

## **Enabling Safe Automation Solutions**



# PRODUCT GUIDE





Together, IDEC and its well established European subsidiary APEM are now one of the world's largest manufacturers of human machine interface (HMI) components, panels and systems.

With more than €565 million in total sales, the combined entity has a broad portfolio of HMI, Safety and Automation products designed for a variety of Industrial applications, and access to markets across Europe, North America and Asia.



# CONTENT

## **OUR EXPERTISE, OUR CAPABILITIES**

## SOLUTIONS BY BUSINESS

Machine tools Material handling Robotics Food and packaging Automatic warehouse

TECHNOLOGIES & INNOVATIONS

## SELECTION GUIDES BY SOLUTIONS

### Human machine interface solutions

Flush switches Industrial & harsh environment switches Miniature & compact switches

#### Safety solutions

Emergency stop switches Enabling switches Safety products Sensing products

Panel solutions Led lighting & signalling DIN-rail & panel products

#### Automation solutions

Automation products

#### **IDEC SAFETY DNA**

With decades of experience, we focus on safe environments for humans interacting with machines, and to that end we develop solutions maximizing your safety and productivity. We provide our customers with both efficient solutions and reliable expertise, supplying cutting-edge safety and automation solutions as well as one-to-one support.

## **OUR EXPERTISE, OUR CAPABILITIES**



#### **IDEC'S RELIABILITY**

For more than 75 years, IDEC has designed and manufactured high quality products. We offer a wide variety of innovative solutions that help businesses overcome work challenges across the globe. With a decades long history in safety and automation paired with tenacious forwardthinking, our tools are what you need for not only today, but tomorrow as well.

## OFFERING THE BEST SOLUTION FOR EACH CUSTOMER THROUGH A WIDE VARIETY OF TECHNOLOGIES.

#### **RT** (ROBOTICS TECHNOLOGY)

Having developed the world's first Robot Control Cell Production System, we continue to be the driving force of the cutting-edge Robotics Technology.

#### **AT** (AUTOMATION TECHNOLOGY)

Automation Technology, including mold production, precision parts processing, precision tool, programming, robot application, automatic assembly, control equipment, and control safety technology, plays the key role of manufacturing.

All of these various technologies are vertically integrated, and our products are manufactured in-house from parts processing to finishing.

#### **ET** (ENGINEERING TECHNOLOGY) In addition to the research and development of control equipment, we combine and systemize laser marking, image processing, and RFID technologies to achieve the traceability system, and drive the development of advanced Engineering Technology.

#### ST (SAFETY TECHNOLOGY)

The safety concept at IDEC is shifting from "zero accident" to the globally-recognized "zero hazard." IDEC has always led the industry in safety technology development, and with our goal to "Reduce industrial accidents" as our CSR, we comply with the international standards of Machine Safety, Functional Safety, and Explosion Proof Safety and stay at the forefront in the development of safety technologies.

#### **MT** (MECHANICAL TECHNOLOGY)

Through the development of switches, relays, circuit protectors and other high quality, highly reliable control equipment, we have accumulated precision and electromagnetic mechanism technologies. For further advancing such core competance technologies, we strive to be fully creative at Mechanical Technology development.

#### PT (PHOTONICS TECHNOLOGY)

For the creation of new applications of cutting-edge photonics device technologies such as LED, laser, opical fiber, quantum dot, and new optical element, IDEC has set up a satellite office in the Photonics Advanced Research Center (PARC) at Osaka University as a member of business-academia collaboration project. A PARC office is also located in IDEC, to foster close cooperation and to promote the advancement of Photonics Technology.

#### **IT** (IDENTIFICATION TECHNOLOGY)

Identification Technology to detect objects without failure is powerfully promoted at IDEC. Sensing technologies with semiconductor laser for water detection and plastic material sorting, and automatic recognition technology such as RFID and image recognition, are developed.

#### CT (CONTROL TECHNOLOGY)

As a manufacturer of control equipment with accumulated knowledge of various control technologies such as computer, software, and network communication, we will further make effort to develop the most advanced Control Technology.







## SOLUTIONS BY INDUSTRY

Our knowledge and skills related to factory automation accumulated over the years provide solutions for various manufacturing sites across different industries.















## MACHINE TOOLS

Solutions for issues relating to compliance with safety standards, compact designs, and improvement of maintenance effectiveness.

### MATERIAL HANDLING

To create a safe system for continuous operation.

## ROBOTICS

For the safe interface of human and robots.

### AUTOMOTIVE

For manufacturing sites that require both a high level of productivity and safety.

## FOOD AND PACKAGING

For food and packaging equipment and manufacturing sites, where food safety and reliability are required.

## AUTOMATIC WAREHOUSE

For safe and efficient distribution systems to meet the demands of a developing global supply chain.

## ELECTRONICS AND SEMICONDUCTOR

For minimising manufacturing footprint and maximising throughput.

## ELEVATORS

For complying with legislation and standards, and introducing new technologies required by the changes in our society.

## SPECIAL VEHICLES

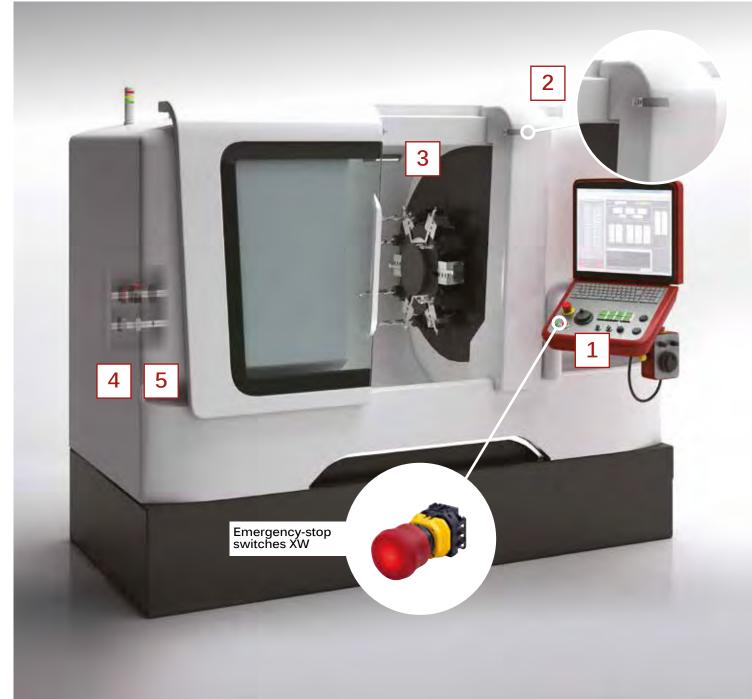
For high performance and enhanced robustness, ensuring continuous operation in various environments delivering enhanced productivity.

# SOLUTIONS BY INDUSTRY MACHINE TOOLS

In addition to compliance with safety standards, machine tool manufacturers have been seeking to downsize their products and to improve maintenance efficiency in recent years.

IDEC satisfies your wide variety of needs with our various products and the best suited solutions.







## SOLUTIONS BY INDUSTRY MATERIAL HANDLING

Material handling technology that streamlines and automates the distribution of goods plays a major role in corporate logistics and productivity improvement. IDEC, with our various products developed with cutting-edge technology, helps you solve your material handing problems.





Reduce accident risks while maintaining production efficiency







Safety laser scanners SE2L

### New!

5





Industrial wheel drive solutions from ez-Wheel, for heavy load handling and intralogistics automation 2

Reduce the risk of injury from overhead transfer systems





Illuminated buzzers HW1Z

3

Provide product to build low profile AGVs and ensure safety at production sites



Safety edge switches E30BK1 & E22BK1



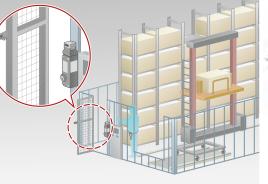
ez-Wheel SWD



Operator Interfaces HG2J Safety laser scanners SE2L

4

Reduce risk by controlling the hazard at the point of entry





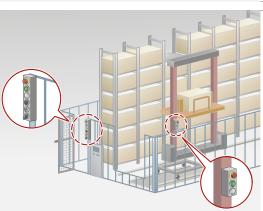
Key interlock switches HS5E-K



Key selector switches HW

5

Reduce total process time and cost for manufacturing switch boxes for automated storage

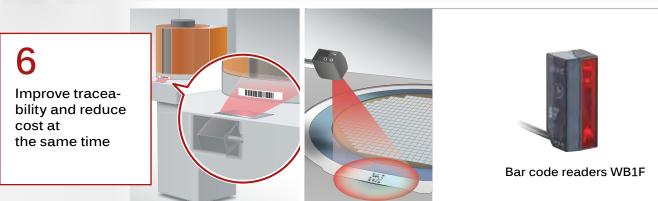




Control boxes FB



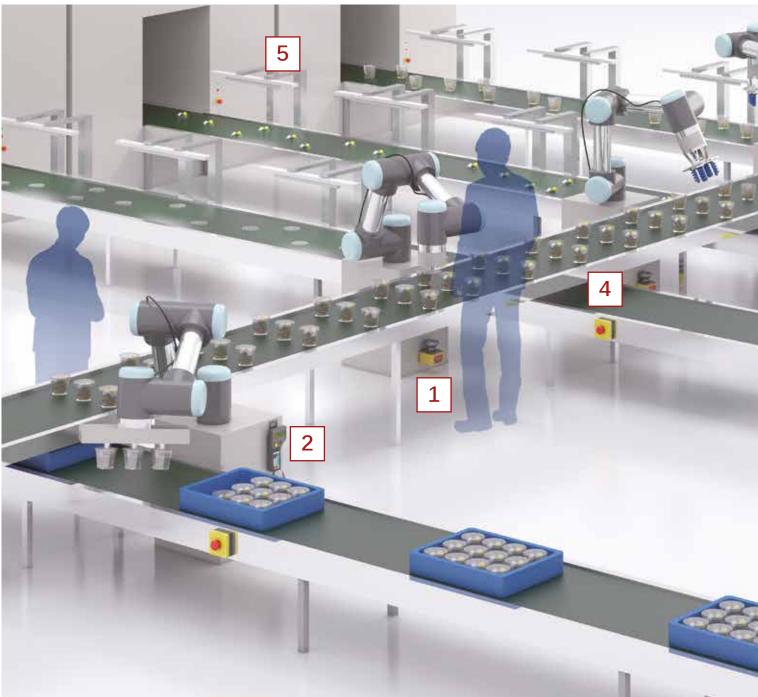
Single-board panels



# SOLUTIONS BY INDUSTRY ROBOTICS

Production lines with collaborative robots, enable the coexistence of workers and machines, and are common place in industry today. IDEC safety products permit safe slow speed interaction, combined with seamless switching back to full speed. We are here to assist you in achieving compliance to the ever widening landscape of safety standards with our team of safety and automation specialist.





1

Safety measures to enhance the potential of collaborative robots





Safety laser scanners SE2L

## 2

Make human-robot collaboration safer and more efficient



3 positions Enabling switches

IDEC Safety commander™ HG1P, HT3P & HT4P

> Safety relay modules HR6S

## 3

Prevent accidents by hazard identification and machine status





Surface mount signaling lights LH1D

## 4

Accessible and recognizable means of stopping in an emergency





Improve visibility for more safety

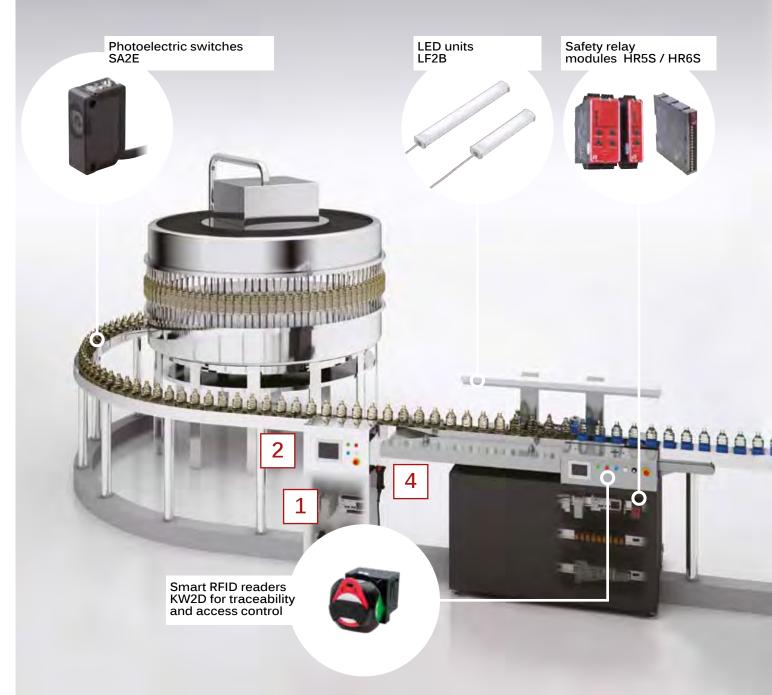




## SOLUTIONS BY INDUSTRY FOOD AND PACKAGING

Recent concerns on food safety and reliability has changed the trends and demands of the food and packaging industry. IDEC, with our various products developed with cutting-edge technology, helps you solve your problems with food machines and production sites.





1

**Reduce work** hours and costs required for building systems



## 2

New benchmark for small display devices





**Operator Interfaces HG2J** 

3 How to easily change the control panel of food processing machines that need to be washed





**Piezo switches** PBA

Operator Interfaces HG1G



space and inventory with the integration of HMI and PLC in to one platform



Controllers FT1A



FT2J, Integrated programmable display controllers

## SOLUTIONS BY INDUSTRY AUTOMATIC WAREHOUSE

There is a growing need for safer and more efficient distribution systems as global supply chains expand in the manufacturing industry. IDEC provides solutions for improving both safety and productivity with the latest technology.





Safety wheel drive for AGV/AMR SWD® by ez-Wheel



1 Tablet Mount Safety Devices IDEC Safety Commander™ HT3P & HT4P



10 Emergency-Stop Switches XA/X6/XW/XN Series

Safety Products that ensure the Safety of Workers



5 Operator Interfaces Handheld Model HG1P



6

Enabling Switches HE\*B



8 9

5 6

17 18

7

LD6A











2 Safety Laser Scanners SE2L

3 Safety Switches HS5L/HS5E-K

4 Safety relay modules HR6S

21 Safety edge switches E30BK1 & E22BK1



Slim Relays /Universal Relays RJ/RU/RV8

9







**Push-in Switches** 12 & Pilot Lights YW Series



Pilot Lights LH1D/Q Series 14





IDEC Safety Commander™ HT4P 18



**Operator Interfaces** 20 **HG** Series

## **TECHNOLOGIES & INNOVATION**

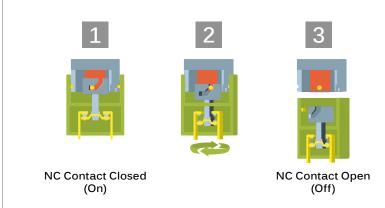
By continually integrating new technologies and developing solutions that improve worker safety and efficiency, IDEC is positioning itself as an indispensable player in the innovation of products that combine safety and ease of use. The products and services are thus always adapted to the needs of the market and can even anticipate the current requirements.

## THE WORLD'S SAFEST EMERGENCY-STOP SWITCHES

By automatically turning off the machine when the contact block or actuator are improperly installed or damaged, all IDEC E-stops meet or exceed International safety **standards** (ISO 13850 and EN60947-5-5).

IDEC X-series switches use Safe Break Action, a unique feature which reverses the energy direction and uses spring-pressure to guarantee that the NC contacts will open if the emergency switch is damaged or the contact blocks separate due to excessive force (patented design).

#### FAIL-SAFE DESIGN Normally Closed contacts are in the open state if the contact block is not properly attached to the switch.



## A COMPLETE RANGE OF E-STOPS FOR ALL YOUR APPLICATIONS



## **ELEVATING SAFETY STANDARDS: IDEC'S SOLUTIONS FOR ISO 10218 COMPLIANCE**

The upcoming changes to ISO 10218 standard will affect OEM and system integrators, with higher requirements on safety and workers' protection from injury.

IDEC has solutions to help you comply with the revised standard. As the world leader in enabling switches, we can equip you with all kinds of 3-position enabling switches, whatever your application. What's more, we have developed all-in-one solutions, such as the HT3P or HT4P IDEC Safety Commander<sup>™</sup>. These devices allow tablets to be used in industrial automation applications, in full safety.

## THE LARGEST PORTFOLIO OF ENABLING SWITCHES

Also known as "Operator presence detection" or "3-position safety" switches, the enabling switches allow the operator to work safely on a machine without disabling operation. The use of an enabling switch stops the device in the event of a catastrophic failure or unforeseen problem.

Generally speaking, 3-position safety switches are more especially recommended for critical situations where the user's full attention is vital for the task he is carrying out.

As the leading producer on the market for 3-position safety switches, IDEC have contributed to developing international safety standards, especially for the IEC 60947-5-8(2008) norm, and, benefitting from all firm's experience in the field, the HE\*B, HE2G, and HE1G-L series are perfectly compatible with the highest safety and performance requirements.

#### A PRODUCT ADAPTED TO HUMAN BEHAVIOUR

IDEC safety solutions have been designed for adapting themselves to the different types of reaction a user may have in the face of danger and emergencies. If some users let go of their control grips, others tend to clench them tightly. This is why operator presence switches have been developed with three possible positions:

- > Position 1: no contact, the machine doesn't run.
- > Position 2: light pressure maintained by the user, the machine runs.
- > Position 3: heavy pressure, a "stop" signal is sent and the machine stops running.



HE2B



HE3B





HE5B

HE6B

## SAFETY AT YOUR FINGERTIPS: HT3P AND HT4P SERIES

By choosing IDEC's new HT3P and HT4P "IDEC Safety Commander™", you are choosing a tablet holder that can be adapted to most tablets on the market while guaranteeing foolproof safety.

The HT3P and HT4P deliver safety, information and control in the palm of your hand. Incorporating IDEC's HE5B (for HT3P) and HE6B (for HT4P) enabling switches and XA1E Emergency-stop switch, safety is a given!

The use of a tablet provides you with greater information for improved efficiency, increased hardware utilisation and so much more.



## PUSH-IN TERMINATION TECHNOLOGY: SAVE TIME, SAVE MONEY

Reduce your wiring time by up to 55% with our PUSH-IN technology. Terminals equipped with this technology are easy to handle and ensure a safe & secure connection. This guarantees excellent contact safety, even in demanding applications.



#### HOW DOES IT WORK?

This technology is particularly user-friendly: take a stripped solid or fine-stranded conductor with a crimped ferrule, insert it into the clamping point as far as it will go, and your safe & secure connection is already complete. Alternatively, when connecting stranded wire, insert the wire while holding down the pusher with a flat-blade screwdriver. As easy as that.

#### Connecting





Connection is completed.

firmly in place.

Pull lightly to make sure it is

Push the wire straight in as far as it will go.

#### Removing





Hold down the pusher with a flat-blade screwdriver.

While holding down the pusher, pull out the wire. Release the flat-blade screwdriver.

This option is available on the YW and HW series, which are your "standard industrial style switches" and the CW series (aesthetic flush mount switch series).







CW4B-M1P

HW1L-M3P

YW4L-M2R

Discover a whole range of equipment that, combined with PUSH-IN connection technology, will make your life easier and safer on idec-safety.com/push-in

## MOTORIZED SYSTEMS FOR INDUSTRIAL MOBILITY



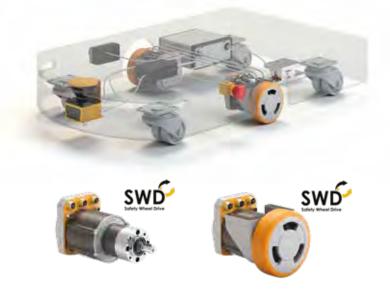
The compactness of technology and incredible capability of ez-Wheel® products make the integration of a wheel drive on intralogistics considerably easier and faster than conventional solutions:



fewer components, greater freedom of integration.

#### MOTORIZATION FOR AUTOMATION

Drives with integrated safety offer the simplest mobile robot architecture on the market



#### MOTORIZED ASSISTANCE

Powered wheel drives provide a quick electrical assistance to any manual handling equipment.



Electric wheel Series 150

More information about industrial mobility solutions on ez-wheel.com/en

## **IDEC'S INNOVATIONS**



#### KW2D SERIES SMART, STAND-ALONE RFID READER

The KW2D series is the ideal product for managing the "mode of safe operation" as specified in the ISO 16090:

- Accurate data collation and reliable data transmission
- High level of reliability thanks to an embedded collating system
- Self-diagnostic for checking the memory status every time the product is switched on
- When communicating with the host device, the data is double-checked using checksumm



With this new IDEC product, you now have the ultimate adaptive solution for accessing control or permission and traceability using RFID technology. The KW2D series has a slick design with 4 LED indicators that are visible even from the side of the product and an auxiliary buzzer for a better user experience thanks to visible and audible feedback on operation status.



#### FT2J SERIES CONTROLLER WITH OPERATOR INTERFACE

The FT2J is an integrated automation solution combining a controller and operator interface in a compact design, ideal for space-constrained environments. This unit offers a 7.0-inch display, 40% less power consumption than separate units, and a battery-free design.

- Built-in analog I/O with 12-bit resolution for controlling 0 to 10V DC & 4-20mA signals,
- PID control for precise temperature, flow, or pressure management,
- dual CPU setup for simultaneous high-speed processing and HMI functionality,
- up to 2 digital/analog I/O cartridges, allowing for easy expansion of up to 8 digital and 4 analog I/O,
- 22 I/O as standard, expandable to 30 I/O.

The FT2J is environmentally robust, with a wide temperature operating range and high water resistance. Its glass PCAP touchscreen is durable, hygienic, and multi-touch capable, resistant to water and glove interactions. Connectivity options include RS232C, RS422/485, Ethernet, and USB-A ports, facilitating diverse device integration and lot functionalities.

Definitely cost-effective and space-saving, the FT2J is versatile and efficient for various industrial applications. FLUSH SWITCHES

The IDEC commitment to assuring safety in all operating environments has resulted in stylish, compact and space-saving switches and pilot devices. Flush mount switches offer a streamlined package, perfect for applications requiring a hygienic surface.





## LBW SERIES COUNTLESS DESIGN POSSIBILITIES, WITH A SLEEK AND REFINED STYLE!

FLUSH SILHOUETTE SWITCHES: ONLY 2 MM ABOVE THE PANEL

FULLY QUALIFIED AND CERTIFIED

- COMPACT PRODUCTS, EASY TO ASSEMBLE THANKS TO THE DETACHABLE CONTACTS
- COMPREHENSIVE DESIGN: 3 DIFFERENT SHAPES AND 8 DIFFERENT FUNCTIONS
- EASY MAINTENANCE, BUILT-IN PROTECTIVE CIRCUIT FOR LEDS
- INCREDIBLE MECHANICAL LIFE, UP TO 2,000,000 CYCLES FOR MOMENTARY PUSHBUTTONS!

			C
CW	CW	LB flush	LB flush
Pushbutton / indicator	Keylock / selector	Pushbutton / indicator	Keylock / selector

APPROVALS	UL, CE, CCC	UL, CE, CCC	UL, CSA, TUV, CE, CCC	UL, CSA, TUV, CE, CCC
POLES	Up to 6	Up to 6	Up to 3	Up to 3
SEALING	IP65	IP65, IP67	IP65	IP65
ILLUMINATED	Yes	No	Yes	Yes
PANEL CUT-OUT	22 mm	22 mm	18 mm	18 mm
TERMINAL	Screw or push-in	Screw or push-in	Solder/tab or PCB	Solder/tab or PCB
CONTACT TYPE	Modular product	Modular product	Separable blocks	Separable blocks
RATING	Heavy duty (u	p to 10 Amps)	Light (gold-plated or silver c	

TYPE

	1	C		ATO.
	LBW	LBW	LW flush	LW flush
TYPE	Pushbutton / indicator	Keylock / selector	Pushbutton / indicator	Keylock / selector
APPROVALS	UL, CSA, TUV, CE, CCC	UL, CSA, TUV, CE, CCC	UL, CSA, TUV, CE, CCC	UL, CSA, TUV, CE, CCC
POLES	Up to 3	Up to 3	Up to 3	Up to 3
SEALING	IP65	IP65	IP65	IP65
ILLUMINATED	Yes	No	Yes	Yes
PANEL CUT-OUT	22 mm	22 mm	25 mm	25 mm
TERMINAL	Solder/tab or PCB	Solder/tab or PCB	Solder/tab or PCB or screw	Solder/tab or PCB or screw
CONTACT TYPE	Separable blocks	Separable blocks	Separable blocks	Separable blocks
RATING	Light duty (gold-plated or silver contacts, up to 5 Amps)		Light (gold-plated or silver c	

## INDUSTRIAL & HARSH ENVIRONMENT SWITCHES

YW-E10 Operator YW A600 UI600V LthigA

We have an industrial switch for almost any application. Many models offer the flexibility of modular construction, which allows to change contacts, lamp voltages or button colors easily.

## YW SERIES A STAPLE OF INDUSTRIAL AUTOMATION



STURDY, HEAVY-DUTY RUGGED CONSTRUCTION WITH SEPARABLE CONTACT BLOCK

- EFFICIENT, STRAIGHTFORWARD PRODUCT, EFFORTLESS MAINTENANCE
- A FLEXIBLE MODULAR CONSTRUCTION
- RESISTANT TO DEMANDING ENVIRONMENT
- PUSH-IN TERMINALS: CONSISTENT AND RELIABLE CONNECTIONS

			<b>*</b>		
	YW	YW	MW	LW	LW
ТҮРЕ	Pushbutton / indicator	Keylock / selector	Pushbutton / selector	Pushbutton / indicator	Keylock / selector
APPROVALS	UL, CE, CCC, TUV	UL, CE, CCC, TUV	CE, CCC	UL, CSA, TUV, CE, CCC	UL, CSA, TUV, CE, CCC
POLES	Up to 6	Up to 6	Up to 2	Up to 3	Up to 3
SEALING	IP65	IP65	IP65, IP66	IP65	IP65
ILLUMINATED	Yes	No	No	Yes	Yes
PANEL CUT-OUT	22 mm	22 mm	18 mm	22 mm	22 mm
TERMINAL	Screw or push-in	Screw or push-in	Solder/tab or screw	Solder/tab or PCB or screw	Solder/tab or PCB or screw
CONTACT TYPE	Modular product	Modular product	Monobloc	Separable blocks	Separable blocks
RATING	RATING Heavy duty (up to 10 Amps)		Heavy duty (up to 10 Amps)	Light (gold-plated or silver c	duty ontacts, up to 5 Amps)











	HW	HW	HW	TW	TW
TYPE	Dual pushbutton	Pushbutton selector	Mono-lever	Pushbutton / indicator	Keylock / selector
APPROVALS	UL, CSA, TUV, CE, CCC	UL, CSA, CE, TUV, CCC	UL, CSA, CE, TUV, CCC	UL, CSA, TUV, CE, CCC	UL, CSA, TUV, CE, CCC
POLES	Up to 4	Up to 4	Up to 4	Up to 4	Up to 4
SEALING	IP65	IP65	IP65	IP65	IP65
ILLUMINATED	Yes	No	No	Yes	Yes
PANEL CUT-OUT	22 mm	22 mm	22 mm	22, 25, 30 mm	22, 25, 30 mm
TERMINAL	Screw or push-in Screw or push-in	Screw or push-in	Screw or push-in	Screw	Screw
CONTACT TYPE	Modular product	Modular product	Modular product	Modular product	odular product
RATING	Heavy duty (up to 10 Amps)			Heavy duty (u	p to 10 Amps)

AUTOMATION

# MINIATURE & COMPACT SWITCHES

Our miniature and compact switches add style and safety to any application in a space saving package.



A SERIES FITS ALL APPLICATIONS!



COMPACT, WITH UNCOMPROMISING MECHANICAL LIFE

- 4 DIFFERENT BUSHING DIAMETERS IN 1 SERIES
- COMPREHENSIVE DESIGN
- WATERTIGHT PRODUCTS

	LB	LB	A6	A6
TYPE	Pushbutton / indicator	Keylock / selector	Pushbutton / indicator	Keylock / selector
APPROVALS	UL, CSA, TUV, CE, CCC	UL, CSA, TUV, CE, CCC	UL, CSA, CE, CCC	UL, CSA, CE, CCC
POLES	Up to 3	Up to 3	Up to 2	Up to 2
SEALING	IP65	IP65	IP65 or IP40	IP65 or IP40
ILLUMINATED	Yes	Yes	Yes	No
PANEL CUT-OUT	16 mm	16 mm	16 mm	16 mm
TERMINAL	Solder/tab or PCB	Solder/tab or PCB	Solder/tab or PCB	Solder
CONTACT TYPE	Separable blocks	Separable blocks	Monobloc	Monobloc
RATING	Light (gold-plated or silver c		Light duty, up to 1 Amp	Light duty, up to 1 Amp







	A2	A1	A8
TYPE	Pushbutton / indicator	Pushbutton / indicator	Pushbutton / indicator
APPROVALS	UL, CSA, CCC	UL, CSA, CCC	UL, CSA, CCC
POLES	Up to 2	1	1
SEALING	IP65 or IP40	IP40	IP40
ILLUMINATED	Yes	Yes	Yes
PANEL CUT-OUT	12 mm	10 mm	8 mm
TERMINAL	Solder	Solder	Solder
CONTACT TYPE	Monobloc	Monobloc	Monobloc
RATING	Light duty, up to 1 Amp	Light duty, up to 1 Amp	Light duty, up to 1 Amp

## EMERGENCY STOP <u>SWITCHES</u>

For more than 70 years, IDEC has produced reliable and high-quality emergency-stops, making the point of contact between humans and machines easy, safe and secure.





## XW SERIES, THE ULTIMATE IN SAFETY

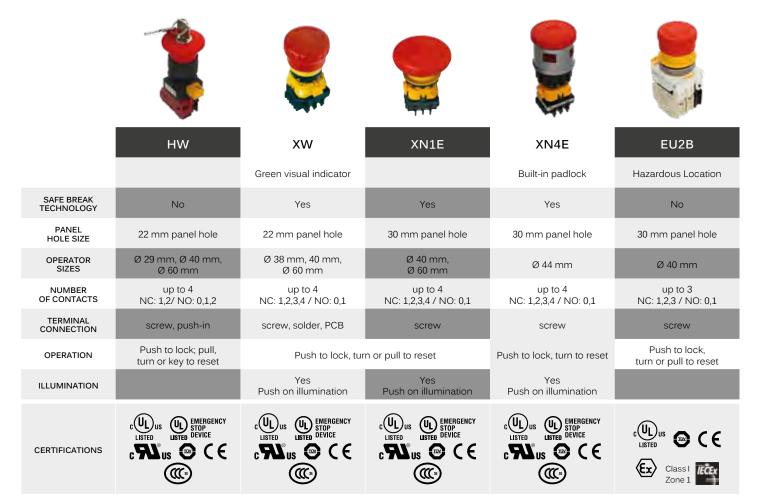


FAIL-SAFE DESIGN WITH SAFE BREAK TECHNOLOGY

2 WAYS OF RESETTING: PULLING OR TURNING

- ILLUMINATION AVAILABLE, ALWAYS-ON OR PUSH-ON FOR INCREASED VISIBILITY
- SPACE-SAVING DESIGN: SAME DIMENSION FROM 1 TO 4 CONTACTS AND ILLUMINATION!
- SPECIFIC DESIGN TO SUIT ALL APPLICATIONS: SMOOTH HEADS FOR INCREASED HYGIENE, **GREEN VISUAL INDICATOR**

	×6		XA	YW
	Smooth head			
SAFE BREAK TECHNOLOGY	Yes	Yes	Yes	No
PANEL HOLE SIZE	16 mm panel hole	16 mm for XA 22 mm for XW	16 mm panel hole	22 mm panel hole
OPERATOR SIZES	Ø 30 mm, Ø 40 mm	Ø 29 mm	Ø 29 mm, Ø 40 mm	Ø 40 mm
NUMBER OF CONTACTS	up to 2 NC: 1,2 / NO: 0	up to 3 NC 1 or 2 / NO 1	up to 4 NC: 1,2,3,4 / NO: 0,1	up to 2 (ill.), 3 (non-ill.) NC: 1,2,3 / NO: 0,1
TERMINAL CONNECTION	solder/tab, solder	solder/tab, solder	solder, PCB	screw, push-in
OPERATION		Push to lock, tu	rn or pull to reset	
ILLUMINATION		Yes/colour-changing	Yes	Yes
CERTIFICATIONS	c <b>¶L</b> us ❷ ( €	c <b>¶L</b> us ❷ ( €	₀¶Lus @ ( €	c <b>¶l</b> us ❷ ( €



#### SAFETY

# ENABLING SWITCHES

The IDEC range of safety enabling switches and new safety control devices: combining confidence and reliability with your productivity needs



# 

### HE2B SERIES, ENHANCED SAFETY

THE WORLD'S NUMBER ONE 3-POSITION SWITCH



EXCEPTIONAL TACTILE FEELING AND ERGONOMICS

- DUAL CHANNEL
- DUPLICATED CONTACTS TO MEET THE HIGHEST SAFETY STANDARDS
- FULL RANGE OF ENABLING AND GRIP-STYLE ENABLING SWITCHES
- ADDITIONAL MONITOR SWITCH TO COORDINATE SEVERAL ENABLING SWITCHES ON A SAME DEVICE

	-	<b>?</b>		-
	HE2B	HE3B	HE5B	HE6B
NUMBER OF 3-POSITION CONTACTS	2	2	2	2
EXTRA MONITORING CONTACT	0, 1 or 2	0	0	1 or 2
PANEL CUT-OUT	70 x 12.2 mm + 2 x Ø 3.2 holes	Ø 16.2 mm + 1 x Ø 3.2 hole	Ø 16.2 mm	29.4 x 16.2 mm + 2 x Ø 3.2 holes
IP RATING WITHOUT RUBBER BOOT	IP40	IP40	Not applicable	Not applicable
IP RATING WITH RUBBER BOOT	IP65	IP65	IP65	IP65
ACTUATING FORCE <sup>*</sup> POSITION 1 -> 2	4 N	Approx. 4 N	3 N	4 N
ACTUATING FORCE" POSITION 2 -> 3	30 N	Approx. 20 N	17 N	17 N
RUBBER BOOT				Please contact us
CERTIFICATIONS	°₩°> (€	°∰ ⊜ (€	°∰n≊ ⊜ (€	°∰ ⊖ (€

\*Approximate force, without the rubber boot.







	HE1G-L	HE2G	HE9Z			
STYLE	Palm-grip	Palm-grip	Thumb-grip			
	CONTACT					
EXTRA MONITORING CONTACT	Optional, 1	No				
E-STOP	Optional, 2NC	Optional, 2NC	No			
ADDITIONAL SWITCH	Optional, 1	Optional, max 2 switches, DPDT	No			
ADDITIONAL PILOT LIGHT	ADDITIONAL PILOT LIGHT No		No			
ADDITIONAL KEY SELECTOR	No	Optional (2 position, DPDT)	No			
INTERLOCK SWITCHES**	HS5	HS5	No			
	ACCE	SSORIES				
A CABLE GLAND	Included	Included	Included			
HANDSTRAP	No	Optional, HG9Z-PS1	No			
MOUNTING BRACKET	Optional, HE9Z-GH1	No	Optional, HE9Z-GH1			
CERTIFICATIONS		c <b>¶l</b> us ⊖ (€⊖ □ @ ∳∓ S	c <b>₩</b> us 🛛 C € 🗆			

\*\*Possibility to combine an interlock switch to have an automatic/manual mode - see HS5 series datasheet.

#### SAFETY

# SAFETY PRODUCTS

In Human Machine Interface (HMI) environment, ensuring the safety of operators and machines is given the top priority. Our safety products assure that a safe machine environment is established per the requirements of the machine designer.





## SE2L SERIES SAFETY LASER SCANNER

- DISTANCE 5 M, SENSING ANGLE 270 DEGREES
- MASTER & SLAVE CONNECTIVITY (UP TO 4 DEVICES AND ETHERNET CONNECTIVITY)
- SMALLEST SIZE (85MM X 85MM X 95MM)
- MAXIMUM OF 128 AREA PATTERNS
- DUAL PROTECTION ZONE INCLUDING DUST CONTAMINATION WARNING

#### **INTERLOCK SWITCHES**



#### HS6E/6B

Small and thinnest solenoid interlock switch with five poles and solenoid. HS6B: World-class compactness with three poles of contacts.

SAFETY CONTROLLERS



#### HS5D

Compact and robust miniature safety interlocks with Plastic or stainless steel heads. Design includes a fail safe tamper detection head.

#### SAFETY RELAY MODULES



#### **HS** Locking switches

IDEC range of safety locking switches, ranging from 500 N to the new HS1T 5000N locking switch. Ideal for use in injection moulding, food machines and robotic applications.

#### FORCE-GUIDED RELAYS



FS1A

No programming required—just turn on a logic switch to complete configuration of a safety circuit. Pre-programmed logics are compliant with international standards.



#### HR5S and HR6S Safety Relays

The new HR5S range of Single channel safety relays with true Category 2 architecture up to PLd providing test and annunciation channels. Introducing the new range of HR6S dual channel digital safety relays with full status indications and pulse train status outputs.



RF1-RF2

Compact and EN compliant or 2-pole force guided relays. Contact configuration: Built-in LED indicator model and counterelectromotive force diode model. Two terminal styles: socket mounting and PC board mounting.

#### NON-CONTACT INTERLOCK SWITCHES







HS7A

Compact size and easy positioning.

HS3A

RFID non-contact interlock switch, Category 4 and PLe compliant.

#### ACTUATORS



Door Handle

Locks rattling doors smoothly and securely.

Slide Handle

Shock-resistant metal slide handle actuators ensure safety of operators.



#### E30BK1 & E22BK1

Low-profile and oil-resistant pressure sensitive sensors to keep operators safe.

#### SAFETY LASER SCANNER



SE2L

The smallest Safety Laser Scanner in the world. Up to four SE2L can be connected together which is ideal for detection of four sides on AGVs.

#### SAFETY

# SENSING PRODUCTS

IDEC offers a standard line of photoelectric sensors for reliable object detection, and unique contrast detection and proximity sensors.



## KW2D SERIES STAND-ALONE RFID READER

- FOR ACCESSING CONTROL OR PERMISSION AND TRACEABILITY
- SLICK AND REFINED DESIGN WITH 4 LED INDICATORS
- INTEGRATED COLLATION FUNCTION
- PUSH-IN TERMINALS, ETHERNET PORT
- TAG HOLDER AVAILABLE

#### PHOTOELECTRIC SWITCHES



SA2E

Simple, compact design for world-wide usage with six sensing methods.



SA1E-L

Class 1 laser with fastest response in its class. Reliably detects fastmoving objects.





SA1E-X

Coaxial optical structure and narrow beam ensure stable detection; unaffected by constriction, inclination or shaking of a bottle. SA1U

Universal voltage types operate on 24-240 V AC and 12-240 V DC. DC power types operate on 12-24 V DC. Four sensing methods (through-beam, polarizedretroreflective, diffuse-reflective, and background suppression).

#### **RFID TAG READERS**



KW2D

Compatible with contactless cards such as employee IDs (ISO/IEC14443 Type A, ISO/IEC18092,JIS X6319-4, ISO/IEC15693) or Keyfob tags (ISO/IEC14443 Type A). Connection: Ethernet port. Communication protocols: Modbus TCP; planned: EtherNet/IP and CC-Link.



**CODE SCANNERS** 

WB1F

1D CCD scanner with convenient modes, such as test mode. Compact and can be installed on small equipment.

# LED LIGHTING & SIGNALLING

Immediate indication of process status is a must in any application. Our indicator lights and buzzers are reliable and long-lasting to give the customers peace of mind.

## LH1D SERIES IDEC SURFACE MOUNT INDICATOR

- LED FLAT OR DOME SURFACE MOUNT INDICATORS
- IP67 (IEC60529) RATED, CAN BE USED IN ENVIRONMENTS SUBJECT TO WASH DOWN
- NEMA TYPE 4X AND IP67 DEGREE OF PROTECTION
- SINGLE COLOUR, TWO COLOUR (BI-COLOUR) AND THREE COLOUR (TRI-COLOUR) VERSIONS AVAILABLE
- MARKING FILM CAN BE INSERTED INTO FLAT INDICATOR

LDGAHW1ZLHDHW1P-5Q4GDesign means functionality Signific routs instances separated inclusives Local visibilityWaterprode continitian the requirement of the separated inclusives Environment of the coal visibilityIncrease as well and aluminium frames.Win clear status recognition as the status recognition in the accor module increase as well as the status recognition increase as well production linesIncrease the requirement of the production lines for the accor module production lines for the accor module (status recognition the accor module (status recognition the accor module the accor module <b< th=""><th></th><th></th><th></th><th></th><th></th></b<>					
Design metric functionality spatial database with spatial database with with any database database with with any database with any database mode with any database <		LD6A	HW1Z	LH1D	HW1P-5Q4G
Machine tools Control panelsProduction lines Control panelsMatchine tools Material HandlingMatchine tools Material HandlingMatchine tools Matchine tools Reception roomsAutomotive matchine production lines Control panelsRATED INSULATION VOLTAGE60 V30 V32 V24 V AC/DC24 V AC/DC24 V AC/DC24 V AC/DCOPERATING VOLTAGE24 V AC/DC12 to 24 V DC24 V AC/DC24 V AC/DC24 V AC/DC24 V AC/DCRATED LURRINT20 to 30 mA per Tier8 mA (24 V DC) 8 mA (12 V DC)17 mA15 mA15 mAILLUMINATIONLEDLEDLEDLEDLEDFLASHINGXX11 m (24 V) 84 dB min at 01 m (12 V)11 m (24 V)SOUND PRESSURE70 to 90 dB90 dB Min at 01 m (12 V) 84 dB min at 01 m (12 V)22 mm22 mmMOUNTING5111SURFACEX22 mm22 mm22 mmSCREWVIREVILDO7VILDO7XWIREUL1007XYYVORESteadyr IP65 Steadyr Eashing /Alarm: IP54 (with L-shaped bracket) IP54 (With		Stylish oval shape with separated indicators for	buzzer and pilot light. Meets the requirement of the elevator standard	with IP67 protection. Directly mountable on equipment	from a distance as well as the side, this pilot light is more prominent than traditional units but still fits
OPERATING VOLTAGE24 V AC/DC12 to 24 V DC24 V AC/DC24 V AC/DCRATED CURRENT20 to 30 mA per Tier $18 \text{ mA} (24V DC)$ $8 \text{ mA} (12V DC)$ $17 \text{ mA}$ $15 \text{ mA}$ ILLUMINATIONLEDLEDLEDLEDFLASHINGXX $X$ SOUND PRESSURE70 to 90 dB $90 \text{ dB} \text{ min at 01 m} (24 Y)$ $84 \text{ dB min at 01 m} (24 Y)$ $$		Control panels	Production lines Control panels	Machine tools	production lines
RATED CURRENT         20 to 30 mA per Tier $18 \text{ mA} (24V \text{ DC}) \\ 8 \text{ mA} (12V \text{ DC})$ $17 \text{ mA}$ $15 \text{ mA}$ ILLUMINATION         LED         LED         LED         LED         LED           FLASHING         X         X         X         X         X           SOUND PRESSURE         70 to 90 dB         90 dB Min at 0.1 m (24 V) 84 dB min at 0.1 m (24 V) 84 dB min at 0.1 m (24 V)         X         X           MOUNTING         5         1         1         1           SURFACE         X         X         X         Z2 mm         Z2 mm           BUSHING DIAMETER         22 mm         Z2 mm         X         X           FUSH-IN TERMINALS         X         X         X         X           VIRE         UL1007         VIEC 60529)         Panel Front: (Wo L-shaped bracket) iP54         Panel Front: (Wo L-shaped bracket) iP54         Panel Front: (Wo L-shaped bracket) iP54 (ICE 60529)         IP67         IP65         IP65           Steady/Flashing/Alarm: IP54         Steady: P0 em count: (Wo L-shaped bracket) iP54 (ICE 60529)         IP67         IP65         IP65         IP64 (ICE 60529)         VIE 60529)         IP67         IP65         IP65         IP64 (ICE 60529)         IP64 (ICE 60529)         IP65         X	RATED INSULATION VOLTAGE	60 V	30 V	32 V	
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FLASHINGXXSOUND PRESSURE70 to 90 dB90 dB Min at 0.1 m (24 V) 84 dB min at 0.1 m (12 V)	RATED CURRENT	20 to 30 mA per Tier		17 mA	15 mA
SOUND PRESSURE70 to 90 dB90 dB Min at 0.1 m (24 V) 84 dB min at 0.1 m (12 V) 84 dB min at 0.1 m (12 V)MOUNTING511MOUNTING511MOUNTING511SURFACEXX22 mmBUSHING DIAMETER022 mm22 mmSCREW111SCREWVILL007VILL007XWIREULL007UL20276WIRESteady/Flashing/Alarm: IP54 (wirb L-shaped bracket) IP23Panel Front: IP65 (IEC 60529) Terminal: IP40 (IEC 60529) Terminal: IP54 (IEC 60529)IP67IP65 IP67CEXXXXULXXXX	ILLUMINATION	LED	LED	LED	LED
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CEXXXXULXXXX	SEALING	Steady/Flashing/Alarm: IP54 Pole mount: (w/o L-shaped bracket) IP54 (with L-shaped bracket)	IP65 (IEC 60529) Terminal: IP40 (IEC 60529) With boot:	IP67	IP65
UL X X X X			STANDARDS		
UL X X X X	CE	X	X	X	X

# LED LIGHTING & SIGNALLING

Our LUMIFA LED industrial task and machine lights provide bright, long-lasting illumination for a wide variety of applications.

## LF3D SERIES, MAKES VISUAL INSPECTION EASY

- UNIFORM LIGHT DISTRIBUTION
- SURFACE OR RECESSED MOUNT OPTIONS
- CONNECTION TYPES M12 REAR, M8 SIDE, REAR & SIDE CABLE EXIT
- IP67, IP67F, IP67G AND IP69K PROTECTION RATINGS
- WIDE OPERATING TEMPERATURE RANGE UP TO 55°C



		2	1			
	LF1B-N		LF2B	L	F3D	
distinct colors, thi	lengths, two lens covers and s range provides a flexible ligh for multiple applications.	nting LED units	Slim, compact surface mount LED units with universal input and excellent visibility.		l to be strong, y-efficient for machine oplications.	
Food Pho Dai Ai	Plant Equipment Test Equipment Food Processing Machines Show Cases Photosensitive Material Darkroom Experiments Advertising Displays Work Station and Task Lighting		Control Panels Food and Packaging Pharmaceutical Plants Printing Various Machines and Systems Work Station and Task Lighting		CNC Machine Tools Processing Machines Pharmaceutical/Chemical Production Systems Test Equipment	
	LF1B-N		LF1D-C	LF3D-SB	LF3D-FB	
PROTECTION CLASS	IP65	IP65	IP67 IP67F* IP69K	IP65, IP67, IP67G, IP69K	IP65, IP67, IP67G	
ILLUMINATION COLOUR	3,000 K or 6,600 K	6,500 K	5,700 K	5,7(	00 K	

Cool White

4.6 W

24V DC

180 lx

Х

Х

MOUNTING

COVER

LENS MATERIAL

\* Reinforced glass model

Cool White Warm White Blue

Yellow Red Green

Between 1.0 W & 17.3 W

24V DC

Between

10 lx & 1,350 lx

Х

Х

Х

Х

Cool White

Between 2.2 W & 15.9 W

12/24V DC

100 to 240V AC

Between

10 lx & 1,350 lx

Х

Х

Х

Х

COLOUR OPTIONS

POWER CONSUMPTION

> OPERATING VOLTAGE

REFERENCE ILLUMINATION

DIMMING CAPABILITIES

SURFACE

RECESS

CLEAR

WHITE

REINFORCED GLASS/CLEAR

POLYCARBONATE

REINFORCED GLASS / DIFFUSED

UNIFORM

Cool White

1800 lx (standard distribution) 1000 lx (diffused distribution)

9.2W

24V DC

Х

Х

Х

Х

Х

9.2W

24V DC

Х

Х

Х

Х

Х

# DIN-RAIL & PANEL PRODUCTS

Over the years, IDEC has introduced many new innovations to its family of DIN-rail and panel products. Thanks to technological advances and creative engineering, our range has continued to set a new standard as we strive to meet the needs of our customers.

## SJ SERIES PUSH-IN RELAY SOCKETS



RELAY CONTACT TERMINALS ON UPPER SIDE AND COIL TERMINAL ON THE LOWER PROVIDE HIGHER SAFETY AND ALLOWS EASY WIRING



PUSH-IN STYLE CONNECTION ACHIEVES HIGH CONTACT RELIABILITY AND VIBRATION RESISTANCE REGARDLESS OF WIRE SIZE AND SHAPE

- IT IS INSTALLED EASILY ON A 35-MM-WIDE DIN-RAIL WITH A SNAP-ON ACTION
- AVAILABLE IN EITHER 1 POLE OR 2 POLE
- UL RECOGNISED, CSA CERTIFIED, EN COMPLIANT, FLAMEPROOF MATERIAL UL94 V-0

#### RELAYS



PS5R-V

Space-saving DIN-rail switching power supplies. Can be installed in six mounting directions.



PS3V

Compact & efficient switching power supplies, suitable for downsizing of equipment.

#### **PUSH-IN TERMINALS**



One step wiring for quick and highly reliable connection. Available for a wide range of IDEC panel products, including PS3V power supplies and SU/SJ relay sockets

# **AUTOMATION PRODUCTS**

From powerful Programmable Logic Controllers (PLCs) that drive precision in industrial processes to intuitive Operator Interfaces that put control at your fingertips, and Remote Control Pendants that redefine accessibility in full safety, IDEC is your gateway to seamless automation.



## FC6A / FC6A PLUS SERIES, PLC/CONTROLLER

- POWER, PERFORMANCE & CONNECTIVITY
- IIOT THROUGH ETHERNET (INCLUDING WEB SERVER, FTP CLIENT/ SERVER & EMAIL FUNCTION)
- PID FUNCTION
- WIRELESS COMMUNICATION VIA BLUETOOTH CONNECTIVITY
- UP TO 2060 I/O
- FAST PROCESSING AND REFRESH RATE

IDEC EXCLUSIVE



(RS232&RS485)

communication

and a XA1E

Emergency-

stop switch.

like joysticks.

www.eu.idec.com 43

the accessories.



16 FACTORIES
 MORE THAN 75 YEARS OF EXPERIENCE
 3,400 EMPLOYEES WORLDWIDE
 100 000 + REFERENCES

## **EMEA SALES & CUSTOMER SUPPORT**

Contact our safety specialists at eu.support@idec.com



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