



Switch off safely

I/O modules without interaction for IO-Link

- 8 independently configurable digital and analogue I/O ports for IO-Link communication
- Electrical separation between auxiliary voltage and IO-Link
- Without interaction in applications up to PL d (category 3)
- Digital input filters, powerful outputs (2 A each)
- Parameter setting and diagnostics via IO-Link



IP67

IP69K

ifm – close to you!

Input and output functions	Order no.	
	Coolant	Food
Module with DI, 0...10 V, 4...20 mA / DO	AL2607	AL2507
Module with DI / DO	AL2627	AL2527

Digital and analogue ports for IO-Link

With their IO-Link masters, ifm offers an ideal solution for recording sensor signals directly in the machine without using a control cabinet.

A machine controller, however, must also be able to record digital and analogue signals and control electrical actuators in addition to IO-Link information. The I/O modules for IO-Link offer precisely these functions, making them an ideal extension to the IO-Link masters.

For safety-related applications

A particular challenge is that in certain applications, the voltage of the actuators (UA) must be switched off in a safety-related way.

The modules have been developed so that they can be used in relevant safety-related applications up to PL d (category 3) without interaction.

Switching off without interaction

In classic safety technology, the voltage supply to hazardous actuators (UA) is switched off centrally via a safety relay.

In modern, decentralised fieldbus systems, however, the actuators are controlled via "non-safe" outputs of I/O modules, while the voltage supply to these I/O modules is increasingly being switched off centrally via an upstream safety relay or a safety controller.

Common technical data	
External voltage supply	L-code
US and UA electrically separated	yes
Switchable current per module [A]	16
Non-interaction	PL d (category 3)
Operating voltage [V DC]	18...30
Ambient temperature [°C]	-25...60
Coolant (orange) Protection rating Housing Socket / connector	IP67 polyamide nickel-plated brass M12
Food (grey) Protection rating Housing Socket / connector	IP69K polyamide stainless steel M12

A dilemma here is that a fault could theoretically occur in the non-safe I/O modules, resulting in the output continuing to be supplied by US even though UA has been switched off. For this reason, the modules have been redesigned and built in such a way as to rule out this theoretical error.

Many competitors refer to "passive safety" in this context. However, the term is misleading as it suggests a safety device. This is why we expressly refer to "non-interaction" and "fault exclusion".

BEST FRIENDS



IO-Link master
Field-compatible master with EtherNet/IP interface



Safety relay
Signal output via potential-free relay contacts



IP67 power supply
24 volt supply in the field, controllable via IO-Link



For further technical details, please visit:
ifm.com/fs/AL2607