/120 VAC | 6 A | 4PDT | LED & Mechanical Indicators & Latching Lever | PYFZ-14-E / PYF-14-PU | MY4INGSRAC110120 |
| 220/240 VAC | 6 A | 4PDT | LED & Mechanical Indicators & Latching Lever | PYFZ-14-E / PYF-14-PU | MY4INGSRAC220240 |
| 24 VDC | 6 A | 4PDT | LED & Mechanical Indicators & Latching Lever | PYFZ-14-E / PYF-14-PU | MY4INGSRDC24 |
| 110/120 VAC | 6 A | 4PDT | LED & Mechanical Indicators & CR Circuit | PYFZ-14-E / PYF-14-PU | MY4NCRGSRAC110120 |
| 24 VDC | 6 A | 4PDT | LED & Mechanical Indicators & Diode | PYFZ-14-E / PYF-14-PU | MY4ND2GSRDC24 |
| 110/120 VAC | 6 A | 4PDT | LED & Mechanical Indicators | PYFZ-14-E / PYF-14-PU | MY4NGSRAC110120 |
| 220/240 VAC | 6 A | 4PDT | LED & Mechanical Indicators | PYFZ-14-E / PYF-14-PU | MY4NGSRAC220240 |
| 24 VAC | 6 A | 4PDT | LED & Mechanical Indicators | PYFZ-14-E / PYF-14-PU | MY4NGSRAC24 |
| 100/110 VDC | 6 A | 4PDT | LED & Mechanical Indicators | PYFZ-14-E / PYF-14-PU | MY4NGSRDC100110 |
| 12 VDC | 6 A | 4PDT | LED & Mechanical Indicators | PYFZ-14-E / PYF-14-PU | MY4NGSRDC12 |
| 24 VDC | 6 A | 4PDT | LED & Mechanical Indicators | PYFZ-14-E / PYF-14-PU | MY4NGSRDC24 |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Solid State Relay
# G3NE

- Wide load voltage range: 75 to 264 VAC
- Dedicated, compact aluminum PCB and power elements used
- Built-in varistor effectively absorbs external surges
- Quick-connect #110 input terminals and #250 output connections. (#187 input terminals and #250 output connections are available.)
- "-US" models certified by UL, CSA, and IEC/EN (TÜV)




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| Isolation | Zero Cross Function | Indicator | Rated Output Load | Rated Input Voltage | Relay Model |
|---|---|---|---|---|---|
| Phototriac | Yes | No | 5 A at 100 to 240 VAC | 12 VDC | G3NE205TUSDC12 |
| | | | 5 A at 100 to 240 VAC | 5 VDC | G3NE205TUSDC5 |
| | | | 10 A at 100 to 240 VAC | 12 VDC | G3NE210TUSDC12 |
| | | | 10 A at 100 to 240 VAC | 24 VDC | G3NE210TUSDC24 |
| | | | 10 A at 100 to 240 VAC | 5 VDC | G3NE210TUSDC5 |
| | | | 20 A at 100 to 240 VAC | 12 VDC | G3NE220TUSDC12 |
| | | | 20 A at 100 to 240 VAC | 5 VDC | G3NE220TUSDC5 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Solid State Relay
# G3NA

- Compact Dimensions
- Built-in varistor
- LED operation indicator
- 5-90A output current




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WEBSITE

| Isolation | Zero Cross Function | Indicator | Applicable Output Load | Rated Input Voltage | Model |
|---|---|---|---|---|---|
| Phototriac | Yes | Yes | 5 A at 24 to 240 VAC (See note 2.) | 5 to 24 VDC | G3NA205BUTUDC524 |
| Phototriac | | | 10 A at 24 to 240 VAC (See note 2.) | 5 to 24 VDC | G3NA210BUTUDC524 |
| Photocoupler | | | | 100 to 240 VAC | G3NA210BUTUAC100240 |
| Phototriac | | | 20 A at 24 to 240 VAC (See note 2.) | 5 to 24 VDC | G3NA220BUTUDC524 |
| Photocoupler | | | | 100 to 240 VAC | G3NA220BUTUAC100240 |
| Phototriac | | | 25 A at 24 to 240 VAC (See note 2.) | 5 to 24 VDC | G3NA225BUTUDC524 |
| Photocoupler | | | | 100 to 240 VAC | G3NA225BUTUAC100240 |
| Phototriac | | | 40 A at 24 to 240 VAC (See note 2.) | 5 to 24 VDC | G3NA240BUTUDC524 |
| Photocoupler | | | | 100 to 240 VAC | G3NA240BUTUAC100240 |
| Photocoupler | | | 75 A at 24 to 240 VAC (See note 2.) | 100 to 240 VAC | G3NA275BUTU2AC100240 |
| Photocoupler | | | 10 A at 200 to 480 VAC | 5 to 24 VDC | G3NA410BUTUDC524 |
| | | | 20 A at 200 to 480 VAC | 5 to 24 VDC | G3NA420BUTUDC524 |
| | | | 25 A at 200 to 480 VAC | 5 to 24 VDC | G3NA425BUTU2DC524 |
| | | | 40 A at 200 to 480 VAC | 5 to 24 VDC | G3NA440BUTU2DC524 |
| | | | 50 A at 200 to 480 VAC | 5 to 24 VDC | G3NA450BUTU2DC524 |
| | | | 75 A at 200 to 480 VAC | 5 to 24 VDC | G3NA475BUTU2DC524 |
| | --- | | 10 A at 5 to 200 VDC | 5 to 24 VDC | G3NAD210BUTUDC524 |
| | | | | 100 to 240 VAC | G3NAD210BUTUAC100240 |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Solid State Relay
# G3PE

- RoHS compliant
- Models also available with no zero cross
- Surge pass protection improved surge dielectric strength for output currents. (OMRON testing)
- Compact with a slim profile.
- Mount to DIN Track or with screws
- Conforms to UL, CSA, and EN standards (TÜV certification)



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WEBSITE

| Number of Phases | Insulation Method | Operation Indicator | Rated Input Voltage | Zero Cross Function | Number of Poles | Applicable Load | Relay Model |
|---|---|---|---|---|---|---|---|
| Single-phase | Phototriac coupler | Yes (Yellow) | 12 to 24 VDC | Yes | 1-pole | 15 A, 100 to 240 VAC | G3PE215BDC1224 |
| Single-phase | Phototriac coupler | Yes (Yellow) | 12 to 24 VDC | Yes | 1-pole | 25 A, 100 to 240 VAC | G3PE225BDC1224 |
| Single-phase | Phototriac coupler | Yes (Yellow) | 12 to 24 VDC | Yes | 1-pole | 35 A, 100 to 240 VAC | G3PE235BDC1224 |
| Single-phase | Phototriac coupler | Yes (Yellow) | 12 to 24 VDC | Yes | 1-pole | 45 A, 100 to 240 VAC | G3PE245BDC1224 |
| Three-phase | Phototriac coupler | Yes (Yellow) | 12 to 24 VDC | Yes | 3-poles | 15 A, 200 to 480 VAC | G3PE515B3NDC1224 |
| Three-phase | Phototriac coupler | Yes (Yellow) | 12 to 24 VDC | Yes | 3-poles | 15 A, 200 to 480 VAC (No DIN-track) | G3PE515BDC1224 |
| Three-phase | Phototriac coupler | Yes (Yellow) | 12 to 24 VDC | Yes | 3-poles | 25 A, 200 to 480 VAC | G3PE525B3NDC1224 |
| Three-phase | Phototriac coupler | Yes (Yellow) | 12 to 24 VDC | Yes | 3-poles | 25 A, 200 to 480 VAC (No DIN-track) | G3PE525BDC1224 |
| Three-phase | Phototriac coupler | Yes (Yellow) | 12 to 24 VDC | Yes | 2-poles | 35 A, 200 to 480 VAC | G3PE535B2NDC1224 |
| Three-phase | Phototriac coupler | Yes (Yellow) | 12 to 24 VDC | Yes | 3-poles | 35 A, 200 to 480 VAC | G3PE535B3NDC1224 |
| Three-phase | Phototriac coupler | Yes (Yellow) | 12 to 24 VDC | Yes | 3-poles | 45 A, 200 to 480 VAC | G3PE545B3NDC1224 |
| Three-phase | Phototriac coupler | Yes (Yellow) | 12 to 24 VDC | Yes | 3-poles | 45 A, 200 to 480 VAC (No DIN-track) | G3PE545BDC1224 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Temperature Controllers
# E5CC/E5GC/E5DC/E5EC

- High contrast white PV display
- High-speed sampling at 50ms
- Available auxiliary outputs, event inputs, a transfer output, and a remote SP input
- Short body with a depth of 60mm
- Available IP66 rating with optional waterproof cover
- Additional DIN sizes available 1/4, 1/8, 1/16, 1/32



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| Size | Terminal Type | Power Supply Voltage | Type of Output | Auxiliary Outputs | Advanced Options (Suffix) | Standard Model |
|---|---|---|---|---|---|---|
| 1/4 DIN | Screw | 100 - 240 VAC | Current | 4 | 000 (Standard) | E5ACCX4A5M000 |
| 1/4 DIN | Screw | 100 - 240 VAC | Voltage (for SSR) | 4 | 000 (Standard) | E5ACQX4A5M000 |
| 1/4 DIN | Screw | 100 - 240 VAC | 2 Relays | 4 | 000 (Standard) | E5ACRR4A5M000 |
| 1/4 DIN | Screw | 100 - 240 VAC | Relay | 4 | 000 (Standard) | E5ACRX4A5M000 |
| 1/16 DIN | Screw | 100 - 240 VAC | Current | 2 | 800 (RS-485 Comm.) | E5CCCX2ASM800 |
| 1/16 DIN | Plug-in (11-pin) | 100 - 240 VAC | Current | 2 | 000 (Standard) | E5CCCX2AUM000 |
| 1/16 DIN | Screw | 100 - 240 VAC | Current | 3 | 000 (Standard) | E5CCCX3A5M000 |
| 1/16 DIN | Screw | 100 - 240 VAC | Current | 3 | 004 (RS-485 + 2 Event Inputs) | E5CCCX3A5M004 |
| 1/16 DIN | Screw | 100 - 240 VAC | Current | 3 | 006 (2 Event Inputs + Transfer Output) | E5CCCX3A5M006 |
| 1/16 DIN | Screw | 24 VAC / VDC | Current | 3 | 000 (Standard) | E5CCCX3D5M000 |
| 1/16 DIN | Screw | 24 VAC / VDC | Current | 3 | 004 (RS-485 + 2 Event Inputs) | E5CCCX3D5M004 |
| 1/16 DIN | Screw | 100 - 240 VAC | 2 Voltages (SSR) | 3 | 000 (Standard) | E5CCQQ3A5M000 |
| 1/16 DIN | Screw | 100 - 240 VAC | Voltage (for SSR) | 2 | 800 (RS-485 Comm.) | E5CCQX2ASM800 |
| 1/16 DIN | Plug-in (11-pin) | 100 - 240 VAC | Voltage (for SSR) | 2 | 000 (Standard) | E5CCQX2AUM000 |
| 1/16 DIN | Screw | 24 VAC / VDC | Voltage (for SSR) | 2 | 800 (RS-485 Comm.) | E5CCQX2DSM800 |
| 1/16 DIN | Screw | 100 - 240 VAC | Voltage (for SSR) | 3 | 000 (Standard) | E5CCQX3A5M000 |
| 1/16 DIN | Screw | 100 - 240 VAC | Voltage (for SSR) | 3 | 001 (2 Event Inputs + 1 HB Alarm) | E5CCQX3A5M001 |
| 1/16 DIN | Screw | 100 - 240 VAC | Voltage (for SSR) | 3 | 003 (RS-485 + 2 Event Inputs + 2 HB Alarms) | E5CCQX3A5M003 |
| 1/16 DIN | Screw | 24 VAC / VDC | Voltage (for SSR) | 3 | 000 (Standard) | E5CCQX3D5M000 |
| 1/16 DIN | Screw | 24 VAC / VDC | Voltage (for SSR) | 3 | 003 (RS-485 + 2 Event Inputs + 2 HB Alarms) | E5CCQX3D5M003 |
| 1/16 DIN | Screw | 24 VAC / VDC | Voltage (for SSR) | 3 | 005 (4 Event Inputs) | E5CCQX3D5M005 |
| 1/16 DIN | Screw | 24 VAC / VDC | Voltage (for SSR) | 3 | 006 (2 Event Inputs + Transfer Output) | E5CCQX3D5M006 |
| 1/16 DIN | Plug-in (11-pin) | 100 - 240 VAC | 2 Relays | 0 | 000 (Standard) | E5CCRW0AUM000 |
| 1/16 DIN | Plug-in (11-pin) | 100 - 240 VAC | 2 Relays | 2 | 000 (Standard) | E5CCRW2AUM000 |
| 1/16 DIN | Screw | 100 - 240 VAC | Relay | 2 | 000 (Standard) | E5CCRX2ASM000 |
| 1/16 DIN | Screw | 100 - 240 VAC | Relay | 2 | 800 (RS-485 Comm.) | E5CCRX2ASM800 |
| 1/16 DIN | Screw | 100 - 240 VAC | Relay | 2 | 802 (RS-485 + 1 HB Alarm) | E5CCRX2ASM802 |
| 1/16 DIN | Screw | 24 VAC / VDC | Relay | 2 | 800 (RS-485 Comm.) | E5CCRX2DSM800 |
| 1/16 DIN | Screw | 100 - 240 VAC | Relay | 3 | 000 (Standard) | E5CCRX3A5M000 |
| 1/16 DIN | Screw | 100 - 240 VAC | Relay | 3 | 001 (2 Event Inputs + 1 HB Alarm) | E5CCRX3A5M001 |
| 1/16 DIN | Screw | 100 - 240 VAC | Relay | 3 | 003 (RS-485 + 2 Event Inputs + 2 HB Alarms) | E5CCRX3A5M003 |
| 1/16 DIN | Screw | 100 - 240 VAC | Relay | 3 | 006 (2 Event Inputs + Transfer Output) | E5CCRX3A5M006 |
| 1/16 DIN | Screw | 24 VAC / VDC | Relay | 3 | 000 (Standard) | E5CCRX3D5M000 |
| 1/16 DIN | Push-In Plus | 100 - 240 VAC | Voltage (for SSR) | 2 | 000 (Standard) | E5CDQX2A6M000 |
| 22.5 mm | Push-In Plus | 24 VAC / VDC | Voltage (for SSR) | 2 | 002 (RS-485 + 1 HB Alarm) | E5DCQX2DBM002 |
| 22.5 mm | Screw | 24 VAC / VDC | Voltage (for SSR) | 2 | 002 (RS-485 + 1 HB Alarm) | E5DCQX2DSM002 |
| 22.5 mm | Screw | 100 - 240 VAC | Relay | 2 | 000 (Standard) | E5DCRX2ASM000 |
| 22.5 mm | Screw | 24 VAC / VDC | Relay | 2 | 000 (Standard) | E5DCRX2DSM000 |
| 1/8 DIN | Screw | 100 - 240 VAC | Current | 4 | 000 (Standard) | E5ECCX4A5M000 |
| 1/8 DIN | Screw | 100 - 240 VAC | Voltage (for SSR) | 4 | 000 (Standard) | E5ECQX4A5M000 |
| 1/8 DIN | Screw | 100 - 240 VAC | 2 Relays | 4 | 000 (Standard) | E5ECRR4A5M000 |
| 1/8 DIN | Screw | 100 - 240 VAC | Relay | 4 | 000 (Standard) | E5ECRX4A5M000 |
| 1/8 DIN | Screw | 100 - 240 VAC | Relay | 4 | 010 (4 Event Inputs) | E5ECRX4A5M010 |
| 1/8 DIN | Screw | 24 VAC / VDC | Relay | 4 | 000 (Standard) | E5ECRX4D5M000 |
| 1/32 DIN | Screwless Clamp | 100 - 240 VAC | Voltage (for SSR) | 0 | 000 (Standard) | E5GCQX0A6M000 |
| 1/32 DIN | Screwless Clamp | 100 - 240 VAC | Voltage (for SSR) | 1 | 000 (Standard) | E5GCQX1A6M000 |
| 1/32 DIN | Screwless Clamp | 24 VAC / VDC | Voltage (for SSR) | 1 | 000 (Standard) | E5GCQX1D6M000 |
| 1/32 DIN | Screwless Clamp | 100 - 240 VAC | Relay | 1 | 000 (Standard) | E5GCRX1A6M000 |
| 1/32 DIN | Screwless Clamp | 24 VAC / VDC | Relay | 1 | 600 (Advanced Module) | E5GCRX1D6M600 |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Limit & Basic Switches

- Limit switches and basic switches are electromechanical switches used to detect and limit motion within industrial environments
- Available in a wide variety of actuator arms, lever arms and plungers
- Multiple switch designs for use in a variety of applications and environments
- Additional limit and basic switch configurations available on OMRON website



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| Type | Series | Features | Applications | Models |
|---|---|---|---|---|
| General Limit Switches | D4A | Wide temperature range from -40°C to +100°C (standard type) for use in heavy duty applications | Machine tool, material handling, palletizer, injection molding, packaging equipment, automotive hoist/lift machinery | D4A-1101-N |
| | | | | D4A-2918-N |
| | WL-N | Two-circuit switch for reliable switching | | WLG2-LD |
| | | | | WLG2-LD-M1J |
| | D4C | Slim body and designed for easy side-by-side mounting (Plunger type: 6 switches maximum) | Machine tool, material handling, palletizer, packaging equipment, mobile lift equipment, robotics | D4C-1602 |
| | | | | D4C-1601 |
| | ZE | Long service life and high breaking capacity | Conveyor controls, packaging equipment, material handling,printing machinery, waste & recycling compacting machinery | ZE-NJ-2S |
| | | | | ZE-N-2S |
| Basic Switches | Z | A large switching capacity of 15A and high repeat accuracy | Elevators, mobile lift equipment, forklift, injection molding, utility switchgear, controls for doors/gates/valves, foot switches | Z-15GQ-B |
| | | | | Z-15GD-B |
| | X | Direct current switch that incorporates a permanent magnet in the contact mechanism to deflect arcs and increases switch life | Mobile lift equipment, forklift, injection molding, utility switchgear, controls for doors/gates/valves, foot switches | X-10GW22-B |
| | | | | X-10GW-B |
| | DZ | Double pole double throw basic switch for two independent circuit control. Ideal for switching the circuits operating on two different voltages, and controlling two circuits. | | DZ-10GW22-1B |
| | | | | DZ-10GW-1B |
| | TZ | High temperature switch that maintains stable operation at an ambient temperature of 400°C | Industrial boilers, power plant, incinerators, industrial heaters | TZ-1GV |
| | | | | TZ-1GV22 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Motor Condition Monitor
# K6CM

- 24/7 remote monitoring of critical 3-phase induction motors
- Can monitor motor vibration, temperature, current, and insulation resistance depending on model
- EtherNet/IP™ and Modbus TCP communication
- Included monitoring software tool can monitor up to 10 motors at one time



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| Motor Failure Mode | Description | Power | Controller Model | Sensor Model |
|---|---|---|---|---|
| Bearing Wear | Monitors motor vibration/ temperature with sensor | 24 VAC/DC | K6CM-VBMD-EIP | K6CM-VBS1 |
| Overload Condition | Monitors motor current and degradation level using a CT sensor | 24 VAC/DC | K6CM-CI2MD-EIP | K6CM-CICB025<br>K6CM-CICB100<br>K6CM-CICB200<br>K6CM-CICB400 |
| Insulation breakdown | Monitors motor insulation and current leakage with sensor | 24 VAC/DC | K6CM-ISMD-EIP | K6CM-ISZBI52 |

# Thermal Condition Monitor
# K6PM

- 24/7 remote thermal monitoring of equipment using infrared thermal image sensors
- Thermal Imaging Sensor that detects temperatures 32-392°F (0-200°C)
- EtherNet/IP™ and Modbus TCP communication
- Included monitoring software tool can monitor up to 155 sensors at one time



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| Power | Controller | Thermal Image Sensor |
|---|---|---|
| 24 VAC/DC | K6PM-THMD-EIP | K6PM-THS3232 |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Insultation Resistance Monitor
# K7GE

- Reliable, Safe and Accurate Automatic Insulation Resistance Measurements
- Modular Product units for multiple motor insulation resistance monitoring
- 50 VDC measurement voltage
- Monitor up to 8 motors with additional probes
- Transistor Alarm Outputs, RS-485 communication
- Especially useful for servo/motors operating in harsh environments



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| Unit | Supply Voltage | Model |
|---|---|---|
| Controller Unit | 100-240 VAC | K7GE-MGMA |
| | 24 VAC/VDC | K7GE-MGMD |
| Probe Unit | — | K7GE-MG1 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Heater Condition Monitor
# K7TM

- Three-phase and single-phase relays for voltage and current monitoring
- Complete line for monitoring sequence and phase drop, asymmetry, under or over control
- Supply voltages: 24 VAC/DC, 100 to 240 VAC, 380-480 VAC
- Special models for monitoring temperature and liquid level



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| Unit | Supply Voltage | Model |
|---|---|---|
| Controller Unit | 100-240 VAC | K7TM-A2MA |
| | 24 VAC/VDC | K7TM-A2MD |
| **CT Clamp** | | |
| **Rated Primary Side Current** | **Model** | **UL Compliant Models** |
| 5 A | K6CM-CICB005 | K6CM-CICB005-C |
| 25 A | K6CM-CICB025 | K6CM-CICB025-C |
| 100 A | K6CM-CICB100 | K6CM-CICB100-C |
| 200 A | K6CM-CICB200 | K6CM-CICB200-C |
| 400 A | K6CM-CICB400 | K6CM-CICB400-C |
| 600 A | K6CM-CICB600 | — |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Advanced AC Motor Condition Monitor
# K7DD

- Comprehensive AC Motor Condition analysis with programmable alerts
- Reduce or eliminate unplanned downtime through failure prediction
- Automates the measurement and condition analysis of AC motors with status indicators
- Transistor Alarm Outputs, RS-485 communication
- Especially useful for AC motors that change speed or direction often



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| Unit | Supply Voltage | Model |
|---|---|---|
| Controller Unit | 100-240 VAC | K7DD- PQMA |
| | 24 VDC | K7DD- PQMD |

| Rated Primary-Side Current | Model | UL Compliant Models |
|---|---|---|
| 5 A | K6CM-CICB005 | K6CM-CICB005-C |
| 25 A | K6CM-CICB025 | K6CM-CICB025-C |
| 100 A | K6CM-CICB100 | K6CM-CICB100-C |
| 200 A | K6CM-CICB200 | K6CM-CICB200-C |
| 400 A | K6CM-CICB400 | K6CM-CICB400-C |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Monitoring Relays
# K8AK / K8DS

- Three-phase and single-phase relays for voltage and current monitoring
- Complete line for monitoring sequence and phase drop, asymmetry, under or over control
- Supply voltages: 24 VAC/DC, 100 to 240 VAC, 380-480 VAC
- Special models for monitoring temperature and liquid level



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| Phase | Dimensions | Monitoring Type | Input | Output Contact Form | Model |
|---|---|---|---|---|---|
| Single-Phase | K8AK - 22.5 x 90 x 100 [mm]<br><br>K8DS: 17.5 x 80 x 69 [mm] | Over Current | 24 VAC/DC or 100 to 240 VAC | SPDT | K8AK-AS2 24VAC/DC |
| | | Over-voltage and Under-voltage | 24 VAC/DC or 100 to 240 VAC | SPDT | K8AK-VW2 24VAC/DC |
| Three-Phase | | Phase Drop and Phase Sequence | 200-480 VAC | DPDT<br>SPDT | K8AK-PH1 200/500VAC |
| | | | | | K8DS-PH1 200/480VAC |
| | | Phase Drop, Phase Sequence, Over-voltage and Under-voltage | 200-240 VAC | (2) SPDT | K8AK-PM1 200/240VAC |
| | | | 380-480 VAC | | K8AK-PM2 380/480VAC |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# IO-Link® Converter
# K3CV

Selecting/Setting
- Select input type by model name
- Can be used without tools

Usability
- Easy connection with Smartclick
- Slim body for improved connectivity

User Interface
- LED display indicates operating status
- Nameplates simplify equipment management



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| Number of Channels | Input Type | Input type details | Communications method | Model |
|---|---|---|---|---|
| 1 | Analog Input | Analog current 4 to 20 mA | IO-Link® | K3CV-1ADIA-IL3 |
| | | Analog current 0 to 20 mA | | K3CV-1ADIB-IL3 |
| | | Analog voltage 0 to 10 V | | K3CV-1ADVA-IL3 |
| | | Analog voltage -10 to 10 V | | K3CV-1ADVB-IL3 |
| | Thermocouples | K Thermocouple -20.0 to 500.0 ℃ | | K3CV-1TCKA-IL3 |
| | Resistance Temperature Detector | Resistance temperature detector: -200.0 to 500.0 ℃ | | K3CV-1PTPA-IL3 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Emergency Stop Switch
# A22E / NE

- A wide variety of Emergency Stop Pushbuttons for all type of applications
- Lock lever design provides quick and easy installation.
- Available vibration resistant terminals (A22NE-P & A22NE-PD).
- Lock detection function provides an added level of safety by minimizing emergency stop button failures from improper installation and damage



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| Operation | Degree of Protection | Contact Configuration * | Set Model | Color of Cap |
|---|---|---|---|---|
| 40-dia. head Medium Pull-reset A22NE-MP-PD□□-N | IP65 oil-resistant models | 2NC | A22NE-MP-PD02-N | Red |
| | | 2NC, 1NO | A22NE-MP-PD12-N | |
| | | 3NC | A22NE-MP-PD03-N | |
| | | 2NC, 2NO | A22NE-MP-PD22-N | |
| | | 3NC, 1NO | A22NE-MP-PD13-N | |
| | | 4NC | A22NE-MP-PD04-N | |
| 40-dia. head Medium Pull-reset A22NE-MP-PD□□-N-69K | IP69K | 2NC | A22NE-MP-PD02-N-69K | |
| | | 2NC, 1NO | A22NE-MP-PD12-N-69K | |
| | | 3NC | A22NE-MP-PD03-N-69K | |
| | | 2NC, 2NO | A22NE-MP-PD22-N-69K | |
| | | 3NC, 1NO | A22NE-MP-PD13-N-69K | |
| | | 4NC | A22NE-MP-PD04-N-69K | |
| 30-dia. head Small Turn-reset A22NE-S-PD□□-N | IP65 oil-resistant models | 2NC | A22NE-S-PD02-N | |
| | | 2NC, 1NO | A22NE-S-PD12-N | |
| | | 3NC | A22NE-S-PD03-N | |
| | | 2NC, 2NO | A22NE-S-PD22-N | |
| | | 3NC, 1NO | A22NE-S-PD13-N | |
| | | 4NC | A22NE-S-PD04-N | |
| 40-dia. head Medium Turn-reset A22NE-M-PD□□-N | IP65 oil-resistant models | 2NC | A22NE-M-PD02-N | |
| | | 2NC, 1NO | A22NE-M-PD12-N | |
| | | 3NC | A22NE-M-PD03-N | |
| | | 2NC, 2NO | A22NE-M-PD22-N | |
| | | 3NC, 1NO | A22NE-M-PD13-N | |
| | | 4NC | A22NE-M-PD04-N | |
| 60-dia. head Large Turn-reset A22NE-L-PD□□-N | IP65 oil-resistant models | 2NC | A22NE-L-PD02-N | |
| | | 2NC, 1NO | A22NE-L-PD12-N | |
| | | 3NC | A22NE-L-PD03-N | |
| | | 2NC, 2NO | A22NE-L-PD22-N | |
| | | 3NC, 1NO | A22NE-L-PD13-N | |
| | | 4NC | A22NE-L-PD04-N | |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

Featured Products

# Automation Systems

## Over **90 Years** of Industry Experience **In One** Platform

The Sysmac platform has been built with the sole purpose of maximizing automation performance. Combining the strengths of open protocols, Sysmac achieves performance through robust system architectures while gathering more process data. This pursuit for performance creates automation that can be designed, commissioned, and scaled with confidence. With one software, one controller, and one connection, Sysmac is always in control.

SYSMAC
always in control



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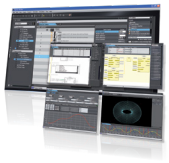
# **Scalable**, Flexible, and **Complete** Automation **Solutions**

## FEATURED PRODUCTS



**NX502 Machine Automation Controller**

Scale up machine automation to achieve complete line control.



**Sysmac Program Environment**

Unlock seamless automation control and streamlined efficiency..



**DX100 Data Flow Edge Device**

Industrial edge data collection simplified.

## PORTFOLIO HIGHLIGHTS

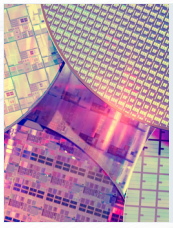
- More than 200,000 types of devices connect to our controllers and give real-time updates.
- With selected models containing a Quad Core processor, Sysmac controllers offer high speeds and cyclic control resulting in extraordinary machine performance.
- Sysmac is an integrated automation platform dedicated to providing complete control and management of your automation plant.
- Over 90 Years of Industry Experience In One Platform

## REAL WORLD RESULTS



### Automotive/EV

Brake Line Assembly: Unwavering commitment to precision, reliability, and our ability to elevate safety and efficiency makes OMRON the #1 choice for Auto Manufacturers.



### Semiconductor

Data Management: Data management and visualization are crucial in semiconductor fabs, helping manufacturers make decisions, optimize processes, and ensure quality.



### Medical

Data Integrity: OMRON Automation Solutions provide data integrity for manufacturers abiding by regulations such as CFR21 Part 11



### Food, Beverage & Commodities

Changeover Time Reduction: Quickly convert a packaging machine from running one container size to another.

# Machine Automation Controller
# NX1P

- Compact entry model with integrated motion and machine control. Connectivity to safety and vision systems
- Up to 4 axes of coordinated motion control plus 4 axes point to point control
- Expandable I/O using up to 8 NX series I/O cards on local bus
- Built in EtherCAT® and EtherNet/IP™ ports
- Connect up to 16 EtherCAT® Slaves
- Sysmac Studio IDE for flexible, scalable programming
- Option boards



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| Part Number | EtherCAT® Slaves | Motion Control Axes | Program Capacity | Built-in Inputs | Built-in Outputs | Built-in Network Ports | Primary Period / EtherCAT® Update Time |
|---|---|---|---|---|---|---|---|
| NX1P2-9024DT | Up to 16 | 4 (4 PtP Axes) | 1.5 MB | 14 | 10 | EtherCAT® (x1)<br>EtherNet/IP™ (x1) | 2 to 8ms |
| NX1P2-9024DT1 | | 4 (4 PtP Axes) | | | | | |
| NX1P2-1040DT | | 6 (4 PtP Axes) | | 24 | 16 | | |
| NX1P2-1040DT1 | | 6 (4 PtP Axes) | | | | | |
| NX1P2-1140DT | | 8 (4 PtP Axes) | | 24 | 16 | | |
| NX1P2-1140DT1 | | 8 (4 PtP Axes) | | | | | |

**Option Boards**

| Type | Description | Communication Protocol | Model |
|---|---|---|---|
| Serial Communication | 1 x RS-232C port Transmission Distance: 15 m Connector type: Spring terminal (9 terminals) | Host link, Modbus-RTU Master and no-protocol | NX1W-CIF01 |
| | 1 RS-422A/485 Transmission Distance: 50 m Connector type: Spring terminal (5 terminals) | | NX1W-CIF11 |
| | 1 RS-422A/485 port (isolated) Transmission Distance: 500 m Connector type: Spring terminal (5 terminals) | | NX1W-CIF12 |
| Analog Inputs and Outputs | 2 x Analog inputs<br>Voltage input: 0 to 10 V (Resolution: 1/4,000)<br>Input current: 0 to 20 mA (1/2,000)<br>Connector type: Spring terminal (5 terminals) | | NX1W-ADB21 |
| | 2 x Analog inputs / 2 x Analog output<br>Voltage input: 0 to 10 V (Resolution: 1/4,000)<br>Input current: 0 to 20 mA (1/2,000)<br>Voltage output: 0 to 10 V (Resolution: 1/4,000)<br>Connector Type: Spring terminal (8 terminals) | | NX1W-MAB221 |

Note: The expansion cards of the NX1P machine controller line are the same as the NX Series I/O cards.
For information on virtual axes, refer to the catalog on the website automation.omron.com

**Software and Switches**

| Type | Description | Model |
|---|---|---|
| Software | Sysmac Studio IDE Lite Version 1 License | SYSMAC-LE201L |
| Hub | Hub EIP EtherCAT® with 3 Ports | GX-JC03 |
| | Hub EIP EtherCAT® with 3 Ports | GX-JC06 |
| | Hub EtherNet/IP™ with 3 Ports | W451-03B |
| | Hub EtherNet/IP™ with 5 Ports | W451-05B |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Machine Automation Controller
# NX102

- EtherCAT®, IO Link, EtherNet/IP™, CIP Safety, FSOE
- Up to 8 axis of motion control
- EtherCAT® cycle times from 1 to 32 ms in 0.25ms increments
- 32 local I/O per CPU, 400 total I/O per CPU with Remote NX/IO
- 5 MB of program capacity



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| Family | Specifications | Number of Coordinated Axes [1] | Number of Point-to-Point Axes [2] | Total Axes | SQL | Model |
|---|---|---|---|---|---|---|
| NX102 | 5 MB of programming memory, Min. cycle up to 1ms | 0 | 4 | 4 | No | NX102-9000 |
| | | | | | Yes | NX102-9020 |
| | | 2 | | 6 | No | NX102-1000 |
| | | | | | Yes | NX102-1020 |
| | | 4 | | 8 | No | NX102-1100 |
| | | | | | Yes | NX102-1120 |
| | | 8 | | 12 | No | NX102-1200 |
| | | | | | Yes | NX102-1220 |

Note 1: The NX-END02 terminal cover is included with the NX102. The HMC-SD291 memory card is supplied with the NX102-_ _ 20.
The battery is not mounted when the product is shipped. Refer to the datasheet for details.

For information on virtual axes, refer to the catalog on Omron website automation.omron.com

2: Coordinated Axes Include:
Point to Point Positioning
Synchronized Motion (Gearing/Camming)
Multi-Axes Coordinated Motion (Circular/Linear Interpolation)
Axes grouping

| Software | | |
|---|---|---|
| **Type** | **Description** | **Model** |
| Software | Sysmac Studio IDE Lite Version 1 License | SYSMAC-LE201L |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Machine Automation Controller
# NX502

- EtherCAT®, IO-Link®, EtherNet/IP™, CIP Safety, FSOE
- OPC UA and SQL as standard while also leveraging Sysmac Studio MQTT function blocks
- EtherCAT® 250µs EtherCAT® Refresh Speed
- Up to 256 EtherCAT® Nodes
- 512 tag sets per NX-EIP201 EIP Unit
- Up to 256 axis of motion control
- 80 MB of program capacity



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| Family | Specifications | I/O Capacity | Coordinated Axes[1] | Total Axes | OPC UA | SQL | Model |
|---|---|---|---|---|---|---|---|
| NX502 | 5 MB of programming memory, Min. cycle up to 0.25ms | 1024 Points local | 16 | 16 | Yes | Yes | NX502-1300 |
| | | | 32 | 32 | Yes | Yes | NX502-1400 |
| | | | 64 | 64 | Yes | Yes | NX502-1500 |
| | | | 128 | 128 | Yes | Yes | NX502-1600 |
| | | | 256 | 256 | Yes | Yes | NX502-1700 |

Note: The NX-END02 terminal cover is included with the NX502.
The battery is not mounted when the product is shipped. Refer to the datasheet for details.
For information on virtual axes, refer to the catalog on Omron website automation.omron.com
1. Coordinated Axes Include:

Point to Point Positioning
Synchronized Motion (Gearing/Camming)
Multi-Axes Coordinated Motion (Circular/Linear Interpolation)
Axes grouping

| Software and Network Card | | |
|---|---|---|
| **Type** | **Description** | **Model** |
| Software | Sysmac Studio Basic Edition, One Seat | SYSMAC-BA201L |
| Network Card | NX502 EtherNet/IP™ Module | NX-EIP201 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Machine Automation Controller
# NJ Series

- One integrated controller designed to meet extreme requirements in terms of logic sequence, motion control speed, accuracy, and system size
- EtherCAT® and EtherNet/IP™ communication on the same CPU
- Ability to manage logic, motion, safety and vision tasks
- Embedded SQL Client Option
- Expandable I/O Using up to 10 CJ Expansion cards
- Sysmac Studio IDE for flexible, scalable programming



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| Family | Specifications | Number of Axes | OPC UA | SQL | Model |
|---|---|---|---|---|---|
| NJ1 | 64 EtherCAT® slaves, 3 MB of programming memory, Min. cycle time: 1ms | 0 | No | No | NJ101-9000 |
| | | | No | Yes | NJ101-9020 |
| | | 2 | No | No | NJ101-1000 |
| | | | No | Yes | NJ101-1020 |
| NJ3 | 192 EtherCAT® slaves, 5 MB of programming memory, Min. cycle time: 1ms | 4 | No | No | NJ301-1100 |
| | | 8 | No | No | NJ301-1200 |
| NJ5 | 192 EtherCAT® slaves, 20 MB of programming memory, Min. cycle time: 0.5 ms | 16 | Yes | No | NJ501-1300 |
| | | | No | Yes | NJ501-1320 |

Note: For information on virtual axes, refer to the catalog on the website automation.omron.com

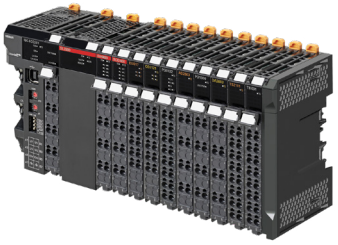
| Power Supplies | | | |
|---|---|---|---|
| **Power Supplies** | **Capacity** | **RUN Indicator** | **Model** |
| 100 to 240VAC | 30W | NO Relay | NJ-PA3001 |
| 24 VDC | | | NJ-PD3001 |

| Software and Switches | | |
|---|---|---|
| **Type** | **Description** | **Model** |
| Software | Sysmac Studio Basic Edition, One Seat | SYSMAC-BA201L |
| Hub | Hub EtherCAT® with 3 Ports | GX-JC03 |
| | Hub EtherCAT® with 6 Ports | GX-JC06 |
| | Hub EtherNet/IP™ with 3 Ports | W4S1-03B |
| | Hub EtherNet/IP™ with 5 Ports | W4S1-05B |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Remote I/O
## NX

- Wide variety of high density remote I/O Modules
- Ideal match with Sysmac Machine automation controllers
- EtherCAT® and EtherNet/IP™ coupler options
- Platform Agnostic.  Easy connectivity to 3rd party systems
- Removable wiring terminals for quick system assembly and testing



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| Type | Description | Model |
|---|---|---|
| Digital I/O | 8 Digital Inputs (NPN) | NX-ID4342 |
| | 8 Digital Inputs (PNP) | NX-ID4442 |
| | 16 Digital Inputs (NPN) | NX-ID5342 |
| | 16 Digital Inputs (PNP) | NX-ID5442 |
| | 8 Relay NO Outputs | NX-OC4633 |
| | 8 Digital Outputs (NPN) | NX-OD4121 |
| | 8 Digital Outputs (PNP) | NX-OD4256 |
| | 16 digital outputs (NPN) | NX-OD5121 |
| | 16 digital outputs (PNP) | NX-OD5256 |
| Analog I/O | 4 4-20 mA Analog Inputs | NX-AD3203 |
| | 4 4-20mA Analog Outputs | NX-DA3203 |
| | 4 Analog Inputs -10 to +10 V | NX-AD3603 |
| | 4 Analog Outputs -10 to +10 V | NX-DA3603 |
| Temperature control | 4 Thermocouple Inputs | NX-TS3101 |
| | 4 RTD Inputs | NX-TS3201 |
| Weighing | 1 Input for Load Cell | NX-RS1201 |
| Position control | 1 Line-Driver Pulsed Output | NX-PG0122 |
| | 1 Incremental Encoder Input | NX-EC0122 |
| Serial Communication | 1 RS232C Interface | NX-CIF101 |
| | 1 RS485/422A Interface | NX-CIF105 |
| IIoT | IO-Link® Master Interface for 4 IO-Link® Devices | NX-ILM400 |
| Accessories | Additional Supply for I/Os (4A) | NX-PF0630 |
| | Additional Supply for I/Os (10A) | NX-PF0730 |
| | Additional Source for Communication Bus | NX-PD1000 |

| Couplers | | | | |
|---|---|---|---|---|
| **Network** | **Communications Cycle** | **Current Consumption** | **Maximum I/O Power Supply Current** | **Model** |
| EtherCAT® | 250 to 4,000 µs | 1.45 W or lower | 4A | NX-ECC201 |
| | | | 10A | NX-ECC202 |
| | 125 to 10,000 µs | 1.25 W or lower | | NX-ECC203 |
| EtherNet/IP™ | - | 1.50W or lower | | NX-EIC202 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Multi-Loop Temperature Controller
# NX-TC

- 2 or 4 loop models
- PID control
- EtherNet/IP™ & EtherCAT® with PLC/Coupler
- Voltage out and Current Out models
- Ability to specify variable to output
- Heater Burnout detection



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| Product Name | Number of Channels | Input Type | Output | Output Capacity | CT Input Capacity | Control Type | Conversion Time | I/O Refreshing Method | Model |
|---|---|---|---|---|---|---|---|---|---|
| Temperature Control Unit 2Ch Type | 2 Ch | Multi-input (Thermocouple & Resistance Thermometer) | Voltage (for SSR control) | 4 points | None | Heating & Cooling Control | 50 m sec | Free-Run refreshing | NX-TC2407 |
| Temperature Control Unity 4Ch Type | 4 Ch | | | 4 points | 4 points | Standard Control | | | NX-TC3405 |
| | | | | 4 points | None | Standard Control | | | NX-TC3406 |
| | | | | 8 points | None | Heating & Cooling Control | | | NX-TC3407 |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# IP67 EtherNet/IP™ Remote IO-Link® Master NXR

- EtherNet/IP™ and EtherCAT® Models
- Fully configurable ports with up to 8 IO-Link® connections, or 2 digital I/O per port (16 Total)
- Dip switch port setting for PC-Less maintenance and setup – Market First (EtherCAT® Model Only)
- Dip switch setting for IP/Node Address
- Short Circuit Detection and Protection
- Cable Break Monitoring
- Third Party controller Function Blocks and add on instructions available for Rockwell Automation and Beckhoff Controllers - Ask your local AM or FAE for details



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| Unit | IO Capacity | Max Output Load Current | Model |
|---|---|---|---|
| EtherCAT® IO-Link® Master | 8 IO-Link® ports (or up to 16 Digital I/O) | 2 A per point | NXR-ILM08C-ECT |
| EtherNet/IP™ IO-Link® Master | 8 IO-Link® ports (or up to 16 Digital I/O) | 2 A per point | NXR-ILM08C-EIT |
| IO-Link® Hub | 16 Digital Inputs | N/A | NXR-ID166C-IL2 |
| | 16 Digital Inputs/Outputs | 0.5 A per point | NXR-CD166C-IL2 |

| Communication Cables | | | |
|---|---|---|---|
| M12 to RJ45 - Straight Connectors[1] | | M12 to M12 - Straight Connectors[1] | |
| Length (Meters) | Part Number | Length (Meters) | Part Number |
| 1 | XS2W-T421-CMC-SS | 1 | XS2W-T421-CM2-SS |
| 2 | XS2W-T421-DMC-SS | 2 | XS2W-T421-DM2-SS |
| 5 | XS2W-T421-GMC-SS | 5 | XS2W-T421-GM2-SS |
| 10 | XS2W-T421-JMC-SS | 10 | XS2W-T421-JM2-SS |

| Power Cables | | | |
|---|---|---|---|
| 7/8" connector to flying leads – Straight Connectors[1] | | 7/8" connector to 7/8" connector - Straight Connectors[1] | |
| Length (Meters) | Part Number | Length (Meters) | Part Number |
| 1 | 21349700495010 | 1 | 21349697495010 |
| 2 | 21349700495020 | 2 | 21349697495020 |
| 5 | 21349700495050 | 5 | 21349697495050 |
| 10 | 21349700495100 | 10 | 21349697495100 |

| Accessory | | |
|---|---|---|
| Unit | Description | Model |
| Y Cable Splitter  | For connecting two devices to one port | XS5R-D426-1 |

1. 90 degree connectors are also available. Ask your Omron representative for details

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Integrated Design Environment
# Sysmac Studio

- Configuration, programming, monitoring in a single interface
- Logic, motion and drives, safety, visualization, sensing, IoT in one project
- Built in Simulator
- One time license fee



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## Seamless Integration into Sysmac

- OMRON's complete line of 120+ NX I/O Units
- OMRON's integrated software environment Sysmac Studio
- OMRON Vision, OMRON Motion, and OMRON Safety Components

| License Type | Part Number | # of Users |
|---|---|---|
| Sysmac Studio Basic Edition | SYSMAC-BA201L | 1 |
| Sysmac Studio Advanced Edition | SYSMAC-AD201L | 1 |
| Sysmac Studio Basic to Advanced License | SYSMAC-AD501L | 1 |
| Sysmac Studio Standard Edition | SYSMAC-SE201L | 1 |
| | SYSMAC-SE203L | 3 |
| | SYSMAC-SE210L | 10 |
| | SYSMAC-SE230L | 30 |
| | SYSMAC-SE250L | 50 |
| | SYSMAC-SE2XXL | Site |
| Sysmac Studio Lite Edition | SYSMAC-LE201L | 1 |
| | SYSMAC-LE203L | 3 |
| | SYSMAC-LE210L | 10 |
| Upgrade from Lite to Standard | SYSMAC-LU501L | 1 |
| | SYSMAC-LE203L | 3 |
| | SYSMAC-LE210L | 10 |
| Sysmac Studio Vision Edition | SYSMAC-VE001L | 1 |
| Sysmac Studio Measurement Edit | SYSMAC-ME001L | 1 |
| Sysmac Studio NX/I-O Edition | SYSMAC-NE001L | 1 |
| Sysmac Studio Drive Edition | SYSMAC-DE001L | 1 |
| Sysmac Studio Safety Edition | SYSMAC-FE001L | 1 |

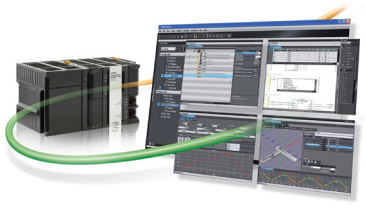
| OS | CPU | | RAM | Display |
|---|---|---|---|---|
| Windows 7 (32-bit)<br>Windows 8 (32-bit)<br>Windows 8.1 (32-bit)<br>Windows 10 (32-bit or 64-bit edition) | Minimum[1] | IBM AT or compatible with Intel® Celeron® processor 540 (1.8 Ghz) | 2 GB | XGA 1,024 x 768, 16 million colors |
| | Recommended[2,3] | IBM AT or compatible with Intel® Core™ i5 M520 processor (2.4 GHz) or equivalent | 4 GB min. | WXGA 1,280 x 800x 16 million colors |

1. If you create a user program with a memory size that exceeds 20 MB, use the 64-bit edition of the operating system and 8 GB or more of RAM.
2. If the user program is large, we recommend that you use a 64-bit IBM AT or compatible with an Intel® Core™ i7 processor or better and 8 GB or more of RAM.
3. If you use the Robot Additional Option and execute Vision and Robot integrated simulations, use a 64-bit IBM AT or compatible with an Intel® Core™ i5 processor or better and 8 GB or more of RAM.

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Integrated Design Environment
# Sysmac Studio

- Configuration, programming, monitoring in a single interface
- Logic, motion and drives, safety, visualization, sensing, IoT in one project
- Built in Simulator
- One time license fee



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## Seamless Integration into Sysmac

- OMRON's complete line of 120+ NX I/O Units
- OMRON's integrated software environment Sysmac Studio
- OMRON Vision, OMRON Motion, OMRON Robotics, and OMRON Safety Components

| OMRON Product Family | OMRON Product Compatibility | Sysmac Studio Basic & Advanced | Sysmac Studio Lite | Sysmac Studio Vision | Sysmac Studio Measurement | Sysmac Studio Drive | Sysmac Studio Safety | Sysmac Studio NX |
|---|---|---|---|---|---|---|---|---|
| Logic | NX1P2 | • | • | | | | | |
| | NX102 | • | • | | | | | |
| | NX502 | • | | | | | | |
| | NX701 | • | | | | | | |
| | NJ101 | • | • | | | | | |
| | NJ301 | • | | | | | | |
| | NJ501 | • | | | | | | |
| HMI | NA5 | • | • | | | | | |
| I/O | NX I/O EtherCAT® Coupler | • | • | | | | | |
| | NX I/O EtherNet/IP™ Coupler | • | • | | | | | • |
| Vision | FH | • | • | • | | | | |
| | FHV7 | • | • | • | | | | |
| | FQM | • | • | • | | | | |
| Safety | NX-SL3 | • | • | | | | • | • |
| | NX-SL5/CSG | • | • | | | | • | |
| Motion | 1S | • | • | | | • | | |
| | G5 | • | • | | | • | | |
| Measurement | ZW | • | • | | • | | | |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Human Machine Interface
# NA Series Advanced Programmable Terminal/HMI

- Wide screen high resolution display with 16M colors
- Multimedia including video, and PDF viewers
- Sysmac Studio provides the integrated development environment
- Preferred for NJ/NX controllers



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| Product name | Specifications | Model |
|---|---|---|
| NA5-15W | 15.4 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 1280 × 800 dots, Frame color : Silver | NA5-15W101S-V2 |
| | 15.4 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 1280 × 800 dots, Frame color : Black | NA5-15W101B-V2 |
| NA5-12W | 12.1 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 1280 × 800 dots, Frame color : Silver | NA5-12W101S-V2 |
| | 12.1 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 1280 × 800 dots, Frame color : Black | NA5-12W101B-V2 |
| NA5-9W | 9 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 800 × 480 dots, Frame color : Silver | NA5-9W001S-V2 |
| | 9 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 800 × 480 dots, Frame color : Black | NA5-9W001B-V2 |
| NA5-7W | 7 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 800 × 480 dots, Frame color : Silver | NA5-7W001S-V2 |
| | 7 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 800 × 480 dots, Frame color : Black | NA5-7W001B-V2 |
| High-pressure Waterproof Attachment | Do not use high-pressure waterproof attachments with NA5-15W-V2/NA5-12-V2. If you use a high-pressure waterproof attachment, there is a risk of water entry, which may cause severe equipment damage. To make NA5-15W-V2/NA5-12W-V2 conform to UL Type 4X, mount with additional mounting brackets. | NA-9WATW01 |
| | | NA-7WATW01 |
| | | NA-ATT01 |

# Edge Devices
# DX100

- A versatile IIoT-ready data enabler designed for rapid development and confident decision-making
- Easy connection to existing equipment via Ethernet cable
- Flow editor that can be used with low code programming



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| Product name | Communications | Built-in software | Model |
|---|---|---|---|
| DX-series Data Flow Edge Device | 2 Ethernet ports, 1 USB port | • Data collection: SpeeDBee Synapse<br>• Chart Display Tool<br>• Package:<br>Equipment Monitoring Package<br>Factory Monitoring Package<br>Status Monitoring Package<br>Event-triggered Video Logging Package | DX100-0010 |

**Power Supply**

| Product Name | Power Supply voltage | Output Current | | Output Capacity | Options | | | Model |
|---|---|---|---|---|---|---|---|---|
| | | 5-VDC | 24-VDC | Total Power Consumption | 24-VDC Power Supply | RUN Output | Maintenance Forecast Monitor | |
| DC Power Supply Unit | 24 DC | 6.0 A | 1.0 A | 30 W | No | Yes | No | NJ-PD3001-DC |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

Featured Products

# Barcode Readers

## High **Powered** Barcode Reading

OMRON's Fixed Mount Barcode Readers, including the VHV5 and V430,are designed to deliver high-performance barcode reading capabilities in various industrial applications. These readers feature advanced imagers, powerful decoding algorithms, and robust designs to ensure reliable barcode reading in challenging environments.




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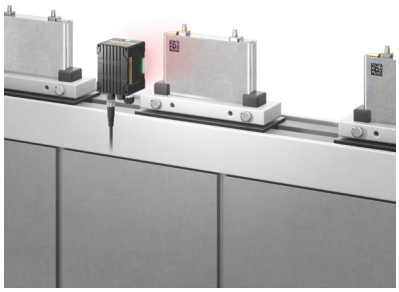
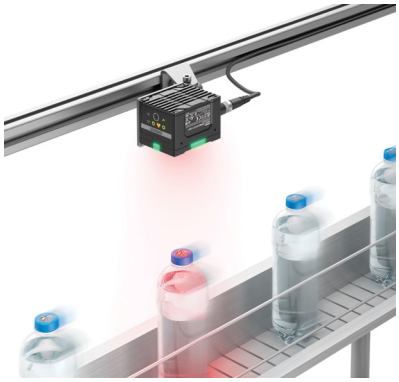
Scan or click here to discover our full range of Traceability Solutions.

# Ultra-High **Performance** Barcode Readers

## PORTFOLIO HIGHLIGHTS

- Robust line of dedicated barcode readers with high powered barcode reading capabilities.
- Traceability increases efficiency, reduces costs and provides increased control over product while protecting the company's brand
- Compact and rugged IP67 rated designs





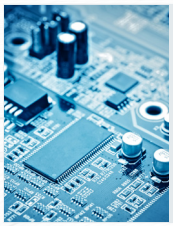


## REAL WORLD RESULTS



### Automotive/EV

- Camera at long distance outside of automation envelope
- Variable quality direct part marks on metal, curved surfaces or in cavities



### Electronics

- Wide Field of View Reading of high-density codes
- Laser marked on ICs or PCBs



### Logistics

- Large depth of field, long distance reading
- Various code types anywhere in field of view



### Food, Beverage & Commodities

- High line rates and part speed
- Shiny labels on curved or wrinkled packages

# Barcode Reader
# V430

- Rugged Industrial Barcode Reader for 1D, 2D & Direct Part Marks
- Simple Setup with no software to install using Browser Based Weblink
- 1.2MP Camera with Liquid Lens Autofocus
- IP65/IP67 rated with EtherNet/IP™ Communication



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| | Lighting | Focus | Sensor | Communication | Power | IP | Lens Size | Part Number |
|---|---|---|---|---|---|---|---|---|
| V430 High Bright | High Brightness Red Led Light | Autofocus 50-300 mm | 1.2MP, Monochrome 42FPS, Global Shutter | Digital I/O, RS232C, Ethernet TCP/ IP, EtherNet/IP™, PROFINET | 5-30VDC | IP65/67 | Wide | V430-F000W12M-HRX |
| | | | | | | | Medium | V430-F000M12M-HRX |
| | | Autofocus 40-150mm | | | | | Narrow | V430-F000N12M-HRX |
| | | Autofocus 75-1160mm | | | | | Long | V430-F000L12M-HRX |
| V430 Diffused High Bright Ring | High Brightness Diffused Red Ring Light | Autofocus 50-300 mm | | | 10-30VDC | | Medium | V430-F000M12M-DRX |
| | | Autofocus 40-150mm | | | | | Narrow | V430-F000N12M-DRX |
| | | Autofocus 75-1160mm | | | | | Long | V430-F000L12M-DRX |

| Accessories | | | |
|---|---|---|---|
| | Type | Description | Model |
| V430 | Power & I/O Cable | M12 to Flying Leads | V430-W8-3M |
| | | | V430-W8-5M |
| | Ethernet Cable | M12 to RJ45 | V430-WE-1M |
| | | | V430-WE-3M |
| | | | V430-WE-5M |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Barcode Reader and In-Line Verifier
# VHV5

- Ultra High Performance Barcode Reader
- Amazingly Easy to use with Automated Intelligent Setup
- Web browser based - WebLink
- Ultra High Bright LED Lighting built in
- X-Mode 6.0 with Smart Assist
- IP69K



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| Appearance | Standard Red 2.3 MP Reader | Part Number |
|---|---|---|
|  | VHV5-F, Autofocus, Wide Lens, 2.3 MP, Standard Red Light, X-Mode Reader | VHV5-F000W023M-SRX |
| | VHV5-F, Autofocus, Medium Lens, 2.3 MP, Standard Red Light, X-Mode Reader | VHV5-F000M023M-SRX |
| | VHV5-F, Autofocus, Narrow Lens, 2.3 MP, Standard Red Light, X-Mode Reader | VHV5-F000N023M-SRX |
| | VHV5-F, Autofocus, Long Lens, 2.3 MP, Standard Red Light, X-Mode Reader | VHV5-F000L023M-SRX |
| | **Standard Red 5 MP Reader** | **Part Number** |
| | VHV5-F, Autofocus, Wide Lens, 5.0 MP, Standard Red Light, X-Mode Reader | VHV5-F000W050M-SRX |
| | VHV5-F, Autofocus, Medium Lens, 5.0 MP, Standard Red Light, X-Mode Reader | VHV5-F000M050M-SRX |
| | VHV5-F, Autofocus, Narrow Lens, 5.0 MP, Standard Red Light, X-Mode Reader | VHV5-F000N050M-SRX |
| | VHV5-F, Autofocus, Long Lens, 5.0 MP, Standard Red Light, X-Mode Reader | VHV5-F000L050M-SRX |
| **Appearance** | **Standard White 2.3 MP Reader** | **Part Number** |
|  | VHV5-F, Autofocus, Wide Lens, 2.3 MP, Standard White Light, X-Mode Reader | VHV5-F000W023M-SWX |
| | VHV5-F, Autofocus, Medium Lens, 2.3 MP, Standard White Light, X-Mode Reader | VHV5-F000M023M-SWX |
| | VHV5-F, Autofocus, Narrow Lens, 2.3 MP, Standard White Light, X-Mode Reader | VHV5-F000N023M-SWX |
| | VHV5-F, Autofocus, Long Lens, 2.3 MP, Standard White Light, X-Mode Reader | VHV5-F000L023M-SWX |
| | **Standard White 5 MP Reader** | **Part Number** |
| | VHV5-F, Autofocus, Wide Lens, 5.0 MP, Standard White Light, X-Mode Reader | VHV5-F000W050M-SWX |
| | VHV5-F, Autofocus, Medium Lens, 5.0 MP, Standard White Light, X-Mode Reader | VHV5-F000M050M-SWX |
| | VHV5-F, Autofocus, Narrow Lens, 5.0 MP, Standard White Light, X-Mode Reader | VHV5-F000N050M-SWX |
| | VHV5-F, Autofocus, Long Lens, 5.0 MP, Standard White Light, X-Mode Reader | VHV5-F000L050M-SWX |
| **Appearance** | **Standard Red 2.3 MP In-Line Verifier** | **Part Number** |
|  | VHV5-F, Autofocus, Medium Lens, 2.3 MP, Standard Red Light, In-Line Verifier | VHV5-F000M023M-SRV |
| | VHV5-F, Autofocus, Narrow Lens, 2.3 MP, Standard Red Light, In-Line Verifier | VHV5-F000N023M-SRV |
| | VHV5-F, Autofocus, Long Lens, 2.3 MP, Standard Red Light, In-Line Verifier | VHV5-F000L023M-SRV |
| | **Standard Red 5 MP In-Line Verifier** | **Part Number** |
| | VHV5-F, Autofocus, Medium Lens, 5.0 MP,Standard Red Light, In-Line Verifier | VHV5-F000M050M-SRV |
| | VHV5-F, Autofocus, Narrow Lens, 5.0 MP, Standard Red Light, In-Line Verifier | VHV5-F000N050M-SRV |
| | VHV5-F, Autofocus, Long Lens, 5.0 MP, Standard Red Light, In-Line Verifier | VHV5-F000L050M-SRV |

| Cables | | |
|---|---|---|
| **Description** | **Length** | **Part Number** |
| Power, IO, RS232C M12 to flying leads cable | 3 meters | V430-W8-3M |
| | 5 meters | V430-W8-5M |
| Communications Straight M12 X-Coded to RJ45 | 3 meters | FHV-VNB2 3M |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

Featured Products

# Machine Vision

## Compact & **Powerful** Machine Vision

OMRON's Smart Cameras are designed to deliver high-performance vision capabilities in a compact, rugged package. These cameras combine advanced imaging technology with powerful processing to enable reliable inspection, identification, and guidance in various industrial applications.




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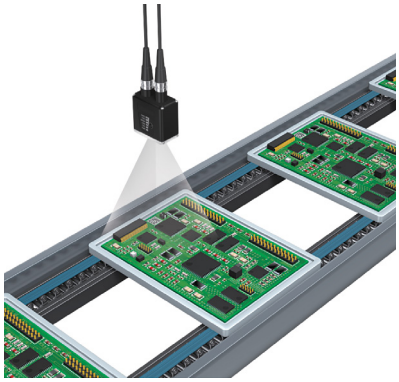
**LEARN MORE**

Scan or click here to discover our full range of Vision Solutions.

# Smart Cameras for **Smart** Manufacturing

## PORTFOLIO HIGHLIGHTS

- Dedicated Smart Cameras designed for use in the most demanding industrial applications
- Easy to use Machine Vision software with 12 prebuilt tools including Count, Presence, Measure and more
- Compact and rugged IP67 rated designs








## REAL WORLD RESULTS



### Automotive/EV

- Camera at long distance outside of automation envelope
- Variable parts, inspections, and targets



### Medical

- Smart Cameras used for diagnostics and analysis
- Medical Device manufacturing



### Logistics

- Do more than barcode reading
- Multiple vision jobs in one inspection



### Food, Beverage & Commodities

- High line rates and part speed
- Multiple points of inspection

# Vision Smart Camera
# F430

- Rugged industrial Vision Smart Camera
- Simple Setup with AutoVISION Software
- 1.2MP Camera with Liquid Lens Autofocus
- IP65/IP67 rated with EtherNet/IP™ Communications



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| | Lighting | Focus | Sensor | Communication | Power | IP | Lens Size | Part Number |
|---|---|---|---|---|---|---|---|---|
| F430 High Bright | High Brightness Red Led Light | Autofocus 50-300 mm | 1.2MP, Monochrome 42FPS, Global Shutter | Digital I/O, RS232C, Ethernet TCP/IP, EtherNet/IP™, PROFINET | 5-30VDC | IP65/67 | Wide | F430-F000W12M-HRA |
| | | | | | | | Medium | F430-F000M12M-HRA |
| | | Autofocus 45-150mm | | | | | Narrow | F430-F000N12M-HRA |
| | | Autofocus 75-1160mm | | | | | Long | F430-F000L12M-HRA |
| F430 Diffused High Bright Ring | High Brightness Diffused Red Ring Light | Autofocus 50-300 mm | | | 10-30VDC | | Medium | F430-F000M12M-DRA |
| | | Autofocus 45-150mm | | | | | Narrow | F430-F000N12M-DRA |
| | | Autofocus 75-1160mm | | | | | Long | F430-F000L12M-DRA |

| Accessories | | | |
|---|---|---|---|
| | Type | Description | Model |
| F430 | Power & I/O Cable | M12 to Flying Leads | V430-W8-3M |
| | | | V430-W8-5M |
| | Ethernet Cable | M12 to RJ45 | V430-WE-1M |
| | | | V430-WE-3M |
| | | | V430-WE-5M |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.




Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

Featured Products

# Machine Safety Technology

## Engineered **Safety** for **Confident** Compliance

OMRON's machine safety technologies are engineered to safeguard personnel while maintaining operational efficiency. With a full suite of safety components—including light curtains, door switches, safety controllers, and emergency stop devices—these solutions help manufacturers meet global compliance standards, reduce risk, and build a culture of safety without compromising performance.





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**LEARN MORE**

Scan or click here to discover our full range of Machine Safety Technology.

# **Creating a safer** Manufacturing Environment, **One Solution** at a Time

## FEATURED PRODUCTS



**Advanced Light Curtain F3SG-SR Series**

Improved alignment capabilities, advanced diagnostics and reduced installation costs.



**Best in Class NXSL5 Safety Controller**

A versatile safety controller, with EtherCAT® and EtherNet/IP™ capabilities.



**Machine Safety Design Hub**

Machine safety design made simple

## PORTFOLIO HIGHLIGHTS

- Five decades in functional machine safety
- Posts on 60 on international safety standard committees
- Leading innovations in safety technology with 212 product patents
- Integrated machine control systems provide a unified platform for controlling and coordinating the motion and safety functions of these machines
- Machine safety aligns with industry regulations and standards, creating a safer working environment for operators

## REAL WORLD RESULTS



### Automotive/EV

OMRON provides comprehensive industrial safety solutions for EV manufacturing, enhancing production efficiency and safety through automation technologies and expert support.



### Medical

Machine Safety: Ensuring machine safety in life sciences protects people, products, and processes.



### Logistics

Safety for Parallelizing: Guarding Parallelizing machines requires a variety of interconnected safety products due to multiple ingress points



### Food, Beverage & Commodities

Packaging Machine Safety: Safe packaging machines protect operators and ensure reliable production

# Machine Guard Safety Light Curtain
# F3SG-SR

- Three-color Area Beam Indicators (ABIs) enable easy alignment and quick troubleshooting
- Up to 30m protection range (25mm resolution and up)
- IO-Link® communication capability helps improve preventive maintenance programs
- Advanced programming features (muting, blanking, pre-reset, warning zone, etc.) are available on all models.
- IP67G rating is standard, with IP69K option available (F3SG-SRB only)



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| Resolution | Protective Height (mm) | Area Beam Indicators | Part Number |
|---|---|---|---|
| 14 mm | 160 | Yes | F3SG4SRA016014 |
| | 240 | | F3SG4SRA024014 |
| | 320 | | F3SG4SRA032014 |
| | 400 | | F3SG4SRA040014 |
| | 480 | | F3SG4SRA048014 |
| | 560 | | F3SG4SRA056014 |
| | 640 | | F3SG4SRA064014 |
| | 720 | | F3SG4SRA072014F |
| | 800 | | F3SG4SRA080014 |
| | 880 | | F3SG4SRA088014F |
| | 960 | | F3SG4SRA096014F |
| | 1200 | | F3SG4SRA120014 |
| | 1600 | | F3SG4SRA160014 |
| | 1800 | | F3SG4SRA180014 |
| 25 mm | 240 | | F3SG4SRA024025 |
| | 280 | | F3SG4SRA028025F |
| | 320 | | F3SG4SRA032025 |
| | 400 | | F3SG4SRA040025 |
| | 480 | | F3SG4SRA048025 |
| | 560 | | F3SG4SRA056025 |
| | 600 | | F3SG4SRA060025F |
| | 640 | | F3SG4SRA064025 |
| | 720 | | F3SG4SRA072025 |
| | 760 | | F3SG4SRA076025F |
| | 800 | | F3SG4SRA080025 |
| | 880 | | F3SG4SRA088025 |
| | 960 | | F3SG4SRA096025 |
| | 1040 | | F3SG4SRA104025 |
| | 1120 | | F3SG4SRA112025 |
| | 1200 | | F3SG4SRA120025 |
| | 1440 | | F3SG4SRA144025 |
| | 1520 | | F3SG4SRA152025 |
| | 1600 | | F3SG4SRA160025 |
| | 1840 | | F3SG4SRA184025 |
| 14 mm | 320 | No | F3SG4SRB032014 |
| | 560 | | F3SG4SRB056014 |
| 25 mm | 600 | | F3SG4SRB060025F |
| | 640 | | F3SG4SRB064025 |
| | 960 | | F3SG4SRB096025 |
| | 1040 | | F3SG4SRB104025 |
| | 1200 | | F3SG4SRB120025 |
| | 1600 | | F3SG4SRB160025 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Safety Light Curtain
# F3SG-PG

- Three-color Area Beam Indicators (ABIs) enable easy alignment and quick troubleshooting.
- Protection distance up to 110m
- Robust design for harsh environments (rated IP67G)
- IO-Link® communication for remote monitoring



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| Number of Beams | Beam Gap (mm) | Product Length (mm) | Protection Range (m) | Type | Part Number |
|---|---|---|---|---|---|
| 2 | 500 | 670 | Up to 30m | Emitter/Receiver | F3SG-4PGA0670-2A |
| | 500 | 670 | Up to 8m | Transceiver | F3SG-4PGA0670-2C |
| | 500 | 670 | Up to 110m | Emitter/Receiver | F3SG-4PGA0670-2L |
| 3 | 400 | 970 | Up to 30m | Emitter/Receiver | F3SG-4PGA0970-3A |
| | 400 | 970 | Up to 110m | Emitter/Receiver | F3SG-4PGA0970-3L |
| 4 | 300 | 1070 | Up to 30m | Emitter/Receiver | F3SG-4PGA1070-4A |
| | 300 | 1070 | Up to 8m | Transceiver | F3SG-4PGA1070-4C |
| | 300 | 1070 | Up to 110m | Emitter/Receiver | F3SG-4PGA1070-4L |
| | 400 | 1370 | Up to 30m | Emitter/Receiver | F3SG-4PGA1370-4A |
| | 400 | 1370 | Up to 8m | Transceiver | F3SG-4PGA1370-4C |
| | 400 | 1370 | Up to 110m | Emitter/Receiver | F3SG-4PGA1370-4L |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Safety Light Curtain Accessories and Cables

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| F3SG-SR/PG Brackets | |
|---|---|
| **Description** | **Part Number** |
| Adjustable Top/Bottom Bracket (F3SG-RA/RE Adapter) | F39-LSGTB-RE |
| Adjustable Top/Bottom Bracket (MS4800, F3SR Adapter) | F39-LSGTB-MS |

| F3SG-SR/PG Root Cables (plug into light curtain) | | | |
|---|---|---|---|
| **Description** | **Length** | **Emitter Part Number** | **Receiver Part Number** |
| Root Cable to M12 connector (Standard) | 0.3 m | F39-JGR3K-L | F39-JGR3K-D |
| Root Cable to Flying Leads | 3m | F39-JG3C-L | F39-JG3C-D |
| Root Cable to Flying Leads | 7m | F39-JG7C-L | F39-JG7C-D |
| Root Cable to Flying Leads | 10m | F39-JG10C-L | F39-JG10C-D |
| Root Cable to M12 Connector (F3SJ-B/A, F3SR, or F3SN Conversion) | 0.3 m | F39-JGR3K-SJ-L | F39-JGR3K-SJ-D |
| Root Cable to M12 Connector (F3SG-RE Conversion) | 0.3 m | F39-JGR3K-RE-L | F39-JGR3K-RE-D |
| Root Cable to M12 Connector (MS4800 Conversion) | 0.3 m | F39-JGR3K-MS-L | F39-JGR3K-MS-D |

| F3SG-SR/PG Extension Cables (plug into M12 Root Cable) | | | |
|---|---|---|---|
| **Description** | **Length** | **Emitter Part Number** | **Receiver Part Number** |
| M12 to Flying Lead Extension Cable | 3 m | F39-JG3A-L | F39-JG3A-D |
| M12 to Flying Lead Extension Cable | 10 m | F39-JG10A-L | F39-JG10A-D |
| M12 to M12 Extension Cable | 3 m | F39-JG3B-L | F39-JG3B-D |
| M12 to M12 Extension Cable | 10 m | F39-JG10B-L | F39-JG10B-D |
| M12 to M12 Extension Cable | 20 m | F39-JG20B-L | F39-JG20B-D |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Safety Light Curtain Accessories and Cables

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| F3SG-SR/PG Brackets | |
|---|---|
| **Description** | **Part Number** |
| Standard Bracket (non-adjustable) | F39-LSGF |
| Adjustable Side-Mount Bracket | F39-LSGA |
| Adjustable Top/Bottom Bracket (F3SJ, F3SN Adapter) | F39-LSGTB-SJ |
| Adjustable Top/Bottom Bracket (F3SG-RA/RE Adapter) | F39-LSGTB-RE |
| Adjustable Top/Bottom Bracket (MS4800, F3SR Adapter) | F39-LSGTB-MS |

| F3SG-SR/PG Root Cables (plug into light curtain) | | | |
|---|---|---|---|
| **Description** | **Length** | **Emitter Part Number** | **Receiver Part Number** |
| Root Cable to M12 connector (Standard) | 0.3 m | F39-JGR3K-L | F39-JGR3K-D |
| Root Cable to Flying Leads | 3m | F39-JG3C-L | F39-JG3C-D |
| Root Cable to Flying Leads | 7m | F39-JG7C-L | F39-JG7C-D |
| Root Cable to Flying Leads | 10m | F39-JG10C-L | F39-JG10C-D |
| Root Cable to M12 Connector (F3SJ-B/A, F3SR, or F3SN Conversion) | 0.3 m | F39-JGR3K-SJ-L | F39-JGR3K-SJ-D |
| Root Cable to M12 Connector (F3SG-RE Conversion) | 0.3 m | F39-JGR3K-RE-L | F39-JGR3K-RE-D |
| Root Cable to M12 Connector (MS4800 Conversion) | 0.3 m | F39-JGR3K-MS-L | F39-JGR3K-MS-D |

| F3SG-SR/PG Extension Cables (plug into M12 Root Cable) | | | |
|---|---|---|---|
| **Description** | **Length** | **Emitter Part Number** | **Receiver Part Number** |
| M12 to Flying Lead Extension Cable | 3 m | F39-JG3A-L | F39-JG3A-D |
| M12 to Flying Lead Extension Cable | 10 m | F39-JG10A-L | F39-JG10A-D |
| M12 to M12 Extension Cable | 3 m | F39-JG3B-L | F39-JG3B-D |
| M12 to M12 Extension Cable | 10 m | F39-JG10B-L | F39-JG10B-D |
| M12 to M12 Extension Cable | 20 m | F39-JG20B-L | F39-JG20B-D |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Safety Light Curtain Accessories and Cables

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| F3SG-SR Cascade Cables | | |
|---|---|---|
| **Description** | **Length** | **Part Number** |
| Side-by-Side Cascading Cable (2 cables per part number) | 0.12 m | F39-JGR12L |
| Extension Cable for Cascading (2 cables per part number) | 0.3 m | F39-JGR3W |

| F3SG-SR/PG IO-Link® Cables | | |
|---|---|---|
| **Description** | **Length** | **Part Number** |
| NX-ILM400 IO-Link® Cable | 2 m | XS5F-D521-DJ0-IL |
| GX-ILM08C IO-Link® Cable | 3 m | F39-JG3B-L |
| GX-ILM08C IO-Link® Cable | 10 m | F39-JG10B-L |
| GX-ILM08C IO-Link® Cable | 20 m | F39-JG20B-L |

| F3SG-SR/PG Wiring Reduction and Reset Cables | | |
|---|---|---|
| **Description** | **Length** | **Part Number** |
| Y-Joint Plug/Socket Connector | 0.5 m | F39-GCNY2 |
| Reset Switch Connector | 0.5 m | F39-GCNY3 |
| Reset Switch Connector to Reset Switch Cable | 1 m | X5SF-D421-C80-F |
| Reset Switch Connector to Reset Switch Cable | 2 m | X5SF-D421-D80-F |
| Reset Switch Connector to Reset Switch Cable | 3 m | X5SF-D421-E80-F |
| Reset Switch Connector to Reset Switch Cable | 5 m | X5SF-D421-G80-F |
| Reset Switch Connector to Reset Switch Cable | 10 m | X5SF-D421-J80-F |
| Reset Switch Connector to Reset Switch Cable | 20 m | X5SF-D421-L80-F |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Safety Light Curtain Accessories and Cables

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| F3SG-SR, F3SG-PG, and F3SG-R[] Floor Mount Columns | | | |
|---|---|---|---|
| **Applicable F3SG-SR/F3SG-R[] Light Curtain** | **Applicable F3SG-PG Light Curtain** | **Column Height** | **Part Number** |
| Protective Height up to 880 mm | F3SG-4PGA0670-2[] | 990 mm | F39-ST0990 |
| Protective Height up to 1280 mm | F3SG-4PGA0970-3A/3L<br>F3SG-4PGA1070-4[] | 1310 mm | F39-ST1310 |
| Protective Height up to 1520 mm | F3SG-4PGA1370-4[] | 1630 mm | F39-ST1630 |
| Protective Height up to 1840 mm | – | 1950 mm | F39-ST1950 |
| Protective Height up to 2080 mm | – | 2270 mm | F39-ST2270 |

| F3SG-SR, F3SG-PG, and F3SG-R[] Mirror Columns | | | |
|---|---|---|---|
| **Applicable F3SG-SR/F3SG-R[] Light Curtain** | **Applicable F3SG-PG Light Curtain** | **Column Height** | **Part Number** |
| Protective Height up to 880 mm | F3SG-4PGA0670-2[] | 990 mm | F39-SML0990 |
| Protective Height up to 1200 mm | F3SG-4PGA0970-3A/3L<br>F3SG-4PGA1070-4[] | 1310 mm | F39-SML1310 |
| Protective Height up to 1520 mm | F3SG-4PGA1370-4[] | 1630 mm | F39-SML1630 |
| Protective Height up to 1840 mm | – | 1950 mm | F39-SML1950 |
| – | F3SG-4PGA0670-2A/2L | 990 mm | F39-PML0990-2 |
| – | F3SG-4PGA0970-3A/3L | 1310 mm | F39-PML1310-3 |
| – | F3SG-4PGA1070-4A/4L | 1310 mm | F39-PML1310-4 |
| – | F3SG-4PGA1370-4A/4L | 1950 mm | F39-PML1630-4 |

| Stand and Mirror Base Accessory | |
|---|---|
| **Description** | **Part Number** |
| Adjustable and Rotatable Column Base | F39-STB |

| F3SG-SR and F3SG-PG Muting Accessories | | |
|---|---|---|
| **Description** | **Length** | **Part Number** |
| Through Beam Muting Sensor Mounting Arm | 150 mm | F39-FMA150T |
| Through Beam Muting Sensor Mounting Arm | 400 mm | F39-FMA400T |
| Retro-Reflective Muting Sensor Mounting Arm | 150 mm | F39-FMA150R |
| Retro-Reflective Muting Sensor Mounting Arm | 400 mm | F39-FMA400R |
| Muting Arm Bracket for F3SG-SR/PG Mounting | N/a | F39-LMAF1 |
| Muting Sensor Connection Box | N/a | F39-GCN5 |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Safety Controller
# NXSL5

- A versatile safety controller, with EtherCAT® and EtherNet/IP™ capabilities, for integrated or stand-alone solutions, making machine safety design, installation, and maintenance easier
- Enable flexible manufacture by supporting different safety networks, CIP Safety and FSoE. Enable a hybrid system, when combining the NX-SL5 with the NX-102.
- Sysmac Studio offers a set of unique functions to make functional safety management easier as Safety Signature Check and Online Function Verification. In addition, reduce the design cycle with automatic programming and simple automatic test.



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| Product | Description | Model |
|---|---|---|
| NX-SL5 Safety Controller Units | Safety PLC, up to 1024 safety I/O and 128 safety connections | NX-SL5500 |
| | Safety PLC, up to 2032 safety I/O and 254 safety connections | NX-SL5700 |

| Product | Type | Protocol | Am. of Ports | Number of Networks | Safety Inputs | Safety Outputs | Test Outputs | Model |
|---|---|---|---|---|---|---|---|---|
| Communication & Remote Safety I/O Units | Network Coupler | EtherNet/IP™ | 3 | 2 | | | | NX-CSG320 |
| | Remote Module of safety I/Os | EtherNet/IP™ | 2 | 1 | 12 | 4 | 12 | GI-SMD1624 |
| | | | | | 12 | - | 12 | GI-SID1224 |

| Product | Type | No. of Points | Description | Model |
|---|---|---|---|---|
| Safety Input & Output Units | Input | 4 | 4 safety input points (PNP) with 2 test outputs | NX-SIH400 Ver 1.1 |
| | | 8 | 8 safety input points (PNP) with 2 test outputs | NX-SID800 |
| | Output | 2 | 2 safety outputs (PNP) | NX-SOH200 |
| | | 4 | 4 safety outputs (PNP) | NX-SOD400 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Safety Controller
# NX Safety System

- Effortless integration into the most common PLC's platforms in the market, providing reliable safety solutions while supporting different configurations.
- Offer a direct connection to any PLC using an EtherNet/IP™ coupler, and build a stand-alone system. For larger projects, with a higher number of safety devices distributed over a larger area, using an EtherCAT® coupler supports EtherCAT® and FSoE.
- Sysmac Studio offers a set of unique functions to make functional safety management easier as Safety Signature Check and Online Function Verification. In addition, reduce the design cycle with automatic programming and simple automatic test.



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| Product | Type | Model |
|---|---|---|
| NX-SL3 Safety Controller Units | Safety PLC, up to 256 safety I/O and 32 safety connections[1] | NX-SL3300 Ver 1.1 |
| | Safety PLC, up 1024 safety I/O and 128 safety connections[1] | NX-SL3500 Ver 1.1 |

1. Only FSoE master connections supported

| Product | Type | No. of Points | Description | Model |
|---|---|---|---|---|
| Safety Input & Output Units | Input | 4 | 4 safety input points (PNP) with 2 test outputs | NX-SIH400 Ver 1.1 |
| | | 8 | 8 safety input points (PNP) with 2 test outputs | NX-SID800 |
| | Output | 2 | 2 safety outputs (PNP) | NX-SOH200 |
| | | 4 | 4 safety outputs (PNP) | NX-SOD400 |

| Product | Communication Cycle | Protocol | Maximum Number of NX I/O Modules | Maximum Current I/O | Model |
|---|---|---|---|---|---|
| Network Couplers | 250 to 4,000 us | EtherCAT® Slave | 63 | 4A | NX-ECC201 |
| | | | | 10A | NX-ECC202 |
| | 125 to 10,000 us | | | | NX-ECC203 |
| | 4 to 1,000 us | EtherNet/IP™ Slave | | | NX-EIC202 |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Safety Controller
# GS9P

- The standalone safety controller for small and mid-sized applications.
- Communication with standard PLC via Ethernet or Serial
- Direct communication with HMI NB Series via Serial
- Four types of standard expansion



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| Product | Inputs | Test Outputs | Safety Outputs | Common Outputs | Model |
|---|---|---|---|---|---|
| G9SP Series | 10 | 4 | Transistor Output: 4 | 4 | G9SP-N10S |
| | 10 | 6 | | - | G9SP-N10D |
| | 20 | 6 | Transistor Output: 8 | - | G9SP-N20S |

| Expansion Modules and Accessories | | | |
|---|---|---|---|
| **Description** | **No. of Outputs** | **No. of Inputs** | **Model** |
| Expansion Modules | 8 (NPN) | 12 (NPN) | CP1W-20EDT |
| | 8 (PNP) | 12 (PNP) | CP1W-20EDT1 |
| | 32 (NPN) | | CP1W-32ET |
| | 32 (PNP) | | CP1W-32ET1 |
| Connection Cable | 80cm (for connecting distant units) | | CP1W-CN811 |
| Communication Modules | RS-232 Serial | | CP1W-CIF01 |
| | EtherNet/IP™/FINS | | CP1W-CIF41 |
| | EtherNet/IP™ | | CM-EIP-1 |
| Programming software | 1 license | | WS02-G9SP01-V1 |
| Cassette Memory | | | CP1W-ME05M |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Safety Laser Scanner
# OS32C

- 3m maximum safety zone and 15m warning zone
- Up to 70 different detection zones configurations
- Distance measurement capabilities up to 50m
- 5W power consumption



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| Cable Outlet | Safety Range | EtherNet/IP™ Data | Part Number |
|---|---|---|---|
| Back | 3m | No | OS32C-BP |
| | 3m | Yes | OS32C-BP-DM |
| | 4m | No | OS32C-BP-4M |
| | 4m | Yes | OS32C-BP-DM-4M |
| Side | 3m | No | OS32C-SP1 |
| | 3m | Yes | OS32C-SP1-DM |
| | 4m | No | OS32C-SP1-4M |
| | 4m | Yes | OS32C-SP1-DM-4M |

| OS32C Safety Laser Scanner Cables | | |
|---|---|---|
| **Description** | **Length** | **Part Number** |
| Power Cable | 3 m | OS32C-CBL-03M |
| | 10 m | OS32C-CBL-10M |
| | 20 m | OS32C-CBL-20M |
| | 30 m | OS32C-CBL-30M |
| Ethernet Cable | 2 m | OS32C-ECBL-02M |
| | 5 m | OS32C-ECBL-05M |
| | 15 m | OS32C-ECBL-15M |

| OS32C Safety Laser Scanner Brackets | |
|---|---|
| **Description** | **Part Number** |
| Bottom/Side Mounting Bracket | OS32C-BKT1 |
| XY Axis Rotation Mounting Bracket | OS32C-BKT2 |
| Simple Mounting Bracket | OS32C-BKT3 |
| Protective Cover for Window | OS32C-BKT4 |
| Mounting Stand | OS32C-MT |
| Hardware kit for Mounting Stand | OS32C-HDT |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Safety Logic Devices - Relays
# G9SE

- A compact safety relay for simple safety applications, with screwless terminals and increased diagnostic capabilities for fast troubleshooting and easy wiring
- Modules with two or four safety contacts and OFF-delay timing options
- Compact units, 17.5 or 22.5 mm wide
- Front side wiring using screw less terminals and led indicators for fast diagnostic



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| Safety Outputs | Auxiliary Output | OFF-Delay Max. Time | Power | Model |
|---|---|---|---|---|
| 2 | 1 | - | 24VDC | G9SE-201 |
| 4 | | - | | G9SE-401 |
| 2 | | 5 s | | G9SE-221-T05 |
| 2 | | 30 s | | G9SE-221-T30 |

# Safety Logic Devices - Relays
# G9SA

- All-purpose expandable safety relays series ideal for high demand applications.
- Expandable outputs options only, up to 8: instantaneous or time-delay
- Simple expansion connection available



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| Safety Outputs | Auxiliary Outputs | Power | Model |
|---|---|---|---|
| 3 | 1 | 24VDC | G9SA-301 AC/DC24 |
| 5 | 1 | | G9SA-501 AC/DC24 |
| 3 | 1 | | G9SA-EX301 |
| 3 | 1 | | G9SA-TH301 AC/DC24[1] |

1. Two hand controller (type III C, EN 574)

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Safety Logic Devices - Relays
# G9SX

- A versatile safety relay series, ideal for scalable safety solution, support logical “AND” functions for expansion and offer special modules for dedicated safety functions
- G9SX-family modules can be connected by a logical “AND” function to implement partial/global stopping of a machine
- Solid-state outputs, detailed LED diagnosis and clever feedback signals help to keep maintenance easy
- Expansion units with safe timing functions complete the line-up



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| Terminal Block Type | Safety Output Instantaneous | Safety Output – Off-Delayed | Safety Standstill detection output | Safety Slow-Speed/Stopping Detection Output | Auxiliary Outputs | Power | Model |
|---|---|---|---|---|---|---|---|
| Screw Terminals | 2 | 0 | 0 | 0 | 2 | 24VDC | G9SX-BC202-RT DC24 |
| Screw Terminals | 3 | 2 | 0 | 0 | 2 | | G9SX-AD322-T15-RT DC24 |
| Screw Terminals | 0 | 0 | 3 | 0 | 2 | | G9SX-SM032-RT |
| Screw Terminals | 2 | 0 | 0 | 0 | 2 | | G9SX-NS202-RT DC24 |
| Screw Terminals | 2 | 2 | 0 | 0 | 2 | | G9SX-NSA222-T03-RT DC24 |

1. Limited speed monitoring unit

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Safety Outputs
# G7SA

- Forcibly guided contacts
- Conforms to EN 50205
- 6A at 240VAC and 6A at 24VDC for resistive loads
- Reinforced insulation between inputs and outputs and poles
- 4- and 6-pole relays available
- Push-in Plus Technology for easy wiring



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| Type | Sealing | Poles | Contact Configuration | Coil Rated Voltage | Model |
|---|---|---|---|---|---|
| Standard | Flux-tight | 4 poles | 3PST-NO, SPST-NC | 12, 18, 21, 24, 48, 110 VDC | G7SA-3A1B |
| | | | DPST-NO, DPST-NC | 12, 18, 21, 24, 48, 110 VDC | G7SA-2A2B |
| | | 6 poles | 5PST-NO, SPST-NC | 12, 18, 21, 24, 48, 110 VDC | G7SA-5A1B |
| | | | 4PST-NO, DPST-NC | 12, 18, 21, 24, 48, 110 VDC | G7SA-4A2B |
| | | | 3PST-NO, 3PST-NC | 12, 18, 21, 24, 48, 110 VDC | G7SA-3A3B |

| Sockets | | | | | |
|---|---|---|---|---|---|
| **Mounting** | **Terminal Type** | **LED Indicator** | **Poles** | **Coil Rated Voltage** | **Model** |
| Front-mounting | Push-In Plus terminals | Yes | 4 poles | 24 VDC | P7SA-10F-ND-PU |
| | | | 6 poles | | P7SA-14F-ND-PU |
| | Screw terminals | Yes | 4 poles | | P7SA-10F-ND |
| | | | 6 poles | | P7SA-14F-ND |
| | | No | 4 poles | - | P7SA-10F |
| | | | 6 poles | | P7SA-14F |
| Back-mounting | PCB terminals | No | 4 poles | - | P7SA-10P |
| | | | 6 poles | | P7SA-14P |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Non-contact Interlock Door Switch D40A-2

- Coded magnetic mechanism that improves reliability and prevents tampering
- Up to 30 safety door switches can be connected in series, in compliance with PLe / Category 4
- Compliance with hygiene standards (ECOLAB certified)
- Wide temperature range (-25C to +70C)
- IP66/67 rated enclosure



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| | Part Number | Auxiliar Output | Cable Length | Connection Method |
|---|---|---|---|---|
| Switch and Actuator (set) | D40A-2C2 | PNP transistors output | 2 m | Cable with exposed lead wires |
| | D40A-2C5 | | 5 m | |
| | D40A-2D2 | Photocoupler output | 2 m | |
| | D40A-2D5 | | 5 m | |
| | D40A-2C015-F | PNP transistors output | 0.15 m (with 5-pin connector) | Cable with M12 connector model) |

| | Part Number | Auxiliar Output | Cable Length | Connection Method |
|---|---|---|---|---|
| Switches (sold separately) | D40A-S2C2 | PNP transistors output | 2 m | Cable with exposed lead wires |
| | D40A-S2C5 | | 5 m | |
| | D40A-S2D2 | Photocoupler output | 2 m | |
| | D40A-S2D5 | | 5 m | |
| | D40A-S2C015-F | PNP transistors output | 0.15 m (with 5-pin connector) | Cable with M12 connector model) |

| Accessories | Part Number | Description |
|---|---|---|
| Cable with M12 connector (one end) | XS2F-D521-DG0-A | Cable, 2m, M12 connector, IP67 |
| | XS2F-D521-GG0-A | Cable, 5m, M12 connector, IP67 |
| | XS2F-D521-JG0-A | Cable, 10m, M12 connector, IP67 |
| | XS2F-D521-KG0-A | Cable, 15m, M12 connector, IP67 |
| | XS2F-D521-LG0-A | Cable, 20m, M12 connector, IP67 |
| Cable with M12 connector (both ends) | XS2W-D521-DG1-A | Cable, 2m, M12 connector, IP67 |
| | XS2W-D521-GG1-A | Cable, 5m, M12 connector, IP67 |
| | XS2W-D521-JG1-A | Cable, 10m, M12 connector, IP67 |
| | XS2W-D521-KG1-A | Cable, 15m, M12 connector, IP67 |
| | XS2W-D521-LG1-A | Cable, 20m, M12 connector, IP67 |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Safety Interlock Door Switches
# D41D

- Type 4 High-coded door switch, RFID
- Easy and quick automatic pairing with Individual coding, single or multiple teaching type
- Three sizes of actuator, including flat and miniature to fit in narrow spaces or inside corners
- Symmetrical design for left and right mounting
- Approach direction can be either from the front or side
- Extensive diagnostic via a three-color LED indicators and diagnostic output
- Up to 31 safety door switches from D41 Series can be connected



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| Sensor | Part Number | Coding Level | Connector |
|---|---|---|---|
| Sensor | D41D-1CD-N1 | High, Individual coding | M8 connector |
| | D41D-2CD-025N2 | High, Individual coding with no limitation | M12 with 250 mm cable |
| | **Part Number** | **Type** | **Dimensions** |
| Actuator[1] | D41D-A1 | Standard | W x D x H= 39 x 29.5 x 18 (mm) |
| | D41D-A2 | Flat | W x D x H= 60 x 16 x 6.8 (mm) |
| | D41D-A3 | Miniature | W x D x H= 22 x 9 x 7 (mm) |

1. Actuators sold separately

| Accessories | | |
|---|---|---|
| | **Part Number** | **Description** |
| Cables | D41D-8P5-CFM8-702M | Cable, 2m, M8 connector, IP67 |
| | D41D-8P5-CFM8-705M | Cable, 5m, M8 connector , IP67 |
| | D41D-8P5-CFM8-710M | Cable, 10m, M8 connector , IP67 |
| | D41L-8P5-CFM12-905M | Cable, 5m, M12 connector, IP69 |
| | D41L-8P5-CFM12-910M | Cable, 10m, M12 connector, IP69 |
| Sealing Kits | D41D-SK | Seal mounting holes. Contains: 4 flat plugs and 4 plugs with rim for high screw head |
| Mounting Kits | D41D-MS | Contains: 2 mounting plates and 4 ferrule plugs |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Safety Interlock Door Switches
# D41L

- Type 4 High-coded door switch, RFID
- Easy and quick automatic pairing with Individual coding, single or multiple teaching type
- Improved hygiene: resistant to wide range of cleaning agents, easy to clean
- Protection class IP66, IP67 and IP69 and ECOLAB certified
- Large actuator tolerances and easy latching force adjustment
- Power to lock or power to unlock versions with optional emergency exit
- 3 actuating directions with identical mounting for left and right hinged doors
- 3 LED indicators for smart diagnostics
- Star handle instead of key hole to prevent water and foreign material to collect
- Device can be used as an end stop for sliding door applications
- Up to 31 devices connected in series



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| | Part Number | Lock and Release | Teaching | OSSD Configuration | Connection Method |
|---|---|---|---|---|---|
| | D41L-1YDG-N2 | Power to lock (solenoid lock) | Individual coding, single teaching | Guard monitoring and lock monitoring | No |
| | D41L-2YDG-N2 | | Individual coding, multiple teaching | Only guard monitoring | |
| | D41L-1ZDA-N2 | Power to unlock (mechanical release) | Individual coding, single teaching | | No |
| | D41L-2YDA-N2 | | Individual coding, multiple teaching | Guard monitoring and lock monitoring | |
| | D41L-2YDAE-N2 | | | | Yes |

| | Part Number | Description |
|---|---|---|
| Actuator[1] | D41L-A1 | Compatible with D41L models |

1. Actuators sold separately

| Accessories | | |
|---|---|---|
| | **Part Number** | **Description** |
| Cables | D41L-8P5-CFM12-905M | Cable, 5m, M12 connector, IP69 |
| | D41L-8P5-CFM12-910M | Cable, 10m, M8 connector, IP69 |
| Mounting Plate | D41L-MP | Mounting plate for sensor only |
| Mounting Set | D41L-MS | Mounting set for actuator only |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Safety Interlock Door Switches
# D41G

- Type 4 High-coded door switch, RFID
- Easy and quick automatic pairing with individual coding, single or multiple teaching type
- Power to lock and power to unlock versions available
- OSSD configuration for guard monitoring only or guard and lock monitoring
- Extensive diagnostic via a three-color LED indicators and diagnostic output
- Easily mounted to standard aluminum profile systems
- Up to 31 devices connected in series



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| | Part Number | Lock and Release | Teaching | OSSD Configuration | Connection Method |
|---|---|---|---|---|---|
| Sensor[1] | D41G-1YDA-N2 | Power to unlock | Individual coding, single teaching | Guard monitoring and lock monitoring | M12 connector |
| | D41G-2YDA-N2 | Power to unlock | Individual coding, multiple teaching | | |
| | D41G-2YDG-N2 | Power to lock | | | |
| | D41G-2YDG-N2 | Power to lock | | | |
| | D41G-2YDG-T1 | Power to lock | | | Screw Terminal |
| | D41G-2ZDA-T1 | Power to unlock | | Only guard monitoring | |

1. Actuators sold separately

| Accessories | | |
|---|---|---|
| | Part Number | Description |
| Cables | D41L-8P5-CFM12-905M | Cable, 5m, M12 connector, IP69 |
| | D41L-8P5-CFM12-910M | Cable, 10m, M8 connector, IP69 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Actuators
## D41G

- Actuators for right and left hinged doors with door handle and optional emergency exit and lock-out tag as well as options available for sliding doors
- Actuators for right and left sliding doors



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| Actuator Type[1] | Part Number | Handle Position | Emergency Exit Unit | Lock-out Option |
|---|---|---|---|---|
| With door handle | D41G-A2L-E1 | Left | Yes | - |
| | D41G-A2L-E1T | | Yes | Yes |
| | D41G-A2R-E1 | Right | Yes | - |
| | D41G-A2R-E1T | | Yes | Yes |
| Non door handle | D41G-A1L | Left | - | - |

1. Actuators sold separately

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Safety Interlock Door Switches
# D40P

- Hall effect technology provides solid state outputs for increased longevity
- LED indicates operation state
- Operates with all OMRON safety controllers and safety relays
- Connect up to 20 switches in series, up to PLd acc. EN ISO 13849-1



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| Body Size | Housing | Contacts | Cable Connection | Model |
|---|---|---|---|---|
| Elongated | Polyester Housing | 2NC / 1NO | M12, 8 pin, fitted with 250 mm cable | D40P-LPC-21-M12 |
| Small | | | M12, 8 pin, fitted with 250 mm cable | D40P-SPC-21-M12 |
| Small | Stainless Steel | | 5 m pre-wired | D40P-SMC-21-05 |
| Mini | Hygienic | 2NC / 1NO | 5 m pre-wired, exit left | D40P-MHC-21-05-L |

| Accessories | | |
|---|---|---|
| **Type** | **Description** | **Model** |
| Cables, M12 female - 8 pin to flying leads | 5m | D40ML-CBL-M12-5M |
| Cables, M12 female - 8 pin to flying leads | 10m | D40ML-CBL-M12-10M |
| T-Connector Connection Cable | T-Connector for M12 cable | D40P-8PTC-M12 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Safety Interlock Door Switches
# D40ML

- Magnetic latching combines with RFID technology to deliver high holding force and tamper resistance
- Residual magnetism acts as light door latch after unlocking and it provides multiple holding forces
- Clean/Sanitize in Place – stainless steel versions are rated IP69K
- For use on machines with no rundown time if power is lost



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| Actuator Type | Case Material | Holding Force | Cable Connection | Model |
|---|---|---|---|---|
| Basic | Die-cast Metal (IP67) | 1500N | Pigtail w/ M12 Connector | D40ML-M1-B-M12 |
| Basic | Plastic (IP67) | 900N | | D40ML-P2-B-M12 |
| Basic | 316 Stainless Steel (IP69K) | 950N | | D40ML-SS1-B-M12 |
| Unique | 316 Stainless Steel (IP69K) | 600N | 5m Cable | D40ML-SS2-U-5M |

| Accessories | | |
|---|---|---|
| **Type** | **Description** | **Model** |
| Cables, M12 female - 8 pin to flying leads | 5m | D40ML-CBL-M12-5M |
| Cables, M12 female - 8 pin to flying leads | 10m | D40ML-CBL-M12-10M |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Safety Interlock Door Switches
# D4SL-N

- A wide variety of built-in switches can be used for various devices (4-, 5-, and 6-contact models are available)
- Removable terminal block for easy wiring and quick maintenance
- Key holding force of 1,300N
- Slide key available to prevent workers from becoming trapped inside the hazardous area
- Can be easily mounted on 40 × 40 mm aluminum frames



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| Type | Conduit Size | Contact Model | Head Material | Door Lock and Release | Indicator | Model |
|---|---|---|---|---|---|---|
| D4SL-N | 1/2-14NPT[1] | 2NC/1NO + 2NC/1NO | Metal | Mechanical lock/24VDC solenoid release | Yes | D4SL-N3NDA-D |
| | 1/2-14NPT[1] | 2NC/1NO + 2NC/1NO | Metal | 24VDC solenoid lock/mechanical release | Yes | D4SL-N3NDG-D |
| | M20 | 3NC + 1NC/1NO | Resin | Mechanical lock/24VDC solenoid release | Yes | D4SL-N4GFA-D |
| | G1/2 | 2NC/1NO + 2NC/1NO | Resin | Mechanical lock/24VDC solenoid release | Yes | D4SL-N2NFA-D4 |

1. M20, includes M20-to-1/2-14NPT conversion adapter.

# Slide Key
# D4SL-N

- Lockout Key to prevent workers from becoming trapped inside the hazardous area
- The plastic material makes the Slide Key suitable for lightweight doors



| Description | Model |
|---|---|
| Slide Key Kit | D4SL-NSK10-LK |
| Slide Key with inner lever | D4SL-NSK10-LKH |

| Operation Keys for D4SL | | |
|---|---|---|
| **Mounting Orientation** | **Special Function** | **Model** |
| Horizontal | - | D4SL-NK1 |
| Horizontal | Rubber cushions | D4SL-NK1G |
| Vertical | - | D4SL-NK2 |
| Horizontal | Adjustable | D4SL-NK3 |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Web Application
# Machine Safety Design Hub

- Machine Safety Design Hub provides integrated processes and knowledge for machine safety design
- Achieve excellence in safety design, regardless of individual proficiency
- Safety function evaluation through an intuitive interface
- Reduce time and effort for technical documentation and management



| Item | | Requirement |
|---|---|---|
| Model | | MS1-ST010L/-ST020L |
| System Requirements | OS | Windows 11 (64-bit) |
| | CPU | DOS/V (IBM AT compatible machines) personal computers equipped with Intel®Core™ i5-3xxx (3rd generation: Ivy Bridge) or equivalent/later processors are required. |
| | RAM | 8 GB RAM min. WXGA 1280 × 800, 16 million colors display min |
| | Browser | Microsoft Edge or Google Chrome |
| | Supported languages | Japanese, English (Spanish, Italian, French, and German will be supported in the future.) |
| License | | MS1-ST010L (1 year, Maximum 10 users)<br>MS1-ST020L (1 year, Maximum 20 users) |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

Featured Products

# Motion and Drives

## High **Performance** Motion for **Precision Control**

OMRON's motion solutions deliver the speed, accuracy, and flexibility needed for today's most demanding automation challenges. From powerful PMAC controllers to advanced servos and inverters with built-in EtherCAT® communication, these technologies enable synchronized multi-axis control, energy-efficient operation, and seamless integration — empowering manufacturers to build smarter, faster, and more responsive machines.

### PORTFOLIO HIGHLIGHTS

- Eight motion safety functions integrated into the servo drives minimize costs for components and wiring complexity
- World's fastest output speeds for extremely precise motion control
- Multi-vendor compatibility to help create the right system for your application







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## Integrated Development Environment
## Power PMAC IDE

- Based on Microsoft® Visual Studio®
- ANSI C or original programming language
- Easy tuning
- Simple setting
- Troubleshooting
- Debugger

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## PMAC Motion Controllers
## CK3E EtherCAT® Based Controllers



- 32, 16 or 8 axes motion control
- Up to 250 µs cycle time
- Compatible with standard G-Code functions
- Save space & wiring thanks to compact design
- CAD/CAM for easy motion control
- EtherCAT® for flexible configuration

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| Number of Axis | Memory Capacity | Programming Language | Model |
|---|---|---|---|
| 8 | 1G | G-Code/ANSI C/original programming language | CK3E-1210 |
| 16 | | | CK3E-1310 |
| 32 | | | CK3E-1410 |

# Modular Controller
# CK3M

- Local axes for nanoscale precision
- Ultra high-speed synchronous control (50µs/5 axes)
- Custom servo regulation algorithms
- Flexibility on using multi-vendor actuators and encoders
- Flexibility on programming on G-code, ANSI C or original programming language



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| Product Type | Memory Capacity | EtherCAT® Port | EtherCAT® Axes | Expansion | Model |
|---|---|---|---|---|---|
| CPU Units | RAM: 1 GB Built-In flash memory: 1 GB | - | - | One expansion rack can be connected using the expansion master unit and expansion slave unit | CK3M-CPU101 |
| | | EtherCAT®: 1 port (DC sync) | 4 | | CK3M-CPU111 |
| | | | 8 | | CK3M-CPU121 |
| | RAM: 2 GB Built-in flash memory: 4 GB | EtherCAT®: 1 port (DC sync) | 16 | | CK5M-CPU131 |
| | | | 32 | | CK5M-CPU141 |

| Product Type | Amplifier Interface | Encoder Interface | Output Type | Model |
|---|---|---|---|---|
| Axial Interface Units | DirectPWM output | Digital quadrature encoder/serial encoder | NPN type | CK3W-AX1313N |
| | DA output (Filtered PWM) | | | CK3W-AX1414N |
| | DA output (True DAC) | | | CK3W-AX1515N |
| | DirectPWM output | Sinusoidal encoder/Serial encoder | | CK3W-AX2323N |
| | DirectPWM output | Digital quadrature encoder/serial encoder | PNP type | CK3W-AX1313P |
| | DA output (Filtered PWM) | | | CK3W-AX1414P |
| | DA output (True DAC) | | | CK3W-AX1515P |
| | DirectPWM output | Sinusoidal encoder/Serial encoder | | CK3W-AX2323P |

| Product Type | Feedback Interface | Output Type | TCR Output | Model |
|---|---|---|---|---|
| Laser Interface Units | XY2-100 | PWM output | | CK3W-GC1100 |
| | | | TCR Output | CK3W-GC1200 |
| | SL2-100 | | | CK3W-GC2100 |
| | | | TCR Output | CK3W-GC2200 |

| Product Type | Feedback Interface | Feedback Type | Number of Channels | Model |
|---|---|---|---|---|
| Serial Encoder Interface Unit | Serial Encoder | BiSS-C, Endat2.2, and 1S Motor | 4 | CK3W-ECS300 |

| Product Type | Description | Model |
|---|---|---|
| Power Supply Unit | Rated output voltage: 5 VDC / 24 VDC | CK3W-PD048 |

| Product Type | Number of Inputs | Number of Outputs | I/O Type | Model |
|---|---|---|---|---|
| Digital I/O Units | 16 points | 16 points | NPN | CK3W-MD7110 |
| | | | PNP | CK3W-MD7120 |

| Product Type | Input Range | Number of Inputs | Model |
|---|---|---|---|
| Analog Input Units | Unit -10 to 10 V | 4 points | CK3W-AD2100 |
| | | 8 points | CK3W-AD3100 |

| Product Type | Product Name | Function | Model |
|---|---|---|---|
| Expansion Master Unit and Expansion Slave Unit | Expansion Master Unit | Expansion Master Unit connects to the right side of the CPU Unit | CK3W-EXM01 |
| | Expansion Slave Unit | Expansion Slave Unit connects to the right side of the Power Supply Unit | CK3W-EXS02 |
| | Expansion cable | To connection between the Expansion Master Unit and Slave Unit (0.3m) | CK3W-CAX003A |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Compact PMAC Controller
# CK3C

- ARM Dual Core 1GHz Processor
- Memory: 1GB RAM, 1GB Flash
- Local/direct amplifier interface as well as EtherCAT®
- Multiple encoder interfaces available with ACC modules
- On Board IO available with ACC modules
- EtherCAT® for flexible configuration



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| Model | Analog I/O | Ethernet Port(s) | EtherCAT® License | Extended Pin |
|---|---|---|---|---|
| CK3C-AX1100 | No | 1 | No | No |
| CK3C-AX1100E | No | 1 | No | Yes |
| CK3C-AX1201 | "4x 16-bit AI 1x Filtered PWM AO " | 2 | No | No |
| CK3C-AX1201E | "4x 16-bit AI 1x Filtered PWM AO " | 2 | No | Yes |
| CK3C-AX1211 | "4x 16-bit AI 1x Filtered PWM AO " | 2 | I/O Only | No |
| CK3C-AX1211E | "4x 16-bit AI 1x Filtered PWM AO " | 2 | I/O Only | Yes |
| CK3C-AX1231 | "4x 16-bit AI 1x Filtered PWM AO " | 2 | 8 Servo | No |
| CK3C-AX1231E | "4x 16-bit AI 1x Filtered PWM AO " | 2 | 8 Servo | Yes |

| Model | | Analog I/O |
|---|---|---|
| ACC-24S3 | 3-4050000-000-000000 | 4-Channel expansion |
| | 3-4050000-000-010000 | 4-Channel expansion with 4 analog inputs & 1 Filtered PWM output |
| ACC-51S | 3-3674-0-0002-000000 | 2 channel 4096x interpolator board for sinusoidal encoders |
| | 3-3674-0-0012-000000 | 4 channel 4096x interpolator board for sinusoidal encoders |
| ACC-84S | 3-3936-0-0002-000000 | 4-Channel SSI serial encoder protocol |
| | 3-3936-0-0003-000000 | 4-Channel ENDAT serial encoder protocol |
| | 3-3936-0-0006-000000 | 4-Channel Yaskawa Sigma II & III serial encoder protocol |
| | 3-3936-0-0008-000000 | 4-Channel Panasonic serial encoder protocol |
| | 3-3936-0-000D-000000 | 4-Channel Mitsubishi serial encoder protocol |
| | 3-3936-0-000E-000000 | 4-Channel 1S serial encoder protocol |
| | 3-3936-0-0TBC-000000 | 4-Channel table based compare protocol |
| | 3-3936-0-0XY2-000000 | XY2-100 serial link for 2-axis and 3-axis laser scan heads and galvanometers |
| ACC-8AS | 3A0-603673-10X | 4-Channel dual 16-bit DAC analog board |
| ACC-8FS | 3F0-603673-10X | 4-Channel direct PWM breakout board |
| Breakout Board | CBB4-00-000-000-1000 | CK3C breakout board with separate connectors for each encoder, each flag set, and servo amplifier output |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Servomotor
# 1S Series

- Advanced design allows easy installation and wiring
- EtherCAT® communications up to 125µsec
- Safety over the EtherCAT® network
- Motor has 23-bit battery less absolute encoder
- 350% momentary torque (200 V, 750 W max.)



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| RPM | Capacity | Torque | Motor | Drive | Motor | Drive |
|---|---|---|---|---|---|---|
| | | | 100V VAC | | 480V VAC | |
| 3000 RPM | 0.05 kW | 0.159 Nm | R88M-1M05030S-(1)S2 | R88D-1SN01L-ECT | | |
| | 0.1 kW | 0.318 Nm | R88M-1M10030S-(1)S2 | R88D-1SN01L-ECT | | |
| | 0.2 kW | 0.637 Nm | R88M-1M20030S-(1)S2 | R88D-1SN02L-ECT | | |
| | 0.4 kW | 1.27 Nm | R88M-1M40030S-(1)S2 | R88D-1SN04L-ECT | | |
| | | | 200V VAC | | | |
| | 0.05 kW | 0.159 Nm | R88M-1M05030T-(1)S2 | R88D-1SN01H-ECT | | |
| | 0.1 kW | 0.318 Nm | R88M-1M10030T-(1)S2 | R88D-1SN01H-ECT | | |
| | 0.2 kW | 0.637 Nm | R88M-1M20030T-(1)S2 | R88D-1SN02H-ECT | | |
| | 0.4 kW | 1.27 Nm | R88M-1M40030T-(1)S2 | R88D-1SN04H-ECT | | |
| | 0.75 kW | 2.39 Nm | R88M-1M75030T-(1)S2 | R88D-1SN08H-ECT | R88M-1L75030C-(1)S2 | R88D-1SN10F-ECT |
| | 1.0 kW | 3.18 Nm | R88M-1L1K030T-(1)S2 | R88D-1SN10H-ECT | R88M-1L1K030C-(1)S2 | R88D-1SN10F-ECT |
| | 1.5 kW | 4.77 Nm | R88M-1L1K530T-(1)S2 | R88D-1SN15H-ECT | R88M-1L1K530C-(1)S2 | R88D-1SN15F-ECT |
| | 2.0 kW | 6.37 Nm | R88M-1L2K030T-(1)S2 | R88D-1SN20H-ECT | R88M-1L2K030C-(1)S2 | R88D-1SN20F-ECT |
| | 3.0 kW | 9.55 Nm | R88M-1L3K030T-(1)S2 | R88D-1SN30H-ECT | R88M-1L3K030C-(1)S2 | R88D-1SN30F-ECT |
| | 4.0 kW | 12.7 Nm | R88M-1L4K030T-(1)S2 | R88D-1SN55H-ECT | R88M-1L4K030C-(1)S2 | R88D-1SN55F-ECT |
| | 4.7 kW | 15.0 Nm | R88M-1L4K730T-(1)S2 | R88D-1SN55H-ECT | | |
| | 5.0 kW | 15.9 Nm | | | R88M-1L5K030C-(1)S2 | R88D-1SN55F-ECT |
| 2000 RPM | 0.4 kW | 1.91 Nm | | | R88M-1M40020C-(1)S2 | R88D-1SN06F-ECT |
| | 0.6 kW | 2.86 Nm | | | R88M-1M60020C-(1)S2 | R88D-1SN06F-ECT |
| | 1.0 kW | 4.77 Nm | R88M-1M1K020T-(1)S2 | R88D-1SN10H-ECT | R88M-1M1K020C-(1)S2 | R88D-1SN10F-ECT |
| | 1.5 kW | 7.16 Nm | R88M-1M1K520T-(1)S2 | R88D-1SN15H-ECT | R88M-1M1K520C-(1)S2 | R88D-1SN15F-ECT |
| | 2.0 kW | 9.55 Nm | R88M-1M2K020T-(1)S2 | R88D-1SN20H-ECT | R88M-1M2K020C-(1)S2 | R88D-1SN20F-ECT |
| | 3.0 kW | 14.3 Nm | R88M-1M3K020T-(1)S2 | R88D-1SN30H-ECT | R88M-1M3K020C-(1)S2 | R88D-1SN30F-ECT |
| 1500 RPM | 4 kW | 25.5 Nm | R88M-1M4K015T-(1)S2 | R88D-1SN55H-ECT | R88M-1M4K015C-(1)S2 | R88D-1SN55F-ECT |
| | 5.0 kW | 31.8 Nm | R88M-1M5K015T-(1)S2 | R88D-1SN55H-ECT | | |
| | 5.5 kW | 35 Nm | | | R88M-1M5K515C-(1)S2 | R88D-1SN55F-ECT |
| | 7.5kW | 47.8 Nm | R88M-1M7K515T-(1)S2 | R88D-1SN75H-ECT | R88M-1M7K515C-(1)S2 | R88D-1SN75F-ECT |
| | 11 kW | 70 Nm | R88M-1M11K015T-(1)S2 | R88D-1SN150H-ECT | R88M-1M11K015C-(1)S2 | R88D-1SN150F-ECT |
| | 15 kW | 95.5 Nm | R88M-1M15K015T-(1)S2 | R88D-1SN150H-ECT | R88M-1M15K015C-(1)S2 | R88D-1SN150F-ECT |
| 1000 RPM | 0.9 kW | 8.59 Nm | R88M-1M90010T-(1)S2 | R88D-1SN10H-ECT | R88M-1M90010C-(1)S2 | R88D-1SN10F-ECT |
| | 2.0 kW | 19.1 Nm | R88M-1M2K010T-(1)S2 | R88D-1SN20H-ECT | R88M-1M2K010C-(1)S2 | R88D-1SN20F-ECT |
| | 3.0 kW | 28.7 Nm | R88M-1M3K010T-(1)S2 | R88D-1SN30H-ECT | R88M-1M3K010C-(1)S2 | R88D-1SN30F-ECT |

Note: (1) B - Motor with brake  WHITE - Without brake

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Servomotor & Drive
# 1SA Series

- PLe/SIL3 safety functions
- STO, SS1, SS2, SOS, SLS, SLP, SDI, & SBC
- Drive with EtherCAT® Communication
- Single cable design
- Right angle, rotatable, connector on motor
- Absolute encoder without the need for battery



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| RPM | Capacity | Torque | Motor | Drive | Motor | Drive |
|---|---|---|---|---|---|---|
| | | | 200V VAC | | 400V VAC | |
| 3000 RPM | 0.2 kW | 0.637 Nm | R88M-1AM20030T-(1)S2 | R88D-1SAN02H-ECT | | |
| | 0.4 kW | 1.27 Nm | R88M-1AM40030T-(1)S2 | R88D-1SAN04H-ECT | | |
| | 0.75 kW | 2.39 Nm | R88M-1AM75030T-(1)S2 | R88D-1SAN08H-ECT | R88M-1AL75030C-(1)S2 | R88D-1SAN10F-ECT |
| | 1.0 kW | 3.18 Nm | R88M-1AL1K030T-(1)S2 | R88D-1SAN10H-ECT | R88M-1AL1K030C-(1)S2 | R88D-1SAN10F-ECT |
| | 1.5 kW | 4.77 Nm | R88M-1AL1K530T-(1)S2 | R88D-1SAN15H-ECT | R88M-1AL1K530C-(1)S2 | R88D-1SAN15F-ECT |
| | 2.0 kW | 6.37 Nm | R88M-1AL2K030T-(1)S2 | R88D-1SAN20H-ECT | R88M-1AL2K030C-(1)S2 | R88D-1SAN20F-ECT |
| | 2.6 kW | 8.28 Nm | R88M-1AL2K630T-(1)S2 | R88D-1SAN30H-ECT | | |
| | 3.0 kW | 9.55 Nm | | | R88M-1AL3K030C-(1)S2 | R88D-1SAN30F-ECT |
| 1500 RPM | 1.5 kW | 9.55 Nm | R88M-1AM1K515T-(1)S2 | R88D-1SAN15H-ECT | R88M-1AM1K515C-(1)S2 | R88D-1SAN15F-ECT |
| | 2.7 kW | 17.2 Nm | R88M-1AM2K715T-(1)S2 | R88D-1SAN30H-ECT | | |
| | 3.0 kW | 19.1 Nm | | | R88M-1AM3K015C-(1)S2 | R88D-1SAN30F-ECT |

Note: (1) B - Motor with brake  WHITE - Without brake

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

# Inverters
# M1 Inverter

- IM and PM motor control in OLV & CLV (200% torque at 0Hz).
- Multiple ratings: HHD 150%/1 min and HND 120%/1 min.
- STO SIL3 Ple Rating and FSOE
- Encoder Input
- USB Programming Port
- Sysmac Integration



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| Power Supply | Max Motor Output | RS-485 | EtherCAT® | EtherNet/IP™ Multiprotocol |
|---|---|---|---|---|
| 200V 1-Phase | 200 watts | 3G3M1-AB002 | 3G3M1-AB002-ECT | 3G3M1-AB002-EMP |
| | 400 watts 1/2HP | 3G3M1-AB004 | 3G3M1-AB004-ECT | 3G3M1-AB004-EMP |
| | 750 watts 1HP | 3G3M1-AB007 | 3G3M1-AB007-ECT | 3G3M1-AB007-EMP |
| | 1.5 KW 2HP | 3G3M1-AB015 | 3G3M1-AB015-ECT | 3G3M1-AB015-EMP |
| | 2.2 KW 3HP | 3G3M1-AB022 | 3G3M1-AB022-ECT | 3G3M1-AB022-EMP |
| 200V 3-Phase | 200 watts | 3G3M1-A2002 | 3G3M1-A2002-ECT | 3G3M1-A2002-EMP |
| | 400 watts | 3G3M1-A2004 | 3G3M1-A2004-ECT | 3G3M1-A2004-EMP |
| | 750 watts | 3G3M1-A2007 | 3G3M1-A2007-ECT | 3G3M1-A2007-EMP |
| | 1.5 KW | 3G3M1-A2015 | 3G3M1-A2015-ECT | 3G3M1-A2015-EMP |
| | 2.2 KW | 3G3M1-A2022 | 3G3M1-A2022-ECT | 3G3M1-A2022-EMP |
| | 3.7 KW | 3G3M1-A2037 | 3G3M1-A2037-ECT | 3G3M1-A2037-EMP |
| | 5.5 KW | 3G3M1-A2055 | 3G3M1-A2055-ECT | 3G3M1-A2055-EMP |
| | 7.5 KW | 3G3M1-A2075 | 3G3M1-A2075-ECT | 3G3M1-A2075-EMP |
| | 11 KW | 3G3M1-A2110 | 3G3M1-A2110-ECT | 3G3M1-A2110-EMP |
| | 15 KW | 3G3M1-A2150 | 3G3M1-A2150-ECT | 3G3M1-A2150-EMP |
| | 18.5 KW | 3G3M1-A2185 | 3G3M1-A2185-ECT | 3G3M1-A2185-EMP |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# Inverters
# M1 Inverter

- IM and PM motor control in OLV & CLV (200% torque at 0Hz).
- Multiple ratings: HHD 150%/1 min and HND 120%/1 min.
- STO SIL3 Ple Rating and FSOE
- Encoder Input
- USB Programing Port
- Sysmac Integration



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| Power Supply | Max Motor Output | RS-485 | EtherCAT® | EtherNet/IP™ Multiprotocol |
|---|---|---|---|---|
| 400V 3-Phase | 400 Watts | 3G3M1-A4004 | 3G3M1-A4004-ECT | 3G3M1-A4004-EMP |
| | 750 watts 1HP | 3G3M1-A4007 | 3G3M1-A4007-ECT | 3G3M1-A4007-EMP |
| | 1.5 KW 2HP | 3G3M1-A4015 | 3G3M1-A4015-ECT | 3G3M1-A4015-EMP |
| | 2.2 KW 3HP | 3G3M1-A4022 | 3G3M1-A4022-ECT | 3G3M1-A4022-EMP |
| | 3 KW 4HP | 3G3M1-A4030 | 3G3M1-A4030-ECT | 3G3M1-A4030-EMP |
| | 4 KW 5HP | 3G3M1-A4040 | 3G3M1-A4040-ECT | 3G3M1-A4040-EMP |
| | 5.5 KW 7.5HP | 3G3M1-A4055 | 3G3M1-A4055-ECT | 3G3M1-A4055-EMP |
| | 7.5 KW 10HP | 3G3M1-A4075 | 3G3M1-A4075-ECT | 3G3M1-A4075-EMP |
| | 11 KW 15HP | 3G3M1-A4110 | 3G3M1-A4110-ECT | 3G3M1-A4110-EMP |
| | 15 KW 20HP | 3G3M1-A4150 | 3G3M1-A4150-ECT | 3G3M1-A4150-EMP |
| | 18.5 KW 25HP | 3G3M1-A4185 | 3G3M1-A4185-ECT | 3G3M1-A4185-EMP |
| | 22 KW | 3G3M1-A4220 | 3G3M1-A4220-ECT | 3G3M1-A4220-EMP |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

Highlights

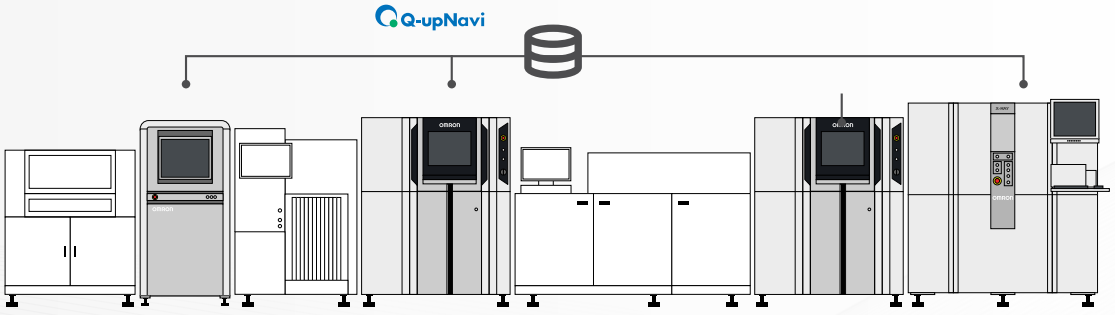
# Inspection Systems

## Precision, Speed, and **Zero-Defect** Confidence. Built for Advanced SMT **Line Demands**.

OMRON's inspection portfolio delivers cutting-edge solutions for every stage of PCB quality control. With SPI, AOI, and AXI systems powered by AI and 3D imaging, manufacturers can detect defects early, reduce false calls, and improve production. These intelligent, in-line systems are designed to meet the rigorous demands of modern SMT lines while driving toward zero-defect manufacturing.

### PORTFOLIO HIGHLIGHTS

- AI software identifies component features, removes noise and provides accurate measurements
- In-line CT AXI system captures the complete volume of every solder joint
- Patented 3D-SJI technology utilizes both color highlighting and 3D techniques for the most robust inspection solution
- OMRON developed the first color-highlighting based AOI machine on the market in 1987




**MOVE FROM INSPECTION TO REAL PROCESS IMPROVEMENT**

AI Driven Algorithms

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# 3D SPI
# VP9000 Series Solder Paste Inspection Machine

- Initial inspection of the SMT assembly process
- 3D projectors for accurate solder paste measurement
- Automatic Z-Axis focus for each FOV
- Optional Foreign material and glue inspection
- Intuitive programming interface
- Compatible with Omron Qup Traceability software



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| Model | VP9000M | VP9000L |
|---|---|---|
| Target Customer | All Surface Mount PCB Manufacturers | |
| Primary Use | Inline Solder Paste Inspection | |
| Technology | Single or Dual True 3D projectors | |
| Resolution | 5um-25um | |
| Board Handling | 50x50mm - 330x250mm | 50x50mm - 510x460mm |

# 3D AOI
## VT-S10 Series AOI Pre/Post-Reflow Machines

- Pre and Post Reflow inspection for inline SMT assembly
- 1x 25MP Top-down camera, 4x 5MP Angled cameras
- 4x Angled projectors with MPS 3D imaging and measurement
- Offline programming to minimize impact on production line
- Compatible with Omron Qup Traceability software



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| Model | VT-Z600 | VT-S1040 | VT-S1080 |
|---|---|---|---|
| Target Customer | All Surface Mount PCB Manufacturers | | |
| Primary Use | Inline Pre-Reflow Inspection | Inline Post-Reflow Inspection | |
| Technology | 12 or 25MP Camera<br>MDMC Color Highlight™ | 12 or 25MP Camera<br>MDMC Color Highlight™3D MPS Imaging | 12 or 25MP Camera<br>MDMC Color Highlight™3D MPS Imaging |
| Resolution | 10µm or 12.5µm | | |
| Board Handling | 50x50mm - 680x510mm | | |
| Dual Lane Option | Yes | | |

Note: Tables include representative part numbers that are **in stock and ready to ship**. Please consult the product page for more details.

# 3D CT AXI
# VT-X750 CT AXI Machine

- True 3D, CT, Volumetric X-Ray Imaging
- Multiple Supported Resolutions (3um - 30um)
- Dynamic 3D Rendering for Every Inspected Solder Joint
- Fast Inline and Repeatable Automated Inspection
- Ultra-Low Dosage X-Ray Exposure
- Intuitive, User-Friendly Software Interface
- Compatible with OMRON Qup Traceability software



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| Model | VT-X750 | VT-X750XL | VT-X850 |
|---|---|---|---|
| Target Customer | All Surface Mount PCB Manufacturers | | EV or Aerospace Surface Mount PCB Manufacturers |
| Primary Use | Inline Hidden Solder Joint Inspection | | |
| Technology | High-Speed Full 3D CT X-Ray imaging hundreds of cross-section slices automatic warpage compensation | | |
| Resolution | 3um-30um | 10um-30um | 15um-30um |
| Board Handling | 50x50mm - 610x515mm | 100x50mm - 1200x610mm | 150x100mm - 610-515mm |

Note: Tables include representative part numbers that are **in stock and ready to ship.** Please consult the product page for more details.

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**Operator Interfaces**
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• Limit Switches • Pushbutton Switches • Electromechanical Relays
• Solid State Relays

**Software**
• Programming & Configuration • Runtime

Note: Specifications are subject to change.

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