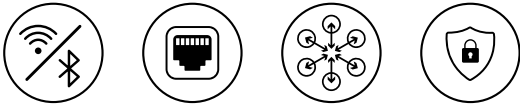


# PROGRAMMABLE LOGIC RELAYS

The unique 8A Series of PLRs from Finder and Arduino PRO

## OPTA



# ABOUT US



**Finder** was founded in Italy in 1954. Since then it has been designing and manufacturing a wide range of electromechanical and electronic components for both the residential and industrial sectors.

Today, thanks to its global vision, Finder now distributes its products around the world through a network of 29 company-owned subsidiaries and more than 80 trade partnerships.

Finder is an international family made up of more than 2000 individuals, all united by the same values and passion for our products.



**14,500** different products to satisfy a myriad of applications. From products at the heart of automation to the control of machines, power, time, temperature, liquid level and light

**OUR PRODUCTS CARRY MORE CERTIFICATIONS THAN ANY OTHER RELAY MANUFACTURER**



## FINDER IS AN ITALIAN BRAND WITH A WORLDWIDE PRESENCE

- 4** PRODUCTION PLANTS IN EUROPE
- 29** SUBSIDIARIES
- +80** OFFICIAL DISTRIBUTORS



## ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG)

Finder considers social and environmental sustainability as fundamental principles of doing business, just as it believes that business growth must develop in synergy with a conscious vision of the future. That is why Finder is committed to reducing and eliminating CO2 emissions, focusing on circularity, caring for its employees to foster a safe, fair and inclusive work environment, spreading a culture of integrity and transparency, and collaborating with stakeholders who share its values.

## AUTONOMY AND INDEPENDENCE

Finder's managerial, financial and technological autonomy allows optimal control over all its business processes, the results of which include simplified customs procedures and a high reliability of commercial relations.

This focus is demonstrated by the company's commitment to the following internationally recognized projects and certifications:



ISO 9001:2015  
Quality management system



ISO 14001:2015  
Environmental management system



ISO 45001:2018  
Health and safety management system



ISO 14064-1:2018  
Carbon Footprint verification



ISO 50001:2018  
Energy management system



FSC  
Forest Stewardship Council



AEOF  
Simplified customs and enhanced supply chain security



Crisis Prime Company  
Recognition of highest reliability of commercial relations

# WHAT IS FINDER OPTA?



A range of simple and self contained **PROGRAMMABLE LOGIC RELAYS** perfect to create simple applications in industrial automation, OEM and building automation sectors.

Programmable both with a traditional language IEC 61131-3 (Ladder) as well as with an innovative and open source language (IDE / ARDUINO).

Made in ITALY by FINDER, it combines FINDER's industrial experience with ARDUINO's technological innovation, for a truly **unique product**.

# UNIQUE IN THE MARKET

**FINDER OPTA** is the first ever **PROGRAMMABLE LOGIC RELAY**.

Drawing on FINDER's world class manufacturing capability and the ARDUINO innovative platform has resulted in a truly unique range of products.

# MADE IN ITALY

Created in partnership with ARDUINO, the OPTA range was designed and is manufactured and tested in FINDER's Headquarters in Almese, ITALY.

**FROM THE IDEA TO THE FINISHED PRODUCT.**



[opta.findernet.com](http://opta.findernet.com)

## WHY IS IT UNIQUE?

- Ultra secure connectivity at the hardware level thanks to onboard secure element chip
- Perform secure OTA (Over-The-Air) firmware updates
- Reliable and durable by design, thanks to Finder's 65+ years' industrial expertise in relay manufacturing
- Leverage of a vast availability of ready-to-use software libraries and Arduino sketches
- Support of standard according to IEC 61131-3 PLC languages (LD - Ladder Logic Diagram and FBD - Function Block Diagram, among others)
- Modbus TCP connectivity via Ethernet or Modbus RTU via dedicated RS485 terminal
- Onboard smart connectivity options (Ethernet/Wi-Fi/Bluetooth® Low Energy)
- Real-time remote monitoring via intuitive Arduino IoT Cloud dashboards (or third-party services)



## THE UNIQUE NEW PROGRAMMABLE LOGIC RELAY



### POWERFUL

The powerful dual-core Cortex® M7+M4 chip allows for a large number of computing operations in real time. Ideal for predictive maintenance applications.



### CONNECTED

Thanks to the RJ45 port, the USB (type C port), RS485 and WiFi/BLE integrated module.



### SECURE

Thanks to a high end integrated secure element chip to manage encryption and data keys in all kinds of applications.



### OPEN SOURCE

Programmable with OPEN SOURCE, LICENCE FREE software (IDE ARDUINO) as well as IEC 61131-3 languages (LADDER, FBD).



### EASY

Designed to simplify the interaction between electronic devices and the physical world, empowering all your projects.



### VERSATILE

Significantly increased application possibilities using expansion modules.

# COMMUNICATION PROTOCOLS



8 inputs and 4 outputs



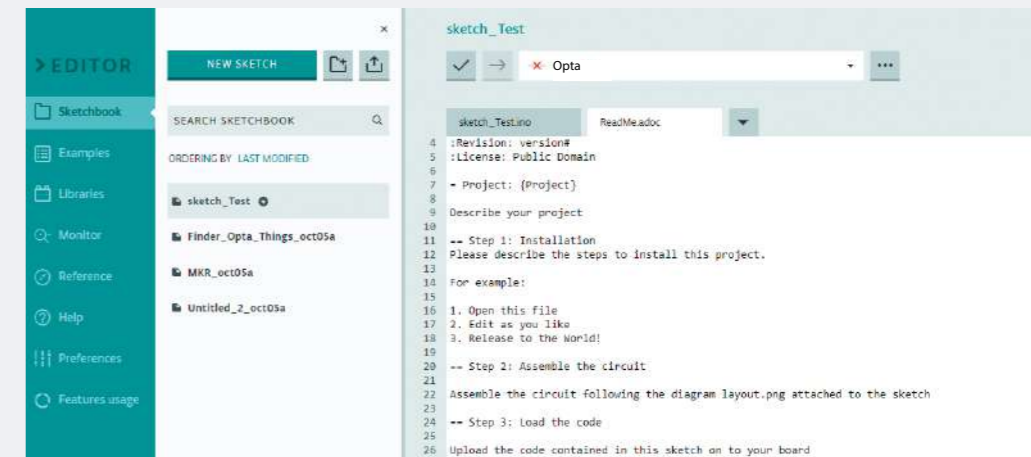
Ethernet



USB (type C port)

# ALL THE PROGRAMMING LANGUAGES YOU NEED

- Using ARDUINO IDE, the Open-Source Software
- or
- Using ARDUINO PLC-IDE for IEC 61131-3 (LADDER, FBD, etc.) languages



*designed for cyber security*

# A SUPER POWERFUL PROCESSOR

**PROCESSOR** ST dual-core Cortex® M7+M4

Super fast real-time processing to manage calculations for predictive maintenance and OTA (Over-The-Air) updates

**CRYPTO CHIP**

Enhanced IoT security thanks to the onboard secure element chip

### THE OPTA RANGE

LITE



#### Type 8A.04.9.024.8300

- Supply 12...24 V DC
- 8 Digital/Analog (0-10V) inputs
- 4 NO relay output contacts, rated 10 A
- USB (type C) High Speed port for:
  - Programming
  - Powering during configuration
  - Data logging (via memory stick)
- RJ45 for Ethernet connections or MODBUS TCP/IP

PLUS  
+ RS485



#### Type 8A.04.9.024.8310

- Supply 12...24 V DC
- 8 Digital/Analog (0-10V) inputs
- 4 NO relay output contacts, rated 10 A
- USB (type C) High Speed port for:
  - Programming
  - Powering during configuration
  - Data logging (via memory stick)
- RJ45 for Ethernet connections or MODBUS TCP/IP
- RS485 Port for MODBUS RTU connection

ADVANCED  
+ Wi-Fi and BLE



#### Type 8A.04.9.024.8320

- Supply 12...24 V DC
- 8 Digital/Analog (0-10V) inputs
- 4 NO relay output contacts, rated 10 A
- USB (type C) High Speed port for:
  - Programming
  - Powering during configuration
  - Data logging (via memory stick)
- RJ45 for Ethernet connections or MODBUS TCP/IP
- RS485 Port for MODBUS RTU connection
- Wi-Fi/BLE integrated module



POWER SUPPLY



#### Type 78.12.1.230.2482

- 24 V DC power supplies
- Peak current: 2A
- 12 W, only one module wide (17.5 mm)
- Short circuit protection
- Thermal protection
- Overvoltage protection
- SELV

### EASILY EXPAND THE PLR'S POTENTIAL FOR GREATER FLEXIBILITY

EMR

#### Type 8A.58.9.024.1600

- 16 digital/analog (0...10 V) inputs
- 8 EMR 6 A outputs
- Nominal voltage 12...24 V DC



SSR

#### Type 8A.88.9.024.1600

- 16 digital/analog (0...10 V) inputs
- 8 SSR 3 A outputs
- Nominal voltage 12...24 V DC



ANALOG

#### Type 8A.26.9.024.0600

- 6 analog (0...10 V, 4...20 mA, PT 100) inputs
- 2 analog (0...10 V, 4...20 mA) outputs
- 4 PWM outputs
- Nominal voltage 12...24 V DC



Connection via the auxiliary port



OEM  
PROJECTS



BUILDING  
AUTOMATION

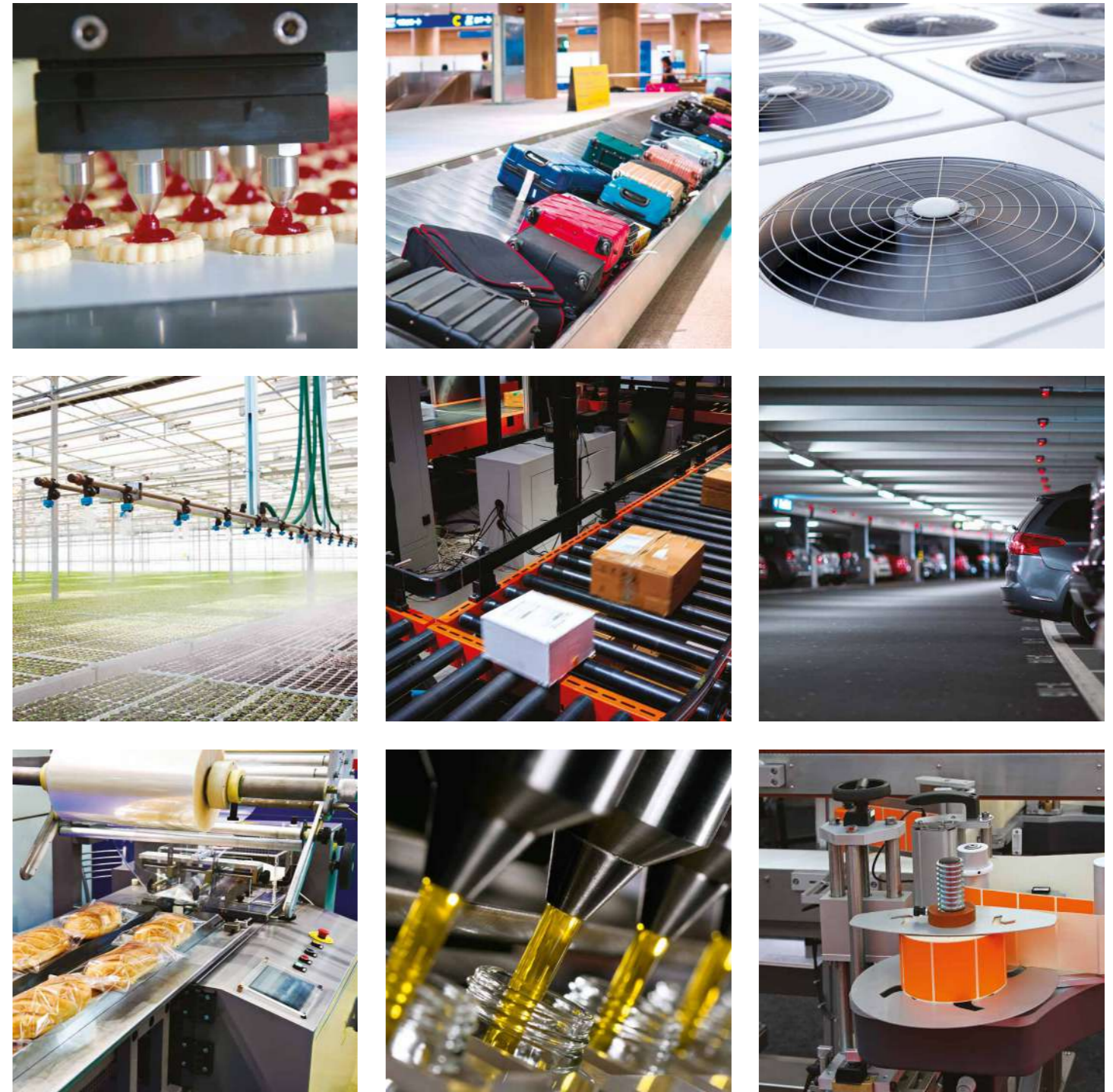


INDUSTRIAL  
APPLICATIONS

## A WIDE RANGE OF APPLICATIONS

Customer need	Target	Benefits
<b>Boost Automation with a secure, Industry 4.0 control system</b>	<ul style="list-style-type: none"> <li>• Manufacturing plants</li> <li>• Machinery</li> <li>• Industrial automation</li> <li>• Utilities</li> <li>• Logistic hubs</li> </ul>	<ul style="list-style-type: none"> <li>• Remote programming and operation</li> <li>• Productivity improvement</li> <li>• Software portability</li> <li>• Industry 4.0 capability for industrial equipment</li> <li>• Process and cycle time optimisation</li> <li>• KPI tracking, accurate data logging</li> <li>• Security through X.509 certificates</li> <li>• Modify existing installations with minimal effort</li> </ul>
<b>Smart and reliable management of electrical loads</b>	<ul style="list-style-type: none"> <li>• Airports</li> <li>• Shopping malls</li> <li>• Exhibitions</li> <li>• Underground car parks</li> <li>• Facilities management</li> <li>• Smart city infrastructure providers</li> <li>• Smart parking</li> <li>• Corporations</li> </ul>	<ul style="list-style-type: none"> <li>• Intelligent optimisation of energy management and power consumption</li> <li>• Automated security lighting</li> <li>• Improved user experience</li> <li>• Enhanced security using access control</li> <li>• Faster access authorisation processes</li> </ul>
<b>Improved comfort and quality of life at home and at work</b>	<ul style="list-style-type: none"> <li>• HVAC systems</li> <li>• Industrial air conditioning/cooling</li> <li>• Home automation</li> <li>• Smart buildings</li> </ul>	<ul style="list-style-type: none"> <li>• Ease of initial installation and of ongoing upgrades</li> <li>• Attractive dashboard design</li> <li>• Alarm configuration</li> </ul>

## A WIDE RANGE OF APPLICATIONS





# TECHNOLOGICAL PARTNER

**Millions of users and thousands of companies use Arduino as an innovation platform**

Arduino has drawn on its experience in frictionless design to enable enterprises to quickly and securely connect remote devices to business logic within one simple IoT application development platform.



OPEN SOURCE and LICENCE FREE for all.



+39 million downloads per year.



+4,000 official libraries available on the platform, for all kinds of applications.



+1 million active users on the Arduino forum and community.





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[findernet.com](https://findernet.com)



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