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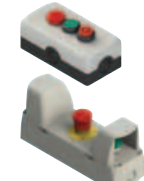
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**The products here listed represent only a selection of Pizzato Elettrica's production.
In order to discover the complete range of productions, please consult the general cataloguess**

MORE THAN 200 PROFESSIONALS WITH PASSION

It is people, with their professionalism and dedication that make a great company. This profound conviction has always guided Pizzato Elettrica in its choice of employees and partners. Today, Giuseppe and Marco Pizzato lead a tireless team providing the fastest and most efficient response to the demands of the market. This team has grown since the year 2000 and has achieved a considerable increase in business in all the countries where Pizzato Elettrica is present.

The various strategic sectors of the business are headed by professionals with significant experience and expertise. Many of these people have developed over years with the company. Others are experts in their specific field and have integrated personal experience with the Pizzato Elettrica ethos to extend the company's capability and knowledge.

From the design office to the technical assistance department, from managers to workers, every employee believes in the company and its future. Pizzato Elettrica employees all give the best of themselves secure in the knowledge they are the fundamental elements of a highly valuable enterprise.

100% MADE IN ITALY

Pizzato Elettrica is one of the leading European manufacturers of position switches, microswitches, safety devices, safety modules, foot switches, control and signalling devices, and devices for elevators.

An entrepreneurial company such as Pizzato Elettrica bases its foundations on a solid and widely shared value system. The pillars that form the basis of the company's work have remained constant, and constitute the fundamental guiding principles for all company activities.

PASSION FOR QUALITY

Passion for product quality, orientation towards excellence, innovation, and continuous development, represent the key principles of Pizzato Elettrica's everyday work.

Anyone using Pizzato Elettrica's products does so in the certainty that these devices are of certified quality, since they are the result of a process that is scrupulously controlled at every stage of the production.

The company's goal is to offer the market safe, reliable, and innovative solutions.

CARE FOR THE CUSTOMER

In order to be successful, a product must respond to the specific needs of those who will use it. Market developments must be carefully monitored in order to understand, in advance, which new applications will prove themselves truly useful. This is why Pizzato Elettrica has always cultivated close synergies with the companies that have chosen them as a supplier, using this continuous dialogue to identify the potential developments of the own product range in order to make it highly flexible, complete and capable to respond to the most diverse needs.

100% MADE IN ITALY

All Pizzato Elettrica products are designed, developed, and tested entirely at the 7 company plants in Marostica, in the province of Vicenza in Italy. The company is thus able to meet specific customer requirements at all times, by offering a comprehensive range of products and technologically advanced solutions.
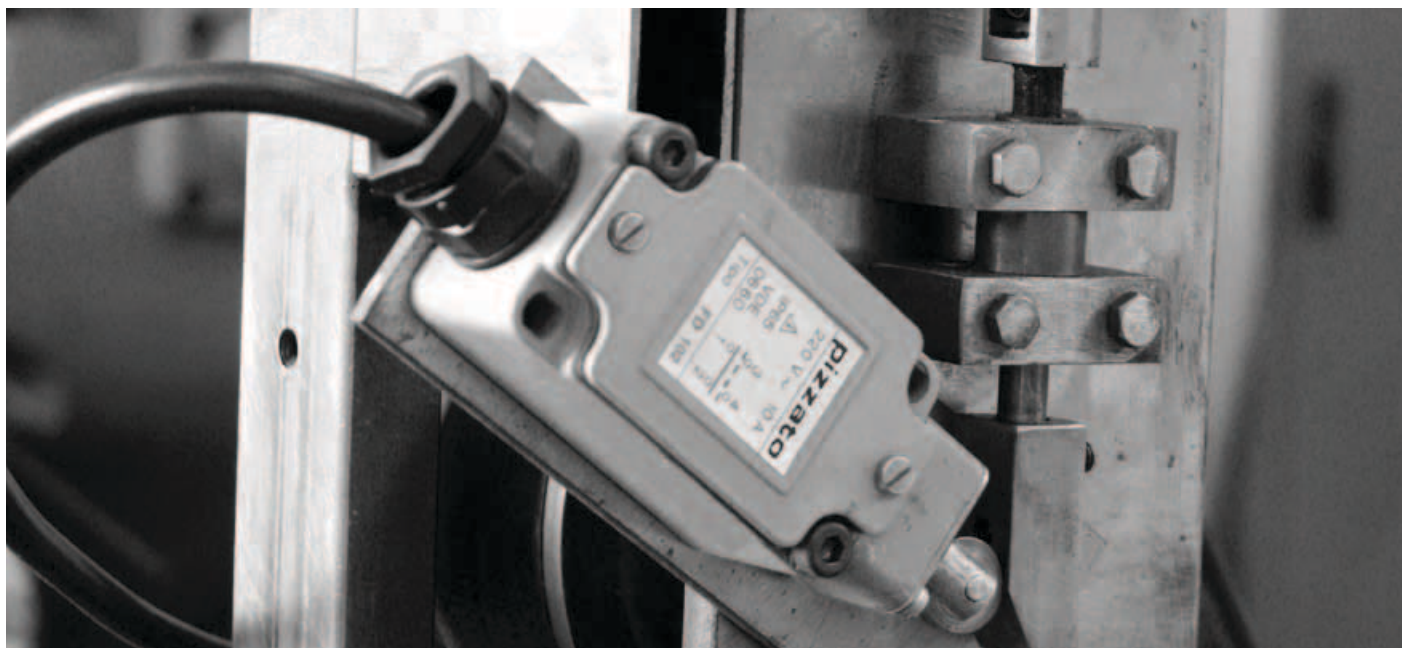
1984: AN ENTREPRENEURIAL STORY BEGINS

1984

The company Pizzato di Pizzato B. & C. snc. manufacturer of position switches is founded.

1988

The company becomes a limited liability partnership, and is renamed Pizzato Elettrica, a brand shortly destined to become renowned and valued nationwide. Also in the year 1988, the first company-owned plant geared towards mechanical processing was built. By the end of the decade, thanks to the development of quality products and the experience built on the Italian market, Pizzato Elettrica turns to the international market.

1995

Building of the second plant geared towards the moulding of plastic materials. Development of the position switch range continues in parallel. Start of significant years in terms of safety devices planning. The safety sector becomes a key sector to the company.

1998

Construction of the third plant, housing the assembly department.

2002

New millennium starts with quality certifications: achievement of the ISO 9001:2000 certification. Launching of the first safety modules. Construction of the new headquarters and logistics site; currently the company head office. Continued expansion of the industrial safety and automation product range.

2007

Pizzato Elettrica faces their first generational change: Giuseppe and Marco Pizzato take over the company directorship.

2010

Extension of Pizzato Elettrica product portfolio, with the launch of the innovative EROUND line consisting of control and signalling devices. This product range accompanies position switches and safety devices, thus offering complete solutions to customers.

2012

Introduction of Gemnis Studio, the first software produced by Pizzato Elettrica. A graphic development environment for the creation, simulation, and debugging of programs that can be integrated in the Gemnis line modules.

2013

Foundation of first subsidiary of Pizzato Elettrica, Pizzato Deutschland GmbH, in Germany.

2014

A new production facility dedicated to switches and automatic machines is opened, spanning a surface area of 6000 m².

2016

Foundation of second subsidiary of Pizzato Elettrica, Pizzato France SARL, in France.
The new NS series of safety switches with electromagnets and RFID technology is introduced, fruit of the company's experience, spanning more than thirty years in the field of industrial safety. To date it is the state of the art in its industry.

2017

The company continues to expand and now includes an additional production facility, the new location of the offices in the sales network.

Today

Giuseppe and Marco Pizzato lead a company in constant growth in terms of new product launches, number of employees (more than 200 employees at present), turnover, and new markets. Pizzato Elettrica is continuing their new product internationalisation and development process.

70,000,000 PARTS SOLD WORLDWIDE

Pizzato Elettrica's product catalogue contains more than 7,000 articles, with more than 1,300 special codes developed for devices personalised according to clients' specific needs.
Pizzato Elettrica devices can be grouped, according to typology, into three main macro-categories:

• POSITION SWITCHES. Pizzato Elettrica position switches are daily installed in every type of industrial machinery all over the world for applications in the sector of wood, metal, plastic, automotive, packaging, lifting, medicinal, naval, etc.
In order to be used in a such wide variety of sectors and countries, Pizzato Elettrica position switches are made to be assembled in a lot of configurations thanks to the various body shapes, dozens of contact blocks, hundreds of actuators and materials, forces, assembling versions.
Pizzato Elettrica can offer one of the widest product range of position switches in the world. Moreover, the use of high quality materials, high reliability technologies (e.g. twin bridge contact blocks) as well as the IP67 protection degree make this range of position switches one of the most technologically evolved.

• SAFETY DEVICES. The company Pizzato Elettrica has been one of the first Italian companies developing dedicated items for this sector, creating and patenting dozens of innovative products, thus becoming one of the main European manufacturers of safety devices. The wide range of specific products for machine safety completely designed and assembled in our company premises in Marostica (VI) - Italy, has been extended by the introduction of coded magnetic sensors, solenoid switches provided with emergency release devices, safety hinge switches and safety handles. Recent products include the safety sensors with RFID technology of the ST series, the stainless steel hinge safety switches of the HX series, the RFID safety switches with block of the NG series, the safety handle
of the P-KUBE 2 line and the safety switches with electromagnets
and RFID technology of the NS series.

• MAN-MACHINE INTERFACE. Thanks to the introduction of the EROUND control and signalling devices,
Pizzato Elettrica has remarkably widened their offer within the man-machine interface sector.

Thanks to the new design, the care for details and the elegance of the product combined
with its maximum safety and reliability, this series is one of the most complete and
cutting-edge on the market.
Our company offers a wide range of products that includes single and modular
foot switches with many patented joining kits.

In order to satisfy its customers' needs and requests, Pizzato Elettrica offers
a lot of accessories purposely designed not only to complete their wide
range of products, but also to help device installation on machineries.
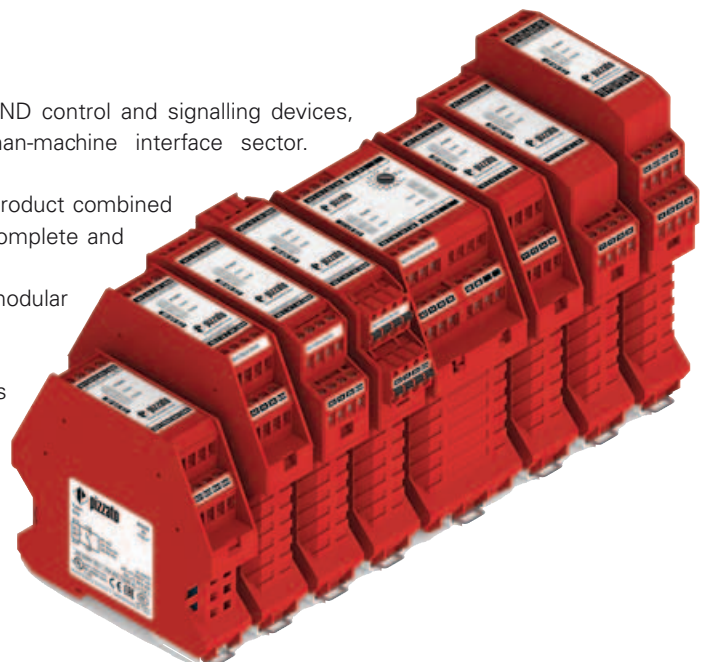
12 MILLION CERTIFIED PRODUCT CODES

A simple brand isn't enough: the company is aiming for the Pizzato Elettrica brand to be widely recognised as a synonym for absolute quality and certainty.

A result that has been reached and consolidated over the years, updating and expanding the series of certifications obtained from the most important Italian and international control organisations. Product quality is assessed by five accredited external bodies: IMQ, UL, CCC, TÜV SÜD, EAC. These bodies lay out high technical and qualitative standards for the company to achieve and maintain, verified yearly with seven different inspections: these are performed, without prior notice, by qualified inspectors, who extract samples of products and materials destined for sale from plants, or from the market directly, to subject them to apposite tests.

• CE MARK. All Pizzato Elettrica products bear the CE marking in conformity with the European Directives in force.

• ISO 9001 CERTIFICATION. The company's production system complies with national UNI EN ISO 9001 and international ISO 9001 standards. The certification covers all of the company's plants and their production and managerial activities: entry checks, technical, purchasing and commercial department activities, manufacturing operations assessments, final pre-shipping product tests and checks, equipment reviews and the management of the metrological lab.

• CERTIFICATION OF COMPANY QUALITY SYSTEMS. Pizzato Elettrica has obtained the certificate of compliance with the UNI EN ISO 9000 regulations in force in Italy and abroad. It is issued by a recognised independent body that guarantees the quality and reliability of the service offered to clients worldwide.

• CSQ, CISQ AND IQNET. The CSQ system is part of the CISQ (Italian Certification of Quality Systems) federation, which consists of the primary certification bodies operating in Italy in the various product sectors. CISQ is the Italian representative body within IQNet, the biggest international Quality Systems and Company Management certification network, which is adhered to by 25 certification organs in as many countries.

TECHNICAL AND SALES ASSISTANCE

TECHNICAL DEPARTMENT

The Pizzato Elettrica technical department provides direct technical and qualified assistance in Italian and English, helping in this way the customers to choose the suitable product for their own application explaining the characteristics and the correct installation.

Office hours:	Monday to Friday
	08 am - 12 pm / 02 pm - 06 pm CET
Phone:	+39.0424.470.930
fax:	+39.0424.470.955
e-mail:	tech@pizzato.com

Spoken languages: 🇮🇹 | 🇬🇧

SALES DEPARTMENT

Among the strengths in the company relationship with the commercial network, the direct assistance guaranteed in five languages: Italian, English, French, German and Spanish. A service that confirms Pizzato Elettrica quality and attention to the needs of customers from around the world.

Office hours:	Monday to Friday
	08 am - 12 pm / 02 pm - 06 pm CET
Phone:	+39.0424.470.930
fax:	+39.0424.470.955
e-mail:	info@pizzato.com

Spoken languages: 🇮🇹 | 🇬🇧 | 🇩🇪 | 🇫🇷 | 🇪🇸

FD series

Housing made of metal

One conduit entry M20x1.5

Protection degree IP67

Marks: CE YB c(UL)us (CCC) EAC

Ambient temperature: -25°C ... +80°C

Snap action contacts 1NO+1NC	FD 501-M2 →	FD 502-M2 →	FD 505-M2 →	FD 510-M2 →	FD 511-M2 →	FD 515-M2 →	FD 516-M2 →	FD 520-M2
Slow action contacts 1NO+1NC	FD 601-M2 →	FD 602-M2 →	FD 605-M2 →	FD 610-M2 →	FD 611-M2 →	FD 615-M2 →	FD 616-M2 →	
Slow action contacts 2NC	FD 901-M2 →	FD 902-M2 →	FD 905-M2 →	FD 910-M2 →	FD 911-M2 →	FD 915-M2 →	FD 916-M2 →	
Slow action contacts 1NO+2NC	FD 2001-M2 →	FD 2002-M2 →	FD 2005-M2 →	FD 2010-M2 →	FD 2011-M2 →	FD 2015-M2 →	FD 2016-M2 →	FD 2020-M2
Snap action contacts 2NC-2NO	FD 201-M2	FD 202-M2	FD 205-M2	FD 210-M2	FD 211-M2	FD 215-M2	FD 216-M2	FD 220-M2

FL series

Housing made of metal

Three conduit entries M20x1.5

Protection degree IP67

Marks: CE YB c(UL)us (CCC) EAC

Ambient temperature: -25°C ... +80°C

Snap action contacts 1NO+1NC	FL 501-M2 →	FL 502-M2 →	FL 505-M2 →	FL 510-M2 →	FL 511-M2 →	FL 515-M2 →	FL 516-M2 →	FL 520-M2
Slow action contacts 1NO+1NC	FL 601-M2 →	FL 602-M2 →	FL 605-M2 →	FL 610-M2 →	FL 611-M2 →	FL 615-M2 →	FL 616-M2 →	
Slow action contacts 2NC	FL 901-M2 →	FL 902-M2 →	FL 905-M2 →	FL 910-M2 →	FL 911-M2 →	FL 915-M2 →	FL 916-M2 →	
Slow action contacts 1NO+2NC	FL 2001-M2 →	FL 2002-M2 →	FL 2005-M2 →	FL 2010-M2 →	FL 2011-M2 →	FL 2015-M2 →	FL 2016-M2 →	FL 2020-M2
Snap action contacts 2NC-2NO	FL 201-M2	FL 202-M2	FL 205-M2	FL 210-M2	FL 211-M2	FL 215-M2	FL 216-M2	FL 220-M2

FC series

Housing made of metal

One conduit entry M20x1.5

Protection degree IP67

Marks: CE YB c(UL)us (CCC) EAC

Ambient temperature: -25°C ... +80°C
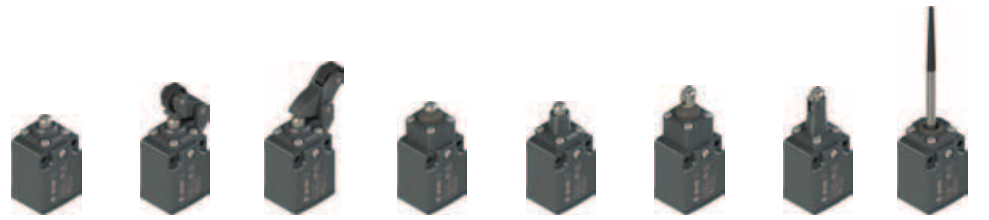
Snap action contacts 1NO+1NC	FC 301-M2	FC 302-M2	FC 305-M2	FC 310-M2	FC 311-M2	FC 315-M2	FC 316-M2	FC 320-M2
Slow action contacts 1NO+1NC	FC 3301-M2 →	FC 3302-M2 →	FC 3305-M2 →	FC 3310-M2 →	FC 3311-M2 →	FC 3315-M2 →	FC 3316-M2 →	FC 3320-M2
Slow action contacts 2NC	FC 3401-M2 →	FC 3402-M2 →	FC 3405-M2 →	FC 3410-M2 →	FC 3411-M2 →	FC 3415-M2 →	FC 3416-M2 →	FC 3420-M2

FP series

Housing made of polymer glass-reinforced ▣

One conduit entry M20x1.5

Protection degree IP67

Marks: CE YB c(UL)us (CCC) EAC

Ambient temperature: -25°C ... +80°C

Snap action contacts 1NO+1NC	FP 501-M2 →	FP 502-M2 →	FP 505-M2 →	FP 510-M2 →	FP 511-M2 →	FP 515-M2 →	FP 516-M2 →	FP 520-M2
Slow action contacts 1NO+1NC	FP 601-M2 →	FP 602-M2 →	FP 605-M2 →	FP 610-M2 →	FP 611-M2 →	FP 615-M2 →	FP 616-M2 →	
Slow action contacts 2NC	FP 901-M2 →	FP 902-M2 →	FP 905-M2 →	FP 910-M2 →	FP 911-M2 →	FP 915-M2 →	FP 916-M2 →	
Slow action contacts 1NO+2NC	FP 2001-M2 →	FP 2002-M2 →	FP 2005-M2 →	FP 2010-M2 →	FP 2011-M2 →	FP 2015-M2 →	FP 2016-M2 →	FP 2020-M2
Snap action contacts 2NC-2NO	FP 201-M2	FP 202-M2	FP 205-M2	FP 210-M2	FP 211-M2	FP 215-M2	FP 216-M2	FP 220-M2

Accessories
See on page 43.
For the whole accessories list please see the general catalogues.

Items with code on the **green** background are available in stock

Round rod — **With two stable positions**

FD 521-M2	FD 525-M2	FD 531-M2 →	FD 532-M2	FD 535-M2	FD 536-M2	FD 542-M2 →	FD 551-M2 →	FD 552-M2 →	FD 553-E11M2V9	FD 576-M2
		FD 631-M2 →	FD 632-M2	FD 635-M2	FD 636-M2		FD 651-M2 →	FD 652-M2 →	FD 653-E11M2V9	FD 676-M2
		FD 931-M2 →	FD 932-M2	FD 935-M2	FD 936-M2		FD 951-M2 →	FD 952-M2 →	FD 953-E11M2V9 →	FD 976-M2 →
FD 2021-M2	FD 2025-M2	FD 2031-M2 →	FD 2032-M2	FD 2035-M2	FD 2036-M2		FD 2051-M2 →	FD 2052-M2 →	FD 2053-E11M2V9 →	FD 2076-M2
FD 221-M2	FD 225-M2	FD 231-M2	FD 232-M2	FD 235-M2	FD 236-M2		FD 251-M2	FD 252-M2	FD 253-E11M2	FD 276-M2

Round rod — **With two stable positions**

FL 521-M2	FL 525-M2	FL 531-M2 →	FL 532-M2	FL 535-M2	FL 536-M2	FL 542-M2 →	FL 551-M2 →	FL 552-M2 →	FL 553-E11M2V9	FL 576-M2
		FL 631-M2 →	FL 632-M2	FL 635-M2	FL 636-M2		FL 651-M2 →	FL 652-M2 →	FL 653-E11M2V9	FL 676-M2
		FL 931-M2 →	FL 932-M2	FL 935-M2	FL 936-M2		FL 951-M2 →	FL 952-M2 →	FL 953-E11M2V9 →	FL 976-M2
FL 2021-M2	FL 2025-M2	FL 2031-M2 →	FL 2032-M2	FL 2035-M2	FL 2036-M2		FL 2051-M2 →	FL 2052-M2 →	FL 2053-E11M2V9 →	FL 2076-M2
FL 221-M2	FL 225-M2	FL 231-M2	FL 232-M2	FL 235-M2	FL 236-M2		FL 251-M2	FL 252-M2	FL 253-E11M2	FL 276-M2

Round rod

FC 321-M2	FC 325-M2	FC 331-M2	FC 332-M2	FC 335-M2	FC 336-M2	FC 351-M2	FC 352-M2	FC 353-E11M2	FC 376-M2
FC 3321-M2	FC 3325-M2	FC 3331-M2 →	FC 3332-M2	FC 3335-M2	FC 3336-M2	FC 3351-M2 →	FC 3352-M2 →	FC 3353-E11M2V9 →	FC 3376-M2
FC 3421-M2	FC 3425-M2	FC 3431-M2 →	FC 3432-M2	FC 3435-M2	FC 3436-M2	FC 3451-M2 →	FC 3452-M2 →	FC 3453-E11M2V9 →	FC 3476-M2

Round rod — **With two stable positions**

FP 521-M2	FP 525-M2	FP 531-M2 →	FP 532-M2	FP 535-M2	FP 536-M2	FP 542-M2 →	FP 551-M2 →	FP 552-M2 →	FP 553-E11M2V9 →	FP 576-M2
		FP 631-M2 →	FP 632-M2	FP 635-M2	FP 636-M2		FP 651-M2 →	FP 652-M2 →	FP 653-E11M2V9 →	FP 676-M2
		FP 931-M2 →	FP 932-M2	FP 935-M2	FP 936-M2		FP 951-M2 →	FP 952-M2 →	FP 953-E11M2V9 →	FP 976-M2
FP 2021-M2	FP 2025-M2	FP 2031-M2 →	FP 2032-M2	FP 2035-M2	FP 2036-M2		FP 2051-M2 →	FP 2052-M2 →	FP 2053-E11M2V9 →	FP 2076-M2
FP 221-M2	FP 225-M2	FP 231-M2	FP 232-M2	FP 235-M2	FP 236-M2		FP 251-M2	FP 252-M2	FP 253-E11M2	FP 276-M2

Position switches without actuator, see page 13

Items with code on the **green** background are available in stock

3B Position switches for **normal duty** applications

FR series

Housing made of polymer glass-reinforced ▫
One conduit entry M20x1.5
Protection degree IP67
Marks: CE Ⓨ c(UL)us (CCC) EAC
Ambient temperature: -25°C ... +80°C

				Polymer roller		Metal roller

Snap action contacts 1NO+1NC	FR 501-M2 ⊕	FR 502-M2 ⊕	FR 505-M2 ⊕	FR 507-M2 ⊕	FR 508-M2 ⊕	FR 513-M2 ⊕	FR 515-M2 ⊕	FR 515-M2R28 ⊕
Slow action contacts 1NO+1NC	FR 601-M2 ⊕	FR 602-M2 ⊕	FR 605-M2 ⊕	FR 607-M2 ⊕	FR 608-M2 ⊕	FR 613-M2 ⊕	FR 615-M2 ⊕	FR 615-M2R28 ⊕
Slow action contacts 2NC	FR 901-M2 ⊕	FR 902-M2 ⊕	FR 905-M2 ⊕	FR 907-M2 ⊕	FR 908-M2 ⊕	FR 913-M2 ⊕	FR 915-M2 ⊕	FR 915-M2R28 ⊕
Slow action contacts 1NO+2NC	FR 2001-M2 ⊕	FR 2002-M2 ⊕	FR 2005-M2 ⊕	FR 2007-M2 ⊕	FR 2008-M2 ⊕	FR 2013-M2 ⊕	FR 2015-M2 ⊕	FR 2015-M2R28 ⊕
Snap action contacts 2NC-2NO	FR 201-M2	FR 202-M2	FR 205-M2	FR 207-M2	FR 208-M2	FR 213-M2	FR 215-M2	FR 215-M2R28

FX series

Housing made of polymer glass-reinforced ▫
Two conduit entries M20x1.5
Protection degree IP67
Marks: CE Ⓨ c(UL)us (CCC) EAC
Ambient temperature: -25°C ... +80°C

				Polymer roller		Metal roller

Snap action contacts 1NO+1NC	FX 501-M2 ⊕	FX 502-M2 ⊕	FX 505-M2 ⊕	FX 507-M2 ⊕	FX 508-M2 ⊕	FX 513-M2 ⊕	FX 515-M2 ⊕	FX 515-M2R28 ⊕
Slow action contacts 1NO+1NC	FX 601-M2 ⊕	FX 602-M2 ⊕	FX 605-M2 ⊕	FX 607-M2 ⊕	FX 608-M2 ⊕	FX 613-M2 ⊕	FX 615-M2 ⊕	FX 615-M2R28 ⊕
Slow action contacts 2NC	FX 901-M2 ⊕	FX 902-M2 ⊕	FX 905-M2 ⊕	FX 907-M2 ⊕	FX 908-M2 ⊕	FX 913-M2 ⊕	FX 915-M2 ⊕	FX 915-M2R28 ⊕
Slow action contacts 1NO+2NC	FX 2001-M2 ⊕	FX 2002-M2 ⊕	FX 2005-M2 ⊕	FX 2007-M2 ⊕	FX 2008-M2 ⊕	FX 2013-M2 ⊕	FX 2015-M2 ⊕	FX 2015-M2R28 ⊕
Snap action contacts 2NC-2NO	FX 201-M2	FX 202-M2	FX 205-M2	FX 207-M2	FX 208-M2	FX 213-M2	FX 215-M2	FX 215-M2R28

FM series

Housing made of metal
One conduit entry M20x1.5
Protection degree IP67
Marks: CE Ⓨ c(UL)us (CCC) EAC
Ambient temperature: -25°C ... +80°C

						Metal roller

Snap action contacts 1NO+1NC	FM 501-M2 ⊕	FM 502-M2 ⊕	FM 505-M2 ⊕	FM 507-M2 ⊕	FM 508-M2 ⊕	FM 513-M2 ⊕	FM 515-M2R28 ⊕
Slow action contacts 1NO+1NC	FM 601-M2 ⊕	FM 602-M2 ⊕	FM 605-M2 ⊕	FM 607-M2 ⊕	FM 608-M2 ⊕	FM 613-M2 ⊕	FM 615-M2R28 ⊕
Slow action contacts 2NC	FM 901-M2 ⊕	FM 902-M2 ⊕	FM 905-M2 ⊕	FM 907-M2 ⊕	FM 908-M2 ⊕	FM 913-M2 ⊕	FM 915-M2R28 ⊕
Slow action contacts 1NO+2NC	FM 2001-M2 ⊕	FM 2002-M2 ⊕	FM 2005-M2 ⊕	FM 2007-M2 ⊕	FM 2008-M2 ⊕	FM 2013-M2 ⊕	FM 2015-M2R28 ⊕
Snap action contacts 2NC-2NO	FM 201-M2	FM 202-M2	FM 205-M2	FM 207-M2	FM 208-M2	FM 213-M2	FM 215-M2R28

FZ series

Housing made of metal
Two conduit entries M20x1.5
Protection degree IP67
Marks: CE Ⓨ c(UL)us (CCC) EAC
Ambient temperature: -25°C ... +80°C

						Metal roller

| Snap action contacts 1NO+1NC	FZ 501-M2 ⊕	FZ 502-M2 ⊕	FZ 505-M2 ⊕	FZ 507-M2 ⊕	FZ 508-M2 ⊕	FZ 513-M2 ⊕	FZ 515-M2R28 ⊕
Slow action contacts 1NO+1NC	FZ 601-M2 ⊕	FZ 602-M2 ⊕	FZ 605-M2 ⊕	FZ 607-M2 ⊕	FZ 608-M2 ⊕	FZ 613-M2 ⊕	FZ 615-M2R28 ⊕
Slow action contacts 2NC	FZ 901-M2 ⊕	FZ 902-M2 ⊕	FZ 905-M2 ⊕	FZ 907-M2 ⊕	FZ 908-M2 ⊕	FZ 913-M2 ⊕	FZ 915-M2R28 ⊕
Slow action contacts 1NO+2NC	FZ 2001-M2 ⊕	FZ 2002-M2 ⊕	FZ 2005-M2 ⊕	FZ 2007-M2 ⊕	FZ 2008-M2 ⊕	FZ 2013-M2 ⊕	FZ 2015-M2R28 ⊕
Snap action contacts 2NC-2NO	FZ 201-M2	FZ 202-M2	FZ 205-M2	FZ 207-M2	FZ 208-M2	FZ 213-M2	FZ 215-M2R28

Accessories
See on page 43.
For the whole accessories list please see the general catalogues.

Items with code on the **green** background are available in stock

Product Overview 2018 | ▷pizzato

Round rod
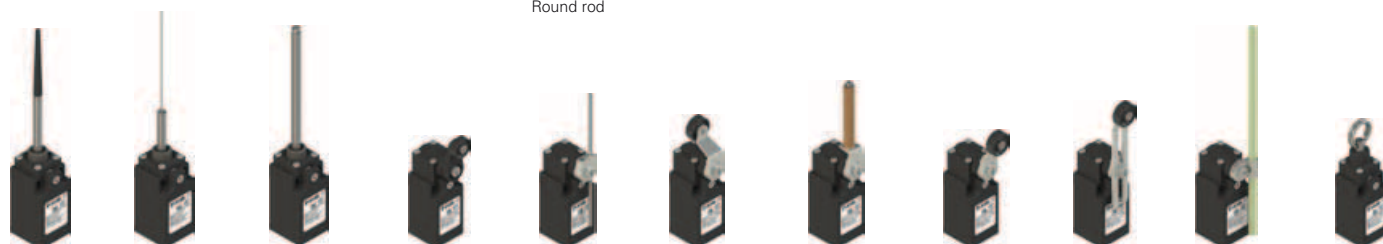
FR 520-M2	FR 521-M2	FR 525-M2	FR 530-M2 →	FR 550-M2	FR 551-M2 →	FR 553-E0M2V9 →	FR 554-M2 →	FR 555-M2	FR 569-M2	FR 576-M2
			FR 630-M2 →	FR 650-M2	FR 651-M2 →	FR 653-E0M2V9 →	FR 654-M2 →	FR 655-M2	FR 669-M2	FR 676-M2
			FR 930-M2 →	FR 950-M2	FR 951-M2 →	FR 953-E0M2V9 →	FR 954-M2 →	FR 955-M2	FR 969-M2	FR 976-M2
FR 2020-M2	FR 2021-M2	FR 2025-M2	FR 2030-M2 →	FR 2050-M2	FR 2051-M2 →	FR 2053-E0M2V9 →	FR 2054-M2 →	FR 2055-M2	FR 2069-M2	FR 2076-M2
FR 220-M2	FR 221-M2	FR 225-M2	FR 230-M2	FR 250-M2	FR 251-M2	FR 253-E0M2	FR 254-M2	FR 255-M2	FR 269-M2	FR 276-M2

Round rod
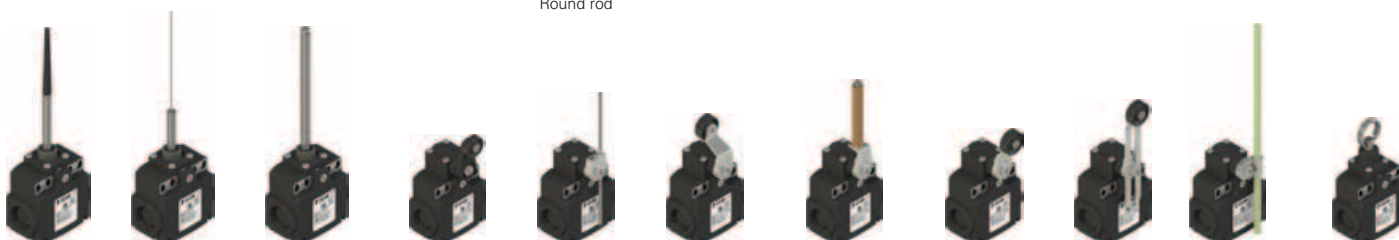
FX 520-M2	FX 521-M2	FX 525-M2	FX 530-M2 →	FX 550-M2	FX 551-M2 →	FX 553-E0M2V9 →	FX 554-M2 →	FX 555-M2	FX 569-M2	FX 576-M2
			FX 630-M2 →	FX 650-M2	FX 651-M2 →	FX 653-E0M2V9 →	FX 654-M2 →	FX 655-M2	FX 669-M2	FX 676-M2
			FX 930-M2 →	FX 950-M2	FX 951-M2 →	FX 953-E0M2V9 →	FX 954-M2 →	FX 955-M2	FX 969-M2	FX 976-M2
FX 2020-M2	FX 2021-M2	FX 2025-M2	FX 2030-M2 →	FX 2050-M2	FX 2051-M2 →	FX 2053-E0M2V9 →	FX 2054-M2 →	FX 2055-M2	FX 2069-M2	FX 2076-M2
FX 220-M2	FX 221-M2	FX 225-M2	FX 230-M2	FX 250-M2	FX 251-M2	FX 253-E0M2	FX 254-M2	FX 255-M2	FX 269-M2	FX 276-M2

Round rod
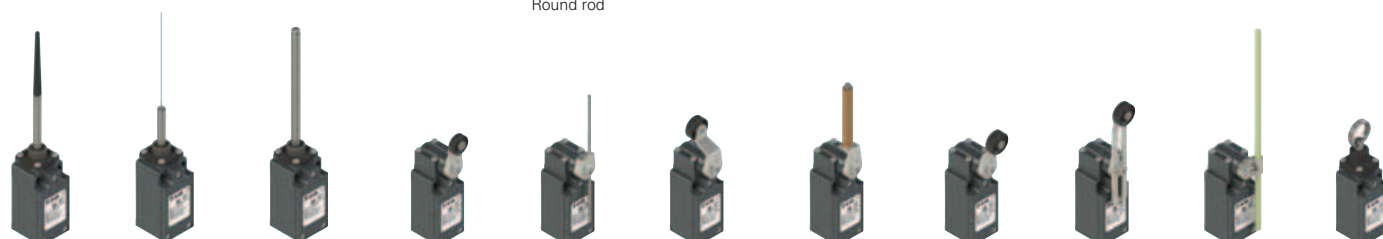
FM 520-M2	FM 521-M2	FM 525-M2	FM 531-M2 →	FM 550-M2	FM 551-M2 →	FM 553-E0M2V9 →	FM 554-M2 →	FM 555-M2	FM 569-M2	FM 576-M2
			FM 631-M2 →	FM 650-M2	FM 651-M2 →	FM 653-E0M2V9 →	FM 654-M2 →	FM 655-M2	FM 669-M2	FM 676-M2
			FM 931-M2 →	FM 950-M2	FM 951-M2 →	FM 953-E0M2V9 →	FM 954-M2 →	FM 955-M2	FM 969-M2	FM 976-M2
FM 2020-M2	FM 2021-M2	FM 2025-M2	FM 2031-M2 →	FM 2050-M2	FM 2051-M2 →	FM 2053-E0M2V9 →	FM 2054-M2 →	FM 2055-M2	FM 2069-M2	FM 2076-M2
FM 220-M2	FM 221-M2	FM 225-M2	FM 231-M2	FM 250-M2	FM 251-M2	FM 253-E0M2	FM 254-M2	FM 255-M2	FM 269-M2	FM 276-M2

Round rod
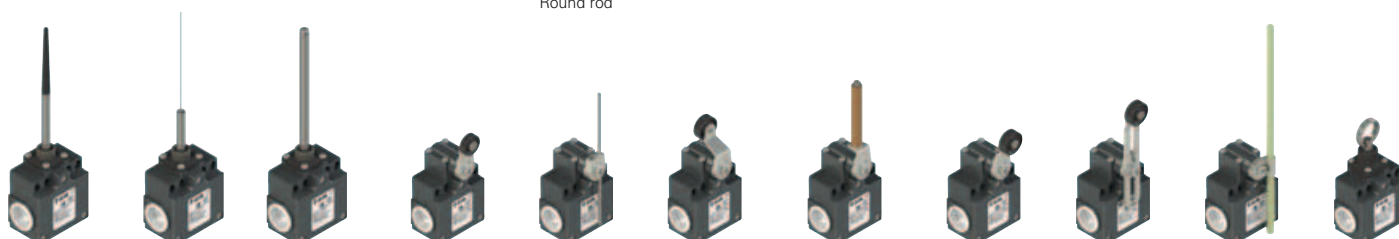
FZ 520-M2	FZ 521-M2	FZ 525-M2	FZ 531-M2 →	FZ 550-M2	FZ 551-M2 →	FZ 553-E0M2V9 →	FZ 554-M2 →	FZ 555-M2	FZ 569-M2	FZ 576-M2
			FZ 631-M2 →	FZ 650-M2	FZ 651-M2 →	FZ 653-E0M2V9 →	FZ 654-M2 →	FZ 655-M2	FZ 669-M2	FZ 676-M2
			FZ 931-M2 →	FZ 950-M2	FZ 951-M2 →	FZ 953-E0M2V9 →	FZ 954-M2 →	FZ 955-M2	FZ 969-M2	FZ 976-M2
FZ 2020-M2	FZ 2021-M2	FZ 2025-M2	FZ 2031-M2 →	FZ 2050-M2	FZ 2051-M2 →	FZ 2053-E0M2V9 →	FZ 2054-M2 →	FZ 2055-M2	FZ 2069-M2	FZ 2076-M2
FZ 220-M2	FZ 221-M2	FZ 225-M2	FZ 231-M2	FZ 250-M2	FZ 251-M2	FZ 253-E0M2	FZ 254-M2	FZ 255-M2	FZ 269-M2	FZ 276-M2

Position switches without actuator, see page 13

Items with code on the **green** background are available in stock

FD, FL, FC, FP series
Position switches without actuator
Housing made of polymer glass-reinforced ▣ (FP)
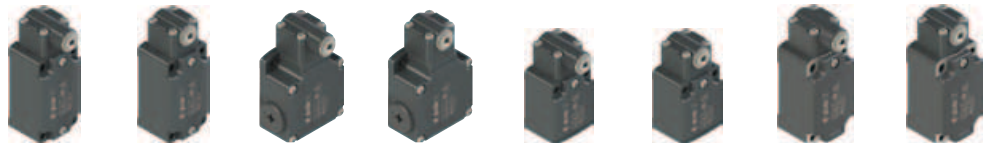Housing made of metal (FD, FL, FC)
One conduit entry M20x1.5 (FD, FP, FC)
Three conduit entries M20x1.5 (FL)
Protection degree IP67
Marks: CE ⓊⓁ c(UL)us CCC EAC

Snap action contacts 1NO+1NC	FD 538-M2 ⊕	FD 558-M2 ⊕	FL 538-M2 ⊕	FL 558-M2 ⊕	FC 338-M2	FP 538-M2 ⊕	FP 558-M2 ⊕
Slow action contacts 1NO+1NC	FD 638-M2 ⊕	FD 658-M2 ⊕	FL 638-M2 ⊕	FL 658-M2 ⊕	FC 358-M2	FP 638-M2 ⊕	FP 658-M2 ⊕
Slow action contacts 2NC	FD 938-M2 ⊕	FD 958-M2 ⊕	FL 938-M2 ⊕	FL 958-M2 ⊕	FC 3338-M2 ⊕	FC 3358-M2 ⊕	FP 938-M2 ⊕
Slow action contacts 1NO+2NC	FD 2038-M2 ⊕	FD 2058-M2 ⊕	FL 2038-M2 ⊕	FL 2058-M2 ⊕	FC 3438-M2 ⊕	FC 3458-M2 ⊕	FP 2038-M2 ⊕
Snap action contacts 2NC-2NO	FD 238-M2	FD 258-M2	FL 238-M2	FL 258-M2			FP 238-M2

(note: FC 3338-M2, FC 3358-M2, FC 3438-M2, FC 3458-M2 appear under FC columns; FP 538-M2, FP 638-M2, FP 938-M2, FP 2038-M2, FP 238-M2 and FP 558-M2, FP 658-M2, FP 958-M2, FP 2058-M2, FP 258-M2)

Loose actuators

Round rod   Square rod

| VF L31 ⊕ | VF L32 | VF L33 ⊕ | VF L34 | VF L35 | VF L36 | VF L51 ⊕ | VF L52 ⊕ | VF L53 ⊕ | VF L56 ⊕ | VF L57 ⊕ |

Attention! These loose actuators must be used with FD, FL, FC and FP series only.

FR, FX, FM, FZ series
Position switches without actuator
Housing made of polymer glass-reinforced ▣ (FR, FX)
Housing made of metal (FM, FZ)
One conduit entry M20x1.5 (FR, FM)
Two conduit entries M20x1.5 (FX, FZ)
Protection degree IP67
Marks: CE ⓊⓁ c(UL)us CCC EAC

With reset

Snap action contacts 1NO+1NC	FR 538-M2 ⊕	FX 538-M2 ⊕	FM 538-M2 ⊕	FZ 538-M2 ⊕	/	
Slow action contacts 1NO+1NC	FR 638-M2 ⊕	FX 638-M2 ⊕	FM 638-M2 ⊕	FZ 638-M2 ⊕	FR 638-W3M2 ⊕	
Slow action contacts 2NC	FR 938-M2 ⊕	FX 938-M2 ⊕	FM 938-M2 ⊕	FZ 938-M2 ⊕	FR 938-W3M2 ⊕	
Slow action contacts 1NO+2NC	FR 2038-M2 ⊕	FX 2038-M2 ⊕	FM 2038-M2 ⊕	FZ 2038-M2 ⊕	FR 2038-W3M2 ⊕	
Snap action contacts 2NC-2NO	FR 238-M2	FX 238-M2	FM 238-M2	FZ 238-M2	FR 238-W3M2	

Loose actuators

Square rod   Round rod

| VF LE30 ⊕ | VF LE31 ⊕ | VF LE33 | VF LE34 | VF LE50 | VF LE51 ⊕ | VF LE52 ⊕ | VF LE53 ⊕ | VF LE54 ⊕ | VF LE55 | VF LE56 ⊕ | VF LE57 ⊕ | VF LE69 |

Attention! These loose actuators must be used with FR, FX, FM and FZ series only.

Accessories
See on page 43.
For the whole accessories list please see the general catalogues.

Items with code on the **green** background are available in stock

FR series

Housing made of polymer glass-reinforced ☐

One conduit entry M20x1.5

Protection degree IP67

Marks: CE ⓨ c(UL)us (CCC) EAC

Ambient temperature: -25°C ... +80°C

Slow action contacts 1NO+1NC	FR 601-W3M2 ⊕	FR 602-W3M2 ⊕	FR 605-W3M2 ⊕	FR 607-W3M2 ⊕	FR 615-W3M2 ⊕	FR 630-W3M2 ⊕	FR 651-W3M2 ⊕	FR 654-W3M2 ⊕
Slow action contacts 2NC	FR 901-W3M2 ⊕	FR 902-W3M2 ⊕	FR 905-W3M2 ⊕	FR 907-W3M2 ⊕	FR 915-W3M2 ⊕	FR 930-W3M2 ⊕	FR 951-W3M2 ⊕	FR 954-W3M2 ⊕
Slow action contacts 1NO+2NC	FR 2001-W3M2 ⊕	FR 2002-W3M2 ⊕	FR 2005-W3M2 ⊕	FR 2007-W3M2 ⊕	FR 2015-W3M2 ⊕	FR 2030-W3M2 ⊕	FR 2051-W3M2 ⊕	FR 2054-W3M2 ⊕

In order to buy a FX, FM e FZ: series product:
substitute on above mentioned codes FR with FX, FM e FZ:.Example: **FR** 601-W3M2 → **FM** 601-W3M2

Position switches without actuator, see page 13

Pizzato Elettrica has developed a reset device code W3 to make perfectly simultaneous the actuator and the contact block tripping. This device is a block inserted between the switch body and the head, and could be rotated independently from this last one. This new device has following advantages:
• Contact blocks with snap action are no more necessary because the tripping movement is made by the reset device itself
• The reset device can be rotated independently from the head for the maximum flexibility during the assembling
• Two driving forces: standard (W3) and increased (W4) for applications with vibrations
• Mechanical endurance: 1 million operations cycles.
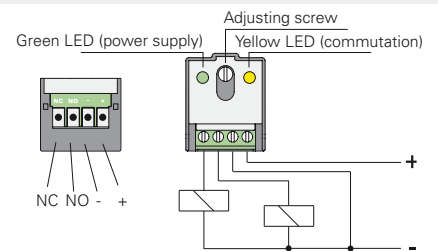
Switches for **special applications**   3C

FR series
with electronic contact blocks

Housing made of polymer glass-reinforced ☐

One conduit entry M20x1.5

Protection degree IP67

Marks: CE EAC

Ambient temperature: -25°C ... +80°C

• Operation voltage (Ue): from 10 to 30 Vdc
• Operation current (Ie): 200 mA
• Adjustable intervention point

• Output signals without bounces
• Two static outputs 1NO and 1NC
• Reduced actuating force

• Power supply and switching LED
• Minimum differential travel

Loose actuators, see page 13

Green LED (power supply)

Adjusting screw
Yellow LED (commutation)

NC NO - +

+
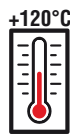-

|			
Electronic PNP contacts (1NO-1NC)	FR E121-M2	FR E155-M2	FR E138-M2

In order to buy a FX, FM e FZ: series product:
substitute on above mentioned codes FR with FX, FM or FZ:.Example: **FR** E121-M2 → **FM** E121-M2

MK series
for high temperature

+120°C

Ambient temperature: -25°C ... +120°C

Housing made of polymer glass-reinforced

Positive opening ⊕ versions

Screw terminals

Protection degree from IP40 (electric contacts)

Marks: CE c(UL)us EAC
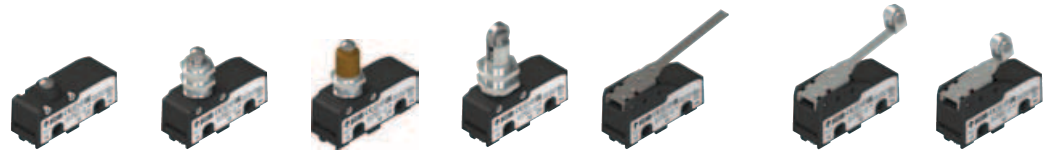
Snap action contacts 1NO+1NC	MK V11D05-T7 ⊕	MK V11D10-T7 ⊕	MK V11D12-T7 ⊕	MK V11D15-T7 ⊕	MK V11F30-T7	MK V11F40-R16T7	MK V11F45-R16T7 ⊕

FD series
for high temperature

+180°C

Ambient temperature: -15°C ... +180°C

Housing made of steel

One conduit entry M20x1.5

Protection degree IP67

Marks: CE EAC

Snap action contacts 1NO+2NC	FD 2011-M2T2 ⊕	FD 2016-M2T2 ⊕	FD 2031-M2R24T2 ⊕	FD 2032-M2T2	FD 2033-M2T2	FD 2056-M2R24T2 ⊕	FD 2057-M2R24T2

Items with code on the **green** background are available in stock

NA series

Housing made of metal

Cable length 2 m (other lengths available on request)

Distance between fixing holes 20 mm

Protection degree IP67 and IP69K

Marks: $C \in \mathbb{N}$ c(UL)us $\mathbb{C}\mathbb{C}$ EAC
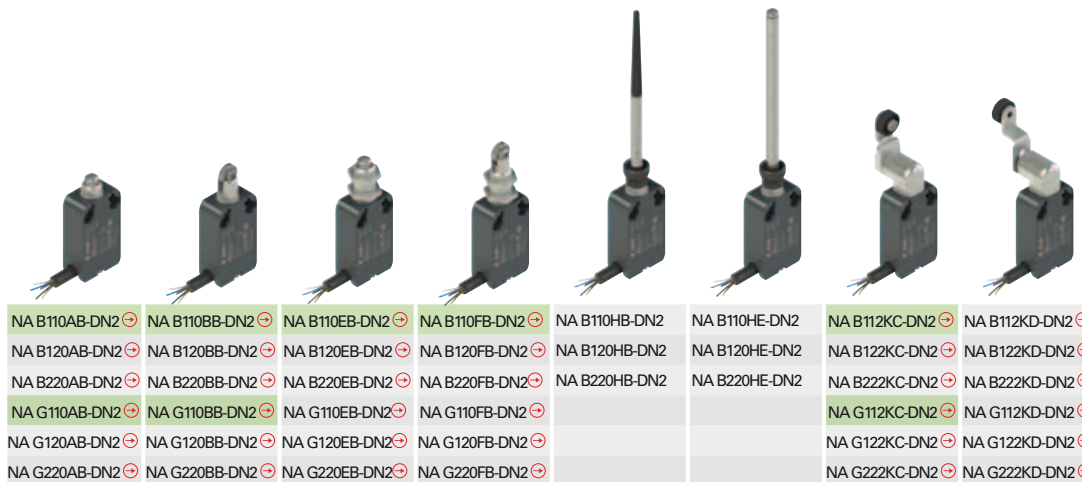
| Snap action contacts 1NO+1NC |
| Snap action contacts 1NO+2NC |
| Snap action contacts 2NO+2NC |
| Slow action contacts 1NO+1NC |
| Slow action contacts 1NO+2NC |
| Slow action contacts 2NO+2NC |

NA B110AB-DN2	NA B110BB-DN2	NA B110EB-DN2	NA B110FB-DN2	NA B110HB-DN2	NA B110HE-DN2	NA B112KC-DN2	NA B112KD-DN2
NA B120AB-DN2	NA B120BB-DN2	NA B120EB-DN2	NA B120FB-DN2	NA B120HB-DN2	NA B120HE-DN2	NA B122KC-DN2	NA B122KD-DN2
NA B220AB-DN2	NA B220BB-DN2	NA B220EB-DN2	NA B220FB-DN2	NA B220HB-DN2	NA B220HE-DN2	NA B222KC-DN2	NA B222KD-DN2
NA G110AB-DN2	NA G110BB-DN2	NA G110EB-DN2	NA G110FB-DN2			NA G112KC-DN2	NA G112KD-DN2
NA G120AB-DN2	NA G120BB-DN2	NA G120EB-DN2	NA G120FB-DN2			NA G122KC-DN2	NA G122KD-DN2
NA G220AB-DN2	NA G220BB-DN2	NA G220EB-DN2	NA G220FB-DN2			NA G222KC-DN2	NA G222KD-DN2

Housing NB series (Distance fixing holes 25 mm)

In order to buy a NB series product: substitute on above mentioned codes NA with NB. Example:
NA B110AA-DN2 →
NB B110AA-DN2

M12 connector output from right

In order to buy a product with M12 connector output from right substitute on above mentioned codes DN2 with DMK. Example:
NA B110AA-**DN2** →
NA B110AA-**DMK**

M12 connector output from bottom

In order to buy a product with M12 connector output from bottom substitute on above mentioned codes DN2 with SMK. Example:
NA B110AA-**DN2** →
NA B110AA-**SMK**

AMP superseal 1.5 connector

In order to buy a product with AMP connector output substitute on above mentioned codes DN2 with SAK. Example:
NA B110AA-**DN2** →
NA B110AA-**SAK**

Cable and M12 connector

In order to buy a product with M12 connector output substitute on above mentioned codes DN2 with DM0.2. Example:
NA B110AA-**DN2** →
NA B110AA-**DM0.2**

NF series

Housing made of polymer glass-reinforced

Cable length 2 m (other lengths available on request)

Distance between fixing holes 20 mm

Protection degree IP67 and IP69K

Marks: $C \in \mathbb{N}$ c(UL)us $\mathbb{C}\mathbb{C}$ EAC
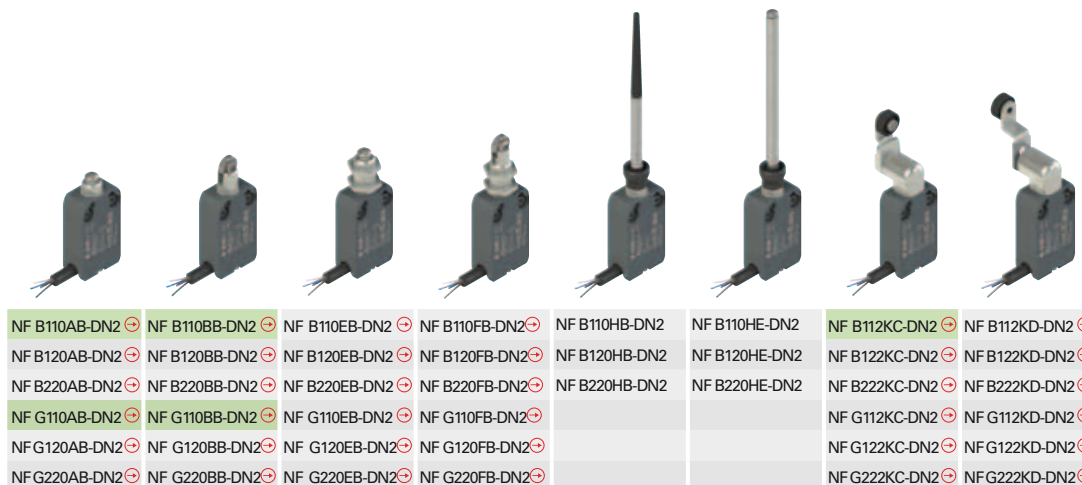
| Snap action contacts 1NO+1NC |
| Snap action contacts 1NO+2NC |
| Snap action contacts 2NO+2NC |
| Slow action contacts 1NO+1NC |
| Slow action contacts 1NO+2NC |
| Slow action contacts 2NO+2NC |

NF B110AB-DN2	NF B110BB-DN2	NF B110EB-DN2	NF B110FB-DN2	NF B110HB-DN2	NF B110HE-DN2	NF B112KC-DN2	NF B112KD-DN2
NF B120AB-DN2	NF B120BB-DN2	NF B120EB-DN2	NF B120FB-DN2	NF B120HB-DN2	NF B120HE-DN2	NF B122KC-DN2	NF B122KD-DN2
NF B220AB-DN2	NF B220BB-DN2	NF B220EB-DN2	NF B220FB-DN2	NF B220HB-DN2	NF B220HE-DN2	NF B222KC-DN2	NF B222KD-DN2
NF G110AB-DN2	NF G110BB-DN2	NF G110EB-DN2	NF G110FB-DN2			NF G112KC-DN2	NF G112KD-DN2
NF G120AB-DN2	NF G120BB-DN2	NF G120EB-DN2	NF G120FB-DN2			NF G122KC-DN2	NF G122KD-DN2
NF G220AB-DN2	NF G220BB-DN2	NF G220EB-DN2	NF G220FB-DN2			NF G222KC-DN2	NF G222KD-DN2

M12 connector output from right

In order to buy a product with M12 connector output from right substitute on above mentioned codes DN2 with DMK. Example:
NF B110AA-**DN2** →
NF B110AA-**DMK**

M12 connector output from bottom

In order to buy a product with M12 connector output from bottom substitute on above mentioned codes DN2 with SMK. Example:
NF B110AA-**DN2** →
NF B110AA-**SMK**

AMP superseal 1.5 connector

In order to buy a product with AMP connector output substitute on above mentioned codes DN2 with SAK. Example:
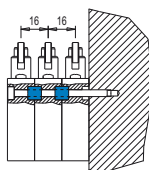NF B110AA-**DN2** →
NF B110AA-**SAK**

Cable and M12 connector

To order a product with cable and M12 connector: replace DN2 with DM0.2 in the codes shown above. Example:
NF B110AA-**DN2** →
NF B110AA-**DM0.2**

Accessories

By interposing spacers between the switches, it is possible to join two or more prewired switches, preventing them from moving one against the other.

Article	Description
VN DT1F	Spacers for NA-NF series
VF D16B	Spacers for NB series

10 pcs pack. Only orders for quantities multiple of the packs are accepted.

Accessories
See on page 43.
For the whole accessories list please see the general catalogues.

Items with code on the **green** background are available in stock

Housings

metal housing NA (Distance fixing holes 20 mm)	metal housing NB (Distance fixing holes 25 mm)	polymer housing NF (Distance fixing holes 20 mm)

NA B11000 ⊖ 1NO+1NC [R]	NB B11000 ⊖ 1NO+1NC [R]	NF B11000 ⊖ 1NO+1NC [R]
NA G11000 ⊖ 1NO+1NC [L]	NB G11000 ⊖ 1NO+1NC [L]	NF G11000 ⊖ 1NO+1NC [L]
NA B12000 ⊖ 1NO+2NC [R]	NB B12000 ⊖ 1NO+2NC [R]	NF B12000 ⊖ 1NO+2NC [R]
NA G12000 ⊖ 1NO+2NC [L]	NB G12000 ⊖ 1NO+2NC [L]	NF G12000 ⊖ 1NO+2NC [L]
NA B22000 ⊖ 2NO+2NC [R]	NB B22000 ⊖ 2NO+2NC [R]	NF B22000 ⊖ 2NO+2NC [R]
NA G22000 ⊖ 2NO+2NC [L]	NB G22000 ⊖ 2NO+2NC [L]	NF G22000 ⊖ 2NO+2NC [L]

Contacts type: [R] = snap action   [L] = slow action

Connector with cable

Cable length (m)

connectors for NA and NB housing		connectors for NF housing		
VN CM11DN2	1NO+1NC	VN CP11DN2	1NO+1NC	2
VN CM11DN5	1NO+1NC	VN CP11DN5	1NO+1NC	5
VN CM12DN2	1NO+2NC	VN CP12DN2	1NO+2NC	2
VN CM12DN5	1NO+2NC	VN CP12DN5	1NO+2NC	5
VN CM22DN2	2NO+2NC	VN CP22DN2	2NO+2NC	2
VN CM22DN5	2NO+2NC	VN CP22DN5	2NO+2NC	5

M12 or AMP connector

M12 connector from right for NA and NB housing	M12 connector from bottom for NA and NB housing	M12 connector from right for NF housing	M12 connector from bottom for NF housing	AMP super seal 1.5 connector for NF housing

VN CM11DMK 1NO+1NC	VN CM11SMK 1NO+1NC	VN CM11DM0.2 1NO+1NC	VN CP11DMK 1NO+1NC	VN CP11SMK 1NO+1NC	VN CP11SAK 1NO+1NC	VN CP11DM0.2 1NO+1NC
VN CM22DMK 2NO+2NC	VN CM22SMK 2NO+2NC	VN CM22DM0.2 2NO+2NC	VN CP22DMK 2NO+2NC	VN CP22SMK 2NO+2NC	VN CP02SAK 2NC	VN CP22DM0.2 2NO+2NC

⚠ **Attention**: Always check that the electric load used respects the voltage and current limits for the connectors.

Actuators

Unidirectional roller lever

VN AA0AA ⊕	VN AA0AB ⊕	VN AA0AC ⊕	VN AA0AE ⊕	VN AA0BB ⊕	VN AA0BE ⊕	VN AA0CB ⊕	VN AA0CH ⊕	VN AA0CP ⊕

Plunger with Ø 6 mm sphere

VN AA0CV ⊕	VN AA0EB ⊕	VN AA0EE ⊕	VN AA0FB ⊕	VN AA0GB ⊕	VN AA0HB	VN AA0HE	VN AA0HH	VN AA0BB-W5 ⊕

Revolving levers

Attention: These loose actuators can be used with products of series NA, NB and NF only.

VN A00KA ⊕	VN A00KB ⊕	VN A00KC ⊕	VN A00KD ⊕	VN A00KE ⊕	VN A00KF ⊕	VN A00KG ⊕	VN A00KH ⊕	VN A00KP ⊕

Square stainless steel rod 3x3x125 mm	Adjustable stainless steel rod Ø3x125 mm	Adjustable fiber glass rod Ø6x200 mm		Metal head for actuators with revolving lever	Transmission block	
VN A00LB	VN A00LE	VN A00LH	VN A00LL	VN AA200 ⊕	VN AA000-W5 ⊕	

⚠ **Installation for persons protection applications:**
In order to obtain a safety switch with positive opening ⊖, assemble housings having the positive opening symbol next to the code ⊖ with actuators having the positive opening symbol next to the code ⊕.
Example:
VN A00KB ⊖ + VN AA200 ⊖ + NA B11000 ⊖

Items with code on the **green** background are available in stock

MK series

Housing made of polymer glass-reinforced
Positive opening ⊖ versions
Screw terminals
Marks: CE cULus CCC EAC

Direct action
1NO+1NC, snap action

Max protection degree IP40	MK V11D01	MK V11D02	MK V11D03	MK V11D04	MK V11D05 ⊖	MK V11D06 ⊖	MK V11D08 ⊖
Max protection degree IP65	MK V12D01	MK V12D02	MK V12D03	MK V12D04	MK V12D05 ⊖	MK V12D06 ⊖	MK V12D08 ⊖

Direct action
1NO+1NC, snap action

Max protection degree IP40	MK V11D09 ⊖	MK V11D10 ⊖	MK V11D12 ⊖	MK V11D13 ⊖	MK V11D15 ⊖	MK V11D17 ⊖	MK V11D18 ⊖
Max protection degree IP65	MK V12D09 ⊖	MK V12D10 ⊖	MK V12D12 ⊖	MK V12D13 ⊖	MK V12D15 ⊖	MK V12D17 ⊖	MK V12D18 ⊖

Direct action
1NO+1NC, snap action

Max protection degree IP40	MK V11D19 ⊖	MK V11D30	MK V11D31	MK V11D32	MK V11D35	MK V11D37	MK V11D40
Max protection degree IP65	MK V12D19 ⊖	MK V12D30	MK V12D31	MK V12D32	MK V12D35	MK V12D37	MK V12D40

Direct action
1NO+1NC, snap action

|						
Max protection degree IP40	MK V11D42	MK V11D45	MK V11D46	MK V11D47	MK V11D53	MK V11D59	
Max protection degree IP65	MK V12D42	MK V12D45	MK V12D46	MK V12D47	MK V12D53	MK V12D59	

Back direct action
1NO+1NC, snap action

Max protection degree IP40	MK V11F30	MK V11F31 ⊖	MK V11F32	MK V11F35	MK V11F40	MK V11F42 ⊖	MK V11F45 ⊖
Max protection degree IP65	MK V12F30	MK V12F31 ⊖	MK V12F32	MK V12F35	MK V12F40	MK V12F42 ⊖	MK V12F45 ⊖

Back direct action
1NO+1NC, snap action

Max protection degree IP40	MK V11F46 ⊖	MK V11F47 ⊖	MK V11F49 ⊖	MK V11F53	MK V11F59 ⊖
Max protection degree IP65	MK V12F46 ⊖	MK V12F47 ⊖	MK V12F49 ⊖	MK V12F53	MK V12F59 ⊖

Wire diagram

NO — COMMON
NC —
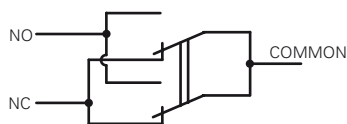
Contacts with single interruption and double contacts

With direct and back direct action (F, D)

COMMON   NC   NO   COMMON   NC   NO
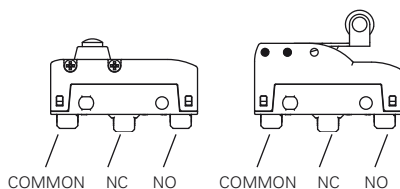
Rotating actuators
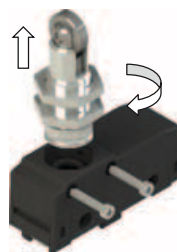
Thanks to the patented new lateral fixing system, it's possible to rotate the roller of microswitches MK ●●●●15 and MK ●●●●17 in 90° steps.

Terminals type

V (Example: MK **V**11D04)
screw terminals with self-lifting plate

H (Example: MK **H**11D04)
6.3 mm vertical faston

Protection degree

Protection degree:
IP00 without protection
IP20 (with protection VF C01, VF C03)
IP40 (with protection VF MKC●1●, VF C02)
IP65 (with protection VF MKC●22, VF MKC●23)

Items with code on the **green** background are available in stock

MK series

Housing made of polymer glass-reinforced
Positive opening ⊖ versions
Faston terminals

Marks: CE ⓜ c(UL)us CCC EAC

Max protection degree IP40	
Max protection degree IP65	

Direct action
1NO+1NC, snap action

MK H11D01	MK H11D02	MK H11D03	MK H11D04	MK H11D05 ⊖	MK H11D06 ⊖	MK H11D08 ⊖
MK H12D01	MK H12D02	MK H12D03	MK H12D04	MK H12D05 ⊖	MK H12D06 ⊖	MK H12D08 ⊖

Direct action
1NO+1NC, snap action

Max protection degree IP40
Max protection degree IP65

MK H11D09 ⊖	MK H11D10 ⊖	MK H11D12 ⊖	MK H11D13 ⊖	MK H11D15 ⊖	MK H11D17 ⊖	MK H11D18 ⊖
MK H12D09 ⊖	MK H12D10 ⊖	MK H12D12 ⊖	MK H12D13 ⊖	MK H12D15 ⊖	MK H12D17 ⊖	MK H12D18 ⊖

Direct action
1NO+1NC, snap action

Max protection degree IP40
Max protection degree IP65

MK H11D19 ⊖	MK H11D30	MK H11D31	MK H11D32	MK H11D35	MK H11D37	MK H11D40
MK H12D19 ⊖	MK H12D30	MK H12D31	MK H12D32	MK H12D35	MK H12D37	MK H12D40

Direct action
1NO+1NC, snap action

Max protection degree IP40
Max protection degree IP65

MK H11D42	MK H11D45	MK H11D46	MK H11D47	MK H11D53	MK H11D59
MK H12D42	MK H12D45	MK H12D46	MK H12D47	MK H12D53	MK H12D59

Back direct action
1NO+1NC, snap action

Max protection degree IP40
Max protection degree IP65

MK H11F30	MK H11F31 ⊖	MK H11F32	MK H11F35	MK H11F40	MK H11F42 ⊖	MK H11F45 ⊖
MK H12F30	MK H12F31 ⊖	MK H12F32	MK H12F35	MK H12F40	MK H12F42 ⊖	MK H12F45 ⊖

Back direct action
1NO+1NC, snap action

Max protection degree IP40
Max protection degree IP65

MK H11F46 ⊖	MK H11F47 ⊖	MK H11F49 ⊖	MK H11F53	MK H11F59 ⊖
MK H12F46 ⊖	MK H12F47 ⊖	MK H12F49 ⊖	MK H12F53	MK H12F59 ⊖

Protections (terminals covers)

10 pcs pack. Only orders for quantities multiple of the packs are accepted.

Protection terminal cover for faston terminals snap-in assembled and with wire trap cable gland. It allows the installation of more switches side by side.

Protection terminal cover for vertical screw terminals snap-in assembled and with wire trap cable gland. It allows the installation of more switches side by side.

Article	Description	Prot. degr.
VF MKCH11	without gasket for cables from Ø 5 to Ø 7.5 mm	IP40
VF MKCH12	without gasket for cables from Ø 4 to Ø 7.5 mm	IP40
VF MKCH13	without gasket for cables from Ø 2 to Ø 5 mm	IP40
VF MKCH22	with gasket for cables from Ø 4 to Ø 7.5 mm	IP65
VF MKCH23	with gasket for cables from Ø 2 to Ø 5 mm	IP65

Article	Description	Prot. degr.
VF MKCV11	without gasket for cables from Ø 5 to Ø 7.5 mm	IP40
VF MKCV12	without gasket for cables from Ø 4 to Ø 7.5 mm	IP40
VF MKCV13	without gasket for cables from Ø 2 to Ø 5 mm	IP40
VF MKCV22	with gasket for cables from Ø 4 to Ø 7.5 mm	IP65
VF MKCV23	with gasket for cables from Ø 2 to Ø 5 mm	IP65

Protection terminal cover for screw terminals. Protection degree IP20.

Article	Description
VF C01	Protection terminal

Protection terminal cover for screw terminals with cable gland PG9 for multipolar cables from Ø 5 to Ø 7 mm. Protection degree IP40.

Article	Description
VF C02	Protection terminal

Protection terminal cover for screw terminals snap-in assembled. It allows the installation of more switches side by side. Protection degree IP20.

| Article	Description
VF C03	Protection terminal

PA, PX series

Housing made of polymer glass-reinforced ▢
One conduit entry M20x1.5
Two lateral knock out conduit entries
Stainless steel external metallic parts
Protection degree IP53 or IP65
Marks contact block: CE EHC c(UL)us (CCC)

With M25 hole for VF KIT31

Snap action contacts 1NO+1NC	PX 10110-M2 ⊙	PA 20100-M2 ⊙	PX 10110-BM2 ⊙
Snap action contacts 2NO+2NC	PX 10210-M2 ⊙	PA 20200-M2 ⊙	PX 10210-BM2 ⊙
Slow action contacts 1NO+1NC	PX 10310-M2 ⊙	PA 20300-M2 ⊙	PX 10310-BM2 ⊙

Code structure
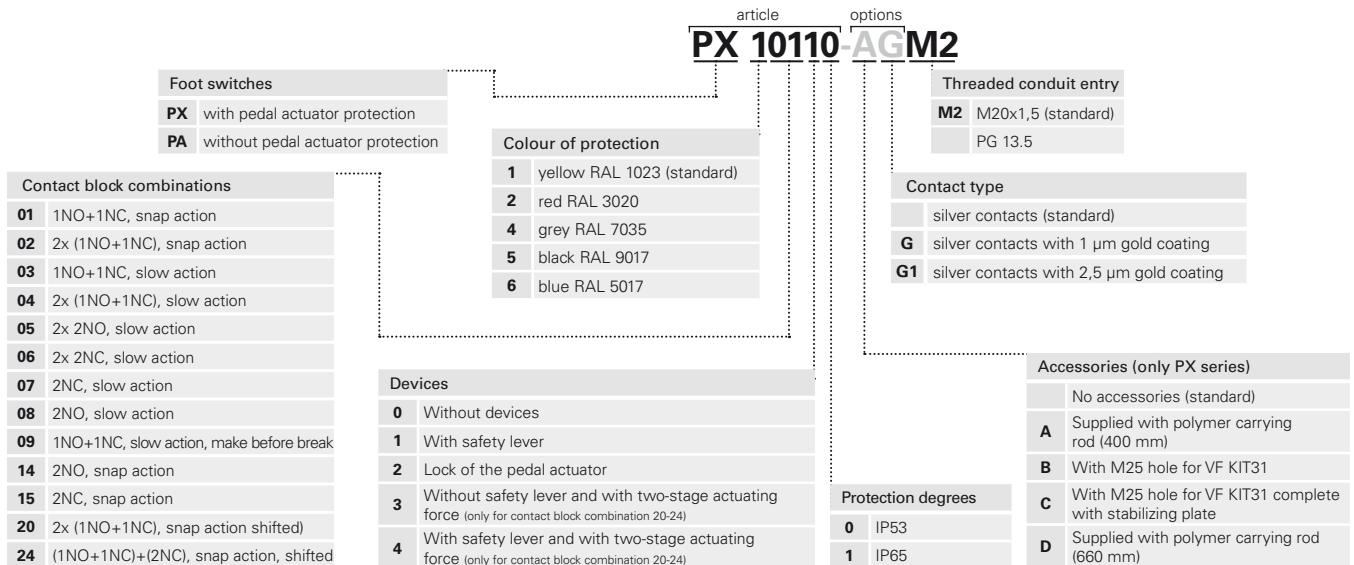
Attention! The feasibility of a code number does not mean the effective availability of a product. Please contact our sales office

article   options
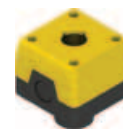
PX 10110-AGM2

Foot switches

| PX | with pedal actuator protection |
| PA | without pedal actuator protection |

Contact block combinations

01	1NO+1NC, snap action
02	2x (1NO+1NC), snap action
03	1NO+1NC, slow action
04	2x (1NO+1NC), slow action
05	2x 2NO, slow action
06	2x 2NC, slow action
07	2NC, slow action
08	2NO, slow action
09	1NO+1NC, slow action, make before break
14	2NO, snap action
15	2NC, snap action
20	2x (1NO+1NC), snap action shifted)
24	(1NO+1NC)+(2NC), snap action, shifted

Colour of protection

1	yellow RAL 1023 (standard)
2	red RAL 3020
4	grey RAL 7035
5	black RAL 9017
6	blue RAL 5017

Threaded conduit entry

| M2 | M20x1,5 (standard) |
| | PG 13.5 |

Contact type

	silver contacts (standard)
G	silver contacts with 1 µm gold coating
G1	silver contacts with 2,5 µm gold coating

Devices

0	Without devices
1	With safety lever
2	Lock of the pedal actuator
3	Without safety lever and with two-stage actuating force (only for contact block combination 20-24)
4	With safety lever and with two-stage actuating force (only for contact block combination 20-24)

Protection degrees

| 0 | IP53 |
| 1 | IP65 |

Accessories (only PX series)

	No accessories (standard)
A	Supplied with polymer carrying rod (400 mm)
B	With M25 hole for VF KIT31
C	With M25 hole for VF KIT31 complete with stabilizing plate
D	Supplied with polymer carrying rod (660 mm)

Selection diagram

— product option
→ accessory sold separately

CARRYING ROD

EMERGENCY PUSH BUTTON

PX 6••••
PX 5••••
PX 4••••
PX 2••••
PX 1••••

METAL PIPE

ADDITIONAL METAL PROTECTION

CLOSED PROTECTIONS

PX •••••-B

ALUMINUM HANDLE

PA 5••••
PA 2••••

OPEN PROTECTIONS

CONTACT BLOCKS COMBINATIONS

01
1NO+1NC
snap action

02
2NO+2NC
snap action

STABILIZING PLATE

DEVICES

| 0 | 1 | 2 |
| Without devices | With safety lever | Lock of the pedal actuator |

| 3 | 4 |
| with two-stage actuating force | With safety lever and with two-stage actuating force |

Auxiliary devices for modular multiple foot switches

VF KIT20	VF KIT30	VF KIT21 (L=400 mm)	VF KIT25 (L=400 mm)
		VF KIT22 (L=660 mm)	VF KIT26 (L=660 mm)
Foot switches joining devices made of polymer thermoplastic resin with a hole for a carrying rod, supplied with nuts, gaskets and self-tapping screws to fasten two single foot switches. Protection degree IP65	Foot switches joining devices made of polymer thermoplastic resin with threaded hole M25x1.5 supplied with nuts, gaskets and self-tapping screws to fasten two single foot switches. Protection degree IP65	Carrying rod (to be connected to VF KIT20) supplied with the self-tapping screw to fasten it.	Metal carrying rod (to be joined to VF KIT20) supplied with the self-tapping screw to fasten it.

VF KIT31 (L=660 mm)	VF KIT18	VF KIT32 (1NC) ⊖	VF KIT35	VF KIT50
VF KIT29 (L=740 mm)		VF KIT33 (1NC+1NO) ⊖		
		VF KIT34 (2NC) ⊖		
Metal pipe ø 25 mm with threaded ends M25x1.5 supplied with brass nuts and gaskets.	M25x1.5 brass nuts, use with VF KIT31 or VF KIT29 for commercial boxes. 10 pieces in each pack.	Emergency push button kit with mechanical positive action complying with IEC 60947-5-1 and EN ISO 13850, to be combined with VF KIT31 or VF KIT29. Protection degree IP65	Kit empty box with Ø 22 mm hole complying with EN 60947-5-1, to be combined with VF KIT31 or VF KIT29. Protection degree IP65	Handle kit for pipe kit ø 25 mm (VF KIT31 or VF KIT29).

VF KIT60	VF KIT61	VF KIT71	VF KIT81	VF B501 ⊖ (1NC+1NO, snap action)
				VF B601 ⊖ (1NC+1NO, slow action)
Metallic stabilizing plate for single foot switches	Metallic stabilizing plate for double switches	Additional metal protection for PA series. For heavy-duty work environment, oversize dimensions for safety shoes. Not applicable with VF KIT60.	Additional metal protection for PC series. For heavy-duty work environment, oversize dimensions for safety shoes. Not applicable with VF KIT61.	Additional contact block for foot switches (all foot switches are supplied with contact blocks).

Modular multiple foot switches **PC** series

Using the joining kits VF KIT20 or VF KIT30 the single foot switches can be joined in many different combinations.

VF KIT32
VF KIT31
VF KIT21
VF KIT20
PX 10110
PX 10110

VF KIT26
VF KIT71
PX 10110-B
VF KIT60
PA 50101

VF KIT21
VF KIT20
PA 20100
PX 10110

EA series box
See on page 30
VF KIT18
VF KIT18
VF KIT31
VF KIT31
VF KIT20
PX 10110-B
PX 10110-B
VF KIT61

VF KIT32
VF KIT50
VF KIT31
VF KIT30
PX 10110
PX 10110

Items with code on the **green** background are available in stock

Elegance and functionality in one single series: Pizzato Elettrica extends its products range by introducing EROUND, the innovative line of control and signalling devices.

The new series, ergonomically studied to consent a comfortable and easy use of the devices, presents a particularly pleasant line with high attention to details making the products suitable for applications also on machineries with refined design.

EROUND devices thanks to their shape and functionality guarantee max reliability and adaptability to any application.

Almost all of the devices besides having protection degree IP67 have successfully passed the test for protection degree IP69K according to standard ISO 20653.
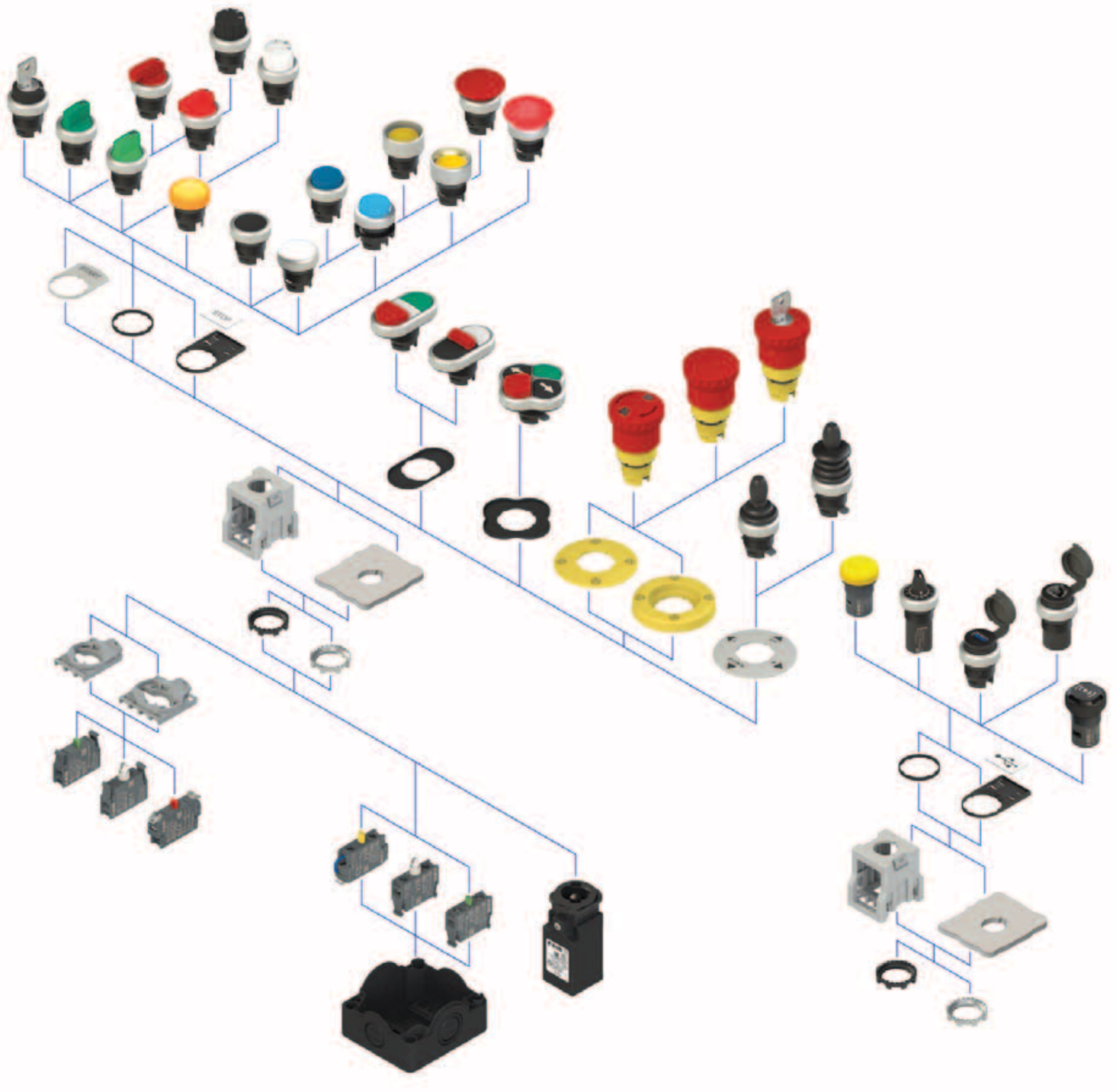
Pushbuttons E2 PU series

Protection degree IP67 and IP69K
Ambient temperature -25°C ... +80°C
Marks : CE ℳ cULus EAC

Actuator colour and marking	Spring-return button / satin chrome ring			
	Flush	Projecting	Booted	Mushroom
○ without lens	E2 1PU2R0290	Same article, flush button	E2 1PU2P0290	-
● black	E2 1PU2R1290	E2 1PU2S1290	E2 1PU2P1290	E2 1PU2F1490
○ white	E2 1PU2R2290	E2 1PU2S2290	E2 1PU2P2290	E2 1PU2F2490
● red	E2 1PU2R3290	E2 1PU2S3290	E2 1PU2P3290	E2 1PU2F3490
● green	E2 1PU2R4290	E2 1PU2S4290	E2 1PU2P4290	E2 1PU2F4490
● yellow	E2 1PU2R5290	E2 1PU2S5290	E2 1PU2P5290	E2 1PU2F5490
● blue	E2 1PU2R6290	E2 1PU2S6290	E2 1PU2P6290	E2 1PU2F6490
● orange	E2 1PU2R8290	E2 1PU2S8290	E2 1PU2P8290	E2 1PU2F8490
Ⓞ red	E2 1PU2R329L1	E2 1PU2S329L1	-	E2 1PU2F349L1
Ⓘ green	E2 1PU2R429L2	E2 1PU2S429L2	E2 1PU2P429L2	E2 1PU2F449L2
Ⓞ black	E2 1PU2R129L1	E2 1PU2S129L1	-	E2 1PU2F149L1
Ⓘ white	E2 1PU2R229L2	E2 1PU2S229L2	E2 1PU2P229L2	E2 1PU2F249L2

Illuminated pushbuttons E2 PL series

Protection degree IP67 and IP69K
Ambient temperature -25°C ... +80°C
Marks : CE ℳ cULus EAC

Actuator colour and marking	Spring-return button / satin chrome ring			
	Flush	Projecting	Booted	Mushroom
○ without lens	E2 1PL2R0290	Same article, flush button	E2 1PL2P0290	-
○ white	E2 1PL2R2290	E2 1PL2S2290	E2 1PL2P2290	E2 1PL2F2490
● red	E2 1PL2R3290	E2 1PL2S3290	E2 1PL2P3290	E2 1PL2F3490
● green	E2 1PL2R4290	E2 1PL2S4290	E2 1PL2P4290	E2 1PL2F4490
● yellow	E2 1PL2R5290	E2 1PL2S5290	E2 1PL2P5290	E2 1PL2F5490
● blue	E2 1PL2R6290	E2 1PL2S6290	E2 1PL2P6290	E2 1PL2F6490
● orange	E2 1PL2R8290	E2 1PL2S8290	E2 1PL2P8290	E2 1PL2F8490
Ⓞ red	E2 1PL2R329L1	E2 1PL2S329L1	-	E2 1PL2F349L1
Ⓘ green	E2 1PL2R429L2	E2 1PL2S429L2	E2 1PL2P429L2	E2 1PL2F449L2
Ⓞ white	E2 1PL2R229L1	E2 1PL2S229L1	-	E2 1PL2F249L1
Ⓘ white	E2 1PL2R229L2	E2 1PL2S229L2	E2 1PL2P229L2	E2 1PL2F249L2

For ordering a stay-put pushbutton substitute in the article codes 1PU2 with 1PU1. Example: E2 **1PU2**R0210 → E2 **1PU1**R0210
For ordering a black ring pushbutton substitute in the article codes 9 with 1. Example: E2 1PU2R02**9**0 → E2 1PU1R02**1**0
Contact our Technical Dept. for customized markings.

Stay-put button   Spring-return button

Double/triple pushbuttons E2 PD/PT series

Protection degree IP67 and IP69K
Ambient temperature -25°C ... +80°C
Marks : CE ℳ cULus EAC

Actuator colour and marking		Spring-return button / satin chrome ring	
		Flush upper pushbutton Flush central element Flush lower pushbutton	Flush upper pushbutton Flush central element Projecting lower pushbutton
	green pushbutton / white indicator light / red pushbutton	E2 1PDRL90423	E2 1PDSL90423
	"I" green pushbutton / white indicator light / "O" red pushbutton	E2 1PDRL9AAAD	E2 1PDSL9AAAD
	"START" green pushbutton / white indicator light / "STOP" red pushbutton	E2 1PDRL9AAAP	E2 1PDSL9AAAP
	white pushbutton / white indicator light / black pushbutton	E2 1PDRL90221	E2 1PDSL90221
	"I" white pushbutton / white indicator light / "O" black pushbutton	E2 1PDRL9AAAA	E2 1PDSL9AAAA
	"START" white pushbutton / white indicator light / "STOP" black pushbutton	E2 1PDRL9AAAN	E2 1PDSL9AAAN
	"⬆" black pushbutton / white indicator light / "⬇" black pushbutton	E2 1PDRL9AAAB	E2 1PDSL9AAAB

Actuator colour and marking		Spring-return button / satin chrome ring
		Flush upper pushbutton Projecting central pushbutton Flush lower pushbutton
	"I" green pushbutton / "STOP" red pushbutton / "II" green pushbutton	E2 1PTRS9AAAY
	"←" green pushbutton / "STOP" red pushbutton / "➔" green pushbutton	E2 1PTRS9AAAZ
	"➔" white pushbutton / "STOP" red pushbutton / "←" black pushbutton	E2 1PTRS9AABD
	"⬆" green pushbutton / "STOP" red pushbutton / "⬇" green pushbutton	E2 1PTRS9AABA
	"⬆" white pushbutton / "STOP" red pushbutton / "⬇" black pushbutton	E2 1PTRS9AABE
	"⬆" black pushbutton / "STOP" red pushbutton / "⬇" black pushbutton	E2 1PTRS9AABF
	"+" green pushbutton / "STOP" red pushbutton / "-" green pushbutton	E2 1PTRS9AABB

Quadruple pushbuttons E2 PQ series

Protection degree IP67
Ambient temperature -25°C ... +80°C
Marks : CE cULus EAC

Actuator colour and marking (starting from the top and clockwise)		Spring-return button / satin chrome ring
		flush upper pushbutton flush right pushbutton flush lower pushbutton flush left pushbutton
	"⬆" black pushbutton / "➔" black pushbutton / "⬇" black pushbutton / "←" black pushbutton	E2 1PQFA9QAAA
	"START" green pushbutton / "➔" black pushbutton / "STOP" red pushbutton / "←" black pushbutton	E2 1PQFA9QAAB
	"START" white pushbutton / "➔" black pushbutton / "STOP" black pushbutton / "←" black pushbutton	E2 1PQFA9QAAC
	"I" green pushbutton / "➔" black pushbutton / "O" red pushbutton / "←" black pushbutton	E2 1PQFA9QAAD
	"I" white pushbutton / "➔" black pushbutton / "O" black pushbutton / "←" black pushbutton	E2 1PQFA9QAAE

For ordering a black ring pushbutton substitute in the article codes 9 with 1. Example: E2 1PDRL**9**0423 → E2 1PDRL**1**0423
Contact our Technical Dept. for customized markings.

Items with code on the **green** background are available in stock

Selectors 2 or 3 positions E2 SE series

Protection degree IP67 and IP69K
Ambient temperature -25°C ... +80°C
Marks : CE Ⓜ c(UL)us EAC

Position	Satin chrome ring						
	⬤ black	⚪ white	🔴 red	🟢 green	🟡 yellow	🔵 blue	🟠 orange
⌄	E2 1SE12AVA19AB	E2 1SE12AVA29AB	E2 1SE12AVA39AB	E2 1SE12AVA49AB	E2 1SE12AVA59AB	E2 1SE12AVA69AB	E2 1SE12AVA89AB
⌄→	E2 1SE12EVA19AB	E2 1SE12EVA29AB	E2 1SE12EVA39AB	E2 1SE12EVA49AB	E2 1SE12EVA59AB	E2 1SE12EVA69AB	E2 1SE12EVA89AB
⌄	E2 1SE13ACE19AB	E2 1SE13ACE29AB	E2 1SE13ACE39AB	E2 1SE13ACE49AB	E2 1SE13ACE59AB	E2 1SE13ACE69AB	E2 1SE13ACE89AB
⌄	E2 1SE13ECE19AB	E2 1SE13ECE29AB	E2 1SE13ECE39AB	E2 1SE13ECE49AB	E2 1SE13ECE59AB	E2 1SE13ECE69AB	E2 1SE13ECE89AB
⌄	E2 1SE13FCE19AB	E2 1SE13FCE29AB	E2 1SE13FCE39AB	E2 1SE13FCE49AB	E2 1SE13FCE59AB	E2 1SE13FCE69AB	E2 1SE13FCE89AB
⌄	E2 1SE13GCE19AB	E2 1SE13GCE29AB	E2 1SE13GCE39AB	E2 1SE13GCE49AB	E2 1SE13GCE59AB	E2 1SE13GCE69AB	E2 1SE13GCE89AB

For ordering a black ring selector substitute in the article codes 9 with 1. Example: E2 1SE12AVA3**9**AB → E2 1SE12AVA3**1**AB
For ordering a knob selector substitute in the article codes 1 with 4. Example: E2 1SE**1**2AVA39AB → E2 1SE**4**2AVA39AB
For ordering a long handle selector substitute in the article codes 1 with 2. Example: E2 1SE**1**2AVA39AB → E2 1SE**2**2AVA39AB

Illuminated selectors 2 or 3 positions E2 SL series

Protection degree IP67 and IP69K
Ambient temperature -25°C ... +80°C
Marks : CE Ⓜ c(UL)us EAC

Position	Satin chrome ring					
	⚪ white	🔴 red	🟢 green	🟡 yellow	🔵 blue	🟠 orange
⌄	E2 1SL12AVD29AB	E2 1SL12AVD39AB	E2 1SL12AVD49AB	E2 1SL12AVD59AB	E2 1SL12AVD69AB	E2 1SL12AVD89AB
⌄→	E2 1SL12EVD29AB	E2 1SL12EVD39AB	E2 1SL12EVD49AB	E2 1SL12EVD59AB	E2 1SL12EVD69AB	E2 1SL12EVD89AB
⌄	E2 1SL13ACH29AB	E2 1SL13ACH39AB	E2 1SL13ACH49AB	E2 1SL13ACH59AB	E2 1SL13ACH69AB	E2 1SL13ACH89AB
⌄	E2 1SL13ECH29AB	E2 1SL13ECH39AB	E2 1SL13ECH49AB	E2 1SL13ECH59AB	E2 1SL13ECH69AB	E2 1SL13ECH89AB
⌄	E2 1SL13FCH29AB	E2 1SL13FCH39AB	E2 1SL13FCH49AB	E2 1SL13FCH59AB	E2 1SL13FCH69AB	E2 1SL13FCH89AB
⌄	E2 1SL13GCH29AB	E2 1SL13GCH39AB	E2 1SL13GCH49AB	E2 1SL13GCH59AB	E2 1SL13GCH69AB	E2 1SL13GCH89AB

For ordering a black ring selector substitute in the article codes 9 with 1. Example: E2 1SL12AVD3**9**AB → E2 1SL12AVD3**1**AB
For ordering a knob selector substitute in the article codes 1 with 4. Example: E2 1SL**1**2AVD39AB → E2 1SL**4**2AVD39AB
For ordering a long handle selector substitute in the article codes 1 with 2. Example: E2 1SL**1**2AVD39AB → E2 1SL**2**2AVD39AB

Complete units with 4 positions selectors E2 AC series

Protection degree IP67 and IP69K
Ambient temperature -25°C ... +80°C
Marks : CE Ⓜ c(UL)us EAC
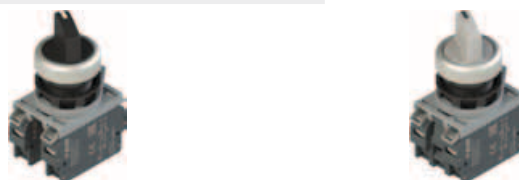
Contact diagram

contacts	Selector position			
	I	II	III	IV
pos. 2 .1 .2 / .3 .4	□	■	□	□
	■	□	□	□
pos. 1 .1 .2 / .3 .4	□	□	■	□
	□	□	□	■

■ closed contact □ open contact

Actuator colour and marking	Selectors					Illuminated selectors			
	Contacts			Positions	satin chrome ring	Contacts			satin chrome ring
	pos 2	pos 3	pos 1			pos 2	pos 3	pos 1	
⬤ black	1NO+1NC	-	1NO+1NC	⌄	E2 AC-DXBC2203	-	-	-	-
⚪ white	1NO+1NC	-	1NO+1NC	⌄	E2 AC-DXBC2211	1NO+1NC	LED	1NO+1NC	E2 AC-DXBC2259
🔴 red	1NO+1NC	-	1NO+1NC	⌄	E2 AC-DXBC2219	1NO+1NC	LED	1NO+1NC	E2 AC-DXBC2267
🟢 green	1NO+1NC	-	1NO+1NC	⌄	E2 AC-DXBC2227	1NO+1NC	LED	1NO+1NC	E2 AC-DXBC2275
🟡 yellow	1NO+1NC	-	1NO+1NC	⌄	E2 AC-DXBC2235	1NO+1NC	LED	1NO+1NC	E2 AC-DXBC2283
🔵 blue	1NO+1NC	-	1NO+1NC	⌄	E2 AC-DXBC2243	1NO+1NC	LED	1NO+1NC	E2 AC-DXBC2291
🟠 orange	1NO+1NC	-	1NO+1NC	⌄	E2 AC-DXBC2251	1NO+1NC	LED	1NO+1NC	E2 AC-DXBC2299
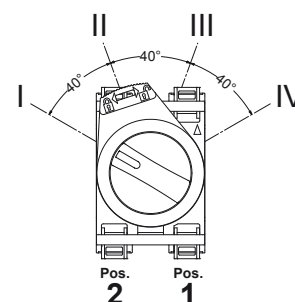
Available on request selector with knob or long handle.
On request selectors with knob may be customized with symbols and inscriptions.

Note: the LED supplied with the illuminated selector has power supply 12 ... 30 Vac/dc. Other voltages on request.

Key selectors
E2 SC series

Protection degree IP67 and IP69K

Ambient temperature -25°C ... +80°C

Marks : CE Ⓜ cULus EHC

Legend

| Stay-put |
| Spring-return |
| Key withdrawal position |

Actuator colour and marking	Position	3 positions Satin chrome ring
black		E2 1SC3ACE19AA
		E2 1SC3BCE19AA
		E2 1SC3CCE19AA
		E2 1SC3DCE19AA
		E2 1SC3ECE19AA
		E2 1SC3FCE19AA
		E2 1SC3GCE19AA

Actuator colour and marking	Position	3 positions Satin chrome ring
black		E2 1SC3HCE19AA
		E2 1SC3LCE19AA
		E2 1SC3MCE19AA
		E2 1SC3NCE19AA
		E2 1SC3PCE19AA
		E2 1SC3QCE19AA
		E2 1SC3RCE19AA

Actuator colour and marking	Position	2 positions Satin chrome ring
black		E2 1SC2AVA19AA
		E2 1SC2BVA19AA
		E2 1SC2CVA19AA
		E2 1SC2DVA19AA
		E2 1SC2ACA19AA
		E2 1SC2BCA19AA
		E2 1SC2DCA19AA

For ordering a black ring selector substitute in the article codes 9 with 1. Example:E2 1SC2AVA19AA → E2 1SC2AVA11AA

Selector standard colour in above mentioned codes is **BLACK**. Other colours on request.
Key selectors can be customized with inscriptions and symbols.
All selectors keys have the PY333 code. Other codes on request.

Emergency pushbuttons

Emergency pushbuttons
E2 PE series

Protection degree IP67 and IP69K

Ambient temperature -25°C ... +80°C

Marks : CE Ⓜ cULus EHC

Body colour and marking	Actuator colour	Push-pull	Rotary release	Windowed push-pull	Windowed rotary release	Key release Chiave codifica PY333
yellow	red	E2 1PEPZ4531	E2 1PERZ4531	E2 1PEPF4531	E2 1PERF4531	E2 1PEBZ4531
yellow with green indication	red	E2 1PEPZ4731	E2 1PERZ4731	E2 1PEPF4731	E2 1PERF4731	E2 1PEBZ4731
yellow	black	E2 1PEPZ4511	E2 1PERZ4511	-	-	E2 1PEBZ4511

Label with shaped hole

5 pcs pack

According to ISO 13850 · According to ISO 13850 · According to ISO 13850

Ø 60 mm	VE TF32A5700	VE TF32A5101	VE TF32A5102	VE TF32A5109	VE TF32A5120	VE TF32A5113	VE TF32G5700	VE TF32G5103	VE TF32G5110	VE TF32G5121
Ø 90 mm	VE TF32D5700	VE TF32D5101	VE TF32D5102	VE TF32D5109	VE TF32D5120	VE TF32D5113				

Luminous disc

Luminous disc
VE DL series

Protection degree IP67

Ambient temperature -25°C ... +70°C

Marks : CE EHC

fixed light	VE DL1A5A00	VE DL1A5A09	VE DL1A5A13
blinking light	VE DL1A5L00	VE DL1A5L09	VE DL1A5L13
double function	VE DL1A5D00	VE DL1A5D09	VE DL1A5D13
	Yellow luminous disc, Ø 60 mm, 24 Vac/dc, no marking According to ISO 13850	Yellow luminous disc, Ø 60 mm, 24 Vac/dc, with marking: STOP STOP STOP STOP According to ISO 13850	Yellow luminous disc, Ø 60 mm, 24 Vac/dc, with marking: According to ISO 13850

Items with code on the **green** background are available in stock

Indicator lights E2 IL series

Protection degree IP67 and IP69K
Ambient temperature -25°C ... +70°C
Marks : CE ⓂⓎ c(UL)us EHC

	white	red	green	yellow	blue	orange
	○	●	●	●	●	●
	E2 1ILA210	E2 1ILA310	E2 1ILA410	E2 1ILA510	E2 1ILA610	E2 1ILA810

Monolithic indicator lights

Monolithic indicator lights E6 IL series

Protection degree IP67
Ambient temperature -40°C ... +70°C
Marks : CE c(UL)us EHC

Operating voltage	white ○	red ●	green ●	yellow ●	blue ●	orange ●
12..30 Vac/dc	E6 1IL1A2110	E6 1IL1A3110	E6 1IL1A4110	E6 1IL1A5110	E6 1IL1A6110	E6 1IL1A8110
120 Vac/dc	E6 1IL7A2110	E6 1IL7A3110	E6 1IL7A4110	E6 1IL7A5110	E6 1IL7A6110	E6 1IL7A8110
230 Vac/dc	E6 1IL8A2110	E6 1IL8A3110	E6 1IL8A4110	E6 1IL8A5110	E6 1IL8A6110	E6 1IL8A8110

Joystick with contacts E2 MA Series

Protection degree IP67 e IP69K
Ambient temperature -40°C ... +80°C
Marks : CE c(UL)us EHC

NEW

Legend:
● maintained actuation
► spring-return actuation
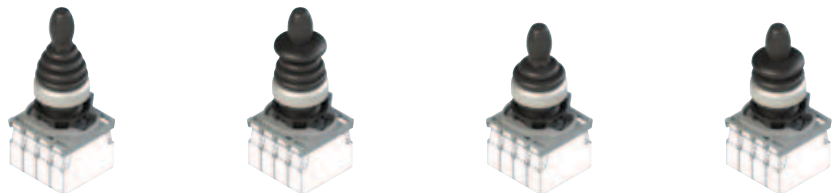
Functions		Contacts				Standard height (55 mm) without lock	Standard height (55 mm) with lock	Reduced height (45 mm) without lock	Reduced height (45 mm) with lock
		pos. 3	pos. 2	pos. 4	pos. 1	Satin chrome bezel	Satin chrome bezel	Satin chrome bezel	Satin chrome bezel
✛	UP spring-return, RIGHT spring-return, DOWN spring-return, LEFT spring-return	1NO	1NO	1NO	1NO	E2 AC-DXBC2602	E2 AC-DXBC2604	E2 AC-DXBC2603	E2 AC-DXBC2605
⊢⊣	LEFT spring-return, RIGHT spring-return	1NO			1NO	E2 AC-DXBC2601	E2 AC-DXBC2613	E2 AC-DXBC2618	E2 AC-DXBC2622
│	UP spring-return, DOWN spring-return		1NO	1NO		E2 AC-DXBC2600	E2 AC-DXBC2611	E2 AC-DXBC2616	E2 AC-DXBC2620
✛	UP maintained, RIGHT maintained, DOWN maintained, LEFT maintained	1NO	1NO	1NO	1NO	E2 AC-DXBC2608	E2 AC-DXBC2614	E2 AC-DXBC2609	E2 AC-DXBC2623
●—●	LEFT maintained, RIGHT maintained	1NO			1NO	E2 AC-DXBC2607	E2 AC-DXBC2612	E2 AC-DXBC2617	E2 AC-DXBC2621
│	UP maintained, DOWN maintained		1NO	1NO		E2 AC-DXBC2606	E2 AC-DXBC2610	E2 AC-DXBC2615	E2 AC-DXBC2619

Labels with shaped hole

Label with shaped hole, circular

VE TF32A9130	VE TF12A1230	VE TF32A9133	VE TF12A1233

Label with shaped hole, rectangular

VE TF32G9131	VE TF12G1231	VE TF32G9134	VE TF12G1234	VE TF32G9132	VE TF12G1232

USB and RJ45 socket

USB socket
E2 USB series

Protection degree IP67

Ambient temperature -25°C ... +70°C

Marks : CE cULus EAC

For ordering a black ring selector substitute in the article codes 9 with 1. Example:
E2 1USB**9**CAK → E2 1USB**1**CAK

Back connection	Front connection USB 2.0 Type A integrated female socket	
USB Type A integrated female socket	E2 1USB9CAK	/
outlet with cable in PVC (0.8 m long) and USB Type A male socket	/	E2 1USB9CN0.8
outlet with cable in PVC (1.8 m long) and USB Type A male socket	/	E2 1USB9CN1.8
outlet with cable in PVC (3 m long) and USB Type A male connector	/	E2 1USB9CN3
outlet with cable in PVC (5 m long) and USB Type A male connector	/	E2 1USB9CN5

Please contact our technical office for the list of approved products.

RJ45 socket
RJ45 series

Protection degree IP67

Ambient temperature -25°C ... +70°C

Marks : CE cULus EAC

For ordering a black ring selector substitute in the article codes 9 with 1. Example:
E2 1RJ45**9**AAK → E2 1RJ45**1**AAK

Back connection	Front connection RJ45 integrated female socket	
RJ45 integrated female socket	E2 1RJ459AAK	/
Output with cable in PVC (1 m long) and RJ45 male connector	/	E2 1RJ459AN1
Output with cable in PVC (1.5 m long) and RJ45 male connector	/	E2 1RJ459AN1.5
Output with cable in PVC (2.5 m long) and RJ45 male connector	/	E2 1RJ459AN2.5

Please contact our technical office for the list of approved products.

Potentiometers

Potentiometers
E6 DM series

Protection degree IP67 and IP69K

Ambient temperature -40°C ... +80°C

Potentiometer with Cermet technology

Marks : CE cULus EAC

For ordering a black ring selector substitute in the article codes 9 with 1. Example:
E6 1DM001K-D11**9** → E6 1DM001K-D11**1**

Resistance	Power max.	Article
1 kΩ	1 W	E6 1DM001K-D119
2,2 kΩ	1 W	E6 1DM02K2-D119
4,7 kΩ	1 W	E6 1DM04K7-D119
10 kΩ	1 W	E6 1DM010K-D119
22 kΩ	1W	E6 1DM022K-D119
47 kΩ	1 W	E6 1DM047K-D119
100 kΩ	0,9 W	E6 1DM100K-D119
470 kΩ	0,23 W	E6 1DM470K-D119

Buzzer

Buzzer
E6 IS series

Protection degree: IP40 with holes

IP67 without holes

Ambient temperature -20°C ... +70°C

Marks : CE cULus EAC

Type of sound	Type and supply voltages	With holes	dB	Without holes	dB
continuous	12 Vac/dc	E6 1IS5A1CV1B	90	E6 1IS5B1CV1B	70
	24 Vac/dc	E6 1IS6A1CV1B	90	E6 1IS6B1CV1B	80
pulsing	12 Vac/dc	E6 1IS5A1PV1B	90	E6 1IS5B1PV1B	70
	24 Vac/dc	E6 1IS6A1PV1B	90	E6 1IS6B1PV1B	80

Single contact blocks

Single contact blocks
CP/CF series

Protection degree IP20

Ambient temperature -40°C ... +80°C

Positive opening NC contacts according to IEC 60947-5-1

Marks: CE cULus CCC EAC

10 pcs pack

Contact blocks	Panel fixing	
	Screw connection	Solder connection
Slow action contacts 1NC	E2 CP01G2V1	E2 CP01G2S0
Contatti a scatto lento 1NO	E2 CP10G2V1	E2 CP10G2S0
Slow action contacts 1NO	E2 CP01K2V1	E2 CP01K2S0
Slow action contacts 1NO early make	E2 CP10L2V1	E2 CP10L2S0

Contact blocks	Base fixing Screw connection
Slow action contacts 1NC	E2 CF01G2V1
Slow action contacts 1NO	E2 CF10G2V1
Slow action contacts 1NC late break	E2 CF01K2V1
Slow action 1 contacts NO early make	E2 CF10L2V1

Items with code on the **green** background are available in stock

Single self-monitored contact blocks E2 CP/CF series

Protection degree IP20
Ambient temperature -40°C ... +80°C
Positive opening NC contacts according to IEC 60947-5-1
Marks: CE ⒨ cⓊus ⒸⒸⒸ EHC

5 pcs pack

Contact blocks	Panel fixing Screw connection
Slow self-monitored action contacts 1NC	E2 CP01S2V1 → 2.3 1.1 0 1.1 ⊕2.1 5

Contact blocks	Base fixing (position 3) Screw connection
Slow self-monitored action contacts 1NC	E2 CF01S2V1 → 2.3 1.1 0 1.1 ⊕2.1 5

Note: Ideal for safety applications in combination with emergency pushbuttons E2•PE••••••, they automatically detect any separation of the contact unit from the emergency button.

4M Double contact blocks

Double contact blocks E2 CP/CF series

Protection degree IP20
Ambient temperature -40°C ... +80°C
Positive opening NC contacts according to IEC 60947-5-1
Marks: CE ⒨ cⓊus ⒸⒸⒸ EHC

5 pcs pack

Contact block	Panel fixing Screw connection
Slow action contacts 1NO+1NC	E2 CP11G2V1 → 0 2.5 5 1.1 ⊕2.1
Slow action contacts 2NO	E2 CP20G2V1 0 2.5 5
Slow action contacts 2NC	E2 CP02G2V1 → 0 1.1 ⊕2.1 5

Contact block	Base fixing Screw connection
Slow action contacts 1NO+1NC	E2 CF11G2V1 → 0 2.5 5 1.1 ⊕2.1
Slow action contacts 2NO	E2 CF20G2V1 0 2.5 5
Slow action contacts 2NC	E2 CF02G2V1 → 0 1.1 ⊕2.1 5

4N LED holders

LED holders E2 LP/LF series

Protection degree IP20
3 power supply: 12...30Vac/dc, 120Vac, 230Vac
Ambient temperature -25°C ... +70°C
Marks: CE ⒨ cⓊus ⒸⒸⒸ EHC

5 pcs pack

LED colour	Actuator colour	Panel fixing Supply voltage		
		12 ... 30 Vac/dc	120 Vac	230 Vac
white	white / yellow	E2 LP1A2V1	E2 LP3A2V1	E2 LP4A2V1
red	red	E2 LP1A3V1	E2 LP3A3V1	E2 LP4A3V1
green	green	E2 LP1A4V1	E2 LP3A4V1	E2 LP4A4V1
blue	blue	E2 LP1A6V1	E2 LP3A6V1	E2 LP4A6V1
orange	orange	E2 LP1A8V1	E2 LP3A8V1	E2 LP4A8V1

LED colour	Actuator colour	Base fixing Supply voltage		
		12 ... 30 Vac/dc	120 Vac	230 Vac
white	white / yellow	E2 LF1A2V1	E2 LF3A2V1	E2 LF4A2V1
red	red	E2 LF1A3V1	E2 LF3A3V1	E2 LF4A3V1
green	green	E2 LF1A4V1	E2 LF3A4V1	E2 LF4A4V1
blue	blue	E2 LF1A6V1	E2 LF3A6V1	E2 LF4A6V1
orange	orange	E2 LF1A8V1	E2 LF3A8V1	E2 LF4A8V1

Attention! Comply with the combination between Led and actuators colours.
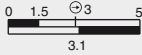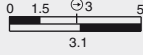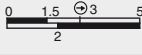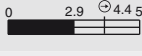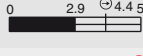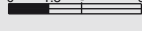
Items with code on the **green** background are available in stock

FR, FX, FK series
Protected contact blocks

Housing made of polymer glass-reinforced ☐
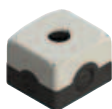
Protection degree IP67

Marks: CE ⓨ c(UL)us ⓒⒸⒸ EHC

Contact blocks	One conduit entry M20x1.5
Slow action contacts 1NO+1NC	FR 6E2-M2 → 0 1.5 ⊖3 5 3.1
Slow action contacts 2NC	FR 9E2-M2 → 0 2.9 ⊖4.4 5
Slow action contacts 1NO+2NC	FR 20E2-M2 → 0 1.5 ⊖3 5 2

Contact blocks	Two conduit entries M20x1.5
Slow action contacts 1NO+1NC	FX 6E2-M2 → 0 1.5 ⊖3 5 3.1
Slow action contacts 2NC	FX 9E2-M2 → 0 2.9 ⊖4.4 5
Slow action contacts 1NO+2NC	FX 20E2-M2 → 0 1.5 ⊖3 5 2

Contact blocks	One conduit entry M16x1.5
Slow action contacts 1NO+1NC	FK 33E2-M1 → 0 1.5 ⊖3 5 2
Slow action contacts 2NC	FK 34E2-M1 → 0 1.5 ⊖3 5

Boxes

4P

ES series
Boxes

Self-extinguishing polymer housing ☐

Protection degree IP67 and IP69K

Ambient temperature -40°C ... +80°C

4 lateral conduit entries + 2 base conduit entries

Marks : CE EHC
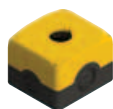
ES 31001	ES 31000	ES 32000	ES 33000	ES 34000	ES 36000

ES AC series
Complete boxes

Self-extinguishing polymer housing ☐

Protection degree IP67 and IP69K

Ambient temperature -25°C ... +70°C

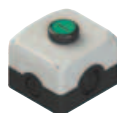4 lateral conduit entries + 2 base conduit entries

Marks : CE EHC

Actuator colour and marking	Contacts	Flush pushbutton Black ring	Projecting pushbutton Black ring
I green	Slow action contacts 1NO	ES AC31001	-
O red	Slow action contacts 1NC	ES AC31002 →	ES AC31017 →
START green	Slow action contacts 1NO	ES AC31015	-
STOP red	Slow action contacts 1NC	ES AC31016 →	ES AC31018 →

Position and marking	Contacts	Two positions black selector Black ring
0 I	Slow action contacts 1NO	ES AC31019
	Slow action contacts 1NO	ES AC31044
	Slow action contacts 2NO	ES AC31045
	Slow action contacts 2NO	ES AC31046

Items with code on the **green** background are available in stock

Complete boxes
ES AC series

Self-extinguishing polymer housing ▢
Protection degree IP67 and IP69K
Ambient temperature -25°C ... +70°C
4 lateral conduit entries + 2 base conduit entries
Marks : CE EAC

Contacts	Push-Pull	Turn to release	Key release
Slow action contacts 1NC	ES AC31004 ⊕	ES AC31003 ⊕	ES AC31022 ⊕
Slow action contacts 1NC self-monitored	ES AC31081 ⊕	ES AC31082 ⊕	ES AC31083 ⊕
Slow action contacts 2NC	ES AC31009 ⊕	ES AC31005 ⊕	ES AC31023 ⊕
Slow action contacts 1NO+1NC	ES AC31010 ⊕	ES AC31006 ⊕	ES AC31011 ⊕
Slow action contacts 1NO+2NC	ES AC31146 ⊕	ES AC31021 ⊕	ES AC31024 ⊕

Position and marking	Contacts	Two positions key black selector Black ring
0 I	Slow action contacts 1NO	ES AC31020
I 0 2	Slow action contacts 2NO	ES AC31047

Legend: ╱ Maintained ▷ Spring-return ⸜ Key extraction position

Contacts	Emergency button Push-Pull yellow illuminated disc, blinking Ø 60 mm, 24 Vac/dc	Emergency button rotary release yellow illuminated disc, blinking Ø 60 mm, 24 Vac/dc	Emergency button key release yellow illuminated disc, blinking Ø 60 mm, 24 Vac/dc
Slow action contacts 1NO+1NC+ block of connection	ES AC31430 ⊕	ES AC31433 ⊕	ES AC31436 ⊕
Slow action contacts 1NO+ 1NC self-monitored + block of connection	ES AC31431 ⊕	ES AC31434 ⊕	ES AC31437 ⊕
Slow action contacts 1NO+2NC+ block of connection	ES AC31432 ⊕	ES AC31435 ⊕	ES AC31438 ⊕

⬆ 1NO Flush white upper pushbutton	Ⓘ 1NO Flush green upper pushbutton	START 1NO Flush green upper pushbutton	⬆ 1NO Flush white upper pushbutton	⬆ 1NO Flush white upper pushbutton	Ⓘ 1NO Flush green upper pushbutton
⬇ 1NO Flush black lower pushbutton	Ⓞ 1NC ⊕ Projecting red lower pushbutton	STOP 1NC ⊕ Projecting red lower pushbutton	Ⓞ 1NC ⊕ Projecting red central pushbutton	⬇ 1NO Flush black central pushbutton	Ⓞ 1NC ⊕ Projecting red central pushbutton
			⬇ 1NO Flush black lower pushbutton	● 1NC+1NO Emergency pushbutton lower with luminous disc	Ⅱ 1NO Flush green lower pushbutton
ES AC32012	ES AC32010	ES AC32011	ES AC33017	ES AC34035	ES AC33016

EA series
Boxes

Self-extinguishing polymer housing ▢
Protection degree IP65
Ambient temperature -40°C ... +80°C
2 lateral conduit entries + 2 base conduit entries
Marks : CE EAC

EA 37014	EA 37010	EA 37015	EA 37011	EA 37012	EA 37013

Items with code on the **green** background are available in stock

Boxes

**Complete boxes
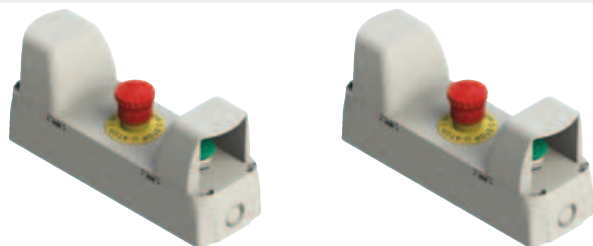EA AC series**

Self-extinguishing polymer housing ▢
Protection degree IP65
Ambient temperature -25°C ... +70°C
2 lateral conduit entries + 2 base conduit entries
Marks : CE EHC

For correct operation in compliance with the EN 574 standard, the bimanual controls must be connected to a CS DM •••••• safety module for a two-hand control device. See page 40.

1NO	Mushroom pushbutton	1NO+1NC	Mushroom pushbutton
1NC ⊕	Emergency pushbutton Ø 40	2NC ⊕	Emergency pushbutton Ø 40
1NO	Mushroom pushbutton	1NO+1NC	Mushroom pushbutton
EA AC37040		**EA AC37041**	

Accessories

VE GF121A	VE GF720A	VE CH121A1	VE GF151A	E2 1BAC11	E2 1BAC21	VE TF12H1700	VE TF32H9700	VE TF32H5700
Polymer fixing ring. 20 pcs packs	Metal fixing ring. 20 pcs packs	Polymer fixing tool for VE GF fixing rings	Adapter provided with panel-fixing ring nut for Ø 22 devices on Ø 30 holes. 10 pcs packs	Fixing adapter with 3 positions for E2 CP contact block and E2 LP LED holder. 10 pcs packs	Fixing adapter with 4 positions for E2 CP contact block. 10 pcs packs	Black label without marking for laser engraving. 10 pcs packs	Grey label without marking for laser engraving. 10 pcs packs	Yellow label without marking for laser engraving. 10 pcs packs

VE PT32A00A0	VE TR4A970	VE TR3A770	VE GP12H1A	VE GP12L1A	VE GP12M1A	VE BC2PV1	VE BC2FV1	VE CA1A1
Label holder with shaped hole, for 18x27 mm label, without label. 10 pcs packs	18x27 mm label without marking for cutter or laser engraving. 100 pcs packs.	Protective 18x27 mm label for VE PT label holder, thickness 0.4 mm without marking. 100 pcs packs	Shaped ring for single device. 50 pcs packs	Shaped ring for double and triple pushbuttons. 50 pcs packs	Shaped ring for quadruple button. 10 pcs packs	Panel mounting connection block. 10 pcs packs	Connection block for base mounting. 10 pcs packs	Protection hood for flush pushbutton. 10 pcs packs

VE CA1B1	VE CA1D1	VE CA1C1	E2 1TA1A110	VE PR3A70	VE GP32A5A	VE GP32F5A	VE GP32B5A	VE AD3PF9A0
Shroud for single projecting button. 10 pcs packs	Protection hood for double and triple projecting pushbutton. 10 pcs packs	Protection hood for double flush pushbutton. 10 pcs packs	Black banking plug for Ø 22 mm holes. 10 pcs packs	Transparent dust protection for contact block E2 series. 50 pcs packs	Cylindrical yellow protection guard with 4 slots Ø 40x20 mm	Yellow open rectangular protection with 4 screws 66x38 h35 mm.	Cylindrical yellow Ø 43x27 mm protection guard	Adapter with Ø 22 hole for front fixing on DIN rail according to EN 60715. 10 pcs packs

Items with code on the **green** background are available in stock

Switches with separate actuator for heavy duty applications FD, FL, FC and FP series

Housing made of polymer glass-reinforced ☐ (FP)
Housing made of metal (FD, FL, FC)
One conduit entry M20x1.5 (FD, FP, FC)
Three conduit entries M20x1.5 (FL)
Protection degree IP67
Marks: CE ⑭ ℅⒰Ⓛus ⓒⓒⓒ EAC

Slow action contacts 1NO+1NC	FD 693-M2 ⊕	FL 693-M2 ⊕	FC 3393-M2 ⊕	FP 693-M2 ⊕
Slow action contacts 2NC	FD 993-M2 ⊕	FL 993-M2 ⊕	FC 3493-M2 ⊕	FP 993-M2 ⊕
Slow action contacts 1NO+2NC	FD 2093-M2 ⊕	FL 2093-M2 ⊕		FP 2093-M2 ⊕

Separate actuators

VF KEYF	VF KEYF1	VF KEYF2	VF KEYF3	VF KEYF7	VF KEYF8

Attention! These loose actuators must be used with FD, FL, FC and FP series only.

Switches with separate actuator for normal duty applications FR, FX, FK and FW series

Housing made of polymer glass-reinforced ☐
One conduit entry M20x1.5 (FR)
Two conduit entries M20x1.5 (FX, FW)
One conduit entry M16x1.5 (FK)
Protection degree IP67
Marks: CE ⑭ ℅⒰Ⓛus ⓒⓒⓒ EAC

Slow action contacts 1NO+1NC	FR 693-M2 ⊕	FX 693-M2 ⊕	FK 3393-M1 ⊕	FW 3392-M2 ⊕
Slow action contacts 2NC	FR 993-M2 ⊕	FX 993-M2 ⊕	FK 3493-M1 ⊕	FW 3492-M2 ⊕
Slow action contacts 1NO+2NC	FR 2093-M2 ⊕	FX 2093-M2 ⊕		FW 2092-M2 ⊕

Separate actuators
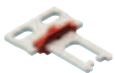
VF KEYD	VF KEYD1	VF KEYD2	VF KEYD3	VF KEYD5	VF KEYD6	VF KEYD7	VF KEYD8	VF KEYD10	VF KEYD11

Attention! These loose actuators must be used with FR, FX, FK and FW series only.

Items with code on the **green** background are available in stock

Safety magnetic sensor

Safety magnetic sensor SR series

Housing made of polymer glass-reinforced

2 m cable or M8 connector versions

Protection degree IP67 and IP69K

Marks: CE c(UL)us TÜV EHC

Contacts 2NC (with closed protection)

		with M8 connector	with M8 connector
SR BD40AN2-B02F	SR BD40ALK-B02F	SR AD40AN2-A01N	SR AD40ALK-A01N
8 mm	8 mm	5 mm	5 mm

Actuation distance

For safety applications, use modules with compatible electrical charge. On the side, the compatible modules by Pizzato. See technical details at page 38.

CS AR-01●●●●b	CS AR-46●024	CS MF●●●●●
CS AR-02●●●●b	CS AR-91●●●●	CS MP●●●●●
CS AR-04●●●●b	CS AT-0●●●●●	
CS AR-05●●●●	CS AT-1●●●●●	
CS AR-06●●●●	CS AT-3●●●●●	
CS AR-08●●●●	CS FS-5●●●●●	

b Compatible with modules with production batch later than 06/2014 only.

Safety sensors with RFID technology

ST series safety sensors with RFID technology

Housing made of polymer glass-reinforced
2 m cable or M12 connector versions
Actuator with high level of coding
(EN ISO 14119)

Protection degree IP67 and IP69K
State signaling LED
Supply voltage: 24 Vdc
Marks: CE c(UL)us TÜV EHC

OS safety outputs	O signalling outputs	IS safety inputs	programming inputs I	EDM inputs	Programmable			M12 connector on right	M12 connector on left
2	1	-	-	-	-	ST DD210N2-D1T	ST DL210N2-D1T	ST DD210MK-D1T	ST DL210MK-D1T
2	1	2	-	-	-	ST DD310N2-D1T	ST DL310N2-D1T	ST DD310MK-D1T	ST DL310MK-D1T
2	1	2	1	-	●	ST DD420N2-D1T	ST DL420N2-D1T	ST DD420MK-D1T	ST DL420MK-D1T
2	1	2	-	1	-	ST DD510N2-D1T	ST DL510N2-D1T	ST DD510MK-D1T	ST DL510MK-D1T
		Actuation distance				12 mm	12 mm	12 mm	12 mm

OS safety outputs	O signalling outputs	IS safety inputs	programming inputs I	EDM inputs	Programmable			M12 connector on right	M12 connector on left
2	1	-	-	-	-	ST DD210N2-E1T	ST DL210N2-E1T	ST DD210MK-E1T	ST DL210MK-E1T
2	1	2	-	-	-	ST DD310N2-E1T	ST DL310N2-E1T	ST DD310MK-E1T	ST DL310MK-E1T
2	1	2	1	-	●	ST DD420N2-E1T	ST DL420N2-E1T	ST DD420MK-E1T	ST DL420MK-E1T
2	1	2	-	1	-	ST DD510N2-E1T	ST DL510N2-E1T	ST DD510MK-E1T	ST DL510MK-E1T
		Actuation distance				20 mm	20 mm	20 mm	20 mm

For safety applications, use modules with OSSD inputs. On the side, the compatible modules by Pizzato. See technical details at page 38.

CS AR-05●●●●
CS AR-06●●●●
CS AR-08●●●●
CS AT-0●●●●●
CS AT-1●●●●●
CS MP●●●●●●
CS MF●●●●●●

Items with code on the **green** background are available in stock

Hinged switches HP AA series

Metal housing
2 m cable or M12 connector versions
Protection degree IP67 and IP69K
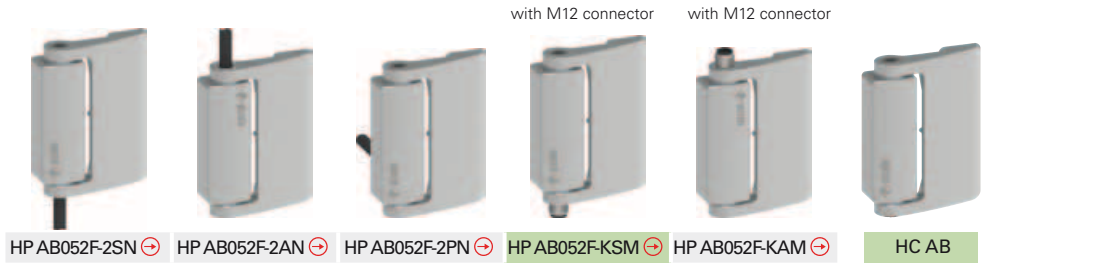Marks: CE ® c(UL)us CCC EAC

			with M12 connector	with M12 connector	Additional hinge	
Slow action contacts 1NO+2NC	HP AA052F-2SN →	HP AA052F-2AN →	HP AA052F-2PN →	HP AA052F-KSM →	HP AA052F-KAM →	HC AA	HC LL

Hinged switches HP AB series

Metal housing
2 m cable or M12 connector versions
Protection degree IP67 and IP69K
Marks: CE ® c(UL)us CCC EAC

			with M12 connector	with M12 connector	Additional hinge
Slow action contacts 1NO+2NC	HP AB052F-2SN →	HP AB052F-2AN →	HP AB052F-2PN →	HP AB052F-KSM →	HP AB052F-KAM →	HC AB

Hinged switches HX series

AISI 316L stainless steel housing
2 m cable or M12 connector versions
Protection degree IP67 and IP69K
Marks: CE c(UL)us ® EAC

				Additional hinge
Slow action contacts 2NO+2NC	HX BL22-2PN →	HX BL22-KSM →	HX BL22-KAM →	HX CB

Electronic Hinged switches HX series

AISI 316L stainless steel housing
2 m cable or M12 connector versions
Protection degree IP67 and IP69K
State signaling LED
Supply voltage: 24 Vdc
Marks: CE c(UL)us ® EAC

Electronic PNP contacts	HX BEE1-2PN →	HX BEE1-KSM →	HX BEE1-KAM →

The electronic hinged switches of the HX series must be connected to modules with OSSD inputs. On the side, the compatible modules by Pizzato. See technical details at page 38.
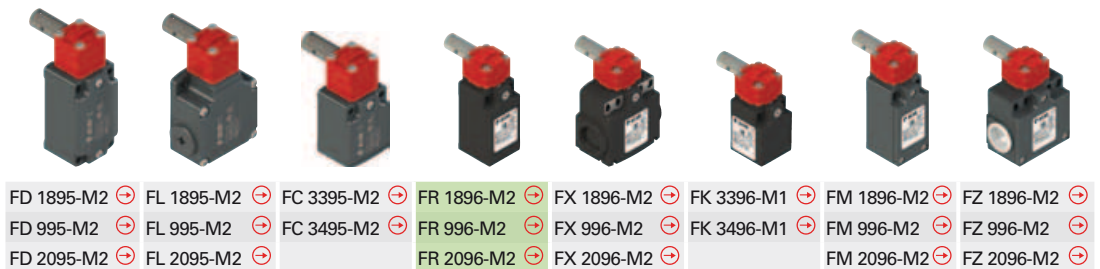
CS AR-05••••
CS AR-06••••
CS AR-08••••
CS AT-0•••••
CS AT-1•••••
CS MP••••••
CS MF••••••

Switches for hinged protections FD, FL and FC series FR, FX, FK, FM and FZ series

Housing made of polymer or metal
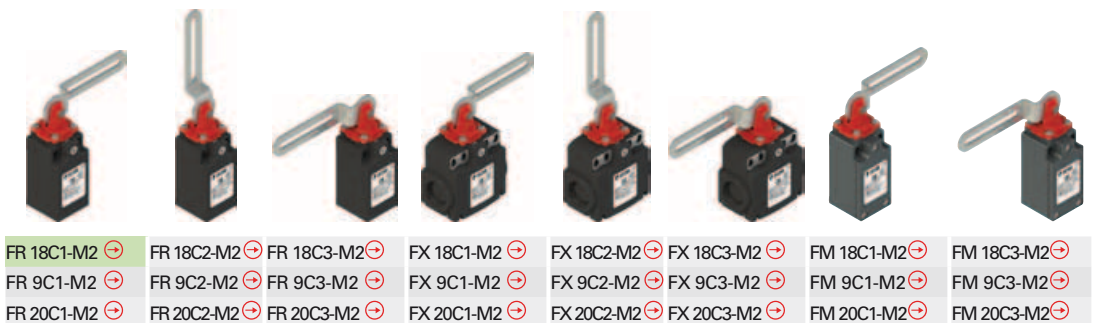One, two or three conduit entries M20x1.5
Protection degree IP67
Marks: CE ® c(UL)us CCC EAC

Slow action contacts 1NO+1NC	FD 1895-M2 →	FL 1895-M2 →	FC 3395-M2 →	FR 1896-M2 →	FX 1896-M2 →	FK 3396-M1 →	FM 1896-M2 →	FZ 1896-M2 →
Slow action contacts 2NC	FD 995-M2 →	FL 995-M2 →	FC 3495-M2 →	FR 996-M2 →	FX 996-M2 →	FK 3496-M1 →	FM 996-M2 →	FZ 996-M2 →
Slow action contacts 1NO+2NC	FD 2095-M2 →	FL 2095-M2 →		FR 2096-M2 →	FX 2096-M2 →		FM 2096-M2 →	FZ 2096-M2 →

Switches with slotted hole lever FR, FX, FM series

Housing made of polymer or metal
One or two conduit entries M20x1.5
Protection degree IP67
Marks: CE ® c(UL)us CCC EAC

Slow action contacts 1NO+1NC	FR 18C1-M2 →	FR 18C2-M2 →	FR 18C3-M2 →	FX 18C1-M2 →	FX 18C2-M2 →	FX 18C3-M2 →	FM 18C1-M2 →	FM 18C3-M2 →
Slow action contacts 2NC	FR 9C1-M2 →	FR 9C2-M2 →	FR 9C3-M2 →	FX 9C1-M2 →	FX 9C2-M2 →	FX 9C3-M2 →	FM 9C1-M2 →	FM 9C3-M2 →
Slow action contacts 1NO+2NC	FR 20C1-M2 →	FR 20C2-M2 →	FR 20C3-M2 →	FX 20C1-M2 →	FX 20C2-M2 →	FX 20C3-M2 →	FM 20C1-M2 →	FM 20C3-M2 →

Switches with solenoid FS series

Housing made of polymer glass-reinforced ☐
Three conduit entries M20x1.5
Max holding force: 1100 N
(with lock): 900 N
Protection degree IP67
Marks: CE ⓨ cⓊus ⒸⒸⒸ EAC

	Locked actuator with **De-energized** 24 Vac/dc solenoid		Locked actuator with **Energized** 24 Vac/dc solenoid
Contacts 1NO+1NC (solenoid)	FS 1896D024-M2 →	FS 1898D024-M2 →	FS 1896E024-M2 →
Contacts 1NO+2NC (solenoid)	FS 2096D024-M2 →	FS 2098D024-M2 →	FS 2096E024-M2 →
Contacts 1NO+1NC (solenoid)+1NC (actuator)	FS 2896D024-M2 →	FS 2898D024-M2 →	FS 2896E024-M2 →

Switches with manual mechanical delay FD, FP series

Housing made of polymer glass-reinforced ☐ (FP)
Housing made of metal (FD)
One conduit entry M20x1.5
Max holding force: 1000 N
Protection degree IP67
Marks: CE ⓨ cⓊus ⒸⒸⒸ EAC

	With actuator **locking/unlocking** manually timed (20 s)		With actuator **locking/unlocking** manually timed (10 s)
Slow action contacts 1NO+1NC	FD 6R2-M2 →	FP 6R2-M2 →	FD 6R2-L10M2 →
Slow action contacts 2NC	FD 9R2-M2 →	FP 9R2-M2 →	FD 9R2-L10M2 →
Slow action contacts 1NO+2NC	FD 20R2-M2 →	FP 20R2-M2 →	FD 20R2-L10M2 →
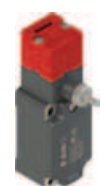
Switches with lock FD, FP series

Housing made of polymer glass-reinforced ☐ (FP)
Housing made of metal (FD)
One conduit entry M20x1.5
Max holding force: 1000 N
Protection degree IP67
Marks: CE ⓨ cⓊus ⒸⒸⒸ EAC

Slow action contacts 1NO+1NC	FD 1899-M2 →	FP 1899-M2 →
Slow action contacts 1NO+2NC	FD 2099-M2 →	FP 2099-M2 →

Separate actuators

VF KEYF	VF KEYF1	VF KEYF2	VF KEYF3	VF KEYF7	VF KEYF8

Attention! These loose actuators must be used with FD, FS and FP series only.

Article	Description
VF KB1	Actuator entry locking device

Padlockable device to lock the actuator entry in order to prevent the accidental closing of the door behind operators while they are in the danger area.

Items with code on the **green** background are available in stock

Switches with solenoid FG series

Housing made of metal

4 poles contact blocks

Max holding force: 2800 N

Protection degree IP67

State signaling LED

Three conduit entries M20x1.5

Marks: CE Ⓨ cⓊus ⓒⒸⒸ EAC

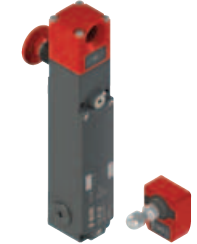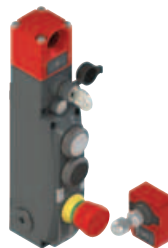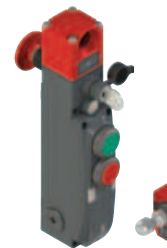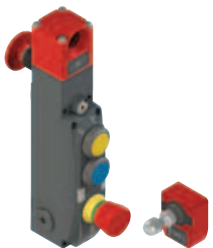|	Locked actuator with **De-energized** 24 Vac/dc solenoid	Locked actuator with **Energized** 24 Vac/dc solenoid	Locked actuator with **De-energized** 24 Vac/dc solenoid. **With lock release device.**	Locked actuator with **De-energized** 24 V ac/dc solenoid. **With lock release device and release push button.**	Locked actuator with **De-energized** 24 Vac/dc solenoid. **With release push button.**
Contacts 1NO+1NC (solenoid)+1NO+1NC (actuator)	FG 60AD1D0A ⊕	FG 60AD1E0A ⊕	FG 60AD5D0A ⊕	FG 60AD6D0A ⊕	FG 60AD7D0A ⊕
Contacts 2NC (solenoid)+1NO+1NC (actuator)	FG 60BD1D0A ⊕	FG 60BD1E0A ⊕	FG 60BD5D0A ⊕	FG 60BD6D0A ⊕	FG 60BD7D0A ⊕
Contacts 3NC (solenoid)+1NC (actuator)	FG 60CD1D0A ⊕	FG 60CD1E0A ⊕	FG 60CD5D0A ⊕	FG 60CD6D0A ⊕	FG 60CD7D0A ⊕

Separate actuators

VF KEYF20	VF KEYF21	VF KEYF22	VF KEYF28

Attention! These loose actuators must be used with FG series only.

Actuator entry locking devices. Padlockable device to lock the actuator entry in order to prevent from the accidental closing of the door behind operators while they are inside the machine. To be used only with series with metal heads.

Article	Description
VF KB2	Actuator entry locking device for FG series only

NG series safety switches with solenoid and RFID technology

Housing made of metal

3 conduit entries M20x1.5

Actuator with high level of coding (EN ISO 14119)

Max holding force: 9750 N

Protection degree IP67 and IP69K

State signaling LED

Optional integrated control devices

Marks: CE cⓊus TÜV EAC

	Locked actuator with **De-energized** 24 Vac/dc solenoid	Locked actuator with **Energized** 24 Vdc solenoid	Locked actuator with **De-energized** 24 Vdc solenoid. **With lock release device.**	Locked actuator with **De-energized** 24 Vdc solenoid. **With lock release device and release push button.**	Locked actuator with **De-energized** 24 Vdc solenoid. **With release push button.**
Mode 1 OS safety outputs active with locked and closed protection	NG 2D1D411A-F31	NG 2D1E411A-F31	NG 2D5D411A-F31	NG 2D6D411A-F31	NG 2D7D411A-F31
Mode 2 OS safety outputs active with closed protection	NG 2D1D421A-F31	NG 2D1E421A-F31	NG 2D5D421A-F31	NG 2D6D421A-F31	NG 2D7D421A-F31

	Locked actuator with **De-energized** 24 Vac/dc solenoid	Locked actuator with **Energized** 24 Vdc solenoid	Locked actuator with **De-energized** 24 Vdc solenoid. **With lock release device.**	Locked actuator with **De-energized** 24 Vdc solenoid. **With lock release device and release push button.**	Locked actuator with **De-energized** 24 Vdc solenoid. **With release push button.**
Mode 1 OS safety outputs active with locked and closed protection	NG 2D1D412D-F31	NG 2D1E412J-F31	NG 2D5D411D-F31	NG 2D6D411F-F31	NG 2D7D413B-F31

Inputs and outputs
2 safety inputs IS1, IS2
2 safety outputs OS1, OS2
1 signalling output O3: closed protection
1 signalling output O4: locked protection
1 solenoid activation input I4
1 programming input I3

For safety applications, use modules with OSSD inputs. On the side, the compatible modules by Pizzato. See technical details at page 38.

CS AR-05•••••
CS AR-06•••••
CS AR-08•••••
CS AT-0•••••
CS AT-1•••••
CS MP•••••
CS MF•••••

NS series safety switches with solenoid and RFID technology

Housing made of polymer glass-reinforced □
Actuator with high level of coding
(EN ISO 14119)
Max holding force: 2100N
Protection degree IP67 and IP69K
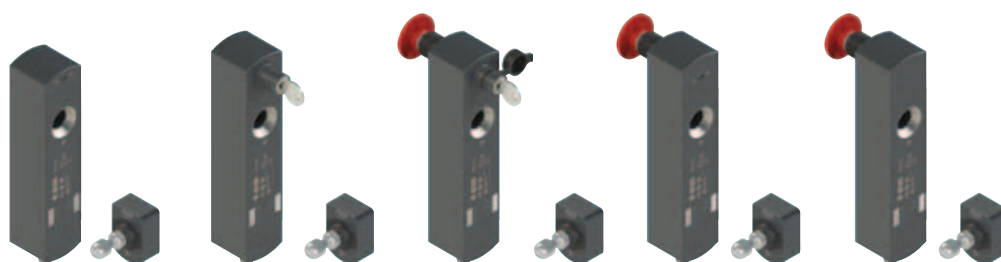State signaling LED
Marks: CE cULus TÜV EAC

	Locked actuator with **De-energized** 24 Vac/dc solenoid	Locked actuator with **Energized** 24 Vdc solenoid	Locked actuator with **De-energized** 24 Vdc solenoid. **With lock release device.**	Locked actuator with **De-energized** 24 Vdc solenoid. **With lock release device and release push button.**	Locked actuator with **De-energized** 24 Vdc solenoid. **With release push button.**
Mode 1 OS safety outputs active with locked and closed protection	NS D4AZ1SMK-F41	NS D4ST1SMK-F41	NS D4SE1SMK-F41	NS D4CE1SMK-F41	NS E4TE1SMK-F41
Mode 2 OS safety outputs active with closed protection	NS G4AZ1SMK-F41	NS G4ST1SMK-F41	NS G4SE1SMK-F41	NS G4CE1SMK-F41	NS H4TE1SMK-F41

Inputs and outputs
2 safety inputs IS1, IS2
2 safety outputs OS1, OS2
1 signalling output O3: closed protection
1 signalling output O4: locked protection
2 solenoid activation input IE1, IE2
1 programming inpu / reset I3

For safety applications, use modules with OSSD inputs. On the side, the compatible modules by Pizzato. See technical details at page 38.

CS AR-05••••
CS AR-06••••
CS AR-08••••
CS AT-0•••••
CS AT-1•••••
CS MP••••••
CS MF••••••

Safety handles **P-KUBE 2 line**

Safety handle composed of:
- LOCK OUT device
- plate for NG series
- Possibility to adjust the handle on 3 different axes through slotted brackets.
- Possibility of application on swing and sliding doors, both right and left.

Switch not included.

Article	Description
AP G1A-111P	Safety handle for NG series

Safety handle composed of:
- plate for NG series
- Possibility to adjust the handle on 3 different axes through slotted brackets
- Possibility of application on swing and sliding doors, both right and left.

Switch not included.

Article	Description
AP G0B-111P	Safety handle for NG series

Safety handles **VF AP-S**

Safety handle composed of:
- emergency opening internal lever
- plate for FG series
- Possibility of application on swing and sliding doors, both right and left.

Switch not included.

Article	Description
VF AP-S13BP-300	Safety handle for FG series

Safety handle composed of:
- emergency opening internal lever
- plate for FD series
- Possibility of application on swing and sliding doors, both right and left.

Switch not included.

Article	Description
VF AP-S13AP-301	Safety handle for FD series

Items with code on the **green** background are available in stock

Rope switches for emergency stop FD, FL, FC and FP series

Housing made of polymer glass-reinforced or housing made of metal

One or three conduit entries

Protection degree IP67

Marks: CE Ⓨ c(UL)us (CCC) EHC

	Longitudinal head				Transversal head			
Contacts 1NO+1NC	FD 1878-M2	FL 1878-M2	FC 3378-M2	FP 1878-M2	FD 1883-M2	FD 1884-M2	FL 1883-M2	FL 1884-M2
Contacts 2NC	FD 978-M2	FL 978-M2	FC 3478-M2	FP 978-M2	FD 983-M2	FD 984-M2	FL 983-M2	FL 984-M2
Contacts 1NO+2NC	FD 2078-M2	FL 2078-M2		FP 2078-M2	FD 2083-M2	FD 2084-M2	FL 2083-M2	FL 2084-M2

Rope switches for simple stop FD, FL, FC and FP series

Housing made of polymer glass-reinforced or housing made of metal

One or three conduit entries

Protection degree IP67

Marks: CE Ⓨ c(UL)us (CCC) EHC

	Longitudinal head				Transversal head	
Contacts 1NO+1NC	FD 1879-M2	FL 1879-M2	FC 3379-M2	FP 1879-M2	FD 1880-M2	FL 1880-M2
Contacts 2NC	FD 979-M2	FL 979-M2	FC 3479-M2	FP 979-M2	FD 980-M2	FL 980-M2
Contacts 1NO+2NC	FD 2079-M2	FL 2079-M2		FP 2079-M2	FD 2080-M2	FL 2080-M2

Rope installation accessories

VF AF-TR5	VF AF-TR8	VF AF-MR5	VF AF-TR2X	VF T870	VF AF-ME78	VF AF-ME80	VF F05-100	VF AF-IF1GR11	VF AF-CA5	VF AF-CA10
Adjustable stay bolt	Stay bolt	End clamp	Stainless steel adjustable stay bolt	Stay bolt	Safety spring for longitudinal heads	Safety spring for transversal heads	Ø 5 mm rope 100 m roll	Rope function indicators. "▽ ▽"	Pulley	Angular pulley

Rope installation accessories kits, FAST line

Article	Kit content	
VF AF-KT10M0	1x VF AF -TR5 1x VF AF -MR5 1x VF F05-010	10 m
VF AF-KT20M0	1x VF AF -TR5 1x VF AF -MR5 1x VF F05-020	20 m
VF AF-KT35M0	1x VF AF -TR5 1x VF AF -MR5 1x VF F05-035	35 m

Application examples

VF AF -TR5   VF AF-IF1GR11   VF AF-MR5   VF AF-ME80

FD 1884-M2   VF AF-CA5   VF AF-CA5   VF AF-CA5
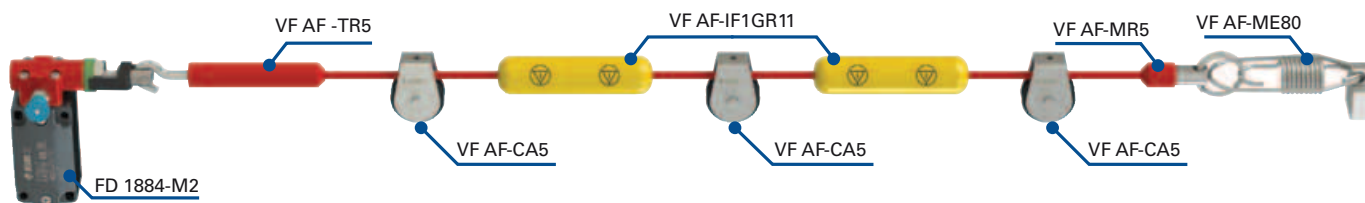
Items with code on the **green** background are available in stock

Safety modules

The CS series safety modules have been studied with clear aims of safety and reliability for the product. The design, development and production of these units have been faced with the passion for quality that distinguishes Pizzato Elettrica.
During the design phase, principles of over-sizing were adopted, and the circuit schemes have been checked by independent third party institutes. Also the selection of the components used has been made with accurate quality aims, and the basic parts, such as relays with forced guided contacts, have been chosen among the best brands existing. The production phase itself, completely developed within the company Pizzato Elettrica, is supervised with a functional testing on 100% of the production. Every single piece produced is verified in a computerised testing station that prints the safety module label, identified from a unique serial number, only when the product passes every test.
Pizzato Elettrica has improved also the more practical aspects, using compact housings and with LED signals of the operation state of the modules. Particular attention has been paid to the connection possibilities, allowing the customer to choose between fixed clamps or plug-in connectors and screw or spring terminals. Finally, the range of products provides different supply tensions with a wide tolerance on nominal values to avoid any problem in the less industrialised countries.

Safety modules **for emergency stop and gate monitoring**

6A
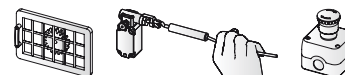
Product code	Supply voltages	Output contacts instantaneous	For applications up to			Autom. or manual start	Monitored start	Type of inputs (⑦)				Kind of connection ④			Housing dimensions (mm)
			PL	SIL	Saf. Cat.							V	M	X	
CS AR-01V024	24 Vac/dc	2NO+1NC	e	3	4	■	■	■	-	⑧	-	■	■	■	22.5 x 114
CS AR-01V120	120 Vac	2NO+1NC	e	3	4	■	■	■	-	⑧	-	■	■	■	22.5 x 114
CS AR-01V230	230 Vac	2NO+1NC	e	3	4	■	■	■	-	⑧	-	■	■	■	22.5 x 114
CS AR-01VE02	10 ... 30 Vdc	2NO+1NC	e	3	4	■	■	■	-	■	-	■	■	■	22.5 x 114
CS AR-02V024	24 Vac/dc	3NO	e	3	4	■	■	■	-	⑧	-	■	■	■	22.5 x 114
CS AR-02V120	120 Vac	3NO	e	3	4	■	■	■	-	⑧	-	■	■	■	22.5 x 114
CS AR-02V230	230 Vac	3NO	e	3	4	■	■	■	-	⑧	-	■	■	■	22.5 x 114
CS AR-02VE02	10 ... 30 Vdc	3NO	e	3	4	■	■	■	-	■	-	■	■	■	22.5 x 114
CS AR-04V024	24 Vac/dc	3NO+1NC	e	3	4	■	■	■	-	■	-	■	■	■	22.5 x 114
CS AR-04V120	120 Vac	3NO+1NC	e	3	4	■	■	■	-	⑧	-	■	■	■	22.5 x 114
CS AR-04V230	230 Vac	3NO+1NC	e	3	4	■	■	■	-	⑧	-	■	■	■	22.5 x 114
CS AR-05V024	24 Vac/dc	3NO+1NC	e	3	4	■	-	■	■	■	-	■	■	■	22.5 x 114
CS AR-05V120	120 Vac	3NO+1NC	e	3	4	■	-	■	■	■	-	■	■	■	22.5 x 114
CS AR-05V230	230 Vac	3NO+1NC	e	3	4	■	-	■	■	■	-	■	■	■	22.5 x 114
CS AR-06V024	24 Vac/dc	3NO+1NC	e	3	4	-	■	■	■	■	-	■	■	■	22.5 x 114
CS AR-06V120	120 Vac	3NO+1NC	e	3	4	-	■	■	■	■	-	■	■	■	22.5 x 114
CS AR-06V230	230 Vac	3NO+1NC	e	3	4	-	■	■	■	■	-	■	■	■	22.5 x 114
CS AR-07M024	24 Vac/dc	4NO+1NC	e	3	4	■	■	■	-	-	-	-	■	■	22.5 x 149
CS AR-08U012	12 Vdc	2NO	e	3	4	■	■	■	■	■	-	■	■	■	22.5 x 114
CS AR-08V024	24 Vac/dc	2NO	e	3	4	■	■	■	■	■	-	■	■	■	22.5 x 114
CS AR-08V120	120 Vac	2NO	e	3	4	■	■	■	■	■	-	■	■	■	22.5 x 114
CS AR-08V230	230 Vac	2NO	e	3	4	■	■	■	■	■	-	■	■	■	22.5 x 114
CS AR-20V024	24 Vac/dc	2NO	e	3	3	■	-	■	-	-	-	■	■	■	22.5 x 114
CS AR-20V120	120 Vac	2NO	e	3	3	■	-	■	-	-	-	■	■	■	22.5 x 114
CS AR-20V230	230 Vac	2NO	e	3	3	■	-	■	-	-	-	■	■	■	22.5 x 114
CS AR-21V024	24 Vac/dc	2NO	e	3	3	-	■	■	-	-	-	■	■	■	22.5 x 114
CS AR-21V120	120 Vac	2NO	e	3	3	-	■	■	-	-	-	■	■	■	22.5 x 114
CS AR-21V230	230 Vac	2NO	e	3	3	-	■	■	-	-	-	■	■	■	22.5 x 114
CS AR-22V024	24 Vac/dc	3NO+1NC	e	3	3	■	-	■	-	-	-	■	■	■	22.5 x 114
CS AR-22V120	120 Vac	3NO+1NC	e	3	3	■	-	■	-	-	-	■	■	■	22.5 x 114
CS AR-22V230	230 Vac	3NO+1NC	e	3	3	■	-	■	-	-	-	■	■	■	22.5 x 114
CS AR-23V024	24 Vac/dc	3NO+1NC	e	3	3	-	■	■	-	-	-	■	■	■	22.5 x 114
CS AR-23V120	120 Vac	3NO+1NC	e	3	3	-	■	■	-	-	-	■	■	■	22.5 x 114
CS AR-23V230	230 Vac	3NO+1NC	e	3	3	-	■	■	-	-	-	■	■	■	22.5 x 114
CS AR-24V024	24 Vac/dc	4NO+1NC	e	3	3	■	-	■	-	-	-	■	■	■	22.5 x 114
CS AR-25V024	24 Vac/dc	4NO+1NC	e	3	3	-	■	■	-	-	-	■	■	■	22.5 x 114
CS AR-40V024	24 Vac/dc	2NO	d	2	2	■	-	■	-	-	-	■	■	■	22.5 x 91
CS AR-41V024	24 Vac/dc	2NO	d	2	2	-	■	■	-	-	-	■	■	■	22.5 x 91
CS AR-46V024	24 Vac/dc	1NO	c	1	1	■	-	■	-	■	-	■	■	■	22.5 x 91
CS AR-91V024	24 Vac/dc	2NO+1PNP	e	3	4	■	■	■	-	■	-	■	■	■	22.5 x 114

⑧ Compatible with modules with production batch later than 06/2014 only.

Code structure

CS AR-01V024

Kind of connection		Supply voltage	
V	screw terminals	**024**	24 Vac/dc
M	connector with screw terminals	**120**	120 Vac
X	connector with spring terminals	**230**	230 Vac

V screw terminals

M connector with screw terminals
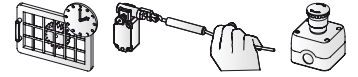
X connector with spring terminals

6B Safety modules **for safety mats and safety edges with 4 wires technology**

Product code	Supply voltages	Output contacts instantaneous	For applications up to		Saf. Cat.	Autom. or manual start	Monitored start	Type of inputs (⑦)				Kind of connection ④			Housing dimensions (mm)
			PL	SIL								V	M	X	
CS AR-51V024	24 Vac/dc	2NO	e	3	4	■	■	■	-	-	■	■	■	■	22.5 x 114

6C Safety modules **for emergency stop and gate monitoring with delayed contacts**

Product code	Supply voltages	Output contacts instantaneous	Output contacts delayed	For applications up to PL	SIL	Saf. Cat.	Autom. or manual start	Monitored start	Type of inputs (⑦)				Kind of connection ④ V	M	X	Housing dimensions (mm)
CS AT-0③V024	24 Vac/dc	2NO+1NC	2NO	e	3	4 (②)	■	■	■	■	■	-	■	■	■	45 x 114
CS AT-0③V120	120 Vac	2NO+1NC	2NO	e	3	4 (②)	■	■	■	■	■	-	■	■	■	45 x 114
CS AT-0③V230	230 Vac	2NO+1NC	2NO	e	3	4 (②)	■	■	■	■	■	-	■	■	■	45 x 114
CS AT-1③V024	24 Vac/dc	3NO	2NO	e	3	4 (②)	■	■	■	■	■	-	■	■	■	45 x 114
CS AT-1③V120	120 Vac	3NO	2NO	e	3	4 (②)	■	■	■	■	■	-	■	■	■	45 x 114
CS AT-1③V230	230 Vac	3NO	2NO	e	3	4 (②)	■	■	■	■	■	-	■	■	■	45 x 114
CS AT-3③V024	24 Vac/dc	2NO	1NO	e	3	4 (②)	■	■	■	-	■	-	■	■	■	45 x 114

6D Safety timer module

Product code	Supply voltages	Functions	Output contacts delayed	For applications up to PL	SIL	Saf. Cat.	Autom. or manual start	Monitored start	Type of inputs (⑦)				Kind of connection ④ V	M	X	Housing dimensions (mm)
CS FS-1③V024	24 Vac/dc	delay on	1NO+2NC	①	①	①	-	-	■	-	-	-	■	■	■	45 x 114
CS FS-1③V120	120 Vac	delay on	1NO+2NC	①	①	①	-	-	■	-	-	-	■	■	■	45 x 114
CS FS-1③V230	230 Vac	delay on	1NO+2NC	①	①	①	-	-	■	-	-	-	■	■	■	45 x 114
CS FS-2③VU24	24 Vdc	delay on	1NO+1NC+1CO	d	2	3	-	-	■	-	-	-	■	■	■	45 x 114
CS FS-2③V120	120 Vac	delay on	1NO+1NC+1CO	d	2	3	-	-	■	-	-	-	■	■	■	45 x 114
CS FS-3③VU24	24 Vdc	delay off	1NO+1NC+1CO	d	2	3	-	-	■	-	-	-	■	■	■	45 x 114
CS FS-3③V120	120 Vac	delay off	1NO+1NC+1CO	d	2	3	-	-	■	-	-	-	■	■	■	45 x 114
CS FS-5③VU24	24 Vdc	delay off	1NO+1NC+1CO	d	2	3	■	-	■	-	■	-	■	■	■	45 x 114
CS FS-5③V120	120 Vac	delay off	1NO+1NC+1CO	d	2	3	■	-	■	-	■	-	■	■	■	45 x 114

Legend

■   Available with this product
-   Not available with this product
①   Dependent from the base module
②   Safety category 4 for instantaneous contacts, category 3 for delayed contacts

③ Delayed contacts releasing time
0   fixed time
1   from 0.3 to 3 s, step 0.3 s
2   from 1 to 10 s, step 1 s
3   from 3 to 30 s, step 3 s
4   from 30 to 300 s, step 30 s

④ Kind of connection
V   screw terminals
M   connector with screw terminals
X   connector with spring terminals

⑤ Releasing time in absence of power supply
TF0.5   0.5 s fixed time
TF1   1 s fixed time
TF2   2 s fixed time
TF3   3 s fixed time

⑥ Releasing time in absence of power supply
TF1   1 s fixed time
...   .
TF12   12 s fixed time

⑦ Type of inputs
  Electromechanical contacts
  Electrosensible devices with PNP output
  Safety magnetic sensor
  Safety mats and safety edges with 4 wires technology

Quality marks

CE   cULus   CCC   EAC

Items with code on the **green** background are available in stock

CS MP programmed multifunction safety modules

Pizzato Elettrica is pleased to present a new series of programmable safety modules, resulting from the decades-long experience of the company in the machine safety sector.

A **CS MP** series module is a programmable safety device, which allows several safety functions to be carried out simultaneously. This series of products has been specifically developed in order to meet the demands from manufacturers of machinery featuring a medium/low number of safety functions. As an indication, these modules are able to manage minimum applications comparable to the functions carried out by 3 - 4 traditional electromechanical safety modules and circuits having up to a few dozen inputs.

The **Gemnis Studio** program is a graphic development environment for the creation, simulation and debug of programs suitable to be entered in the modules belonging to the Gemnis line.

This software is licensed to the user who wishes to program the said modules, subject to prior registration in our web site: www.gemnis.com.

Article	CS MP201M0	CS MP202M0	CS MP203M0	CS MP204M0	CS MP205M0
Dimensions (H x W x D)	111,5 x 45 x 99 mm	111,5 x 45 x 99 mm	111,5 x 45 x 99 mm	111,5 x 45 x 99 mm	111,5 x 45 x 99 mm
Safety inputs (Ix)	8	16	12	12	4
Decoupled digital inputs(Jx)	/	/	/	/	4
Inputs for analog signals type 4-20 mA (Cx)	/	/	/	/	/
Inputs for signals with frequency 0 to 4 KHz (speed control) (Fx)	/	/	/	/	4
Test outputs (Tx)	8	4	4	4	4
Semiconductor signaling output circuits (Ox)	4	4	4	4	4
Semiconductor safety output circuits (OSx)	/	4PNP	/	/	4PNP
Relay safety output circuits	3NO	/	3NO+1NO	3NO	/
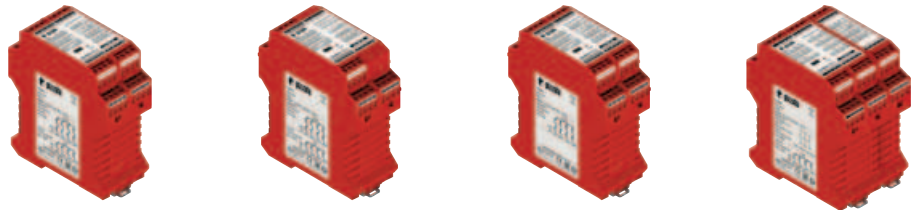
Article	CS MP206M0	CS MP207M0	CS MP208M0	CS MP301M0
Dimensions (H x W x D)	111,5 x 45 x 99 mm	111,5 x 45 x 99 mm	111,5 x 45 x 99 mm	111,5 x 67,5 x 99 mm
Safety inputs (Ix)	8	4	16	24
Decoupled digital inputs(Jx)	/	/	/	/
Inputs for analog signals type 4-20 mA (Cx)	/	2	/	/
Inputs for signals with frequency 0 to 4 KHz (speed control) (Fx)	/	/	/	/
Test outputs (Tx)	4	4	4	8
Semiconductor signaling output circuits (Ox)	12	4	/	4
Semiconductor safety output circuits (OSx)	4PNP	4PNP	8PNP	/
Relay safety output circuits	/	/	/	3NO
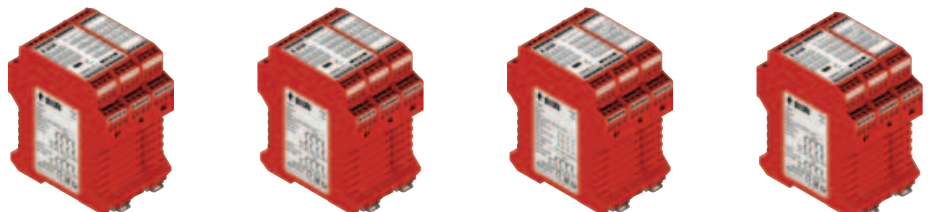
Article	CS MP302M0	CS MP303M0	CS MP304M0	CS MP305M0
Dimensions (H x W x D)	111,5 x 67,5 x 99 mm	111,5 x 67,5 x 99 mm	111,5 x 67,5 x 99 mm	111,5 x 67,5 x 99 mm
Safety inputs (Ix)	24	32	28	24
Decoupled digital inputs(Jx)	/	/	/	/
Inputs for analog signals type 4-20 mA (Cx)	/	/	/	/
Inputs for signals with frequency 0 to 4 KHz (speed control) (Fx)	/	/	/	/
Test outputs (Tx)	12	4	4	4
Semiconductor signaling output circuits (Ox)	4	4	4	12
Semiconductor safety output circuits (OSx)	4PNP	4PNP	/	4PNP
Relay safety output circuits	/	/	3NO+1NO	/

Items with code on the **green** background are available in stock

Product Overview 2018 | pizzato
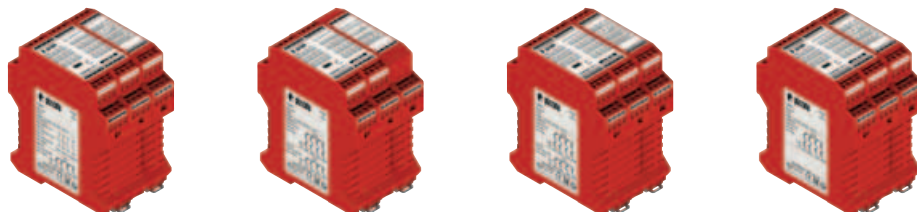
Article	CS MP306M0	CS MP307M0	CS MP308M0	CS MP309M0
Dimensions (H x W x D)	111,5 x 67,5 x 99 mm	111,5 x 67,5 x 99 mm	111,5 x 67,5 x 99 mm	111,5 x 67,5 x 99 mm
Safety inputs (Ix)	20	8	24	32
Decoupled digital inputs(Jx)	/	4	/	/
Inputs for analog signals type 4-20 mA (Cx)	/	2	/	/
Inputs for signals with frequency 0 to 4 KHz (speed control) (Fx)	/	4	/	/
Test outputs (Tx)	4	4	4	4
Semiconductor signaling output circuits (Ox)	12	4	8	/
Semiconductor safety output circuits (OSx)	/	4PNP	8PNP	8PNP
Relay safety output circuits	3NO+1NO	/	/	/

Article	CS MP401M0	CS MP402M0	CS MP403M0
Dimensions (H x W x D)	111,5 x 90 x 99 mm	111,5 x 90 x 99 mm	111,5 x 90 x 99 mm
Safety inputs (Ix)	40	32	40
Decoupled digital inputs(Jx)	/	/	/
Inputs for analog signals type 4-20 mA (Cx)	/	/	/
Inputs for signals with frequency 0 to 4 KHz (speed control) (Fx)	/	/	/
Test outputs (Tx)	4	12	4
Semiconductor signaling output circuits (Ox)	12	8	8
Semiconductor safety output circuits (OSx)	4PNP	8PNP	8PNP
Relay safety output circuits	/	/	/

For the latest products, see www.gemnis.com

Pre-programmed multifunction modules **CS MF**

An increasing number of users requires products to carry out several safety functions without needing the complex management of a safety PLC or the complex wiring of many traditional safety modules. Such problems mainly arise when the safety functions are usually greater than 3 or 4, and/or when managing a safety PLC software (software purchase, training courses, programming of all modules, software management and filing, updates etc.) turns out to be difficult in relation to problem complexity.

Pizzato Elettrica introduces Gemnis, a series of electronic modules which are pre-programmed for specific customers' applications or for generic safety macro-functions commonly used in industrial contexts. This page lists some of the products pre-programmed for generic macro-functions commonly addressed to the industrial sector. Such products can be freely purchased even individually. Any customer requiring a product pre-programmed on particular specifications can contact the Pizzato Elettrica technical department (minimum volumes are requested).

The resulting advantages for customers typically include simple product management (purchase of finished components) and reduced general costs (no software to be installed and managed, products immediately operative).

All the Gemnis series products are able to provide circuit solutions at SIL3 (EN 62061), PLe (EN 13849) or category 4 (EN 954-1) levels.

CS MF201M0-P••

Hardware code	
•••	hardware code

Program code	
P••	program code

Quality marks

Connection type	
M	connector with screw terminals

Supply voltage	
0	24 Vdc
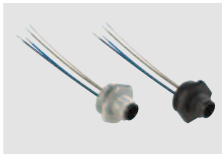
Male connector M12
Protection degree IP67
Wall side thread PG 13.5 or M20 x 1.5
Gold plated contact

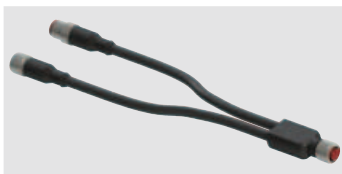|	Article	Description
M20 x1.5 threading	VF CNM4MM	4 poles M12 connector made of metal
	VF CNM5MM	5 poles M12 connector made of metal
	VF CNM8MM	8 poles M12 connector made of metal
	VF CNP4MM	4 poles M12 connector made of plastic
	VF CNP5MM	5 poles M12 connector made of plastic
	VF CNP8MM	8 poles M12 connector made of plastic
PG 13.5 threading	VF CNM4PM	4 poles M12 connector made of metal
	VF CNM5PM	5 poles M12 connector made of metal
	VF CNM8PM	8 poles M12 connector made of metal
	VF CNP4PM	4 poles M12 connector made of plastic
	VF CNP5PM	5 poles M12 connector made of plastic

M12 sockets, field wireable
Technopolymer connector body
Gold-plated contacts
Screw terminals for wiring
Protection degree IP67

Article	Description
VF CBMP4DM04	Field wireable M12 socket, 4 poles straight, for multipolar cables from Ø 4 to Ø 6.5 mm
VF CBMP5DM04	Field wireable M12 socket, 5 poles straight, for multipolar cables from Ø 4 to Ø 6.5 mm
VF CBMP8DM04	Field wireable M12 socket, 8 poles straight, for multipolar cables from Ø 4 to Ø 7 mm

M12 connectors, Y-shaped, for series connections
Polyurethane connector body
Protection degree IP67
Gold-plated contacts
Self locking ring nut

Article	Description
VF CY201P0	M12 connectors, Y-shaped, for series connections

M12 terminating plugs for series connections
Polyurethane connector body
Protection degree IP67
Gold-plated contacts
Self locking ring nut

Article	Description
VF CY100P0	M12 terminating plugs for series connections, 4 poles

Thread adapters
With these adapters it is possible to offer to the customers the same product with different
threaded cable entries, while only having to stock a single product and many kinds of adapters.

100 pcs pack.

Article	Description
VF ADPG13-PG11	Adapter from PG 13.5 to PG 11
VF ADPG13-M20	Adapter from PG 13.5 to M20x1.5
VF ADPG13-1/2NPT	Adapter from PG 13.5 to 1/2 NPT
VF ADPG11-1/2NPT	Adapter from PG 11 to 1/2 NPT
VF ADPG11-PG13	Adapter from PG 11 to PG 13.5
VF ADM20-1/2NPT	Adapter from M20x1.5 to 1/2 NPT

Female connector M8 and M12
Protection degree IP67 and IP69K
Self-locking vibration-damping ring nut.
Gold plated contact

Article	Description
VF CA4PD3K	4 poles straight M8 connector, length 3 m
VF CA4PD5K	4 poles straight M8 connector, length 5 m
VF CA4PD3M	4 poles straight M12 connector, length 3 m
VF CA4PD5M	4 poles straight M12 connector, length 5 m
VF CA4PD0M	4 poles straight M12 connector, length 10 m
VF CA5PD3M	5 poles straight M12 connector, length 3 m
VF CA5PD5M	5 poles straight M12 connector, length 5 m
VF CA5PD0M	5 poles straight M12 connector, length 10 m
VF CA8PD5M	8 poles straight M12 connector, length 5 m
VF CA8PD0M	8 poles straight M12 connector, length 10 m
VF CA12PD5M	12 poles straight M12 connector, length 5 m
VF CA12PD0M	12 poles straight M12 connector, length 10 m

M12 plugs, field wireable
Technopolymer connector body
Gold-plated contacts
Screw terminals for wiring
Protection degree IP67

Article	Description
VF CCMP5DM04	Field wireable M12 plug, 5 poles straight, for multipolar cables from Ø 4 to Ø 6.5 mm
VF CCMP8DM04	Field wireable M12 plug, 8 poles straight, for multipolar cables from Ø 4 to Ø 7 mm

Extension cable with M12 connectors
Polyurethane connector body
Protection degree IP67
Gold-plated contacts (resistance < 5 mΩ)
Self locking ring nut

Article	Description
VF CA5PD3M-MD	5 poles straight M12 connector, length 3 m
VF CA5PD5M-MD	5 poles straight M12 connector, length 5 m
VF CA5PD0M-MD	5 poles straight M12 connector, length 10 m
VF CA8PD3M-MD	8 poles straight M12 connector, length 3 m
VF CA8PD5M-MD	8 poles straight M12 connector, length 5 m

Wiretrap cable gland
The new design and technology allows this type of cable gland to offer a higher resistance to cable tractions. Every cable gland can also accept a wider diameter cable range.
Protection degree IP67.

10 pcs pack.

|	Article	Description	Gasket sharpe
Metric threading	VF PAM25C7N	M25x1.5 for one cable from Ø 10 … 17 mm	◯
	VF PAM20C6N	M20x1.5 for one cable from Ø 6 … 12 mm	◯
	VF PAM20C5N	M20x1.5 for one cable from Ø 5 … 10 mm	◯
	VF PAM20C3N	M20x1.5 for one cable from Ø 3 … 7 mm	◉
	VF PAM16C5N	M16x1.5 for one cable from Ø 5 … 10 mm	◯
	VF PAM16C4N	M16x1.5 for one cable from Ø 4 … 8 mm	◯
	VF PAM16C3N	M16x1.5 for one cable from Ø 3 … 7 mm	◉
	VF PAM20CBN	M20x1.5 for 2 cables from Ø 3 … 5 mm	◉◉
	VF PAM20CDN	M20x1.5 for 3 cables from Ø 1 … 4 mm	◉◉◉
	VF PAM20CEN	M20x1.5 for 3 cables from Ø 3 … 5 mm	◉◉◉
	VF PAM20CFN	M20x1.5 for 4 cables from Ø 1 … 4 mm	◉◉◉◉
PG threading	VF PAP13C6N	PG 13.5 for one cable from Ø 6 … 12 mm	◯
	VF PAP13C5N	PG 13.5 for one cable from Ø 5 … 10 mm	◯
	VF PAP13C3N	PG 13.5 for one cable from Ø 3 … 7 mm	◉
	VF PAP11C5N	PG 11 for one cable from Ø 5 … 10 mm	◯
	VF PAP11C4N	PG 11 for one cable from Ø 4 … 8 mm	◯
	VF PAP11C3N	PG 11 for one cable from Ø 3 … 7 mm	◉

Items with code on the **green** background are available in stock

Chock plug for cable
Chock plug for multipolar cable, threaded M20x1.5.
Protection degree IP54.

100 pcs pack.

Article	Description
VF PFM20C8N	Chock plug for cable from Ø 8 to Ø 12 mm, threaded M20x1.5
VF PFM20C4N	Chock plug for cable from Ø 4 to Ø 8 mm, threaded M20x1.5
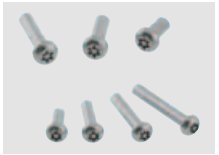
Safety screws Torx
Pan head screws with Torx fitting and pin, stainless steel.
Where required for applications conforming to EN ISO 14119 use a thread locker..

10 pcs. packs

Article	Description
VF VAM4X10BX-X	M4x10, with Torx T20 fitting, AISI 304
VF VAM4X15BX-X	M4x15, with Torx T20 fitting, AISI 304
VF VAM4X20BX-X	M4x20, with Torx T20 fitting, AISI 304
VF VAM4X25BX-X	M4x25, with Torx T20 fitting, AISI 304
VF VAM4X30BX-X	M4x30, with Torx T20 fitting, AISI 304
VF VAM5X10BX-X	M4x10, with Torx T25 fitting, AISI 304
VF VAM5X15BX-X	M4x15, with Torx T25 fitting, AISI 304
VF VAM5X20BX-X	M4x20, with Torx T25 fitting, AISI 304
VF VAM5X25BX-X	M4x25, with Torx T25 fitting, AISI 304
VF VAM5X35BX-X	M4x35 with Torx T25 fitting, AISI 304
VF VAM5X45BX-X	M4x45, with Torx T25 fitting, AISI 304
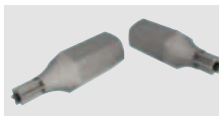
Torx safety screws bits
Safety screws bits, ¼″ drive.

Article	Description
VF VAIT1T20	Bits for tamper-resistant Torx T20, M4 screw
VF VAIT1T25	Bits for tamper-resistant Torx T25, M5 screw
VF VAIT1T30	Bits for tamper-resistant Torx T30, M6 screw
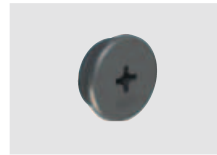
Protection plugs
Protection plug for threaded conduit entries.
Protection degree IP67.

100 pcs pack.

Article	Description
VF PTG13,5	Protection plug PG13.5
VF PTM20	Protection plug M20x1.5

LED signalling lights
These LEDs are used to display the change of state of an electrical contact placed inside the circuit breaker. They can be installed on the switches by screwing them on one of the unused inputs for the passage of the electrical wires.
- Protection degree IP67 e IP69K
- Ambient temperature -25..+70°C
- PUSH-IN spring type
- Threaded body M20x1,5

5 pcs pack.

Article	Description
VF SL1A2PA1	White, 24 Vac/dc
VF SL1A3PA1	Red, 24 Vac/dc
VF SL1A4PA1	Green, 24 Vac/dc
VF SL1A5PA1	Yellow, 24 Vac/dc

Safety screws One-Way
Pan head screws with OneWay fitting in stainless steel. This screw type cannot be removed or tampered with using common tools. Ideal for fixing safety device actuators in accordance with EN ISO 14119.

10 pcs. packs

Article	Description
VF VAM4X10BW-X	M4x10 screw, with OneWay fitting, AISI 304
VF VAM4X15BW-X	M4x15 screw, with OneWay fitting, AISI 304
VF VAM4X20BW-X	M4x20 screw, with OneWay fitting, AISI 304
VF VAM4X25BW-X	M4x25 screw, with OneWay fitting, AISI 304
VF VAM5X10BW-X	M5x10 screw, with OneWay fitting, AISI 304
VF VAM5X15BW-X	M5x15 screw, with OneWay fitting, AISI 304
VF VAM5X20BW-X	M5x20 screw, with OneWay fitting, AISI 304
VF VAM5X25BW-X	M5x25 screw, with OneWay fitting, AISI 304

Items with code on the **green** background are available in stock

Notes

General Catalogue
Detection

General Catalogue
HMI

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Safety

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