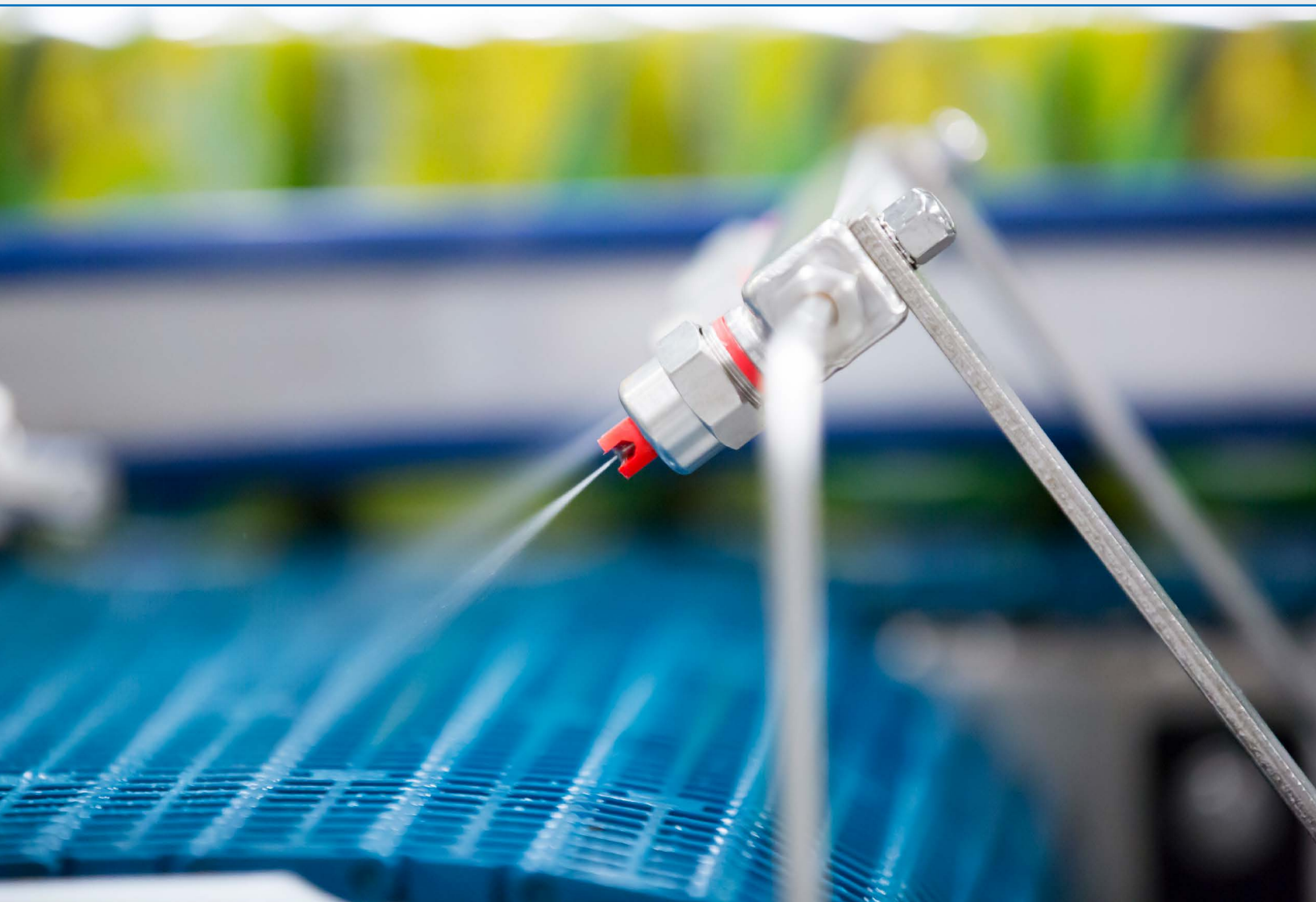


Products designed for harsh washdown environments

Stainless steel and IP67/IP69K rated products for specialty applications



- Engineered for sanitary, hygienic and aseptic environments
- Solutions for food, beverage, pharmaceutical and life sciences applications
- Conforms to FDA and USDA, Ecolab and IEC specifications

Omron delivers the perfect mix of harsh washdown solutions ensuring product and operations integrity

There is increasing scrutiny being placed on product integrity issues. Public, media and regulatory attention has focused on the sanitary practices of production facilities, with almost no industry being exempt. The potential costs of recalls, fines and long-term brand damage is compelling producers to take additional steps to ensure consumer wellbeing.

Intensified washdown practices including greater frequency with higher wash pressures and temperatures and more concentrated chemical applications call for equipment and solutions specifically designed to withstand these types of processes.

Omron offers 80+ years of expertise and experience as the single source supplier of industrial automation solutions for harsh washdown environments and specialty applications.

From sensing and vision to industrial components, robotics, safety and even connectivity, our solutions meet today's regulatory requirements and protect both consumers and brand reputation.

Serving your industry

Omron has the preferred product lineup for leading companies in meat/poultry and seafood processing, dairy, ice cream, frozen foods, fruits and vegetables, beverages, personal care, pharmaceutical, medical device manufacturing, clinical/in vitro, and many more.

Stay ahead with Omron

- More efficient maintenance and cleaning
- Reduces downtime
- Increases OEE
- Decreases possibility of product recalls
- Maintains code compliance



FRESH PRODUCE



MEAT PROCESSING








PHARMACEUTICALS



DAIRY PROCESSING

Hygienic Requirements

Mostly for the Food Market








A3	<p>The Symbol of Assurance</p> 	Sanitary Standards, Inc. (3-A) is an association that performs a similar role to the EHEDG but for the US market, drafting directives for the hygienic processing and packaging of dairy products and other foodstuffs.
ECOLAB		Ecolab, Inc. is a leading global supplier of products and services within the field of industrial cleaning and hygiene, including the food processing sector. The company certifies long-term resistance to conventional cleaning agents and disinfectants.
EHEDG		The European Hygienic Engineering & Design Group (EHEDG) is a consortium made up of machine and component manufacturers and experts from the food industry, research institutes, and public health authorities that compiles directives for the hygienic processing and packaging of food, and develops tests used to check hygiene standards.
Diversey		Materials used for (machine) components are tested for resistance to cleaning agents and disinfectants produced by Diversey, and the relevant certificates are issued for individual components.
FDA		The Food and Drug Administration (FDA) is the US supervisory body for drugs and foodstuffs whose responsibilities include decreeing regulations on the use of substances in hygienic environments.

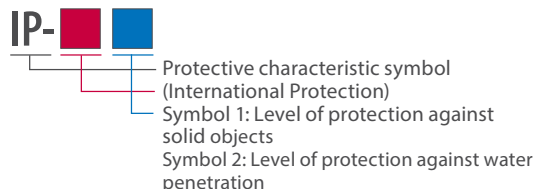
IP Rating Reference Guide










IEC (International Electrotechnical Commission)

Standards (IEC60529:2001)

Ingress protection classifies and rates the degree of protection provided against intrusion, dust, accidental contact and water.

Level		Amount of protection
0		No protection.
1		Solid objects 50 mm or larger in diameter (hand, etc.) do not penetrate.
2		Solid objects 12.5 mm or larger in diameter do not penetrate.
3		Wires or other solid objects 2.5 mm or larger in diameter do not penetrate.
4		Wires or other solid objects 1 mm or larger in diameter do not penetrate.
5		An amount of dust sufficient to interfere with normal operation of the device or create a safety problem does not enter.
6		Dust does not enter.



Level		Amount of protection	Test procedure
0	No special protection.	No protection against water penetration.	No test.
1		Suffers no damaging effects from vertically dripping water.	Placed under vertically dripping water from a drip-ping tester for 10 minutes.
2		Suffers no damaging effects from water dripping no more than 15° out of plumb.	Placed at an inclination of 15° under dripping water from a dripping tester for 10 minutes (2.5 minutes in each direction).
3		Suffers no damaging effects from water sprayed from an angle up to 60° from plumb.	Using the tester at right, the device is sprayed from each side up to an angle of 60° from plumb for 10 minutes).
4		Suffers no damaging effects from water sprayed from all directions.	Using the tester at right, the device is sprayed from all directions for 10 minutes.
5		Suffers no damaging effects from and direct jet spray from all directions.	Using the tester at right, each square meter of the case is sprayed from all directions for 1 minute, for a total of at least 3 minutes.
6		Suffers no damaging effects from strong and direct jet spray from all directions.	Using the tester at right, each square meter of the case is sprayed from all directions for 1 minute, for a total of at least 3 minutes.
7		Water does not penetrate when the device is submerged for a specified amount of time at a specified pressure.	The device is submerged for 10 minutes at depth of 1 m in water (if the height of the device is less than 850 mm).
8		The device can be used on a regular basis under water.	Decided by the manufacturer and the user of the device.
9K		Protected against high temperature.	High pressure water and steam.

IP69K according to DIN 40050-9

The IP69K test according to DIN 40050-9 is intended to simulate high pressure / steam cleaning. During the test 14 to 16 l/min water at 80°C is sprayed onto the sensor from different angles with 8 to 10 MPa (80 to 100 bar). The nozzle is held 10 to 15 cm from the tested device at angles shown for 30 seconds each. The test device sits on a turntable that rotates once every 12 s (5 rpm). The sensor may not suffer any damaging effects from high pressure water in appearance and functionality.

Control | Industrial PC (IPC)

NYP

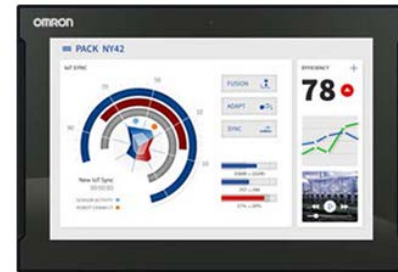


[CLICK HERE](#)
to learn more

- Rugged package of industrial PC and 19" monitor with FDA-approved nickel-plated bezel for mounting on panel or on machine in harsh environments.

Industrial PC Monitor

NYM



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to learn more

- 19" display and touch interface with an FDA-approved nickel-plated bezel for washdown reliability in industrial environments.

Safety | Door Switches

D40R



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to learn more

- RFID non-contact switch is IP69K rated for high-pressure clean-in-place washdowns and resists most chemicals used in industrial environments.

D40P



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to learn more

- Hall-effect coded magnet non-contact switch operates behind stainless steel fittings with IP69K models suitable for the hygienic demands of high-pressure cleaning and CIP/SIP processes.

D40-ML



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to learn more

- Clean-in-place magnetic locking switch with RFID housed in stainless steel and IP69K rated for industrial machine guarding applications.

D41L



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to learn more

- Machine builders and OEMs are challenged to address high-risk applications in environments with hygienic specifications or harsh conditions.

Sensing | Proximity Sensors

E2E NEXT

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to learn more



- Four times the sensing range prevents unexpected downtime and ensures operation in environments with dust, water and oil with ratings of IP67/IP69K/IP67G in stainless steel and brass housings.

E2EH

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to learn more



- Extreme heat (up to 120°C) and detergent resistant inductive sensors in cylindrical stainless steel housing provide reliable metal object or machine part detection.

Connector Cordsets

Y92E-SERIES

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to learn more



- Compatible with Omron's chemical resistant photoelectric and inductive proximity sensors the series offers models rated IP67/IP68/IP69K for a complete washdown and detergent resistant sensing solution.

IO-Link Connectivity

GX-ILM IO-LINK

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to learn more



- IO-Link master unit with IP67 protection for watery and dusty environments.

Photoelectric Sensors

E3AS-HL

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to learn more
E3AS-HL



- CMOS photoelectric sensor for small and variable part detection with a high degree of precision. CMOS technology enables detection for a variety of part colors, textures, and sizes with the ability to detect transparent objects without the need for a reflector.

E3FA/E3RA / E3FB/E3RB

[CLICK HERE](#)
to learn more
E3FA

[CLICK HERE](#)
to learn more
E3FB



- Reliable, stable sensing in a robust M18 barrel housing rated at IP67 and IP69K that can withstand high-pressure cleaning for demanding applications.

E3FC

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to learn more



- Compact, hygienic sensor in an M18 form factor designed with high grade, hermetically sealed stainless steel housing for high temperature and high pressure cleaning applications and proven to resist corrosion from industrial detergents and disinfectants.

E3ZM / E3ZM-B / E3ZM-C / E3ZM-V

[CLICK HERE](#)
to learn more



- High-temperature, high pressure square sensor designed with food grade 316L stainless steel housing to resist alkaline and acid-based corrosive chemical detergents commonly found in IP69K compliant environments.

E3S-DB

[CLICK HERE](#)
to learn more



- Reliable detection of transparent objects in harsh environments, the construction is IP69K compliant and can withstand high temperatures and high water pressures and is Ecolab certified for food and beverage applications.

Light Curtains

F3SG-SRA / F3SG-SRB

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to learn more



- Certified to global safety standards and built with a robust seal to achieve an IP67G rating for water and oil resistance along with an IP69K model for high-pressure washdown applications.

Rope Pull Emergency Stop Switches

ER6022-SS

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to learn more



- 316 stainless steel die-cast housing and hardware rated IP67 with NEMA 6 enclosure withstands harsh washdowns and cold applications to -40° C.

Emergency Stop Pushbutton Switches

A22NE-P / A22NE-PD

[CLICK HERE](#)
to learn more



- IP69K rated with rubber cover resists washdown temperatures of up to 80°C and high pressure sprays from 80 to 100 BAR in environments that require frequent, washdowns.

Auto-ID | RFID Readers and Tags

V680S



[CLICK HERE](#)
to learn more

- Compliant with worldwide radio regulations and durable, IP67 rated to withstand high temperature cleanings without dismounting makes this system ideal for harsh environments.

V680-SERIES RF TAGS



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to learn more

- Optimally designed to use with V680S series of readers/writers and molded by PPS resin for IP68 superior oil and chemical resistance and clean-in-place washdowns.

Smart Cameras

FHV7



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to learn more

- Rugged design intended for harsh environments with high vibration and exposure to regular washdowns with IP67 waterproof housing and connector options.

MICROHAWK F430



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to learn more

- Inspection, code and character reading all in one compact system and IP67 rated for powerful performance in wet environments.

Barcode Readers

MICROHAWK V430



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to learn more

- Ultra compact, lightweight and rated IP67 to solve challenging barcode reading applications even in tough environments.

V450



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to learn more

- The V450 handheld is designed to read barcode labels and direct part marks while withstanding the harsh industrial environment.

Vision Systems

FH



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- Camera enclosures for washdown environments available.

Robotics | Parallel Robots

QUATTRO™



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to learn more

- Robust components and design make this robot USDA-accepted for meat and poultry processing as well as primary food handling and the only 4-arm model in the world which operates with superior speed and stability.

SYSMAC DELTA



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to learn more

- Ideal for the food and beverage, pharmaceutical and healthcare industries the IP69K rated pick-and-place system is made with stainless steel for washdown environments.

Collaborative Robots

TM5



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to learn more

- Omron TM cobots are geared toward manufacturers seeking to boost production and reduce employee fatigue by automating repetitive tasks such as machine tending, loading and unloading, assembly, screw driving, gluing, testing or soldering.

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