



INDUSTRIAL

CONTROL &

AUTOMATION

PRODUCT

GUIDE



Think Automation and beyond...



SWITCHES AND PILOT DEVICES



N SERIES Ø30mm

- Heavy duty control units with high reliability
- Variety of models with up to maximum 10A contact rating
- Durable nylon 66 housing with silver contacts
- LED or incandescent illumination
- IP65 protection
- UL and CSA approved
- EN compliant

TWS SERIES Ø25mm

- Heavy duty control units with high reliability
- Modular construction for maximum flexibility
- Transformer or full voltage
- LED or incandescent illumination
- IP65 protection
- UL and CSA approved
- EN compliant



TW SERIES Ø22mm

- Highly reliable contacts, long life design
- Snap-on mount contact block and transformers
- High contact rating with 10A continuous current
- IP65 protection
- UL and CSA approved
- EN compliant

YW METAL BEZEL SERIES Ø22mm

- Compact and light weight
- IP20 finger-safe screw terminals (IEC 60529)
- Separate contact blocks make installation and removal easy
- Matted-surface buttons, lenses and bezels reduce reflection of ambient light
- UL, c-UL listed, EN compliant and CCC approved



YW SERIES Ø22mm

- Tamper proof construction
- Cost effective, high performance
- Finger-safe screw terminal
- Locking lever removable contact blocks
- Pilot lights feature a large lens to ensure wide viewing angle
- Non-glare matte surfaces on the button, lens and bezel reduce reflection of ambient light
- UL, c-UL approved, EN compliant

HW SERIES 66mm JUMBO DOME PILOT LIGHTS

- Lens size Ø66mm, mounting hole size Ø22mm
- Clear and easy recognition from a distance
- Brilliant and prominent from sides
- Available in six lens colours (Amber, Green, Red, Blue, White, Yellow)
- LED or incandescent illumination



HW SERIES DUAL PUSHBUTTONS Ø22mm

- Momentary and interlock types
- Interlock type prevents both buttons from being pressed at the same time
- Pilot lights are available in full voltage and transformer types illuminated with LED or incandescent lamps
- UL, CSA approved, and EN compliant

L6 SERIES Ø16mm

- Light duty control units with locking lever and removable contacts
- Bright LED illumination
- Gold-clad cross bar contacts and silver contacts
- UL recognized, CSA certified (except buzzers)
- EN compliant (except buzzers), RoHS compliant
- IP65 protection



H6 SERIES Ø16mm

- Ideal for heavy duty applications
- Separate contact block makes installation and removal easy
- Large operators: bezel size (Ø24mm, 24x24mm)
- Shock and vibration resistant rugged design
- High operating force and long stroke prevent inadvertent operation
- IP65, UL recognized, CSA certified
- EN compliant

A SERIES Ø8, Ø10, Ø12, Ø16mm

- Light-touch operator with short body
- Variety of operator types and colours
- Bright and clear illumination face with LED lamps
- Available in enclosed (IP40) and oil tight (IP65) types
- SPDT or DPDT gold-clad silver contacts
- Flush mounting available





AP SERIES Ø8, Ø10, Ø12, Ø16mm

- Space saving miniature style
- Built-in protection diode and resistor
- Dome or flat lenses
- Five illumination colours : Red, Green, Amber, Yellow, White
- Solder terminals, Built-in current limiting resistor
- Three power voltages : 6, 12, 24V DC
- IP65 rated (AP8 series : IP40)

MC SERIES

- Super bright LED or incandescent lamps
- Rectangular and square body types
- Removable contact blocks promote easy PCB mounting
- Snap-action switching contacts
- Slow-action and maintained types also available
- Illumination face division :
 Full to 4-way split (MC3D) or 2-way split (MC2D)
- UL and c-UL recognized, EN compliant



XN SERIES E-STOPS Ø30mm

- 4-contact Emergency stop switch
- Padlockable type, flush bezel type, 60mm jumbo mushroom, illuminated type, LED push-on type are available
- Safety lock mechanism, Direct opening action
- IDEC's original "Safe break action" and safety potential structure ensure highest level of safety
- Gold-plated silver contacts
- RoHS compliant

YW SERIES E-STOPS Ø22mm

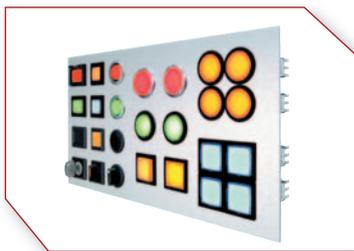
- Two operations in the same switch: Pushlock-pull-reset and Pushlock-turn-reset
- Safety lock mechanism
- Direct opening action
- Illuminated and non-illuminated types
- IP20 finger-safe screw terminals (IEC 60529)
- UL, c-UL listed, EN compliant
- UL508, CSA C22.2 No. 14, EN 60947-1, EN 60947-5-1, GB 14048.5



XA / XW SERIES E-STOPS Ø16 / 22mm

- Technologically advanced "Safe Break Action" models
- Pushlock turn reset and push-pull functions built into same unit
- Direct opening action mechanism (IEC60947-5-5, 5.2, IEC60947-5-1, Annex K)
- Safety lock mechanism (IEC60947-5-5, 6.2)
- 40mm button size (XA), 40mm & 60mm button size (XW)
- UL, c-UL approved, EN compliant

FLUSH SILHOUETTE



LW SERIES

- Ø25.3mm round panel cut-out, 24.5mm square panel cut-out
- Plastic or metal bezels
- Collective mounting possible
- Separate type control units with a locking lever enable easy installation even when mounted collectively
- Gold (gold-clad silver) or silver contacts
- IP65 protection
- UL and CSA approved
- EN compliant

DISPLAY UNITS

DD3S, DD48, D96, SD24 & SD72 SERIES

- Super bright LED for easy viewing
- Various character sizes
- Binary, Decimal, Hexadecimal and Extra Decimal display types
- Positive or negative input logic
- Easy wiring and maintenance using plug-in connectors
- Horizontal row or vertical row mounting models also available



COMBINATIONS DISPLAY LIGHTS



SLC 30/40 SERIES

- Up to 200 windows (SLC30), 105 windows (SLC40)
- Various illumination face types
- Six lens colours for LED/incandescent illumination
- High brightness and low current consumption
- Blue LED illumination also available

SLD SERIES

- Full, two-way or three-way splits
- Seven frame sizes from DIN 36x36 mm to DIN 48x96 mm
- Six lens colours
- LED or incandescent illumination
- Easy wiring
- UL and c-UL listed, EN compliant



flush silhouette

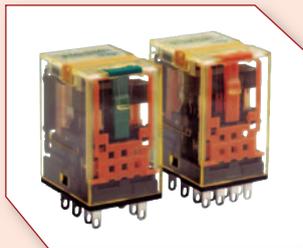
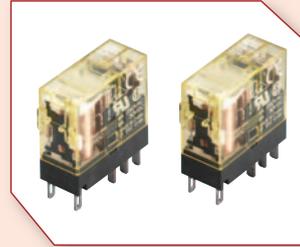
display units

combinations display lights

GENERAL PURPOSE RELAYS

RJ SERIES SLIM POWER RELAYS

- Compact housing: only 12.7mm wide
- Large contact rating: RJ1S (1-pole)-12A, RJ2S (2-pole)-8A
- Excellent electrical and mechanical life Electrical life: 200,000 operations (AC load) Mechanical life: 30 million operations (AC coil)
- Non-polarized LED indicator available
- RoHS compliant
- Diode type: Diode reverse withstand voltage -1000V



RU SERIES UNIVERSAL RELAYS

- Two terminal styles: plug-in and PCB mount
- Non-polarized LED indicator available on plug-in type
- No internal wires, lead-free construction
- Cadmium free contacts
- Manual latching lever with color coding for AC or DC coil
- Snap-on yellow marking plate; optional marking plates are available in four different colors
- Maximum contact ratings: 10A (RU2), 6A (RU4), 3A (RU42)

RM SERIES MINIATURE POWER RELAYS

- Miniature, light weight relays
- 5A contact capacity: 2-pole
- Optional indicator and check buttons



RY SERIES MINIATURE RELAYS

- Contact ratings: DPDT- 3A, 4PDT-5A
- Bifurcated contacts also available
- Wide variety of terminal styles available
- Variety of coil voltages to cover any application
- All 4PDT models have arc barriers

RR SERIES POWER RELAYS

- Heavy duty, power type relays
- 10A contact capacity: 1, 2 or 3 poles
- Available in pin or blade terminal styles
- DIN rail, surface and panel mount sockets allowing variety of mounting styles
- Options include an indicator, check button and side flange



RH SERIES MINIATURE POWER RELAYS

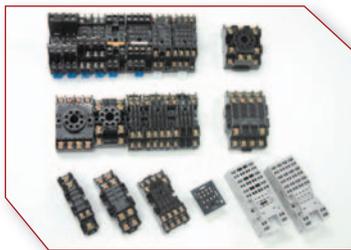
- Miniature power relays with large capacity
- 10A contact capacity: 1, 2 or 3 poles
- Compact size saves space

RQ SERIES PC BOARD RELAYS

- Compact, Low profile: 16mm high
- Contact rating: 8A (DPDT) and 12A (SPDT)
- For larger power needs, a power relay with 16A contact (SPDT) is also available
- LED / Diode plug-in modules available with DIN rail socket



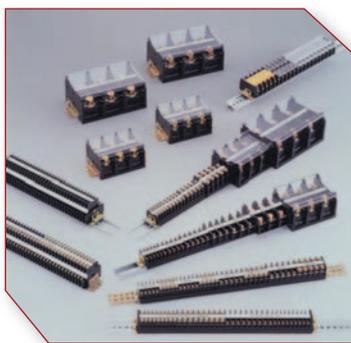
SOCKETS



SR, SH, SM, SY, SJ, DF, SU SERIES

- Wide variety of mounting styles and models
- DIN Rail snap-mount/Surface mount : SU, SJ, SR, SH, SY, SM, DF series
- Through panel mount : SR, SH, SY series
- PCB mount : SH, SY series
- Cost effective, high performance
- Finger-safe terminals
- Hold-down springs and clips
- UL recognized
- CSA certified, CE approved

TERMINAL BLOCKS

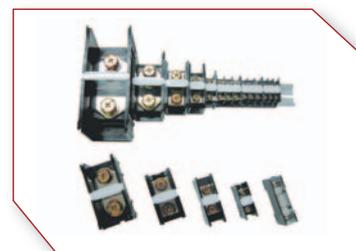


BN/BNH SERIES

- Touch-down terminal contact blocks reduce wiring time
- Moulded from UL94-V0 material with an excellent resistance against flames and shocks
- The terminal blocks can be mounted on 35mm DIN rail, 30mm IEC type C rail and IDEC's type BNP track base
- The 9.5mm wide marking strip can be used for all series, wide enough to write many letters
- When mounting terminal blocks of different current capacities side by side, no end plate is needed between the terminal blocks
- Large capacity types (BN200, BN300 and BN400) are also available for direct mounting on panel surfaces
- Also available with a fuse or disconnecting switch
- UL recognized, CSA certified

BA-DIN SERIES

- Quick mount terminal blocks
- Current carrying capacity ranges from 16 to 400A, with a rated insulation voltage of 600V
- No separator is needed
- Available in three circuit types, and with a fuse or disconnecting switch
- Rugged construction with fire resistant (self-extinguishing) properties
- Large capacity types (BA811S and BA911S) can also mount directly on panel surfaces
- Marking accessories and dust covers are available
- UL recognized and CSA certified models are also available



TIMERS



GT3 / GT5Y / GT5P / GEIA SERIES

- Various time ranges (0.01 sec to 180 hours: depends on the model)
- Multiple operating modes (depends on the model)
ON delay, Interval ON, Flicker and One shot
- High accuracy and compact size
- Power and timing out LED indicators
- Worldwide approvals

PROGRAMMABLE LOGIC CONTROLLERS (PLCs)



FC5A SERIES *pentra*-MicroSmart

- Two types of CPU modules: All-in-one and slim
- AC or DC models (100-240V AC or 24V DC)
- Expand up to 512 I/O (slim type), 88 I/O (All-in-one)
- One built-in RS232 communications port
- Maximum communications ports: SEVEN (Slim) and FIVE (All-in-one)
- Built-in MODBUS Master and Slave protocols and ASCII communications
- Floating-point math with double word calculations
- HSC and PULSE outputs : Max 100KHz
- DIN rail or surface mounting
- Class 1 Div 2 rated for hazardous locations (UL1604) and Lloyd's approved for marine applications
- Worldwide approvals

FC4A SERIES- MicroSmart

- Two types of CPU modules: All-in-one and slim
- AC or DC models (100-240V AC or 24V DC)
- Expand up to 264 I/O (slim type), 88 I/O (All-in-one)
- One built-in RS232 communications port (can be expanded to a maximum of 2 ports)
- ASCII and MODBUS communications
- DIN rail or surface mounting
- Class 1 Div 2 rated for hazardous locations (UL1604) and Lloyd's approved for marine applications
- Worldwide approvals



FL1D Series – SmartRelay

- Two types of models (with LCD or without LCD display)
- Expand up to 50 I/O points
- AC or DC models (12-24V DC, 24V DC, 24V AC, 100-240V AC)
- 2000 byte program capacity
- Two built-in Analog inputs (0-10V DC)
- Expansion Analog outputs (max 2-channels)
- DIN rail mounting
- Class 1 Div 2 rated for hazardous locations (UL1604) and Lloyd's approved for marine applications
- Worldwide approvals

OPERATOR INTERFACES

SmartTouch TOUCH SCREENS

HG4F (12.1")

- 12.1" TFT LCD
- 256 colours, 800x600 pixel resolution
- Parallel printer port, 10BaseT Ethernet port
- 6MB memory, compact flash support
- Built-in real-time clock
- RS-232, RS-485 and RS-422 compatible
- User communications functions enable connection to barcode readers and other serial devices

HG3F (10.4")

- 10.4" TFT LCD
- 256 colours, 640x480 pixel resolution
- Parallel printer port, 10BaseT Ethernet port
- 6MB memory, compact flash support
- Built-in real-time clock
- RS-232, RS-485 and RS-422 compatible
- User communications functions enable connection to barcode readers and other serial devices

HG2F (5.7")

- 5.7" STN LCD
- 256 colours, 320x240 pixel resolution
- Available in colour or monochrome
- Serial printer port
- 2MB memory, compact flash support
- Built-in real-time clock
- RS-232, RS-485 and RS-422 compatible
- User communications functions enable connection to barcode readers and other serial devices

HG1F (4.6")

- 4.6" High-contrast monochrome LCD
- 300x100 pixel resolution
- Windows font support
- Analog touch panel with 1MB memory
- User communications functions enable connection to barcode readers and other serial devices
- Thin housing style: only 35.3mm depth behind the panel



operator interfaces



HG1X 2-Line, 4-Line & 8-Line CHARACTER DISPLAYS

2-Line Display

- 2x16 characters
- Six programmable function keys

4-Line Display

- 4x20 characters
- Eight programmable function keys, built-in keypad

8-Line Display

- 8x20 characters
- Four programmable function keys, built-in keypad

- *All touch screens and character display products communicate with Idec and other major PLC brands.*
- *All touch screen and character display products are Class 1 Div 2 (UL1604) rated for hazardous locations.*

POWER SUPPLIES



PSSR SLIM SERIES

- Compact and light weight
- Universal input
- Wide power range: 10W to 240W
- Meets SEMI F47 Sag immunity (120W & 240W)
- DIN rail or surface mount. Optional mounting bracket available for panel surface mount
- Over current & over voltage protection
- IP20 finger-safe, spring-up screw terminals
- RoHS compliant
- CE marked, TUV, c-UL, UL508, UL1310, UL1604

PS3L METAL SERIES

- Slim style, Wide power range: 10W – 300W
- DIN rail or surface mount / Universal input
- Overcurrent & overvoltage protection
- CE marked, UL, c-UL, TUV approved, UL508 listed, UL1950 recognized



POWER SUPPLIES

SENSORS

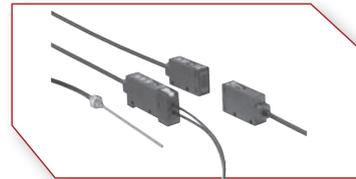


SA1E - Photoelectric

- Simple, compact design
- Four sensing methods
- Long sensing ranges
- High speed response
- IP67 rated

SA1C - Fiber Optic Analogue Photoelectric

- High-speed, miniature photoelectric sensors with analogue & digital output
- Red and Green LEDs
- IP66 rated



SA1W - Water Detection Sensor

- Non-contact water detection
- Fast response: 0.5ms
- Long 800mm sensing range
- Liquid level detection including clear water
- Visible red spot for easy targeting and alignment
- IP66 rated

MX1C - Laser Displacement Sensor

- Non-contact, high resolution sensing
- Sensing range: 60-160mm
- Adjustable response speed
- IP65 rated



SA6A - Ultrasonic Analogue Distance Sensor

- Fuzzy logic for fluctuating environment
- Sensing range: 100-2000mm
- IP54 rated

SA1D - Analogue Distance Sensor

- Sensing range: 200-500mm
- Analogue output for continuous values (4-20mA)
- IP65 rated



SA1J - Full Colour Sensor

- 3-colour/1-colour types
- High sensitivity detects subtle shades of same colour
- Fast response: 0.3ms
- Red, Green, Blue LEDs
- 60mm sensing range
- IP67 rated

EXPLOSION PROOF CONTROL EQUIPMENT

EB3L SERIES LAMP BARRIERS

- IEC60079 compliant
- Universal AC power voltage (100-240V AC)
- No grounding required
- Spring-up terminals minimize wiring time
- 35mm DIN rail or direct screw mounting
- Ø6, Ø8, Ø10, Ø22 and Ø30mm pilot lights available
- Continuous and intermittent sound types available for buzzers (Ø30mm)
- Global approvals - USA: FM, Canada: CSA, Europe: CE & ATEX, Japan: TIIS
- Degree of protection: IP20
- Degree of explosion protection:
 Lamp Barrier: [Exia] II C, Pilot light (separate wiring):
 Exia II CT6, Pilot Light (common wiring): Exia II CT4,
 Illuminated pushbutton: Exia II CT4, Illuminated selector
 switch: Exia II CT4, Buzzer (separate wiring): Exia II CT6



EB3C SERIES RELAY BARRIERS

- IEC60079 compliant
- Universal AC power voltage (100-240V AC)
- No grounding required
- Spring-up terminals minimize wiring time
- 35mm DIN rail or direct screw mounting
- Global approvals
 USA: FM, Canada: CSA, Europe: CE & ATEX, Japan: TIIS
- Degree of protection: IP20
- Degree of explosion protection: Relay Barrier: [Exia] II C
 Switch: Exia II CT6 or Exia II BT6

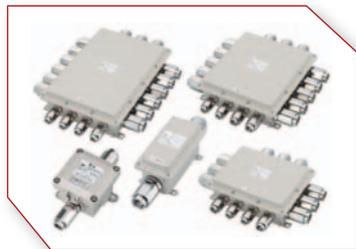
EB4C SERIES

- Compact, lightweight ex-proof & pressure-proof enclosure with EB3C relay barrier
- Input contacts can be used in any ex-proof gas and zone 0 /Class 1 Div 1 areas
- 8 and 16-circuit types available in common wiring types, ideal for connection to PLCs
- Degree of explosion protection: Exd [ia] II BT6



EX1R / EX4R SERIES (display enclosures)

- Can be installed in Class 1 Div 2 hazardous locations
- Lightweight, aluminium-alloy casting enclosure
- Degree of protection: IP65
- Degree of explosion protection: Exd II BT5 (EX1R),
 Exd [ib] II B+H2T4 (EX4R with HG4F panel),
 Exd [ib] II BT4 (EX4R without HG4F panel)
- IEC 60529 compliant



EJ1A SERIES (connection enclosures)

- Explosion and pressure proof enclosure
- All types provided with hinges
- Touch-down terminal blocks for easy, efficient connection
- Degree of protection: IP65
- Degree of explosion protection: Exd II BT4 & d2G4

EJ5A SERIES (connection enclosures: increased safety)

- Can be used in Class 1 Div 2 hazardous areas
- Made of corrosion-resistant stainless steel
- Touch-down terminal blocks for easy, efficient connection
- Degree of protection: IP65
- Degree of explosion protection: Exe II T6

CONTROL STATIONS



KGNW SERIES/KGN SERIES

- One to four hole models (KGNW)
- One to five hole models (KGN)
- Made of sheet steel material
- KGNW: Applicable to Idec Ø22mm TW series control units
- KGN: Applicable to Idec Ø30mm TW series control units
- Wall mount only
- Degree of protection: IP40

AGAW SERIES/AGA SERIES

- One to four hole models (AGAW)
- One to five hole models (AGA)
- Made of die-cast aluminium
- AGAW: Applicable to Idec Ø22mm TW series control units
- AGA: Applicable to Idec Ø30mm TW series control units (except enclosed type units)
- Wall mount and stand mount types
- Stand pole (Carbon steel pipe with cast iron base)
- Degree of protection: IP65



AGS SERIES

- Various types available to support different wire inlets and attachments
- Wide variety of combinations
- Optional Buff-finished types are also available
- Corrosion and weather resistant stainless steel enclosure
- Degree of protection: IP65



EC2A SERIES

- Corrosion, weather resistant stainless steel box
- Wall mount or stand mount types
- Applicable in areas, filled with all types of explosive gases
- Degree of protection: IP65
- Degree of explosion protection: Exde II CT6
- Conforms to IEC standards
- Certified to use in division 1 or 2 hazardous areas





FB SERIES

- Light weight, rugged plastic
- Compatible with Ø22mm control units
- Blank control boxes without mounting holes are also available
- Blank control boxes can also be used as junction boxes to mount terminal blocks
- Yellow cover version for emergency stop switches is also available
- Front panel mounting, rear panel mounting, hook mounting and frame mounting is possible
- Degree of protection: IP65

SAFETY PRODUCTS



HS6B SERIES SUBMINIATURE INTERLOCK SWITCHES

- World's smallest switch: 30 x 15 x 78mm
- Dual and monitor contacts achieve the highest safety category (ISO 13849-1, EN 954-1)
- Two actuator entry slots provide flexibility
- Can be mounted in two directions
- NC contacts are direct opening action (IEC/EN 60947-5-1)
- Proprietary actuators prevent unauthorized opening of the contacts (ISO14191, EN1088)
- Degree of protection (contacts) : IP67 (IEC 60529)

HS6E SERIES SUBMINIATURE INTERLOCK SWITCHES (WITH SOLENOID)

- Compact body: 75 x 15 x 75mm
- 15mm-wide, thinnest solenoid type interlock switch in the world
- Reverse mounting and angled cable allow four actuator insertion directions
- Energy saving, 24V DC, 110mA (solenoid: 100mA, LED:10mA)
- Manual locking possible on three directions
- RoHS compliant
- LED indicator shows solenoid operation



HS5B SERIES MINIATURE INTERLOCK SWITCHES

- Compact body: 30 x 30 x 91mm
- Double insulation structure eliminates the need for grounding
- The head orientation can be changed, allowing 8 different actuator entries
- RoHS compliant
- Degree of protection (contacts) : IP67 (IEC60529)
- NC contacts are of direct opening action (IEC/EN60947-5-1)

HS5E SERIES MINIATURE INTERLOCK SWITCHES (WITH SOLENOID)

- Compact body: 35 x 40 x 146mm
- Four-pole internal switches
- Gold plated contacts
- Spring lock and solenoid lock types
- LED indicator to indicate the solenoid status
- The head orientation can be rotated to, allowing 8 different actuator entries
- Degree of protection: IP67 (IEC60529)
- RoHS compliant



HS1E SERIES INTERLOCK SWITCHES (WITH SOLENOID)

- Basic unit and solenoid unit in one housing
- Light weight plastic housing
- Spring lock and solenoid types
- Equipped with two actuator entry slots
- Double insulation structure
- Degree of protection: IP67 (IEC60529)

HS1B/HS2B SERIES INTERLOCK SWITCHES

- Detection of opening or closing status of a door
- NC contacts feature direct opening mechanism (IEC/EC 60947-5-1)
- Detects entry to hazardous areas when mounted on safety guards
- Two actuator entry slots and three conduit ports are built-in
- HS1B : Rugged die-cast aluminum housing
- HS2B : Compact and lightweight plastic housing

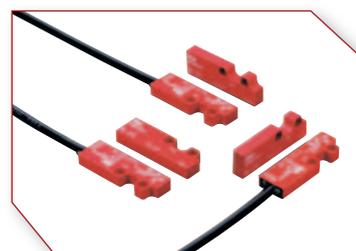


HS1C SERIES INTERLOCK SWITCHES (WITH SOLENOID)

- With actuator mounted on the door and the interlock mounted on the machine, the door is mechanically locked when closed
- The door is unlocked by a solenoid lock-release signal from a PLC or another source
- In the event of a power failure or machine maintenance, door can be unlocked using special tool
- Flexible installation: The actuator can be inserted in two directions
- IP67 rated rugged die-cast aluminum housing

HS7A SERIES NON-CONTACT INTERLOCK SWITCHES

- Compact size: 7 x 16 x 51mm
- Easy installation on any position
- Up to 36 sets can be connected to IDEC safety relay module HR1S-DME
- Degree of protection: IP67
- Three contact types are also available
- Conforms to safety category 4 (EN954-1)
Combining with proprietary safety relay module achieves safety category 4.





HE1G SERIES GRIP SWITCHES

- Ergonomically designed OFF-ON-OFF operation
- Two contacts are provided so that if one fails, the other can disable the machine operation
- E-stop switch and momentary push button version are available
- Cable gland included
- Can be used in applications where ANSI robot standards are required
- Direct opening action mechanism for shifting from position-2(ON) to position-3(OFF)

HR1S SERIES SAFETY RELAYS

- Fault diagnosis function with dual safety circuits
- Internal relay operations can be monitored with LED indicator
- Finger-safe protection, DIN rail mounting
- Standard or off-delay types
- Safety circuit expansion unit available
- UL listed, CSA approved, GB approved
- EN, IEC compliant



SE4B SERIES LIGHT CURTAINS

- Conforms to safety category 4
- Detects objects as small as $\text{Ø}30\text{mm}$
- Long 15m operating distance
- 11 types available depending on the detection range (147 to 1617mm)
- Optical alignment can be confirmed by four LEDs on the receiver side
- Metal and plastic mounting brackets included
- Laser pointer ensures optical alignment of long operating distance

Specifications and other descriptions in this catalogue are subject to change without notice



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