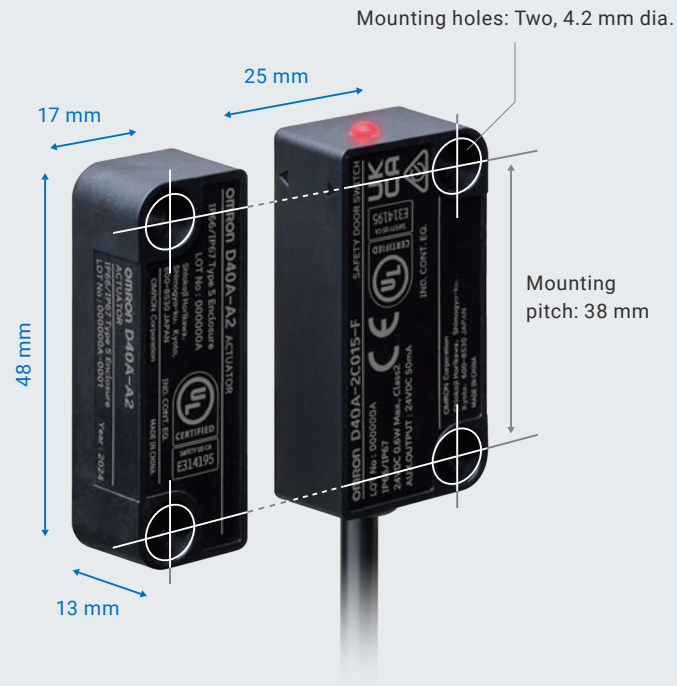


Safety door switches tailored to meet the diverse requirements of global equipment specifications.



A cost-effective model that ensures safety compliance around the world

Production facilities across the globe must adhere to the specific requirements of each location. Ensuring safety throughout the manufacturing processes is essential, and considering the associated costs is a critical aspect. The D40A-2 is a non-contact safety door switch designed to address these challenges.

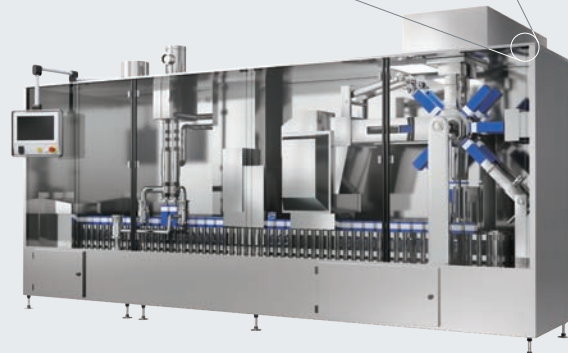


D40A-2 Actual size

Application example
Single wafer cleaner



Application example
Filling machine



PLe/Safety Category 4 and cost optimization

- PLe/Category 4 achieved with the diagnostic functions of the safety controllers
- Simplicity in design, economy in cost.

>P.4



Environmental resistance for a variety of applications

- Operates in temperatures from -25°C to +70°C
- ECOLAB-certified for wash down processes
- A label-free design ideal for processes requiring strict cleanliness standards

>P.6



Globally applicable detection technologies and auxiliary output models

- Switches with magnetic detection offer precise, stable detection and are usable globally without radio regulations.
- Bipolar NPN/PNP design to meet the design philosophies of each region.

>P.7



PLe/Safety Category 4 and cost optimization

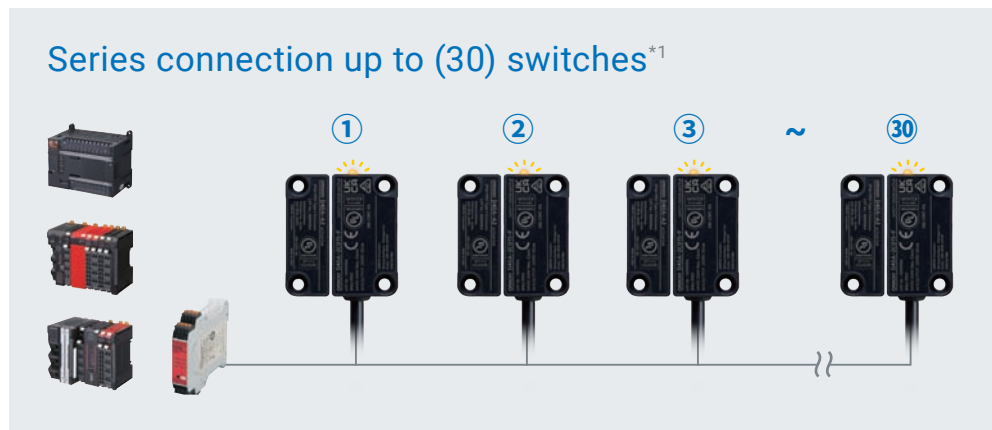
Safety for use with a variety of equipment

Certified lineup



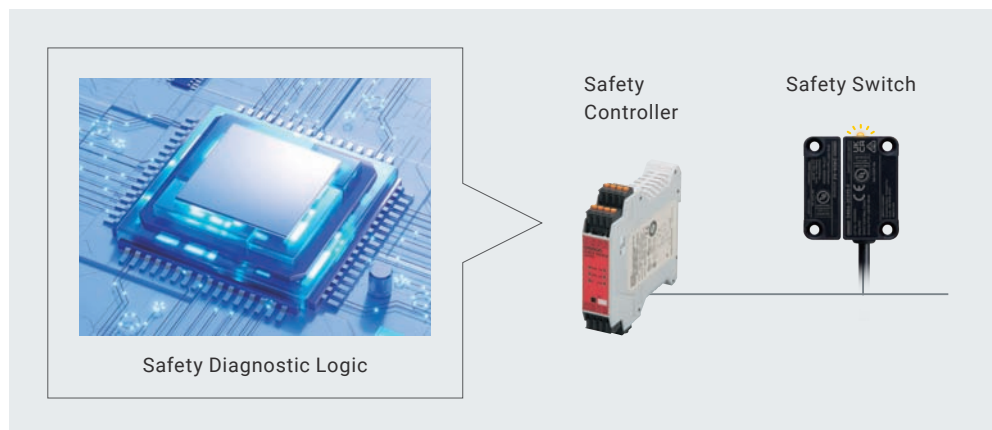
Achieves PLe/Category 4 even when connected in series

*1. The maximum number of connectable switches is (30) for G9SX-NS/NSA, (15) or (30) for G9SP, and (20) per unit (maximum (10) per terminal) for NX-series safety controllers



A streamlined design achieved through the diagnostic functions of the safety controllers.

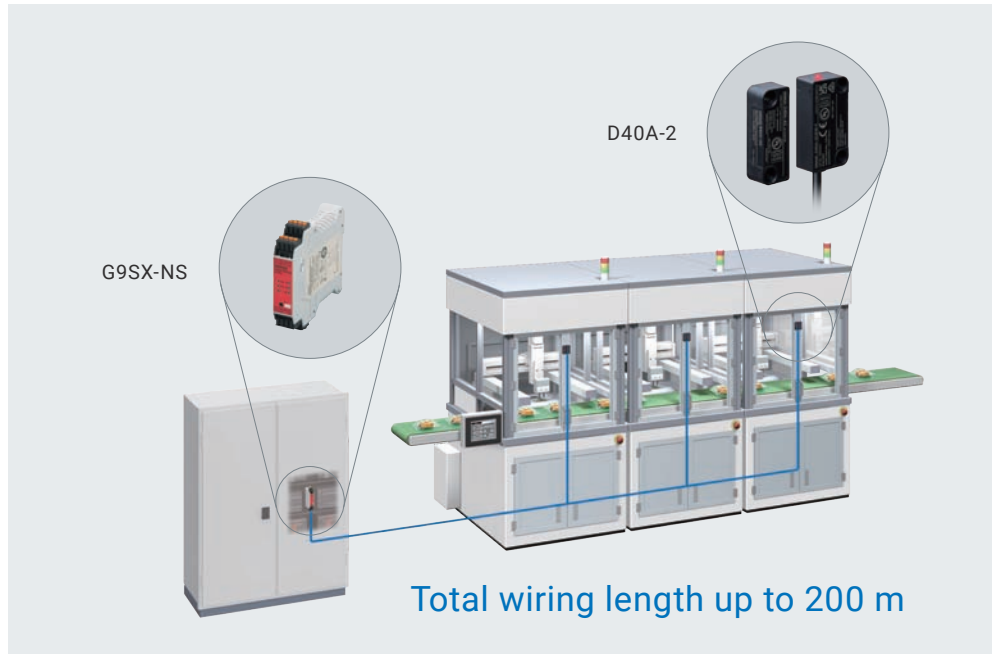
The diagnostic function of the safety controllers simplify the design of the D40A-2 and contributes to cost optimization.



Flexible wiring even when control panels are distant

With a total wiring length of up to 200 m, allowing for highly flexible wiring routing.

*2. For details, refer to the wiring instructions with respective controllers.



Auxiliary output allows relay operation.

Auxiliary outputs can operate general purpose relays. Auxiliary output*3 can be used in a wider range of applications.

*3. Check the specifications of the auxiliary output and make sure to select the relay that meets your application requirements. Auxiliary output cannot be used alone for safety functions.



Safety controllers available to match the scale of your application.

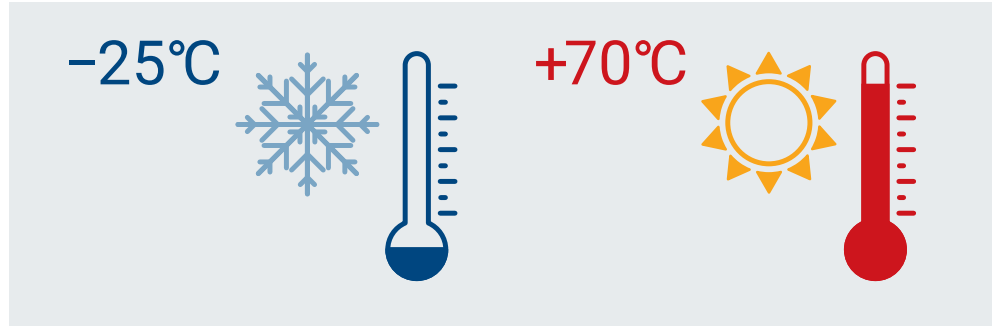
Connects to safety controllers for applications ranging from simple safety interlocks to large equipment requiring multi-axis control.



Environmental resistance for a variety of applications

Suitable for harsh temperature environments

Operates in temperatures from -25°C to +70°C. Allows for installation on equipment in harsh temperature environments.



Ideal for wash down environments

IP66 and IP67 compliant according to IEC 60529. Can be used in chemical cleaning environments in addition to cleaning with high-pressure water jet spray. Chemical resistance is certified by Ecolab. (Neutral and alkaline chemicals are applicable.)

For details on IEC 60529 (Degree of protection), see below.



Degree of Protection (IEC 60529)

omron Degree of Protection

<https://www.ia.omron.com/product/cautions/common/degree-of-protection/>

Suitable for processes requiring a clean environment

Resin exterior, resin filling, and label-free design thoroughly reduce the risk of dust and foreign object contamination.



Globally applicable detection technologies and auxiliary output models

Accurate and stable detection

The D40A-2 provides stable detection even when the door is closed slowly.

<p>General door switch (Reed switch)</p> <p>When the magnet operates slowly, it may not respond, and the LED indicator light may indicate an error.</p> <p>Close the door slowly.</p>	<p>D40A-2 (Electronic detection mechanism)</p> <p>Electronic switch with magnetic detection for stable detection</p> <p>Close the door slowly.</p>
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Not subject Radio signalrestrictions

The D40A-2 is not subject to regional radio restrictions, allowing for seamless use in any location worldwide.

<p>General door switch (RFID)</p> <p>Radio Laws at each region must be considered.</p>	<p>D40A-2 (Electronic detection mechanism)</p> <p>Not subject to the Radio Laws due to electronic switches with magnetic detection</p>
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Responding to regional design philosophies

The D40A-2 can accommodate regional design philosophies. Bipolar NPN/PNP designs are suitable for a variety of customer applications and equipment.

<p>D40A-2C</p> <p>The auxiliary output supports PNP.</p>	<p>D40A-2D</p> <p>The auxiliary output supports bipolar NPN/PNP.</p>
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Refer to the catalog below for information on corresponding safety controllers.



Safety Controllers
G9SX Series

Cat.No.F120



Safety Controller
G9SP

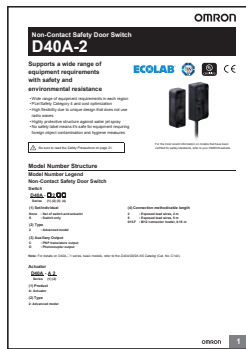
Cat.No.F090



Safety I/O Units
NX-SI/SO

Cat.No.F123

A datasheet for the D40A-2



Non-Contact Safety
Door Switch
D40A-2

Cat.No.F133

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