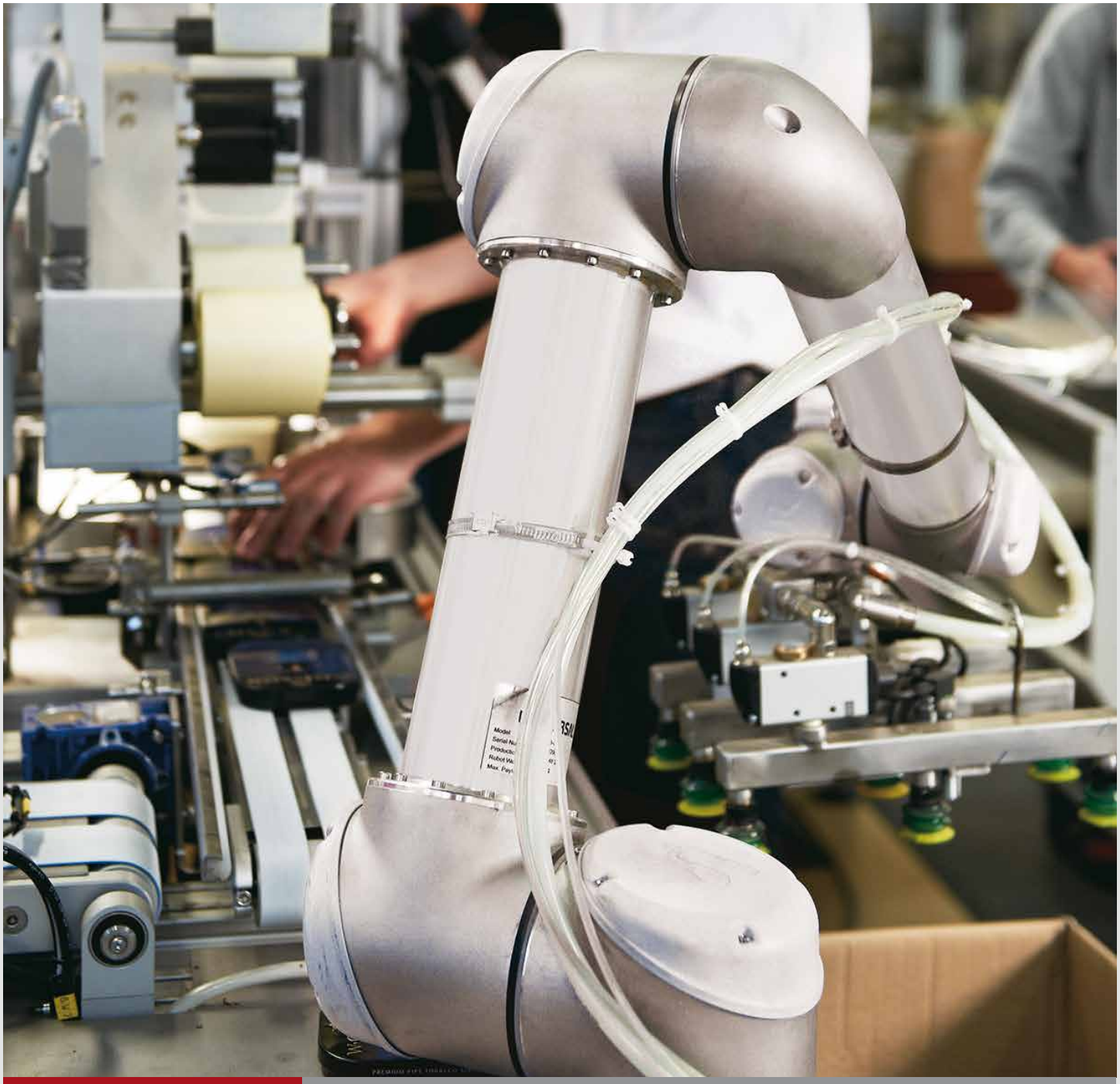
IDEC

Think Automation and beyond...

ROBOTICS

Industry Solutions

APEM
an IDEC company



ROBOTICS INDUSTRY

IDEC has long provided products for the robot industry by developing highly reliable products based on the achievements and know-how that we have built up with our customers.

We offer a wide range of products to acheive downsizing, durability, and robustness, required for robots, robot controllers, teaching pendants, and environments surrounding robots. Together with the development of the robot industry, IDEC will pursue current trends and technology to relentlessly provide products with extra value.

Robot Industry and IDEC

IMPROVING SAFETY

IDEC has consistently led the world in robotics safety, including developing the industry's first enabling switch with three-position functionality (dead man switch) and supplying a third-generation emergency switch with a revolutionary new structure.

By promoting Safety 2.0, a next-generation concept that enables humans and machines to collaborate seamlessly without barriers, IDEC delivers a wide variety of products such as safety laser scanners, safety light curtains, safety interlock switches, and forced guide relays, to ensure safety for robot systems.

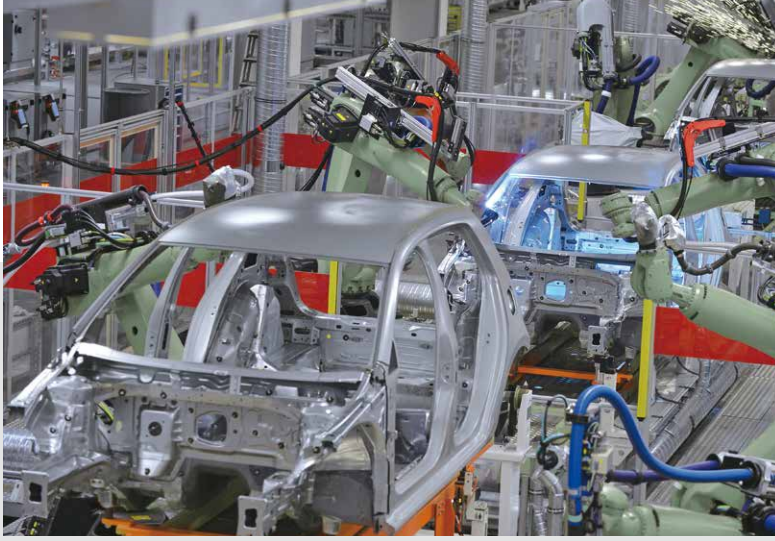
ENHANCING QUALITY

Throughout our 75-year history, IDEC has continued to work on developing and improving our products, and we constantly strive to improve usability and quality.

The IDEC brand has earned the trust of many customers in the robot industry, and many of our products are used actively around robots. We will continue to provide products with the quality required by our customers, and contribute to the quality of robot systems.

SERVING THE FUTURE

IDEC is working with the robotics industry to respond to the accelerated introduction of IoT, workplace diversity, and other societal changes. We will respond to market needs with, for example, new products to add to safety the element of peace of mind, for which there will be even greater demand in the future, as well as new products that assist with utilization of commercially-available tablets. IDEC will continue to identify robotics industry trends and supply our customers with solutions, contributing to the future of robotic systems.



Leading the way in HMI and collaborative safety for human and robots

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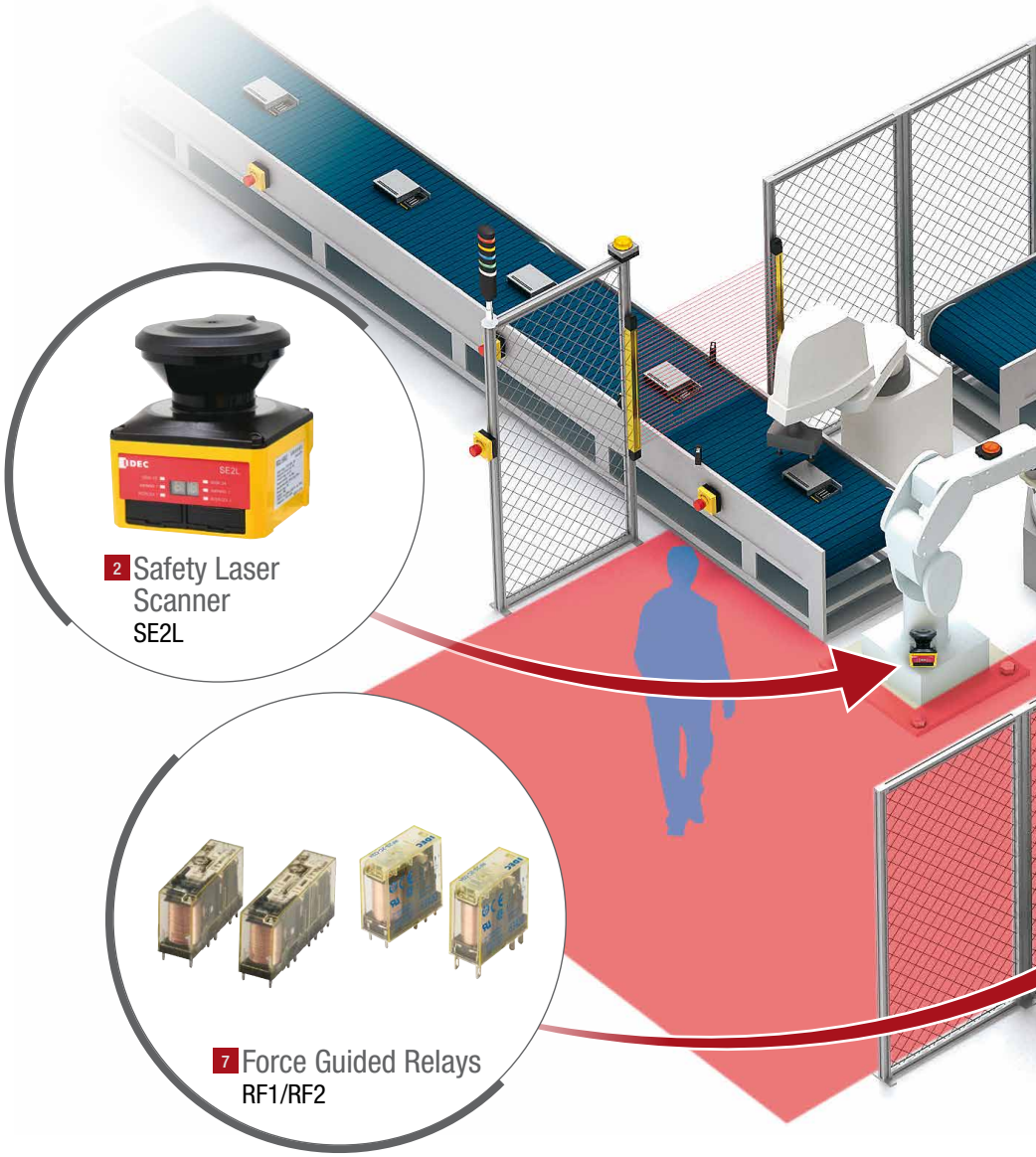


Optimum safety solutions for robots

3

Operator Interface Handheld Model
HG1P

4

Enabling Switches
HE2B/HE6B

5

Safety Grip Switches
HE2G

6

Safety Controllers
FS1A

8

Interlock Switches with Solenoid
HS1T/HS5L

12 Surface-Mount Indicators
LH1D

1 Tablet Mount Safety Device
Safety Commander™

16 Push-in Switches & Pilot Lights
YW/CW Series

9 Emergency Stop Switches
X Series

Optimal HMI proposals for robots

10

LED SignaLight Towers
LD6A

13

Ultra-bright LED Pilot Lights
AP22

14

LED Indicators
Q Series

15

ø16/ø22 Flush Silhouette Switches/
ø16 Switches & Pilot Lights
LB/LBW Series

17

Pushbutton Switches
IP/IS Series

18

Miniature Joysticks
TS Series

19

Metal Switches
AV Series

Improve production efficiency

11

LED Lightings
LF1B-N/LF2B

20

Relays/Push-in Sockets
RU/RJ/SU/SJ Series

Coming Soon

Safety Commander™

Tablet Mount Safety Device

Safety functions (enabling switch & emergency stop switch) added to commercially available tablets

*) The above photo shows the device mounted on a commercially available tablet.
*) The tablet must be prepared by the user.

- The device can be attached to 8 to 11-inch tablets for flexible mounting depending on the required display size.
- Rotating mechanism allows the tablet to be used vertically or horizontally, to display a variety of contents including drawings, tables, and graphs.
- Ergonomic grip design ideal for long and fatigue-free operation.

Name	Operating Temperature	Operating Humidity	Degree of Protection	Supported Tablet Sizes	Supported Tablet Thickness	Switches
Safety Commander	-20 to +55°C (-20 to +30°C (*1))	45 to 85% RH	IP54	8 to 11 inches	9 to 24 mm	Emergency stop switch: XA1E-LV302Q4R Enabling switch: HE5B-M2PY

*1) USB supply

Ensuring safety in tablet operation in environments around robots

BEFORE

Safety issues occur when tablets are used.

AFTER

Easy and safe operation can be achieved, allowing teaching operation in dangerous areas

Emergency stop switches and enabling switches can be operated while holding the tablet with one hand.

New Products

Coming Soon

HR6S

Safety Relay Modules

Full range of diagnostic functions reduce downtime for robot systems

- **Diagnostic** results are **coded** and output as a pulse signal for easy and detailed monitoring of the safety system.
- **Dial switching** allows connection to various input devices and selection of numerous start modes, eliminating the need use a different module with a different function.

Coming Soon

SE4D-C

Safety Light Curtains

Compact, lightweight, and high performance. Ideal for detecting access to restricted areas at robot systems

- Compact size fits inside an **aluminum frame** used as safety fences around restricted areas to avoid collision with detected objects.
- Although compact in size, **various functions** such as a muting function, fixed blanking, and floating blanking, are available.
- **Large operation indicators** indicate the presence of the light curtain and prevents downtime due to inadvertent shading.

* Image used is SE4D

Coming Soon

SX5E (8-port)

Ethernet Switches

Unmanaged switch available with a 5-port or 8-port entry

- High **impulse resistance** enables high reliability and stable operation.
- Robust **metal housing** for superior environmental resistance
- Compliant with Fast Ethernet standards for **high-speed communication**
- Equipped with various functions such as **QoS** (8-port model only) and redundant power input

8-port 5-port

Safety Solutions

SE2L

Safety Laser Scanner

Small safety sensor for easy installation

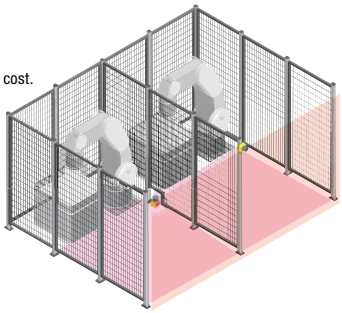
- **Area protection** and **access protection** for flexible and safe construction of robot systems
- Low-speed and stop areas can be set to ensure **productivity** and **safety**
- SE9Z-* connection box equipped with a safety relay reduces **maintenance time** and **wiring** (*1)

*1 Coming Soon

SE9Z-* connection box

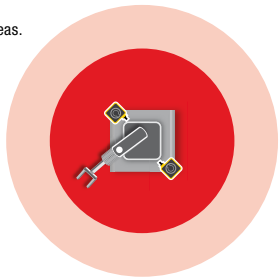
- Same sensor can be used for area protection and access protection.

Dual protection function reduces maintenance and cost.



- Ideal for collaborative robots

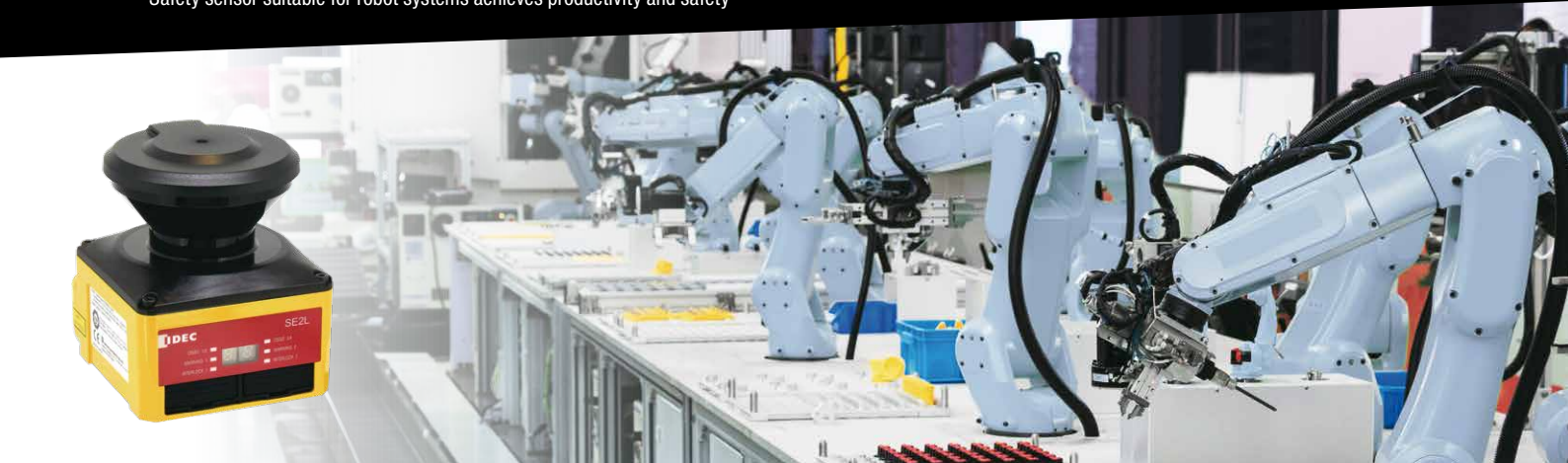
Dual protection function achieves slow speed areas.



Series	Safety Category	Performance Level	Detection Characteristics	Power Supply Voltage	International Standards			
					UL	CSA	TÜV	CE
SE2L	Type 3 (IEC61496-1, IEC61496-3)	PL=d, SIL3	Protected area: Max. 5 m Detection angle: 270°	24V DC ± 10%: When using converter power supply 24V DC -30%/+20%: When using battery	●	●	●	●

Application: **Intrusion Detection, Area Monitoring**

Safety sensor suitable for robot systems achieves productivity and safety



HG1P

Operator Interfaces, Hand-held Model

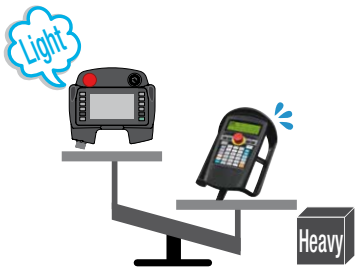
Lightweight and robust
Teaching pendant with optimal usability

- **Ergonomic** design and **lightweight structure** suitable for long teaching operation
- **Robust** design reduces damage even when dropped accidentally

HG1P

Lightweight and compact, weighs only 500g (*1)

Enables stress-free operation even when the worker needs to move around. (*1) Not including cable



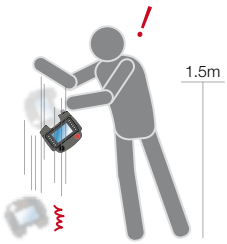
Ergonomic design ideal for long and fatigue-free operation

Designed to fit comfortably in the hand by its ergonomic design.

Withstands drop from a height of 1.5 m

Designed to withstand a drop test from a predictable height during hand-held operation or storage. (*2).

*2 Not resistant to excessive shock.



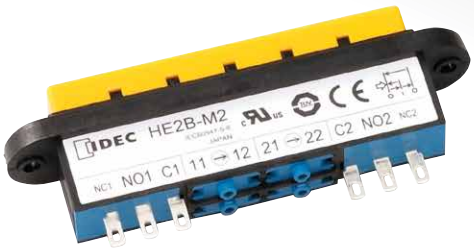
Series	Communication Interface	Cable Length	Display Screen	Operation Style	International Standards		
					UL	CSA	CE
HG1P	RS422/RS485 or Ethernet	3, 5, 7 m	4.3-inch TFT color LCD, 65,536 colors	Touch switch (analog resistive) Function switch	●	●	●

Application: **Operator Interface for Robot, Handheld Type**

Human-Robot Cooperative Safety

HE2B/HE6B

Enabling Switch

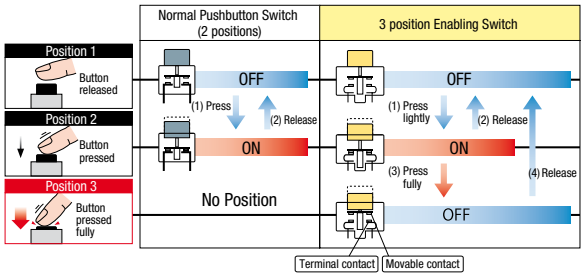


Suitable for international safety environments

Wide variety of models suitable for teaching pendants of various shapes and sizes

Ergonomic 3-Position Operation

By holding an enabling switch, an operator can avert danger when a machine operates unexpectedly. When the panicked operator either releases or grasps tightly the enabling switch, the switch disables the machine operation in either situations.



Series	Contact Rating		Mechanical Durability	Electrical Durability	Weight	IP Protection Degree	International Standards				
	Rated Insulation Voltage	Rated Current					UL	CSA	TÜV	CCC	CE
HE2B	250V	3A	Position 1 → 2 → 1: 1 million operations minimum Position 1 → 2 → 3 → 1: 100,000 operations minimum	100,000 operations minimum	26 g (without rubber cover), 30 g (with rubber cover)	IP40 (without rubber cover), IP65 (with rubber cover)	●	●	●	●	●
HE6B	125V	3A	Position 1 → 2 → 1: 1 million operations minimum Position 1 → 2 → 3 → 1: 100,000 operations minimum	100,000 operations minimum (rated load), 1,000,000 operations minimum (24V AC/DC 100 mA)	14 g (without rubber cover), 17 g (with rubber cover)	IP65	●	●	●	●	●

Application: Teaching Pendant

Ensures human-robot collaborative safety

HE2G

Safety Grip Switch

Easy-to-grip ergonomic design

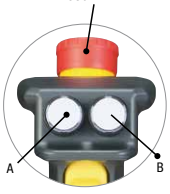
- Wide range of **variations** suitable for a variety of robot systems
- Lightweight, light load structure enables **stress-free** operation during maintenance

Select from a wide variety of models

Equipped with different control units for various use.

HE2G-21SHE-L-L

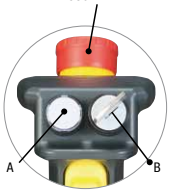
Emergency stop switch
XA1E-BV3U02R



A:Momentary pushbutton (white)
AB6M-M2PLW
B:Momentary pushbutton (white)
AB6M-M2PLW

HE2G-21SHE-L-K

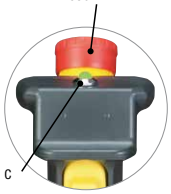
Emergency stop switch
XA1E-BV3U02R



A:Momentary pushbutton (white)
AB6M-M2PLW
B:Key selector switch
AS6M-2KT2PA

HE2G-21SHE-P-0

Emergency stop switch
XA1E-BV3U02R



C:Pilot light (green)
UP9P-2498G

Actuators with plastic holders, applicable for HS5 series interlock switches, can be used with the HE2G

Example of automatic and manual operation modes when HS5D is used

Operation modes can be changed by inserting/removing the actuator with plastic holder installed to the HE2G into the HS5D. When the actua-tor is inserted, the operation is in automatic mode. When the actuator is removed, the operation is in manual mode

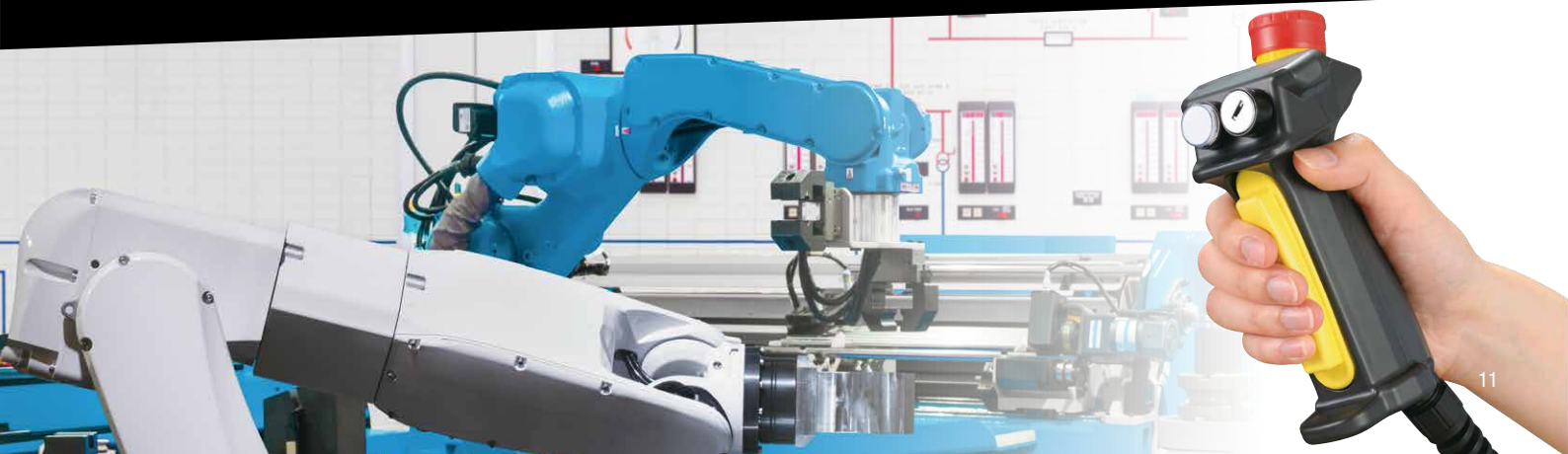
Compact design fits comfortably in the hand

The curved grip and small-size makes operation comfortable. The light-weight (approx. 140g, HE2G-21SH) and compact size is suitable for operators with small hands and for use in tight working environments.

Series	Wiring Style	Rubber Boot Material / Color	IP Rating	International Standards				
				UL	CSA	TÜV	CCC	CE
HE2G	Soldered terminal, internal connector	Silicon rubber / yellow, NBR / PVC polyblend / gray	IP67	●	●	●	●	●

Application: **Maintenance Work inside Safety Fences**

Acheives Highly Reliable Safety



FS1A

Safety Controller

Pre-programmed to easily build a safe robot system

- With 35 installed pre-programmed safety circuit logics in a compact housing, **no programming** is required
- Connects to a wide variety of safety equipment used to build safe robotic systems by **simplified** system wiring

Reduced Total Cost, Simplified System Wiring

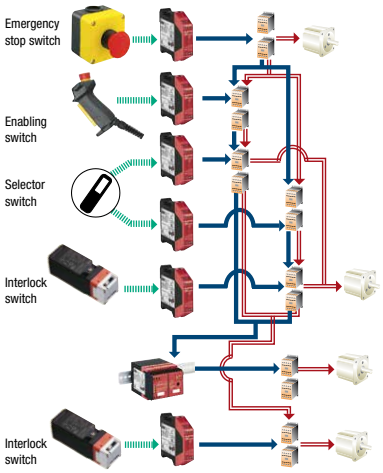
A single SafetyOne module can replace more than seven safety relay modules. Below is a comparison of systems (FS1A-C11S type, logic 104).

When using safety relay module

7 safety relay modules
14 safety contactors

Before

The system is complicated, and the interlocking of mode selector switch cannot be determined. Results in a risk of not satisfying the required safety performance.

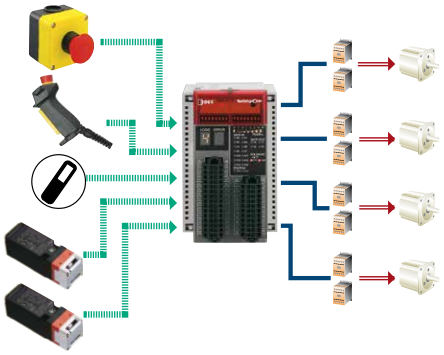


When using SafetyOne

1 FS1A
8 safety contactors

After

Equipment and wiring costs are significantly reduced, and safe performance is ensured.



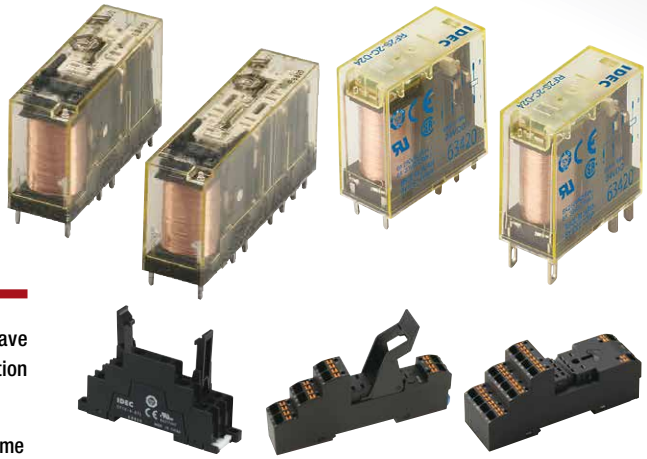
Series	SIL / PL / Category	Operating Voltage	Safety Circuit	International Standards			
				UL	CSA	TÜV	CE
FS1A	IEC61508 Safety Integrity Level 3, ISO13849-1 Performance Level e, ISO13849-1 Category 4	24V DC	Logic selection	●	●	●	●

Application: **Safety Measures for Area Around Robot**

Reduced Total Cost, Simplified System Wiring

RF1/RF2

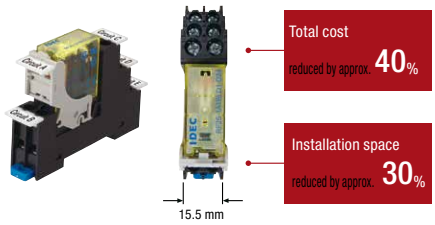
Force Guided Relays



Compact force guided relays help reduce installation space

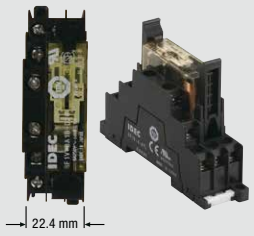
- 2- to 6-pole models enable flexible construction of safety circuits. Save **cost** and installation **space** by selecting the ideal contact configuration to suit robot system circuits
- Highly visible LED indicator to show operating status. **Reduces** maintenance time

When Using RF2S-1A1BLD1-D24 & DIN Rail Socket

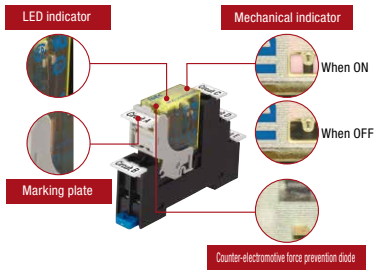


* Compared to IDEC products. Total cost refers to the cost for relays and sockets.

When using a 4-pole forced guide relay with LED indicator & DIN rail socket



Convenient Functions for Easy Use!



Series	Allowable Contact Current	Power Consumption	Electrical Durability	Mechanical Durability	Compliance with International Standards			
					UL	CSA	TÜV	CE
RF1	Rated load: 250V AC/6 A, 30V DC/6 A Allowable contact power: 1,500VA AC, 180W DC (30V DC or less) 85W DC (30V DC to 125V DC or less) Allowable contact voltage: 250V AC, 125V DC Allowable contact current: 6 A	Approx. 0.36W (4 poles) Approx. 0.50W (6 poles)	100,000 operations or more at 250V AC/6 A resistive load (On/Off frequency: 1200 times/hour) 100,000 operations or more at 30V DC/6 A resistive load	10 million operations or more (On/Off frequency: 10,800 times/hour)	●	●	●	
RF2	Rated load: NO contact: 240V AC/6 A / 24V DC/6 A NC contact: 240V AC/3 A / 24V DC/3 A Allowable contact power: NO contact: 1440VA/144W NC contact: 720VA/72W Allowable contact voltage: 250V AC, 125V DC Allowable contact current: 6 A	Approx. 0.7W	100,000 operations or more (On/Off frequency: 1800 times/hour)	10 million operations or more (On/Off frequency: 18,000 times/hour)	●	●	●	●

Application: **Robot Controller, Robot System Control Panel**

Flexible support for safety circuit construction

HS1T/HS5L

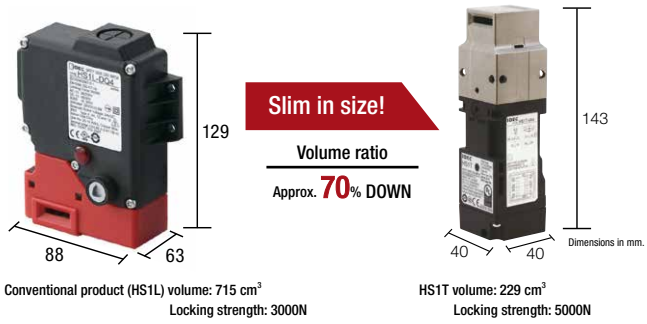
Interlock Switches with Solenoid

Superior robustness and safety

- Oustanding locking strength **5000N** and compact body acheives safe construction of robot systems (HS1T)
- Highly **durable** and ideal for doors that open and close frequently
- Lock monitor marking proves **reduction** of contacts and cost

*1 Compared with conventional IDEC products

Locking Strength: 5000N minimum (Slim type: ☐40 mm wide)



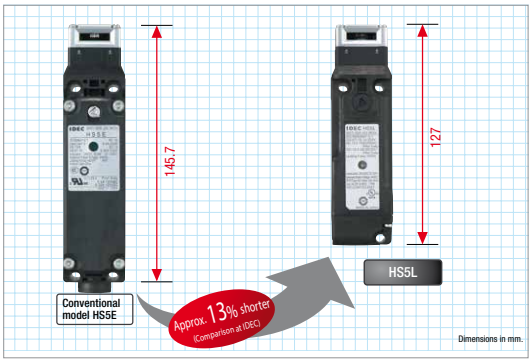
Conventional product (HS1L) volume: 715 cm^3
Locking strength: 3000N

HS1T volume: 229 cm^3
Locking strength: 5000N

Small and Slim

Size is reduced by 13% from conventional models.* Mounts on small doors and aluminum frames of machines. Compact design with 2- and 4-contacts reduce installation space. Greater flexibility in machine design.

*Except two-conduit model.



Series	Type or Coding Level	Locking Strength	Mechanical Durability	Terminal Style	IP Protection Degree	Rated Current	International Standards				
							UL	CSA	TÜV	CCC	CE
HS1T	Type 2 Interlock Device, Low Level Coded (EN ISO 14119)	5000N	2 million operations or more	Spring clamp	IP67	200 mA	●	●	●	●	●
HS5L	Type 2 Interlock Device, Low Level Coded (EN ISO 14119)	1400N	2 million operations or more (Operation frequency: 900 times/hour)	Spring clamp	IP67	200 mA	●	●	●	●	●

Application: **Door Interlock for Safety Fences**

Highly Reliable Safety

X Series

Emergency Stop Switches

Third generation emergency stop switches

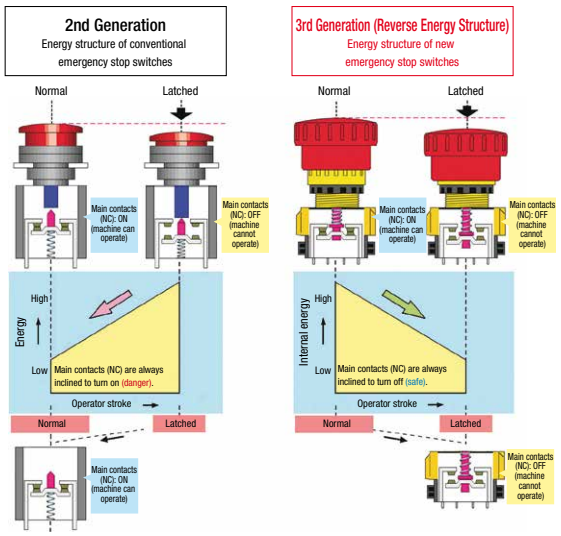
IDEC's unique safety technology is a perfect match for the high reliability required by the robot industry.

1. **Reverse Energy Structure**
2. **Safe Break Action**

Emergency stop switches can be reset by pulling or turning.
Turn reset / Pull reset

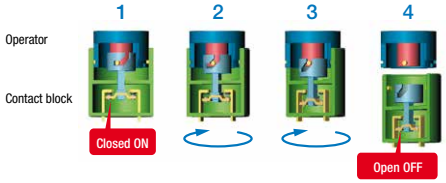
Reverse Energy Structure

With X series, the potential energy level of the latched status is lower than that of normal status. In the event the switch is damaged due to excessive shocks, the NC contacts will turn off, thus stopping the machine (patented design)



Safe Break Action

When the contact block is detached from the operator, the NC contact opens (OFF).



When the contact block is detached from the operator, the cam directly opens the NC main contacts (contacts are off). (Patented)

Series	Mounting Hole Size (mm)	Head Size (mm)	Terminal Style					IP Protection Degree	Panel Depth	International Standards				
			Solder	Solder/Tab	PC Board	M3 Screw	Connector			UL	CSA	TÜV	CCC	CE
XW	ø22.3	ø40 ø60	●		●	●	●	IP65 IP67	48.7 mm	●	●	●	●	●
XW (indicator type)	ø22.3	ø38				●		IP65	46.4 mm	●	●	●	●	●
XA (unibody)	ø16.2	ø29 ø40	●	●				IP65 IP40	19.5 mm	●	●	●	●	●
XA (removable contact block)	ø16.2	ø30 ø40	●		●			IP65	27.9 mm	●	●	●	●	●
X6	ø16.2	ø30 ø40	●	●				IP65	19.5 mm	●	●	●	●	●

Application: **Robot Controller/Teaching Pendant**

Short-body / Safe and highly reliable

LD6A

LED SignaLight Towers

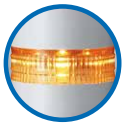
Striped design for clear visibility

- Multiple lenses and light tubes allow **high visibility** of robot operating status from a wide range of angles
- **Striped design** less susceptible to external light ensures clear visibilty

Stylish

Smart functions with a stylish design

Universal design. Oval shape and striped design makes the SignaLight highly visible.



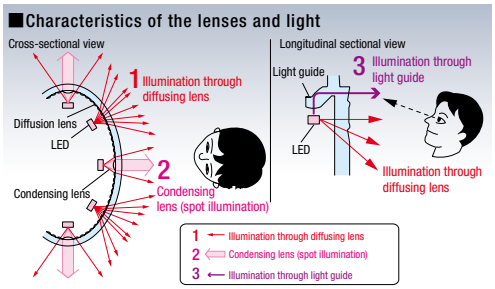
Technology

Unique lens shape offers high visibility.

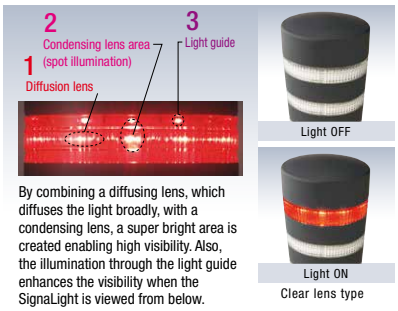
The original lens shape enable high visibility from different directions.

Lens Shape for High Visibility

3 illumination patterns for high visibility from any direction.



Clear Difference between On/Off, and Visibility Improved



By combining a diffusing lens, which diffuses the light broadly, with a condensing lens, a super bright area is created enabling high visibility. Also, the illumination through the light guide enhances the visibility when the SignaLight is viewed from below.

Series	IP Protection Degree	Rated Voltage	Rated Current (per tier)	Power Consumption (per tier)	International Standards		
					UL	CSA	CE
LD6A	IP54/IP65	24V AC/DC	25 mA (R, Y) 30 mA (S, G) 20 mA (W)	0.6W (R, Y) 0.75W (S, G) 0.5W (W)	●	●	●

Application: **Robot Operating Status Indicator**

High visibility and smart design

LF1B-N/LF2B

LED Lightings

Compact LEDs for a wide variety of applications

- Various lengths are offered to meet space requirements and illumination coverages.
- With a long lifespan 40,000 hours, and approximately 54% less power consumption compared to fluorescent tube lighting, maintenance work is reduced.
- IP65 protection (waterproof/dustproof), suitabe for use in wet areas.

LF2B

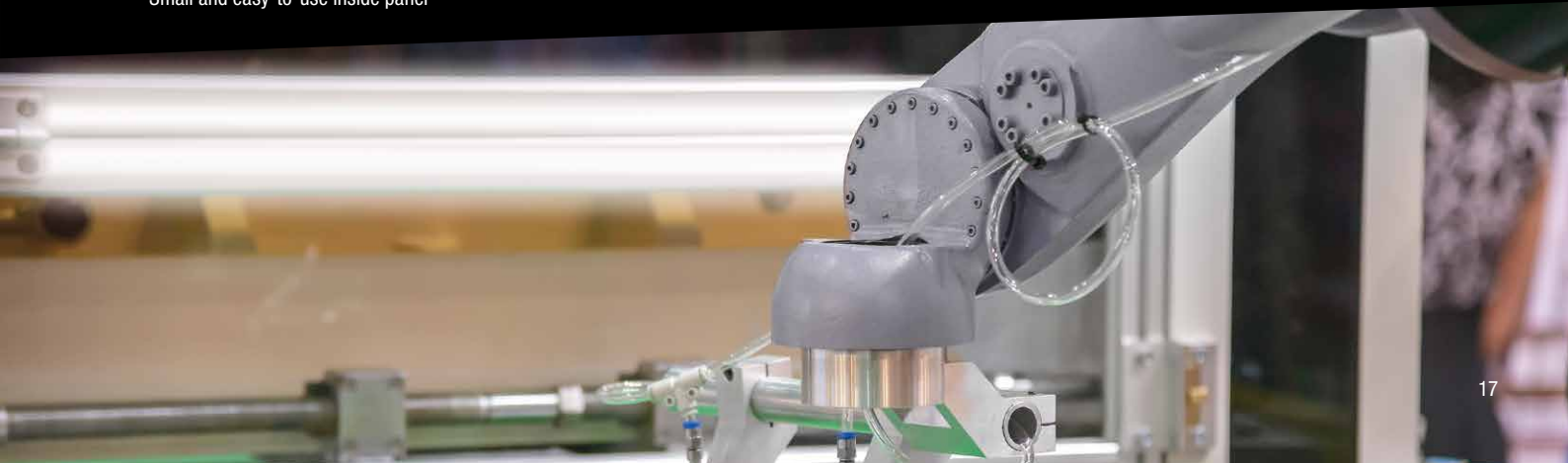
LF1B-N

Series	Cover	IP Protection Degree	Rated Voltage	International Standards		
				UL	CSA	CE
LF1B-N	Clear / White	IP65	24V DC	●	●	●
LF2B	Clear / White	IP65	12/24V DC 100 to 240V AC	● (*1)	● (*1)	●

*1 12/24V DC only

Application: **Lighting inside Robot Controllers, Lamps for Indicators, Robot System Control Panels**

Small and easy-to-use inside panel



LH1D

Surface-Mounted Indicators

Suitable for indicating the operation status of robots

- **No mounting holes required**, enabling easy mounting on manipulators
- **7** color variations to indicate the operating status of the robot, such as servo ON/OFF
- **IP67** protection for use in harsh environments
- **Highly flexible, UL-compliant robot cable**

Series	Color Variations	Cable Length	Rated Voltage	IP Protection Degree	International Standards			
					UL	CSA	TÜV	CE
LH1D	1-color / 2-color alternate / 3-color alternate (*1)	Cable type: 1 m, 3 m, 5 m M12 connector type (*1): 30 cm	Cable type: 24V AC/DC M12 connector type (*1): 24V DC	IP67	●	●	●	●

*1 Large dome only

Application: **Robot Operating Status Indicator**

Easy mounting and highly visible

AP22

Ultra-bright LED Indicator

Outstanding visibility to indicate the robot operating status

- Robot operating status highly visible from a **wide range** of angles
- Wide variety of color variations to **indicate operation status**, such as servo ON/OFF and cooperative mode operation
- IP66 protection allows installation in harsh environments

Six colors for various applications

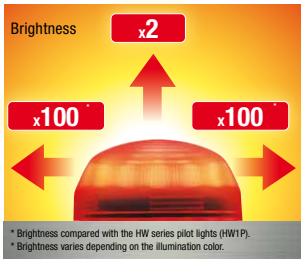
Clear lens provides sharper contrast between lit and unlit. Perfect for use in high ambient light levels.

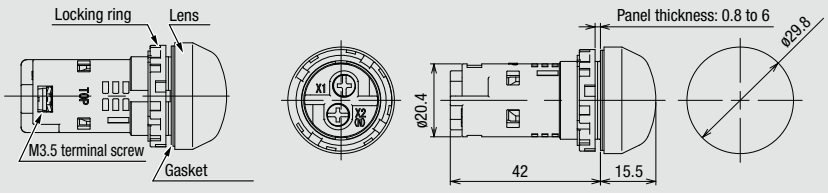
When off When on

R (red) G (green) Y (Yellow) A (amber) S (blue) PW (pure white)

Unique optical design acheives high visibility from all directions

Wide choice of installation locations, regardless of mounting direction.



Series	Rated Voltage	Operating Temperature	Dimensions (mm)
AP22	24V	-25 to +55°C (No freezing)	

Application: **Robot Operating Status Indicator**

Reliable and high visibility from wide range of angles

Q Series

LED Indicators

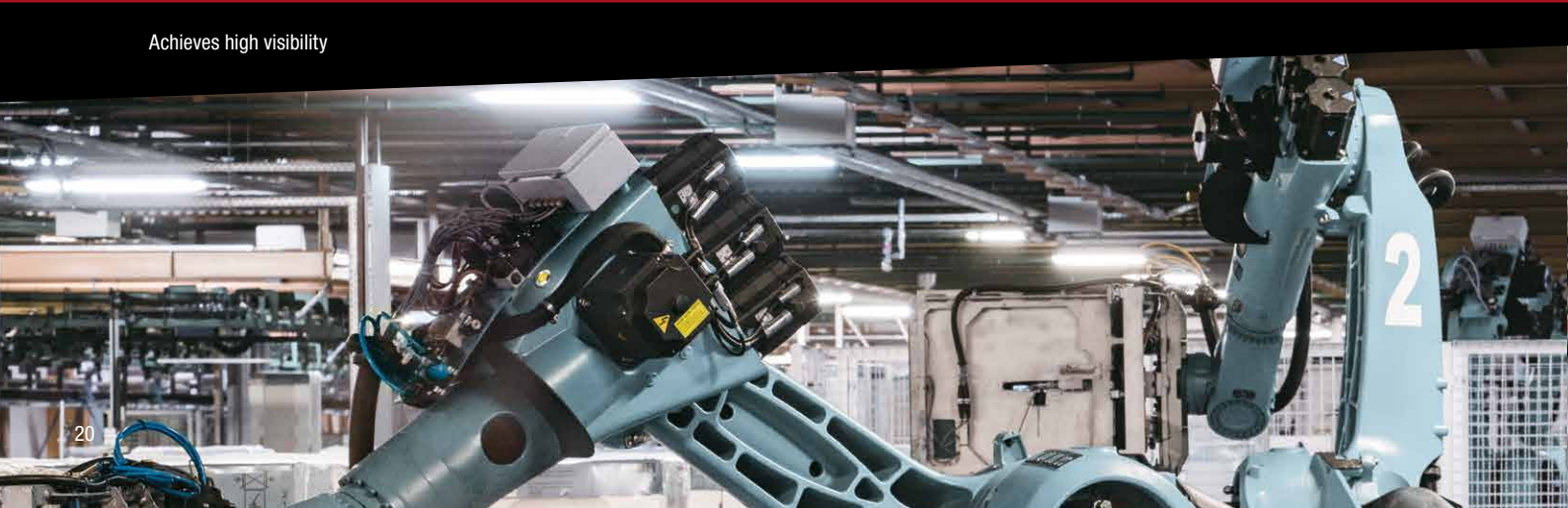
LED indicators with outstanding protection performance and suitable for a wide temperature range

- Suitable for use in wide temperatures ranges from -40 to +85ºC, achieving flexible installation of robots (reed line type).
- IP67 protection suitable for use in environments exposed to water.
- Available in sizes ranging from ø6 to 22 mm.

Series	Mounting Hole Size (mm)	Bezel Shape	Terminal Style
Q	ø6, 8, 10, 12, 16, 22	Prominent, flush	solder lug, faston, reed wire

Application: **Robot Operating Status Indicator**

Achieves high visibility



LB/LBW Series

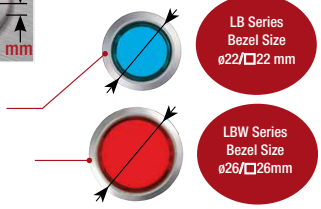
ø16 ø22 Flush Silhouette Switches
ø16 Switches & Pilot Lights

For stylish design of panel surfaces

- **Short body** switches for slim and sleek teaching pendants
- **Improved design** of robot controller

Flush Silhouette

Projects only 2mm from the panel surface. For sleek and refined style.

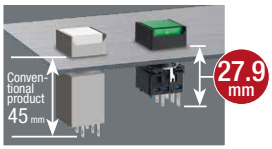


LB Series Flush Silhouette Switches
Slim 2mm-thick bezels for stylish panels.

LBW Series Flush Silhouette Switches
Smart appearance with large surface for secure operation.

ø16 LB Series Miniature Switches and Pilot Lights

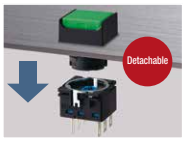
Short body for space-saving installation.



Short Body
Depth of only 27.9mm behind panel. Reduces the size of machines and control panels.

Flush Silhouette & Control Unit

Removable Contact Block /Single Board Mounting
Removable contacts enable easy wiring / Single board mounting for space-saving installation.



UP Series

UP series has the same depth as LB/LBW series. Mounts on the same panel.
(Flush bezel: 34.9mm, standard bezel: 27.9mm)

Series	Mounting Hole Size (mm)	Bezel Size (mm)	Panel Depth	Terminal Style			IP Protection Degree	International Standards				
				Screw	Solder/Tab	PC Board		UL	CSA	TÜV	CCC	CE
LB	ø18.2 □18.2 18.2 x 24.2	ø22 □22 18 x 22	27.9 mm		●	●	IP65	●	●	●	●	●
LBW	ø22.3 □22.5	ø26 □26	27.9 mm		●	●	IP65	●	●	●	●	●

Application: **Robot controller / teaching pendant**

For sleek and refined style

YW/CW Series

Push-in Terminal Switches & Pilot Lights

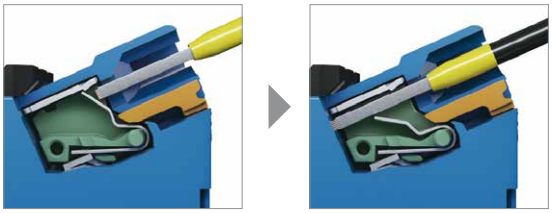
Simple wiring with Push-in technology

- **Push-in** terminals reduce wiring and maintenance time.
- Highly visible **LEDs** allow the transmission of reliable information.
- self-cleaning **rolling action contacts** ideal for robot systems requiring high reliability.

Time saving and efficient

Reduce wiring time

Connecting

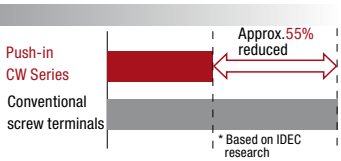


Push the wire straight in as far as it will go.

Connection is completed. Pull lightly to make sure it is firmly in place.

Wiring process

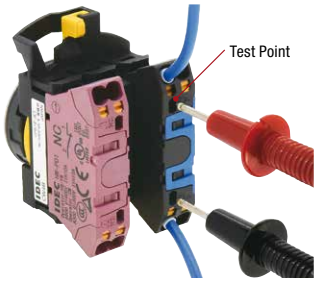
Push-in connections are made simple by inserting the wire, reducing wiring time by approximately 55% compared to conventional screw terminals.



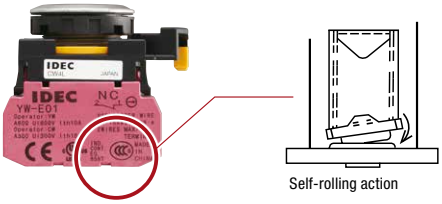
Added value

Test point

A test point is available to check connectivity of the wiring.
Check the connectivity easily using a tester.



Self-rolling action contacts



Series	Mounting Hole Size (mm)	Bezel Size (mm)	Terminal Style		IP Protection Degree	International Standards				
			Screw	Push-in		UL	CSA	TÜV	CCC	CE
YW	ø22	ø30	●	●	IP65	●	●	●	●	●
CW	ø22	ø30	●	●	IP65	●	●	●	●	●

Application: **Robot Controllers**

Improve wiring efficiency with push-in technology

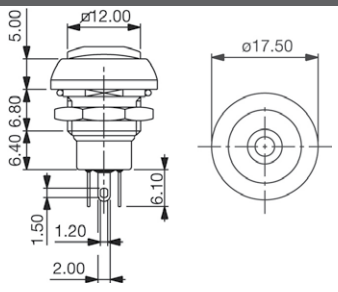
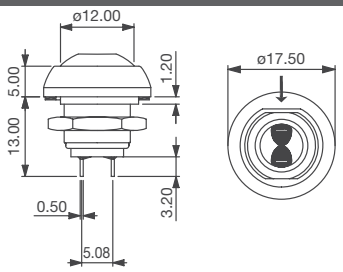
IP/IS Series

APEM

Pushbuttons

Environment-resistant and compact switches for use in tight spaces

- Short body/compact design contributes to the **miniaturization** of direct teaching units
- Ergonomic clicking feeling for **safe operation**

Series	Mounting Hole Size (mm)	Dimensions (mm)
IP	ø13.6	IP Series (*1) 
IS	ø13.6	IS Series 

*1 Dimensions of IP series, momentary type (illuminated round shape, soldered terminal). For other types, please see IDEC website.

Application: **Direct Teaching**

Effective use of space with small and environment-resistant switches

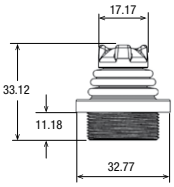
TS Series

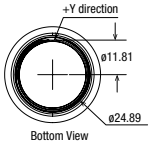
Miniature Joysticks

For intuitive teaching operation

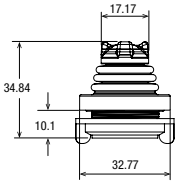
- **Short body** switches for slim pendant design
- **Intuitive** axis operations for simplified teaching

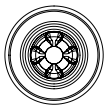
Metal Threaded Housing

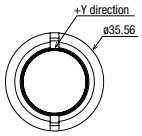




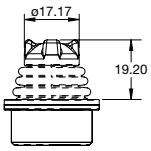
Plastic Threaded Housing



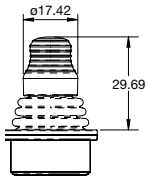




Handle options



1 castle



4 fingertip

Dimensions in mm

Series	Durability	Output Type	Supply Voltage Range	IP Protection Degree	EMC Immunity Level	EMC Emission Level	ESD
TS	1 million operations	Single, dual, analog, PWM, USB	5.00V DC ± 0.01	IP67/IP69K	EN61000-4-3	EN61000-6-3: 2001	EN61000-4-2

Application: **Hand Guide / Teaching Pendant**

Achieves intuitive operability

AV Series

Metal Switches

Metal switches for use in harsh environments

- **Metal** design durable against cleaning agents for washing robots
- Metal appearance gives a **high-class** impression to the robot.

*1 Differs depending on model.

Series	Mounting Hole Size (mm)	Output Type	Electrical Durability	Mechanical Durability	IP Protection Degree
AV	ø22 to ø30	Contact output	500,000 operations	1 million operations	IP65/IP67/IP69K

Application: **Direct Teaching**

Robust and smart design

RU/RJ/SU/RJ Series

Relays/Push-in Sockets

High-Performance Easy-to-Use Relays/Sockets

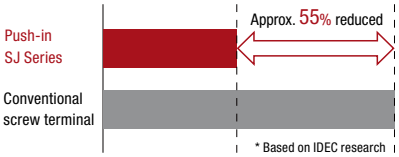
- Push-in terminals save up to 55% in wiring time (*1)
- RJ relays with large switching capacity. Slim and compact design (12.7 mm) acheives downsizing of panel boards
- Push-in terminals reduce maintenance work such as tightening of screws

*1 Compared with conventional screw terminal (Based on IDEC research)

Reducing Man-Hours & Improving Efficiency

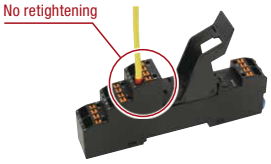
Save up to 55% in wiring time

Wiring time reduced greatly compared with conventional screw terminals. (Compared with IDEC products)



Reduce maintenance work

Push-in terminals eliminate the need for torque maintenance such as tightening of screws because screws are not used.



Safe & easy

Equipped with a release lever

The release lever easily holds and removes the relay.

Series	Allowable Switching Current	Mechanical Durability	International Standards			
			UL	CSA	TÜV (VDE)	CE
RJ	RJ1S (1 pole) : 12 A RJ2S (2 poles) : 8 A	AC coil: 30 million operations minimum (operationg frequency: 18,000 operations per hour) DC coil: 50 million operations minimum (operationg frequency: 18,000 operations per hour)	●	●	●	●
RU	RU2 (2 pole) : 10 A RU4 (4 pole) : 6 A RU42 (4-pole) (bifurcated) : 3 A	RU2, RU4: AC: 50 million operations or more, DC: 100 million operations minimum RU42: AC: 50 million operations or more, DC: 50 million operations minimum (operation frequency: 18,000 operations per hour)	●	●	●	●

Application: **Robot Controller, Robot System Control Panel**

Improved Workability and Efficiency in Combination with Push-in Connection Socket

IDEC

30 COMPANIES

75 YEARS OF EXPERIENCE

3,780 EMPLOYEES WORLDWIDE

100 000 + REFERENCES

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