PRODUCT GUIDE

SENSORS
CONTROLLERS
MOTION DEVICES
PROCESS AUTOMATION
CONNECTORS/CABLES
CONTROL SWITCHES

BC Series
Color Mark Sensors

CE

Full Color Spectrum Detection | **Various Detection Modes** | **Display Reference Color** | **Compact Spot Size**

Color Match / Mismatch Output Mode Switch | **External Light Interference Reduction** | **IP67**

Outstanding Color Matching Accuracy

BC15-LDT-C

FEATURES

● Outstanding color matching accuracy
  - RGB light emitting diodes and 12-bit resolution
  - 2 detection modes (color only / color + intensity)
  - 3-step sensitivity adjustment for each mode (fine, normal, rough)
● External light interference reduction minimizes errors and allows stable detection
● Check reference color with teaching indicator
● Operation indicator (red LED), stability indicator (green LED), timer indicator (orange LED)
● Configure operation functions with external input from wiring
● W 1.24 x L 6.7 mm spot size for detection of tiny targets and color marks
● IP67 protection structure (IEC standard)

APPLICATION

● BC series color mark sensors used for presence detection of product labels

● BC series color mark sensors used for error detection during manufacturing processes

● BC series color mark sensors used to check location of package stamping
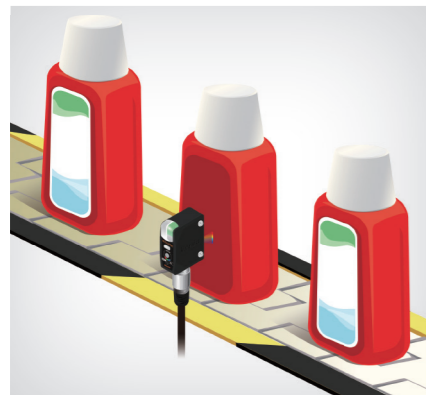
BH Series
M18 Front/Side Mount Photoelectric Sensors

CE UL LISTED

Front/Side Mounting | **Simultaneous NPN/PNP Open Collector Output** | **NPN PNP** | **Up to 20M Long Sensing Distance** | **14mm Compact Size**

M.S.R Function **Mirror Surface Rejection (MSR) Function** | **L/O D/O Simple Operation Mode Switching** | **Operation, Stability Indicators** | **IP67**

Through-beam Type | **Diffuse reflective Type** | **Retroreflective Type**

FEATURES

● Front mounting (M18 nut) or side mounting (M3 screws)
● Simultaneous NPN/PNP open collector output
● Sensing distance:
  - Through-beam type: 20 m
  - Retroreflective type: 4 m
  - Diffuse reflective type: 1 m, 300 mm
● Compact size: W 14 mm x H 34.5 mm x L 28 mm
● Mirror Surface Rejection (MSR) function allows stable detection of highly reflective targets (retroreflective type only)
● Sensitivity adjuster included
● Light ON / Dark ON operation mode switch
● Operation indicator (red LED) and stability indicator (green LED)
● Built-in reverse polarity protection circuit and output overcurrent (short-circuit) protection circuit
● Mutual interference prevention function (except through-beam type)
● IP67 protection structure (IEC standard)

APPLICATION

● BH series front/side mounting photoelectric sensors used for presence detection of aluminum cans during manufacturing process.

Retroreflective Mirror (MS-2A)

BTF / BTS Series
Ultra-Compact, Thin Type Photoelectric Sensors with Built-In Amplifiers

$C \epsilon$

3.7mm Ultra-Thin Size (BTF Series)

Ø0.2 Detect Tiny Targets

7.2mm Ultra-Slim Size (BTS Series)

Ø0.15 Detect Tiny Targets (BTS Series)

Stainless Steel Mounting Brackets

Operation Indicator Stability Indicator

1M Max. Distance

IP67

Remarkably Slim and Compact

BTF Series

BTS Series

FEATURES

[BTF Series]
- Through-beam type (BTF1M): Ø2 mm
- Diffuse reflective type (BTF30): Ø0.2 mm (at distance 10 mm)
- BGS reflective type (BTF15): Ø0.2 mm (at distance 10 mm)
※Detecting distance may vary by environmental factors

[BTS Series]
- Through-beam type (BTS1M): Ø2 mm
- Retroreflective type (BTS200): Ø2 mm (at distance 100 mm)
- Convergent reflective type (BTS15/30): Ø0.15 mm (at distance 10 mm)
※Detecting distance may vary by environmental factors

[Common Features]
● Stability indicator (green LED) and operation indicator (red LED)
● Stainless steel 304 mounting brackets
● IP67 protection structure (IEC standard)

APPLICATION
● BTF series photoelectric sensors used for presence detection of semiconductor wafer enclosure transfer

● BTS series photoelectric sensors used for presence detection of clutches in automatic laser marking machines
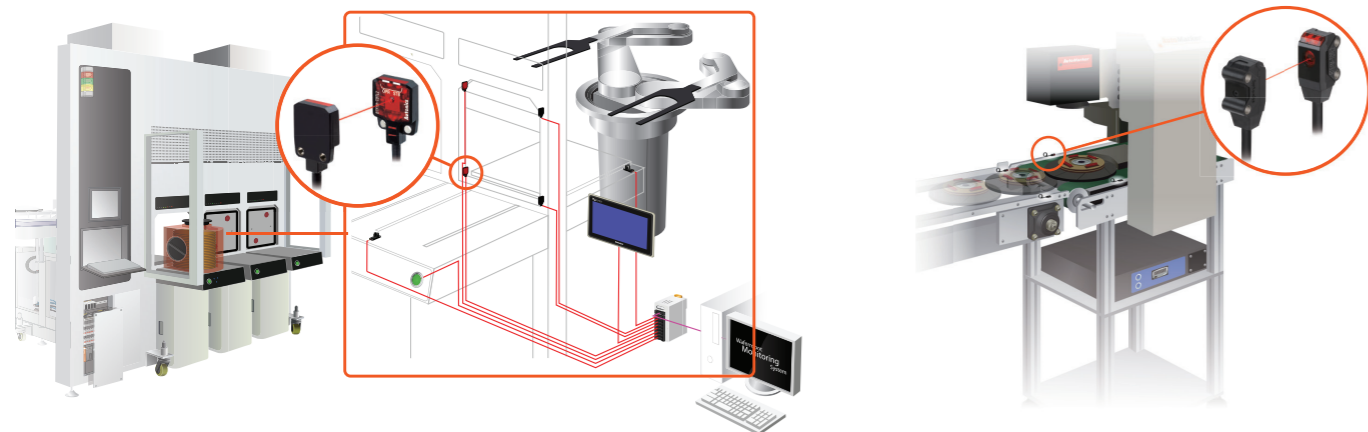
BJ Series
Compact High Performance Photoelectric Sensors

$C \epsilon$

FEATURES
● Various detection type models available: (long distance, BGS reflective, transparent glass, micro spot)
● Compact size: W 10.6 × H 32 × L 20 mm
● Light ON/Dark ON operation mode switch
● Sensitivity adjuster
● Mutual interference prevention function

Connector Type

Cable Type

BS5-P Series
Push Button Type Photomicro Sensors

$C \epsilon$

FEATURES
● Button switch operation ensures accurate detection regardless of material, color, or reflectivity of target objects
● Optimized for transport detection of semiconductor wafer enclosures
● Mechanical life cycle of 5 million operations
● Four operation indicators (red LED) [side: 2, top: 2]
● Stainless steel mounting brackets

BEN Series
Universal AC/DC Photoelectric Sensors with Built-In Amplifiers

$C \epsilon$

FEATURES
● Universal AC/DC models (relay contact output) available
● Light ON/Dark ON operation mode switch
● Sensitivity adjuster (except through-beam types)
● Specialized, high-performance sensor IC
● Output types: relay contact (AC/DC type), NPN/PNP open collector (DC type)

MST Series
Retroreflective Tape

FEATURES
● Attach in settings where mirrors can be difficult to install (i.e. curved surfaces, narrow spaces, moving targets, etc.)
● Can be easily cropped to fit environmental settings
● High retroreflectivity per surface area

MST-50-10 (50 x 50 mm)   MST-100-5 (100 x 100 mm)   MST-200-2 (200 x 200 mm)
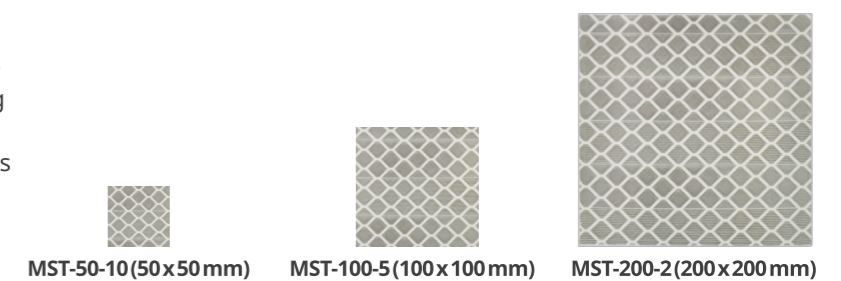
BL Series
Compact Photoelectric Liquid Level Sensors

CE

FEATURES

- Photoelectric sensors for non-contact detection of liquid in transparent pipes
- Detects presence of liquid in transparent pipes (external diameter 6 to 13 mm, <1 mm thick)
- Compact size: W 23 x H 14 x L 13 mm
- Light ON/Dark ON operation mode switch
- Operation mode indicator (greed LED) [Light ON: on, Dark ON: off]
- Operation status indicator (red LED)

※Protection bracket (sold separately)

BR Series
Cylindrical (∅18 mm) Photoelectric Sensors

CE

FEATURES

- Long sensing distance: 20 m (through-beam type)
- Excellent noise resistance with digital signal processing
- High-speed response time under 1 ms
- Sensitivity adjuster (except through-beam type)
- IP66 protection structure (IEC standard)

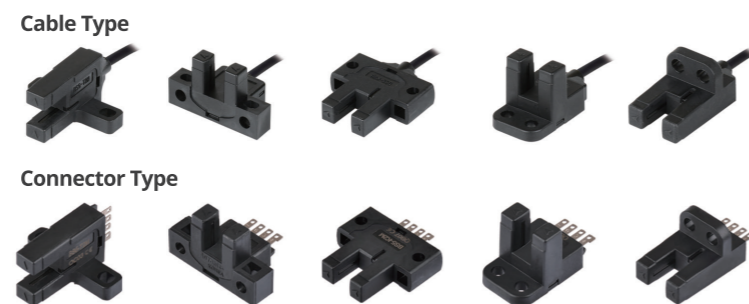**Connector Type**

Cable Type

BS5 Series
Ultra-Compact Photomicro Sensors

CE

FEATURES

- Ultra-compact size with built-in amplifier (NPN or PNP open collector)
- Various shapes available for installation flexibility (K, T, L, Y, V types)
- High-speed response frequency: 2 kHz
- Switch between Light ON and Dark ON modes using control terminal/wire
- Dust resistant build with protection window (emitter/receiver)
- Wide power supply range: 5-24 VDC
- Operation indicator (red LED)

Cable Type

Connector Type

--- Photoelectric Sensors ---

BPS Series
Compact Flat Type

BA2M Series
Long Distance, Diffuse Reflective Type

BYD Series
Compact Standard Type

BMS Series
Side Sensing Type

BX Series
Universal AC/DC Type

BUP Series
U-Shaped Type

BW / BWC / BWP / BWPK Series
Area Sensors / Picking Sensors

CE

FEATURES
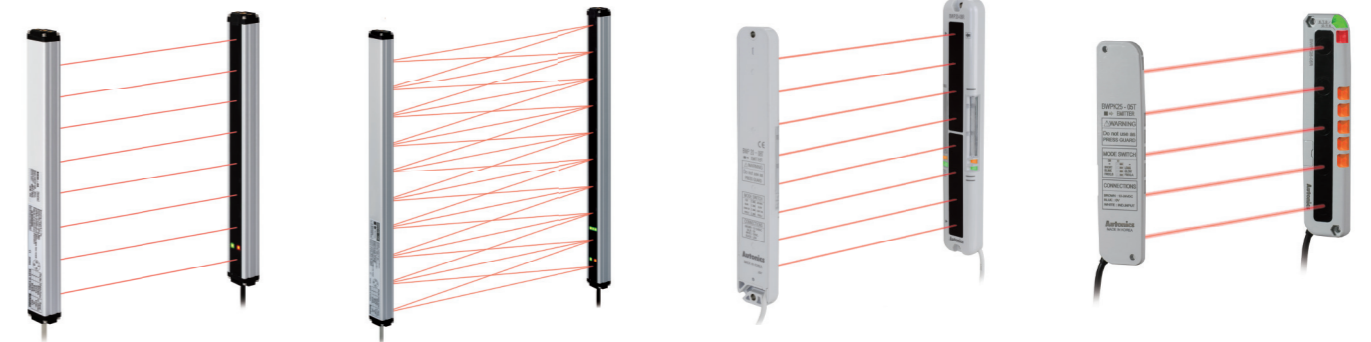
BW Series
General Purpose Area Sensors

BWC Series
Cross-Beam Area Sensors

BWP Series
Flat Body Area Sensors (Plastic Body)

BWPK Series
Flat Body Picking Sensors

- Long sensing distance (up to 7 m)
- Economical, reliable, with diverse configurations

- 3-point cross-beam type area sensors
- Stable detection in bright environments (100,000 lx)

- Slim body (13 mm) with Fresnel lens
- High-speed response time (under 7 ms)

- Slim body (10 mm) with Fresnel lens
- Highly visible job indicators provide clear status identification

Fiber Optic Sensors

BF5 Series
High Speed Single / Dual Digital Display Digital Fiber Optic Amplifiers

CE

FEATURES

- Available in dual and single display models
- Dual digital display for displaying PV and SV (BF5□-D)
- 5 response speeds (50 µs, 150 µs, 500 µs, 4 ms, 10 ms)
- Display range: 0-4000 (standard mode), 0-9999 (long-distance mode)
- Simple sensitivity adjustment settings
- Saturation prevention function, inverted display, mutual interference prevention, auto channel setting function
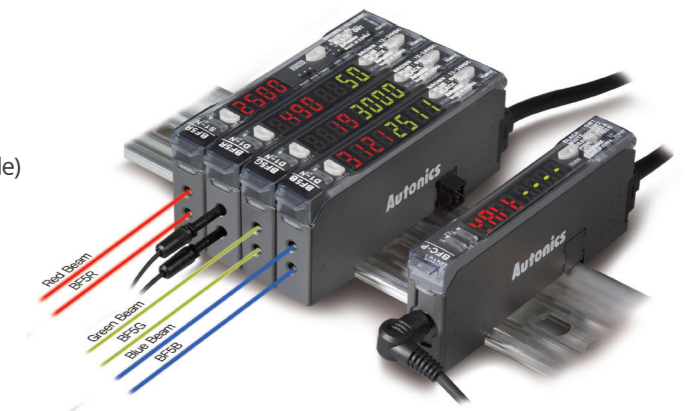
Communication Converters BFC Series

FD / FT / FL / GD / GT Series
Fiber Optic Sensor Cables

FEATURES

- Various cable head types (thread, cylindrical, flat, perpendicular, plastic, area detection)
- Various sensing directions (top, side, flat, L-type top, top + side)
- Various sensing modes (through-beam, diffuse reflective, convergent reflective)
- Various cable types (standard, flexible, coaxial, break-resistant, heat-resistant)
- Diverse line-up, easy installation, high performance
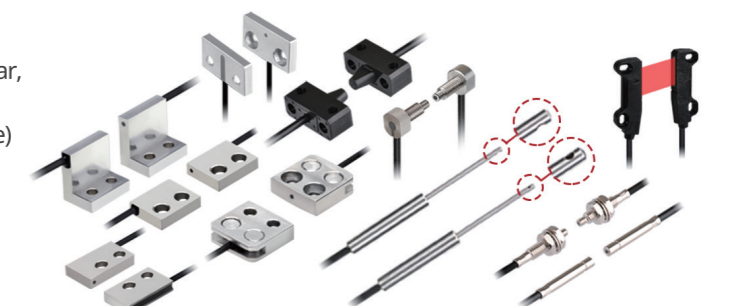
PSQ Series
Dual Display Digital Pressure Sensors

CE c$\mathbf{RL}$us

FEATURES

- Dual display for simultaneous display of process value (PV) and setpoint value (SV)
  *Secondary (SV) display: setpoint value, pressure unit, or display-OFF
- Switch between NPN and PNP open collector output via parameter configuration
- 3-color main (PV) display
  (RUN mode: green/red, parameter setting mode: orange)
- 12-segment LCD display capable of diverse alphanumeric characters
- Measurement range: -100.0 to 100.0 kPa / -100 to 1000 kPa
  (Pneumatic type: compound pressure, Fluid type: sealed gauge pressure)
- Display resolution: 0.1 kPa / 1 kPa (by model)
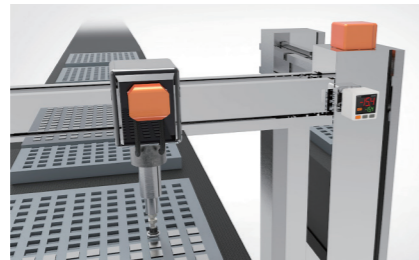
Pneumatic Type   **Fluid Type**

APPLICATION

- PSQ series pressure sensors used for air-leak test of PET bottles
- PSQ series pressure sensors used for suction confirmation of semiconductor components
- PSQ series pressure sensors used to confirm reference pressure of pipes.

PSAN Series
Compact Digital Pressure Sensors

CE

FEATURES

- Pressure measurement of any gas, liquid or oil
- High display resolution:
  - negative, compound pressure 0.1 kPa
  - standard pressure 0.1 kPa, 1 kPa
- Auto shift function, hold function
- Independent 2-point output (N.O. / N.C. output selectable)
- Zero-point adjustment function, peak value monitoring function, chattering prevention function

Fluid Type (Cable Type)   **Fluid Type (Connector Type)**   **Pneumatic Type (Connector Type)**

APPLICATION

- PSAN series pressure sensors used to measure the pressure of water sprays in a potato washing conveyor belt

PRF(A) Series
Full-Metal Cylindrical Inductive Proximity Sensors

CE

| Full-Metal Housing | Thick Sensor Head | Operation Indicator | Prevent Malfunction Due to Spatter (PRFA) | Strong Against Impact and Wear | Various Protection Circuits | IP67 |

0.8 mm · 360°

Ø 30 mm
Ø 18 mm
Ø 12 mm

**PRF Series**

Ø 30 mm
Ø 18 mm
Ø 12 mm

PRFA Series

FEATURES

- High resistance to impact and wear caused by contact with workpieces or wire brushes (sensor head/housing: stainless steel)
- Reduced risk of malfunction caused by aluminum chips
- PTFE coating prevents malfunctions caused by welding spatter (spatter-resistant models)
- Exellent noise immunity with specialized sensor IC
- Built-in surge protection circuit and overcurrent protection circuit
- 360° ring type operation indicator (red LED)
- Oil resistant cable
- IP67 protection structure (IEC standard)

APPLICATION

- PRF series full-metal inductive sensors used to detect tray locations on food cleaning machines.
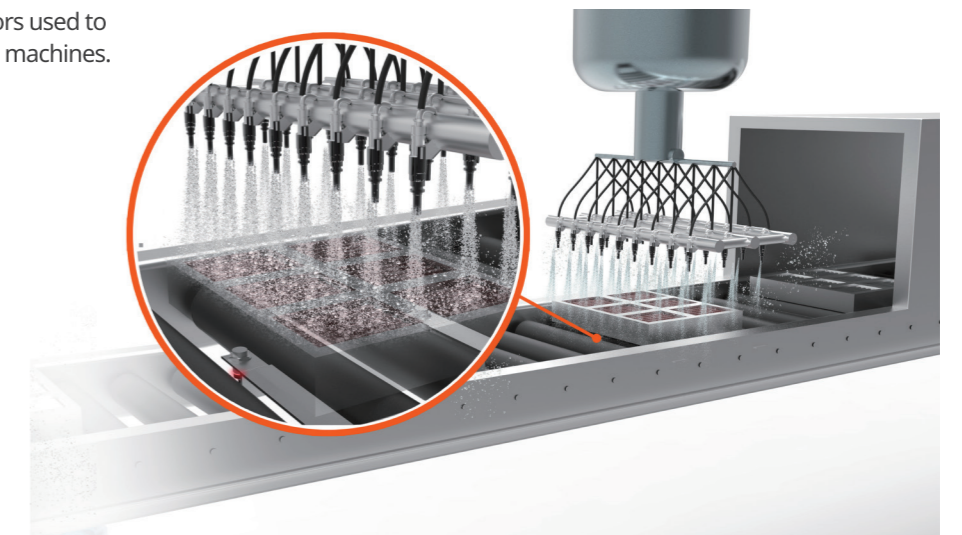
PR Series

Standard Cylindrical Inductive Proximity Sensors $C\epsilon$

FEATURES

- Excellent noise resistance with specialized sensor IC
- Built-in surge protection circuit, reverse polarity protection circuit (DC 3-wire types), and overcurrent protection circuits (DC types)
- Operation indicator (red LED)
- Durable and reliable alternative to micro switches and limit switches
- IP67 protection structure (IEC standard)

PR(T) Series
Cable Type

PRCM(T) Series
Connector Type

PRW(T) Series
Cable Connector Type

PRD Series

Cylindrical Inductive Proximity Sensors With Long Sensing Distance $C\epsilon$

FEATURES

- Long sensing distance and excellent noise resistance with specialized sensor IC
- Simple operation, reliable performance, and high durability
- Built-in surge protection circuit, reverse polarity protection circuit, and overcurrent protection circuits
- Operation indicator (red LED)
- IP67 protection structure (IEC standard)

PRD(T) Series
Cable Type

PRDCM(T) Series
Connector Type

PRDW(T) Series
Cable Connector Type

PRA Series

Cylindrical Spatter-Resistant Inductive Proximity Sensors $C\epsilon$

FEATURES

- Coated with teflon for high heat resistance (prevent malfunction from welding spatter)
- Excellent noise resistance with specialized sensor IC
- Built-in surge protection circuit
- Built-in overcurrent protection circuit (DC 2-wire, DC 3-wire types)
- Built-in reverse polarity protection circuit (DC 3-wire types)

PRA(T) Series
Cable Type

PRACM(T) Series
Connector Type

PRAW(T) Series
Cable Connector Type

PRDA Series

Cylindrical Spatter-Resistant Inductive Proximity Sensors with Long Sensing Distance $C\epsilon$

FEATURES

- Coated with teflon for high heat resistance (prevent malfunction from welding spatter)
- Long sensing distance and excellent noise immunity with specialized sensor IC
- Built-in surge protection circuit, reverse polarity protection circuit, and overcurrent protection circuits
- Durable and reliable alternative to spatter-resistant limit switches

PRDA(T) Series
Cable Type

PRDACM(T) Series
Connector Type

PRDAW(T) Series
Cable Connector Type

PS/PSN Series

Rectangular Inductive Proximity Sensors with Various Sizes $C\epsilon$

FEATURES

- Excellent noise resistance with specialized sensor IC
- Long life cycle, reliable performance, economical, and easy-to-install
- Built-in surge protection circuit
- Built-in reverse polarity protection circuit (DC 3-wire types)
- Built-in overcurrent protection circuit (DC types)
- Operation indicator (red LED)
- IP67 protection structure (IEC standard)

PSN17   **PSN25**   **PS50**

PFI Series

Flat Type Inductive Proximity Sensors $C\epsilon$

FEATURES

- Flat design (10 mm height) allows easy installation in limited spaces
- Excellent noise resistance with specialized sensor IC (DC types)
- Built-in reverse polarity protection circuit, overcurrent protection circuit (DC types)
- Built-in surge protection circuit
- Operation indicator (red LED)
- Durable and reliable alternative to micro switches and limit switches
- IP67 protection structure (IEC standard)

AS Series

Rectangular Inductive Proximity Sensors with Long Sensing Distance $C\epsilon$

FEATURES

- Long sensing distance of 50 mm
- Excellent noise immunity with specialized sensor IC
- Built-in surge protection circuit, reverse polarity protection circuit, and overcurrent protection circuits
- Power supply: 12-48 VDC (operating voltage: 10-65 VDC)
- Simultaneous output (Normally Open + Normally Closed)
- Power indicator (greed LED) and operation indicator (red LED)
- IP67 protection structure (IEC standard)

CR Series

Cylindrical Capacitive Proximity Sensors

FEATURES

- Detect various materials including metal, iron, stone, plastic, water, and grain
- Long life cycle and reliable performance
- Built-in surge protection circuit, reverse polarity protection circuit (DC types)
- Built-in surge protection circuit (AC types)
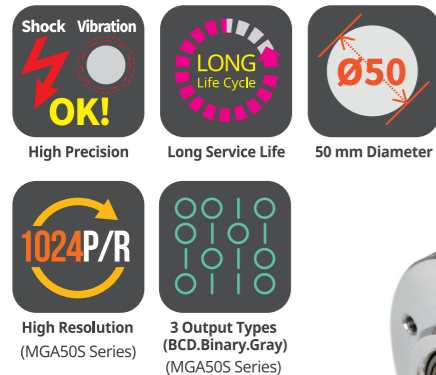- Built-in sensitivity adjuster for easier configuration
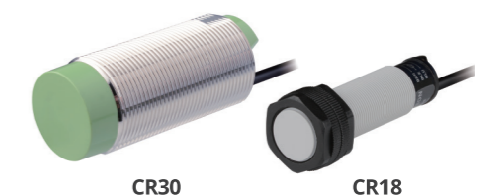
CR30   **CR18**

MGA50S / MGAM50S Series

Shaft-Type Ø50 mm Magnetic Absolute Rotary Encoders

CE

Shock Vibration
OK!
High Precision

LONG
Life Cycle
Long Service Life

Ø50
50 mm Diameter

1024P/R
High Resolution
(MGA50S Series)

0010
0101
0101
0110
3 Output Types
(BCD.Binary.Gray)
(MGA50S Series)

High precision under any condition

MGA50S Series
(Single-Turn)

MGAM50S Series
(Multi-Turn)

FEATURES

[Magnetic Encoders]
- High accuracy in harsh environments including shock, vibration, dust, and humidity (compared to optical sensors)
- Longer service life compared to optical encoders

[MGA50S Series]
- Various output codes available: BCD, binary, Gray
- Various resolutions available:
  32, 40, 45, 48, 64, 90, 128, 180, 256, 360, 512, 720, 1024 divisions
- Power supply: 5 VDC ±5%, 12-24 VDC ±5%
- IP50 protection structure (IEC standard)

[MGAM50S Series]
- Output code: binary
- Control output types: Parallel / SSI
- 23-bit (8388608) total resolution
  - Single-turn: 10-bit (1024 divisions)
  - Multi-turn: 13-bit (8192 revolutions)
- IP50 protection structure (IEC standard)

APPLICATION

- MGAM50S series magnetic absolute rotary encoders used to control the rotation angle of solar panels in relation to the position of the sun.
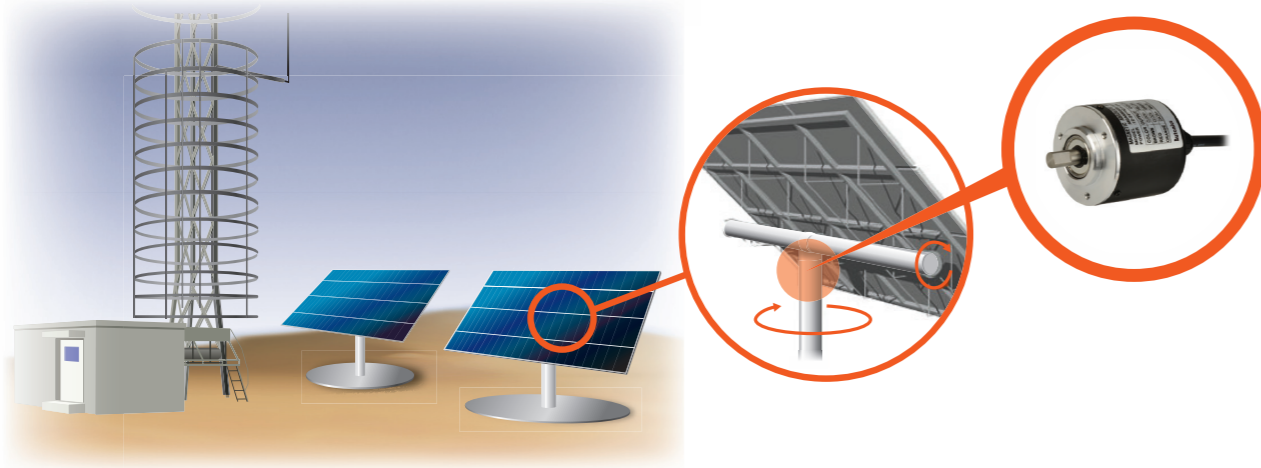
E15S/E18S/E20S/E30S/E40S/E50S/E58S/E68S Series

Shaft Type Incremental Rotary Encoders

CE c UL US
(CE & UL - E18S Only)
(CE - All models except E15S, E68S)

FEATURES

- Encoder diameter: 15 mm, 18 mm, 20 mm, 30 mm, 40 mm, 50 mm, 58 mm, 68 mm
- Low shaft moment of inertia
- Various resolutions, output codes, control outputs, and cable types available
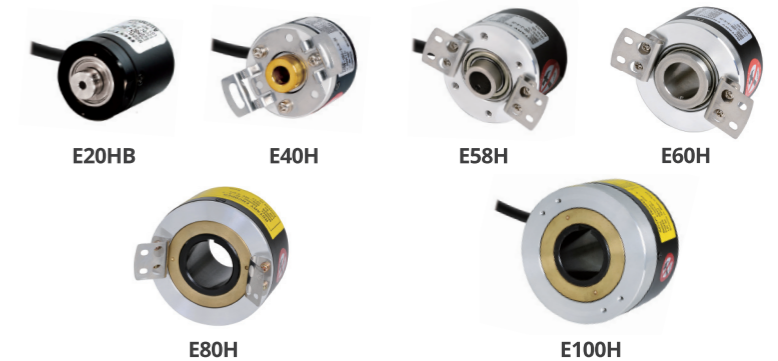
E15S   E18S   E20S   E30S

E40S   E50S   E58S   E68S

E20HB/E40H/E58H/E60H/E80H/E100H Series

Hollow Shaft, Built-In Hollow Shaft Incremental Rotary Encoders

CE
(Except E60H)

FEATURES

- Encoder diameter: 20 mm, 40 mm, 58 mm, 60 mm, 80 mm, 100 mm
- Various hollow shaft sizes
- Various resolutions, output codes, control outputs, and cable types available

E20HB   E40H   E58H   E60H

E80H   E100H

EP50S Series

Shaft Type Ø50 mm Absolute Rotary Encoders

CE

FEATURES

- Compact size absolute rotary encoders with 50 mm diameter
- Various output codes available: BCD, binary, Gray
- Various resolutions, up to 1024 divisions
  : 6, 8, 10, 12, 16, 20, 24, 32, 40, 45, 48, 64, 90, 128, 180, 256, 360, 512, 720, 1024
- IP64 protection structure (IEC standard)

EPM50 Series

Shaft Type Ø50 mm Multi-Turn Absolute Rotary Encoders

CE

FEATURES

- Control output types: Parallel / SSI
- 23-bit (8388608) total resolution
  - Single-turn: 10-bit (1024 divisions)
  - Multi-turn: 13-bit (8192 revolutions)
- Zero-point reset with single-turn data reset and multi-turn count reset functions
- CW/CCW direction setting function
- Overflow alarm (OVF) function
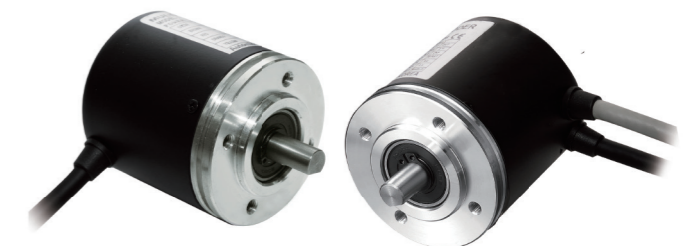
TK Series
Standard High Accuracy PID Temperature Controllers

CE cULus

50 ms High Speed Sampling
HEAT COOL Simultaneous Heating & Cooling Control
☐CURRENT ☐SSR Output Selection
SSRP SSRP Output (Standard/Phase/Cycle control selectable)

EASY Parameter Configuration
RS485 RS485 Communication (Modbus RTU)
DAQ Master PC Monitoring

High-speed sampling, RS485 communication, and simultaneous heating/cooling control
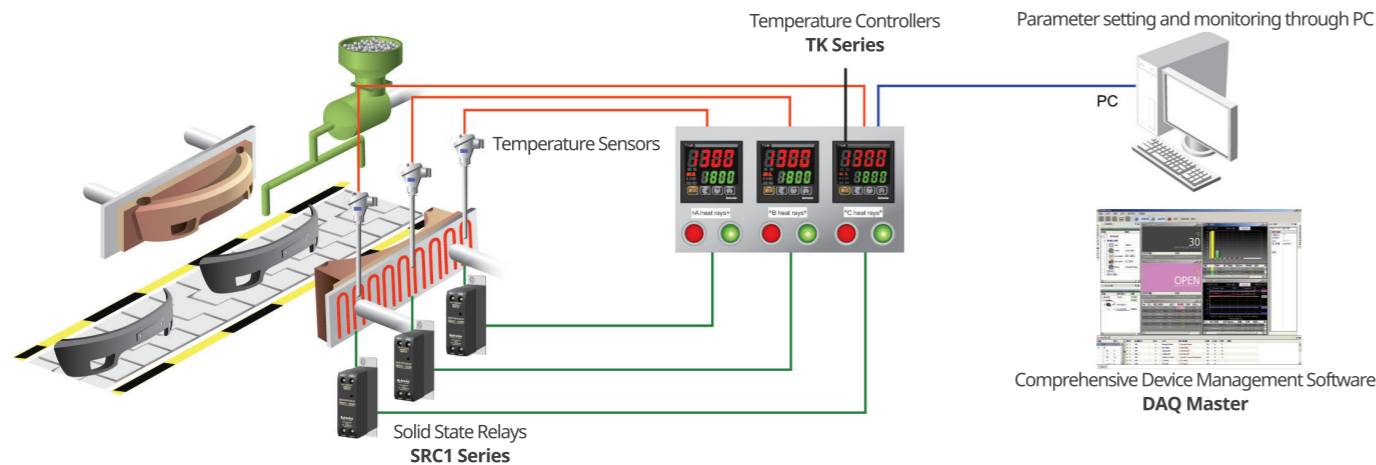
FEATURES

● 50 ms high-speed sampling rate and ±0.3% display accuracy
● Simultaneous heating and cooling control function
● Automatic/manual control option
● Switch between current output and SSR drive output
● SSR drive output (SSRP function) control options:
   ON/OFF control, cycle control, phase control
● Communication output models available: RS485 (Modbus RTU)
● Parameter configuration via PC (DAQ Master)
● User-friendly parameter features
● **Low voltage (24 VAC, 24-48 VDC) models available (except TK4N models)**

TK4N
(W) 48 mm x (H) 24 mm

SYSTEM CONFIGURATION

● Temperature control for automobile parts injection molding

Temperature Controllers **TK Series**

Parameter setting and monitoring through PC

PC

Temperature Sensors

Solid State Relays **SRC1 Series**

Comprehensive Device Management Software **DAQ Master**

TX Series
LCD Display PID Temperature Controllers

CE cULus

1234 White Character LCD
50 ms High Speed Sampling
11-Segment Display
Relay·SSR Current·Alarm Communication Various Output Options

45mm 30% Size Reduction
☐CURRENT ☐SSR Output Selection
SSRP SSRP Output (Standard/Phase/Cycle control selectable)

11-Segment LCD display with easy-to-read, large 15.3 mm white PV characters

TX4S

FEATURES

● Large LCD display with easy-to-read white PV characters
● 50 ms high-speed sampling rate and ±0.3% display accuracy
● Switch between current output and SSR drive output
● SSR drive output (SSRP function) control options: ON/OFF control, cycle control, phase control
● Communication output model available: RS485 (Modbus RTU)
● Parameter configuration via PC (DAQ Master)
● 11-segment display for improved display of alphanumeric characters
● Compact, space-saving design with 45 mm depth

APPLICATION

● TX series temperature controllers used for accurate temperature control of commercial coffee roasters

AIR TEMP

ROASTING TEMP

TM Series
Modular Multi-Channel PID Temperature Controllers

CE c℉us

FEATURES
- Multi-channel (4-channel: TM4 / 2-channel: TM2) input and output control
- High-speed sampling cycle (4-channel: 100 ms / 2-channel: 50 ms)
- Module connection and expansion with expansion connectors
  - Communication between modules
  - No additional power supply wiring
  - Expandable up to 31 units (124-channels / 62-channels)
- Simultaneous heating and cooling control function
- Isolated input channels (dielectric strength: 1000 VAC)
- Parameter configuration via PC (USB and RS485 communication)
- Easy wiring and maintenance with various connectors:
  sensor input connector, control output connector,
  power/communication connector

APPLICATION
- TM series multi-channel temperature controllers used for
  independent temperature control of sealing and cutting
  processes in stick packaging machines with multiple channel
  support

TCN/TC Series
Economical Dual/Single-Display PID Temperature Controllers

CE c℉us

FEATURES
- Dual display (TCN) and single display (TC) PID temperature
  controllers
- 100 ms high-speed sampling rate and ±0.5% display accuracy
- Switch between relay output and SSR drive output
- SSR drive output (SSRP function) control options:
  ON/OFF control, cycle control, phase control
- Compact design with large display panels for easier reading
- Connector plug types offer easier wiring and maintenance
  (TCN4S-□-P)

TCN Series

TC Series

TA Series
Analog Non-Indicating Type PID Temperature Controllers

CE c℉us

FEATURES
- Auto-tuning PID temperature control
- PID and ON/OFF control: toggle via external switch
- Deviation indicators (green, red LED)
- Control output indicator (red LED)
- Stop control output function using analog dial
- Sensor disconnect display function

TF3 Series
Refrigeration Temperature Controllers

CE UL LISTED KC

FEATURES
- Standard installation size for refrigeration panels (W 70.3 x H 28.2 mm)
- Various compressor load current capacity: 5A, 16A, 20A
- Various user-friendly functions:
  - Defrost sync function: simultaneous defrost operation of multiple controllers (up to 6 units)
  - RTC (Real Time Clock) function: night mode operation and real-time defrost control
  - Built-in alarm function
- Remote monitoring of real-time temperature and output control
  (using TFD series remote display unit, sold separately)
- Communication output models available: RS485 (Modbus RTU)
- Parameter configuration via PC (RS485 communication)
  - DAQMaster software included (comprehensive device management software)

Remote Display Unit
TFD Series (sold separately)

APPLICATION
- T3 series refrigeration temperature controllers used to control
  temperature of refrigerators inside food storage warehouses.
  TFD series display units used to check temperature and status
  from outside the warehouses.

TC3YF Series
Refrigeration Temperature Controllers

c℉us
(Except 12-24VDC models)

FEATURES
- ON/OFF control
- Standard input type: thermistor (NTC)
  - RTD (Pt100Ω) input models available upon request
- Temperature range:
  - Thermistor (NTC): -40.0 to 99.9 °C (-40 to 212 °F)
  - RTD (Pt100Ω): -99.9 to 99.9 °C (-148 to 212 °F)
- Various functions: auto/manual defrost selection, compressor start-up delay,
  restart delay, minimum ON time, end-defrost delay, evaporator fan operation delay

Communication Converters
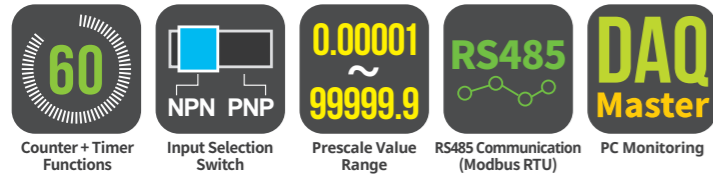
SCM-WF48
Wireless Communication Converters

CE KC

FEATURES
- Convert RS485/USB signals to Wi-Fi signals for wireless transmission up to 100 m
- Compact size (W 45 x H 25 x L 76.3 mm, without antenna)
- Built-in surge protection circuit and reverse polarity protection circuits
- Supports Access Point (AP) mode and Station (STA) modes
- Various mounting methods (DIN rail, screw mount)

CT Series
Programmable Digital Counter/Timers

$C \in \, c \, \mathbf{RU}_{us}$

60 Counter + Timer Functions

NPN PNP Input Selection Switch

0.00001 ~ 99999.9 Prescale Value Range

RS485 RS485 Communication (Modbus RTU)

DAQ Master PC Monitoring

FEATURES

- Integrated counter/timer unit for counting and timing requirements
- RS485 (Modbus RTU) communication (models available)
- One-shot output time: 0.01 s to 99.99 s

[Counter Functions]
- Various input/output modes (9 input modes, 11 output modes)
- Prescale value range: 6-digit models: 0.00001 to 99999.9
  4-digit models: 0.001 to 999.9
- Batch counting function, set count starting point (value) function
- High-speed counting up to 10 kcps

[Timer Functions]
- Various output modes (11 output modes)
- Time setting range: 6-digit models: 0.001 s to 99999.9 h
  4-digit models: 0.001 s to 9999 h

APPLICATION

- Remote production quantity data management using communication function

Communication Converters
SCM-US48I
RS232C
RS485

LINE 1
LINE 2
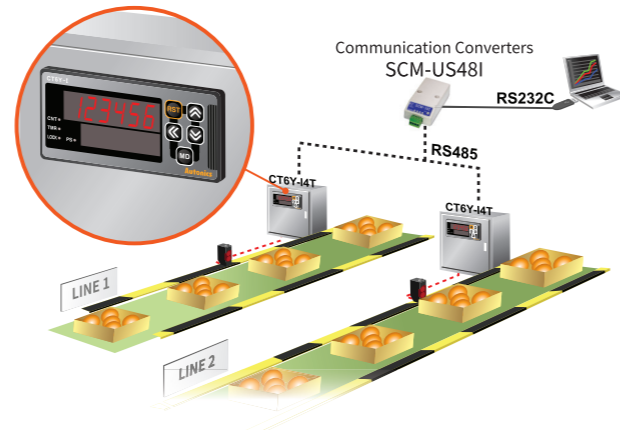
LA8N / LE8N Series
Compact 8-Digit LCD Backlight Counters / Timers

$C \in \, c \, \mathbf{RU}_{us}$

FEATURES

- Compact digital counters and timers with LCD backlight
- Count-up/down counters with decimal point setting (LA8N)
- Various time specification settings (LE8N)
- Voltage, no-voltage, universal voltage input options
- Built-in lithium battery (operates without external power)
- IP66 protection structure (IEC standard)

LE8N Series Digital Timers

LA8N Series Digital Counters

LE365S-41
Compact Week/Year Digital Timers

$C \in \, c \, \mathbf{RU}_{us}$

FEATURES

- Time configuration and control in week or year units
- Weekly day change operation, yearly holiday operation, season switching operation, auto daylight saving time function, etc.
- Independent control output (relay) built-in

LE4S Series
Digital LCD Backlight Timers

$C \in \, c \, \mathbf{RU}_{us}$

FEATURES

- Compact, space-saving design with LCD backlight
- Configure set value and time range independently (using flicker or ON-OFF delay output mode)
- One-shot output time: 0.01 s to 99.99 s
- Time setting range: 0.01 s to 9999 h
- Signal ON start and Power ON start options

ATM Series
Miniature Analog Timers

$C \in$

FEATURES

- Ultra-compact/miniature size (W 21.5 mm x H 28 mm x D 59.3 mm)
- Up to 4 simultaneous control outputs with 4PDT (250 VAC, 3 A)
- Simple and accurate timing control with analog dial
- Various timing ranges: 0.1 s to 3 h (11 available options, by model)
- Power supply: ATM4-2: 24 VDC
  ATM4-5: 220 VAC 50/60 Hz
  ATM4-6: 110 VAC 50/60 Hz
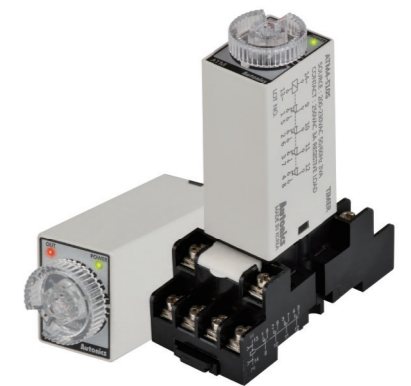
ATS Series
Compact, Multi-Functional Analog Timers

$C \in \, c \, \mathbf{RU}_{us}$

FEATURES

- Simple operation analog timers with various configurations
- Various time setting range and output operation modes
- Time setting range: 0.1 s to 30 h
- Twin timer models (ATS8W/ATS11W)
- Power ON start, Signal ON start, Power OFF start options

ATS8W/ATS11W Series Twin Timers

SR(H)2/3 Series

Three-Phase Solid State Relays (2-Pole/3-Pole)

CE c**UL**us

Two Mounting Hole Types

Alarm Output Function

24VAC LOW VOLTAGE
Low Voltage Input

4,000V
4000 VAC Dielectric Strength (Select Models)

Removable Heatsink (Integrated Heatsink Types)

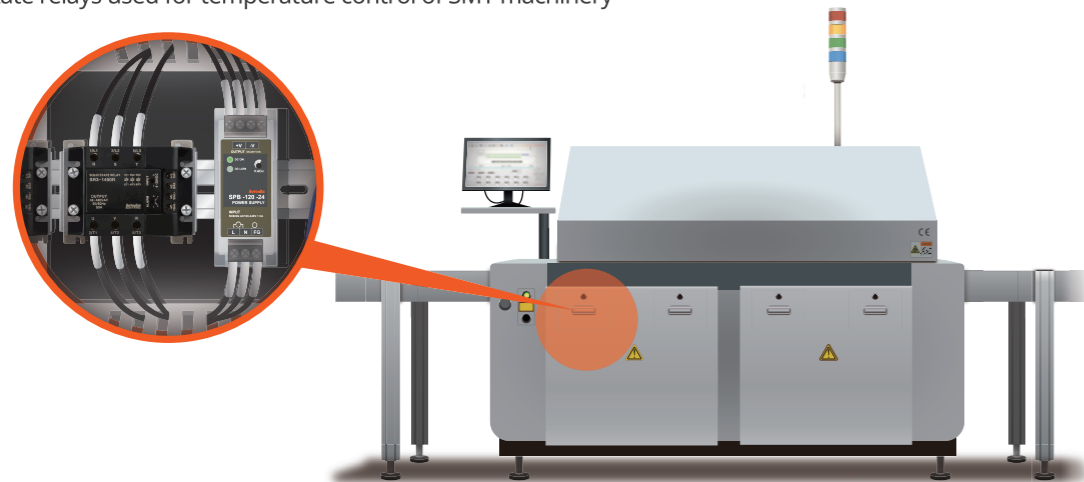**Various Mounting Methods**

Detachable Heatsink Type SR2/3 Series

Integrated Heatsink Type SRH2/3 Series

FEATURES

- Two mounting hole types and sizes
- Alarm function (overheating)
  - Alarm output indicator (red LED), disconnect standard output, alarm output
- High dielectric strength: 4000 VAC (select models)
- Rated input voltage: 4-30 VDC, 24 VAC, 90-240 VAC
- Rated load voltage: 24-240 VAC, 48-480 VAC
- Rated load current: 15 A, 30 A, 40 A, 50 A, 75 A
- High heat dissipation efficiency with ceramic PCB and integrated heatsink
- Zero cross turn-on and random turn-on models available
- Input indicator (green LED)
- Various mounting methods (DIN rail, panel) – SRH2/SRH3 series
  ※DIN rail mounting not available for 50 A and 70 A load current models

APPLICATION

- Solid state relays used for temperature control of SMT machinery

SR1/SRH1/SRC1/SRS1/SRPH1 Series

Single Phase Solid State Relays

CE c**UL**us

FEATURES

SR1 Series
Detachable Heatsink Type

SRH1 Series
Integrated Heatsink Type

SRC1 Series
Slim Detachable Heatsink Type

- Compact, universal design for flexible installation
- Rated input voltage: 4-30 VDC, 90-240 VAC
- Rated load voltage: 24-240 VAC, 48-480 VAC
- Rated load current (resistive load) : 15 A, 25 A, 40 A, 50 A, 75 A

- DIN rail mount or panel mount installation
- Rated input voltage: 4-30 VDC, 90-240 VAC, 24 VAC
- Rated load voltage: 24-240 VAC, 48-480 VAC
- Rated load current (resistive load) : 15 A, 25 A, 30 A, 40 A, 60 A

- Slim, compact size (22.5 mm width)
- Rated input voltage: 4-30 VDC, 90-240 VAC
- Rated load voltage: 24-240 VAC, 48-480 VAC
- Rated load current (resistive load) : 15 A, 25 A, 30 A

SRS1 Series
Socket Type

SRPH1 Series
Analog Input Type

- Socket type for easier installation and maintenance
  - SRS1-A: Autonics SK-G05 sockets (AC, DC, AC/DC)
  - SRS1-B: Universal LY2 sockets (AC)
- Rated input voltage: 4-24 VDC (SRS1-A), 4-30 VDC (SRS1-B)
- Rated load voltage:
  - SRS1-A: 24-240 VAC, 5-100 VDC, 5-200 VDC, 5-240 VAC/5-200 VDC (AC/DC type)
  - SRS1-B: 90-240 VAC
- Rated load current (resistive load): 1 A, 2 A, 3 A, 5 A

- Phase control and cycle control with 4-20 mA analog input
  - Phase control (output power control / phase angle control)
  - Cycle control (fixed cycle / variable cycle)
- Rated input voltage: 4-20 mA (analog input)
  - Rated load voltage: 100-240 VAC, 200-480 VAC
  - Rated load current (resistive load): 20 A, 30 A, 60 A

FEATURES
Common Features
- Slim and compact design
- High dielectric strength: 4000 VAC (except SRS1)
- High heat dissipation efficiency with ceramic PCB
- LED status indicators

APPLICATION
- Solid state relays used in conjunction with temperature controllers during package sealing process in food packaging machines.

SPB Series
High Efficiency Switching Mode Power Supplies

FEATURES

● DIN rail mount and screw mount methods
● Efficient power conversion
  - High conversion efficiency up to 92% with LLC circuit (SPB-240)
  - Stable power supply with minimal noise and ripple
● Space efficient design
  - Slim and compact size for maximum space efficiency
  - Uniform depth size (except SPB-015/030) for neat and tidy installation
● Safety and user-friendly features
  - Terminal protection cover (SPB-060/120/180/240)
  - Easy wiring with rising clamp terminal (SPB-015/030)
  - Inrush current prevention, output overcurrent prevention, output overvoltage prevention, output short-circuit protection, circuit overheating protection
  - Low output voltage indicator (red LED), output indicator (green LED)
● Output power: 15W, 30W, 60W, 120W, 240W

Display Units

DS/DA Series
Intelligent Type Digital Display Units

FEATURES

● Simple wiring without soldering
  - Multi-stage connection using expansion connectors or ribbon cables
  - Power supply and data wiring required on base unit only
● Various input options:
  Serial input, Parallel input, RS485 communication input, RS485 communication time sync display, PT temperature sensor input, PT temperature sensor + RS485 communication input
● Expandable up to 24 units with multi-stage connection
● Available in various sizes: 16 mm, 22.5 mm, 40 mm, 60 mm
● Available in 7-segment display and 16-segment display types
● Available in red display and green display types

Field Network Devices

ARM / ARD Series
Modbus RTU & DeviceNet Digital Remote I/O

DeviceNet CONFORMANCE TESTED
(DeviceNet - ARD only)

FEATURES

[ARM Series]
● Modbus RTU protocol digital remote I/O
● Additional expansion
  - Expand up to 63 base units per master unit
  - Expand up to 7 expansion units per base unit (up to 64 points)

[ARD Series]
● DeviceNet protocol digital/analog remote I/O
● Additional expansion
  - Standard terminal block type: connect up to 3 expansion units
  - Sensor connector type: connect up to 7 expansion units
  - I/O points can be expanded up to 64 points

ARM Series

ARD Series

Sensor Connector Type

Terminal Block Type
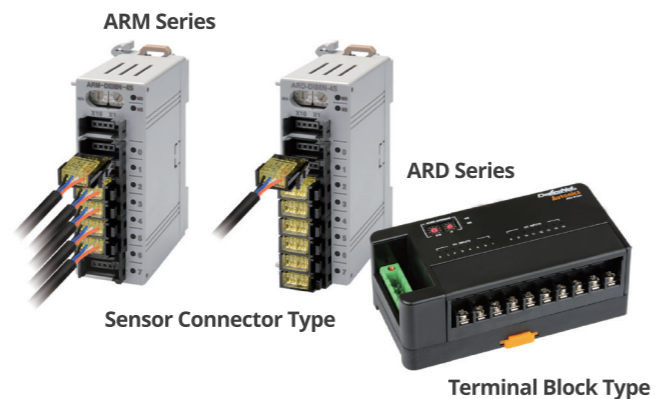
LP-S070 / GP-S070 Series
7-Inch LCD Color Display Logic / Graphic Panels

FEATURES

● All-in-one device featuring HMI + PLC + I/O module (LP-S070)
● Graphic HMI with simple operation and configuration (GP-S070)
● 7-inch widescreen analog resistive LCD touchscreen
● Data logger function: store and backup data from control devices
● Connection interfaces: RS232C/RS422/Ethernet/USB
● Software update and support via Autonics website

LP-S070 Series   **GP-S070 Series**

APPLICATION

● Logic panels used with counters to monitor quantity and barcode recognition of packaged boxes during shipping process

Panel Meters

MT4 Series
Digital Panel Meters

(UL-Except MT4N)

FEATURES

● Various input/output options (default option: indicator/no output)
  - Input: DC voltage, DC current, AC voltage, AC current
  - Output: RS485 communication output, PV transmission output (DC 4-20 mA), NPN/PNP open collector output, relay contact output
● Maximum allowed input: 50 VDC, DC 500 mA, 250 VAC, AC 5 A (MT4N)
  5 VDC, DC 500 mA, 500 VAC, AC 5 A (MT4W/Y)
● Display range: -1999 to 9999
● AC frequency measurement (range: 0.1 to 9999 Hz)

MT4Y Series   **MT4W Series**

MT4N Series

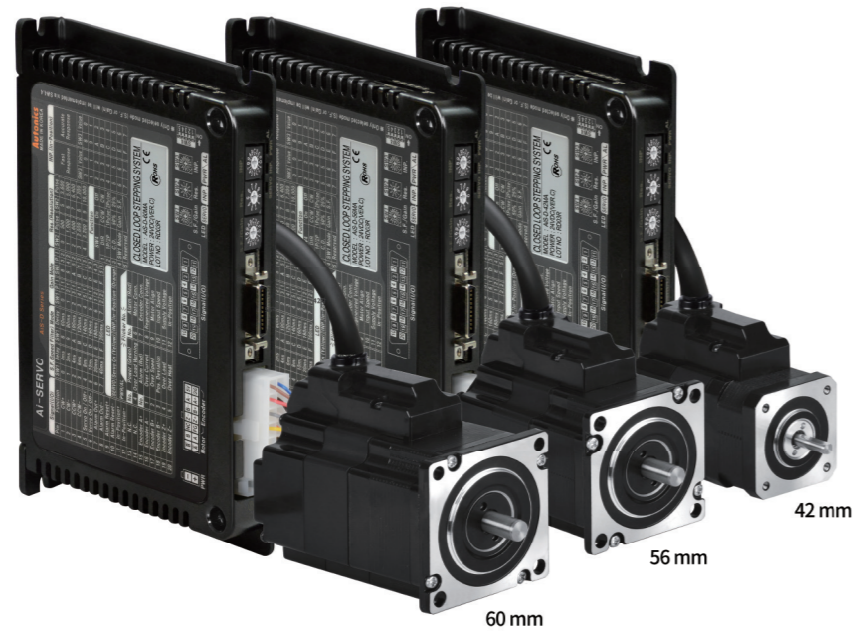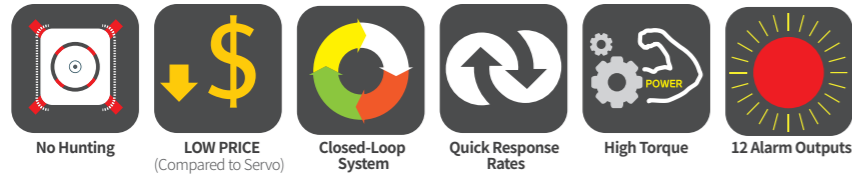# M4NN Series
Compact Digital Panel Meters

FEATURES

● Various input options: DC voltage, DC current, AC voltage, AC current
● Isolated input and power modules allow powering of multiple units using a single power supply
● Display range: -1999 to 9999
● AC frequency measurement (range: 0.1 to 9999 Hz)
● Various functions: high/low-limit display scale, power factor display, peak display value monitoring, display cycle delay, zero-point adjustment, peak display value correction

(W) 48 mm × (H) 24 mm × (L) 46 mm

AiS Series

2-Phase Closed Loop Stepper Motor System

CE

No Hunting **LOW PRICE** (Compared to Servo) **Closed-Loop System** **Quick Response Rates** **High Torque** **12 Alarm Outputs**

42 mm

56 mm

60 mm

FEATURES

● Low cost closed loop system compared to servo motors with quick response rates for better continuous drive operation
● Low vibration during low speed drive and high torque during high speed drive
● No tuning required (easy gain setting using adjuster)
● Holding torque and no vibration (hunting) during position hold make it ideal for precision machines including optical inspection
● Various encoder resolutions: 500, 1000, 1600, 2000, 3200, 3600, 5000, 6400, 7200, 10000 (10-stages)
● Various alarm outputs: overcurrent, overspeed, overheating, motor connection error, encoder connection error, etc. (12 alarms)
● Frame sizes: 42 mm, 56 mm, 60 mm

※ Applications: semiconductor equipment, 3D printers, optical inspection machines, SMT machines, cartesian robots, conveying equipment, alignment stages, and other precision machines.

APPLICATION

● AiS series closed loop stepper motor system used for vertical axis control of vision equipment on 3D inspection machinery.
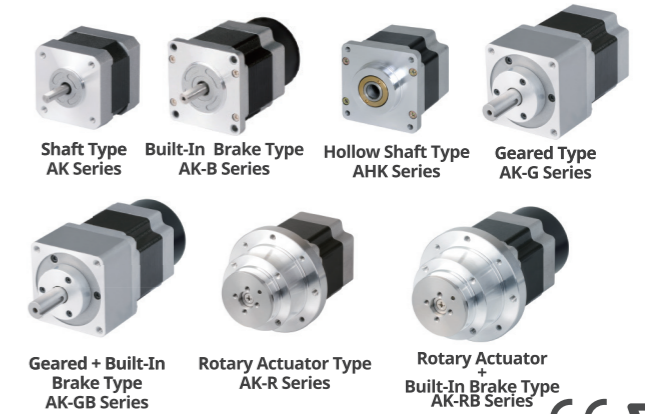
AK(B)/AHK/AK-G(B)/AK-R(B) Series

5-Phase Stepper Motors

CE

FEATURES

● Compact design and lightweight with high accuracy, speed, and torque
● Space-saving design ideal for building compact-sized systems
● Various types: shaft, hollow shaft, brake, geared, geared-brake, rotary actuator, rotary actuator-brake type
● Various frame sizes: 24, 42, 60, 85 mm
● Economical and cost-efficient

Shaft Type AK Series **Built-In Brake Type AK-B Series** **Hollow Shaft Type AHK Series** **Geared Type AK-G Series**

Geared + Built-In Brake Type AK-GB Series **Rotary Actuator Type AK-R Series** **Rotary Actuator + Built-In Brake Type AK-RB Series**

CE c UL us
(UL - MD5-HF14/HF28 Only)

MD5 Series

5-Phase Stepper Motor Drivers

FEATURES

● Bipolar constant current pentagon drive type
● Auto-current down and self-diagnosis function
● Microstepping drive (max 250 divisions)
● Isolated photocoupler input design minimizes influence from external noise
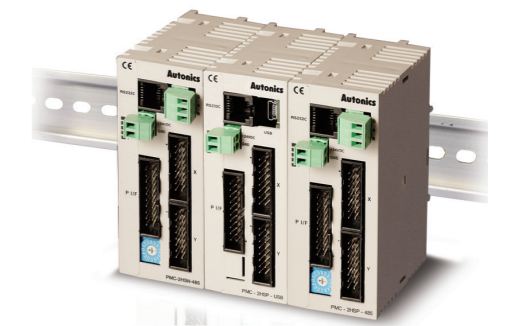● Multi-axis control (MD5-HD14-2X/3X)

MD5-HD14-2X/3X Series **MD5-ND14 Series** **MD5-HD14 Series** **MD5-HF14 Series** **MD5-HF28 Series**

PMC-2HSP/N Series

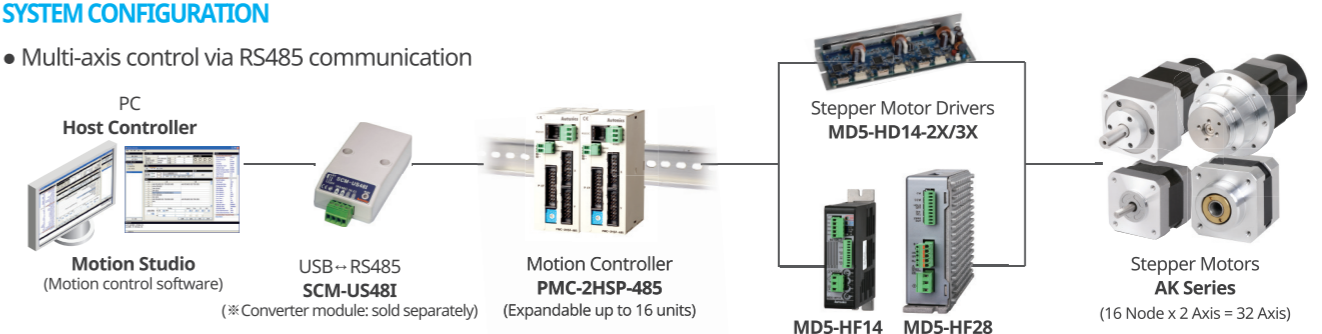## 2-Axis Programmable Motion Controllers

CE

FEATURES

● High-speed independent 2-axis control with processing speed up to 4 Mpps
● 17 control commands and up to 200 steps of operation programming
● Multiple control of up to 32-axes (16 units) with RS485 communication
● 4 operation modes: scan, continuous, index, program
● Connection interfaces: RS232C/RS485/USB/Parallel I/O

SYSTEM CONFIGURATION

● Multi-axis control via RS485 communication

PC
Host Controller

Motion Studio (Motion control software)

USB↔RS485 **SCM-US48I** (※Converter module: sold separately)

Motion Controller **PMC-2HSP-485** (Expandable up to 16 units)

Stepper Motor Drivers **MD5-HD14-2X/3X**

MD5-HF14 **MD5-HF28**

Stepper Motors **AK Series** (16 Node x 2 Axis = 32 Axis)

I/O Terminal Blocks

Highly Durable and Compatible I/O Terminal Blocks

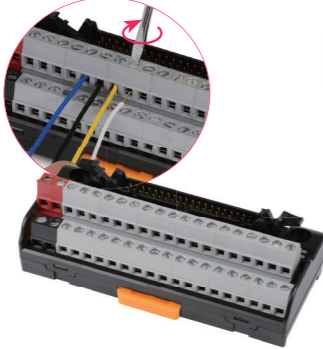CE / UL LISTED c / US (AFE Only)

Interface Type

AFL Series
One-Push Screwless Type

AFR Series
Rising Clamp Type

AFS Series
Standard Type

Common Type

ACS Series

Sensor Connector Type

AFE Series

Relay Type
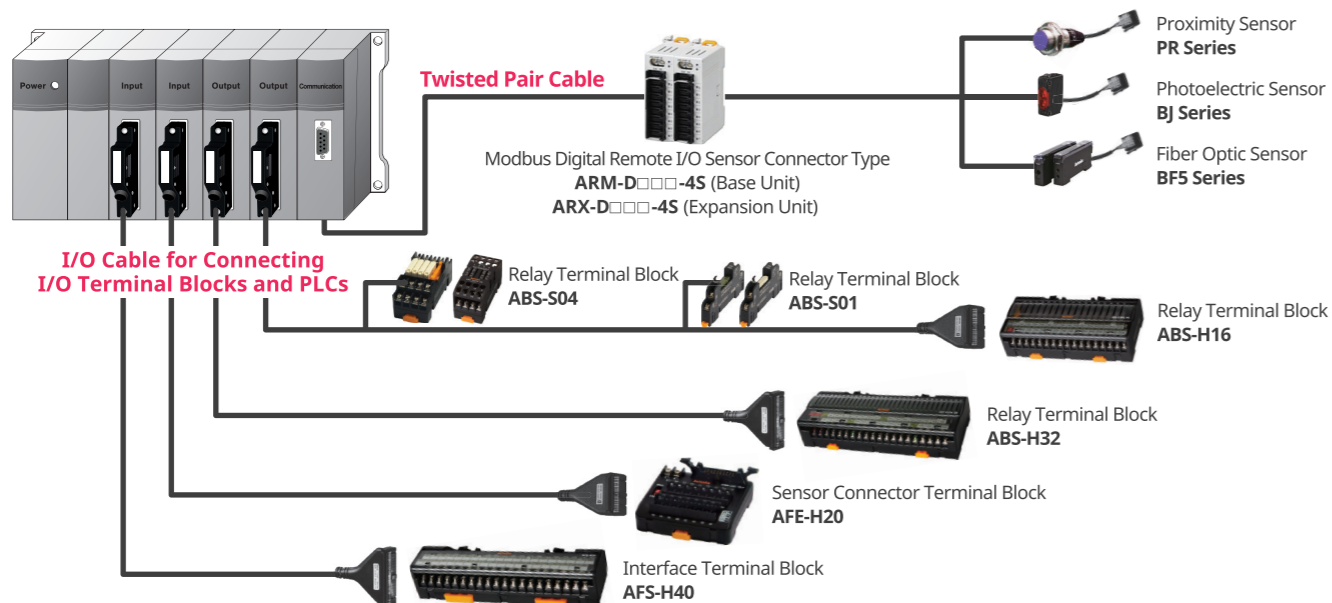
ABS Series
Standard Type

ABL Series
Screwless Type

ASL Series
SSR Type

SYSTEM CONFIGURATION

Power / Input / Input / Output / Output / Communication

Twisted Pair Cable

I/O Cable for Connecting I/O Terminal Blocks and PLCs

Modbus Digital Remote I/O Sensor Connector Type
ARM-D□□□-4S (Base Unit)
ARX-D□□□-4S (Expansion Unit)

Proximity Sensor
PR Series

Photoelectric Sensor
BJ Series

Fiber Optic Sensor
BF5 Series

Relay Terminal Block
ABS-S04

Relay Terminal Block
ABS-S01

Relay Terminal Block
ABS-H16

Relay Terminal Block
ABS-H32

Sensor Connector Terminal Block
AFE-H20

Interface Terminal Block
AFS-H40

CJ Series

Connector Cables

FEATURES

- Compatible with various PLCs and control devices (Autonics, LSIS, Mitsubishi, etc.)
- Available in various lengths (0.5 m, 1.0 m, 1.5 m, 2.0 m, custom)
- Various pin sizes (20-pin, 37-pin, 40-pin, 50-pin)
- Diverse options and configurations to fit user requirements

PT Series

Sensor Connectors

M12 Connector Sensor Distribution Boxes

FEATURES

- Available models:
  - 5-pin M12 connector types (cable/connector/spring terminal/plug-in terminal)
  - 4-pin M12 connector type (cable)
- Supply power to multiple sensors using a single power supply
- Simplify complicated wiring and maintenance work
- Check operation status with LED indicators (green, red LED)
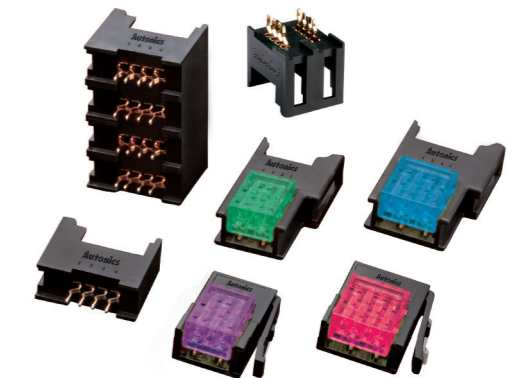- Supports 1-signal, 2-signal (DC 4-wire type)

PT-P (plug-in terminal type), PT-S (spring terminal type) series available in black and blue models.
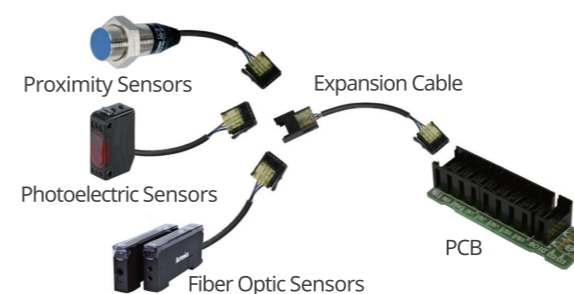
CNE Series

Sensor Connectors

CE

FEATURES

■ **Common Features**
- Significantly reduce installation work and time
- Features high density mounting and contact pitch of 2 mm
- Compatible with e-CON connectors
- Each pin can hold up to 3A of current

■ **Wire Mount Plug/Socket**
- Compact and reliable one-touch type sensor connector
- Wire mount plug / socket enables transit connection of wires
- Visual guide on wire thicknesses with colorful covers
- Visual guide on status of wire connection through translucent cover

■ **Board Mount Socket**
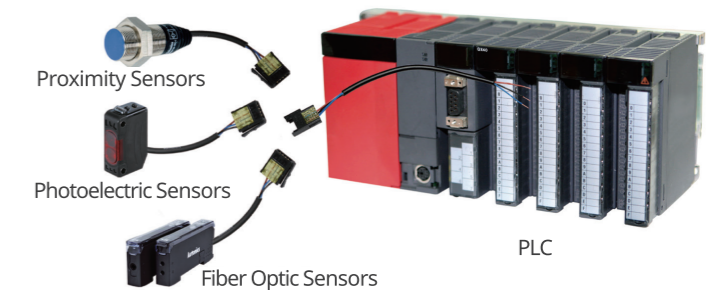- Position contact point in mold to avoid electric shock or short-circuit

SYSTEM CONFIGURATION
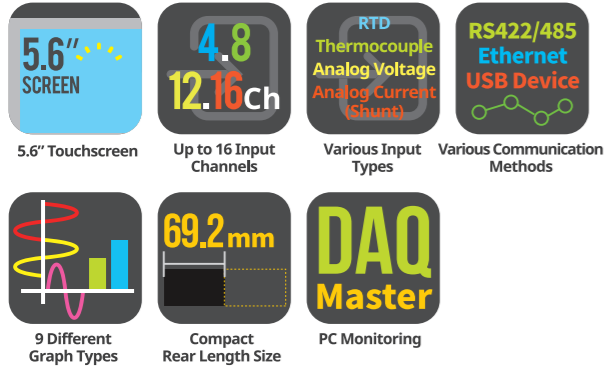
● **Sensors ↔ Expansion Cable ↔ PCB**

Proximity Sensors
Expansion Cable
Photoelectric Sensors
Fiber Optic Sensors
PCB

● **Sensors ↔ PLC**

Proximity Sensors
Photoelectric Sensors
Fiber Optic Sensors
PLC

KRN1000 Series
LCD Touchscreen Paperless Recorders

CE

5.6" SCREEN — 5.6" Touchscreen

4.8 12.16 Ch — Up to 16 Input Channels

RTD Thermocouple Analog Voltage Analog Current (Shunt) — Various Input Types

RS422/485 Ethernet USB Device — Various Communication Methods

9 Different Graph Types

69.2 mm — Compact Rear Length Size

DAQ Master — PC Monitoring

FEATURES

- 5.6-inch TFT color LCD (640×480) touchscreen display with excellent visibility and intuitive control interface
- Supports 27 input types (thermocouple, RTD, analog voltage and current[shunt])
- 4 / 8 / 12 / 16 input channel models available
- Various communication methods (USB, RS422/485, Ethernet) supported
- 25 to 250 ms high-speed sampling, 1 to 3600 s recording cycle
- 200 MB internal memory and external memory support (SD/USB up to 32 GB)
- Store and backup internal data to external memory (SD/USB)
- 9 different graph types available
- Various option input/output available: digital input (contact/non-contact), alarm output, transmitter power output
- Compact, space-saving design (rear length: 69.2 mm)

APPLICATION

- Record and store real-time measurement data in thermo-hygrostat systems

KRN100 Series
100 mm Hybrid Recorders

CE

FEATURES

- Hybrid strip chart recorder + paperless recorder
- Data logger function: print saved data from internal memory or USB
- Status monitoring and parameter configuration through USB, RS485, or Ethernet
- 25 ms high-speed sampling, 240 mm/H high-speed recording
- 100 mm strip chart recording in 6 colors
- Supports up to 12 input channels and 27 input types

KRN50 Series
50 mm Hybrid Recorders

CE

FEATURES

- 50 mm strip chart recorders with thermal transfer printing
- Data logger function for paperless recording
- Real-time monitoring and configuration on PC/PLC via RS485 communication or dedicated communication port
- Simultaneous 2-channel recording (graph mode, digital mode)
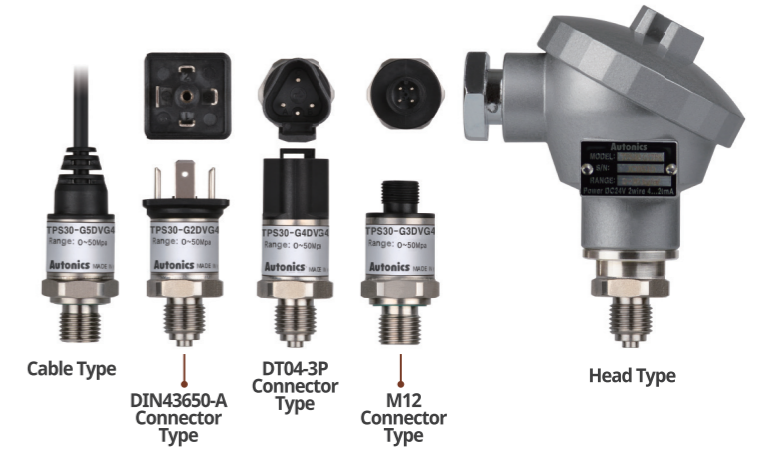- Supports various input types (RTD, thermocouple, analog)

TPS30 Series
Stainless Steel Pressure Transmitters

CE

FEATURES

- Robust build allows high or low pressure measurement in high and low temperature environments
  : high pressure (0 to 60 MPa / 0 to 600 bar), low pressure (0 to 2 MPa / 0 to 20 bar)
  : temperature range (-40° to 125°C) (may vary by model)
- For diverse applications including packaging machines, heavy machinery, factories, and shipbuilding
- 316L stainless steel diaphragm for high corrosion resistance (except head component of head types)
- Analog output : current (DC 4-20 mA), voltage (1-5 VDC)
- Available thread sizes: G3/8, G1/4, R1/2
- IP67 protection structure (IEC standard) (DIN43650-A connector type: IP65)

Cable Type   DIN43650-A Connector Type   DT04-3P Connector Type   M12 Connector Type   Head Type

KN-1000B Series
Compact Digital/Bar Graph Indicators

CE

FEATURES

- High accuracy with 16-bit ADC (±0.2% F.S.)
- Supports various input types (RTD, thermocouple, analog)
- Bar graph with 101 LEDs (green), 4-digit digital LED display (red)
- Various output options and customized functions
- Built-in power supply for sensors (24 VDC)

KN-2000W Series
High Accuracy Multi-Color Indicators

CE

FEATURES

- High accuracy with 16-bit ADC (±0.2% F.S.)
- Supports various input types (RTD, thermocouple, analog)
- Auto display color change function (errors/alarms)
- Display range: -19999 to 19999
- Various output options and customized functions
- Built-in power supply for sensors (24 VDC)

Process Automation Devices

DPU/DPUS Series
Digital Thyristor Power Controllers

CN-6000 Series
Isolated Coverters with 3-Color Display

KPN Series
High Accuracy Digital Process Controllers

PTF30 Series
2-Wire Smart Pressure Transmitters

KT-302H Series
Intelligent Type Pressure Transmitters

KT-502H
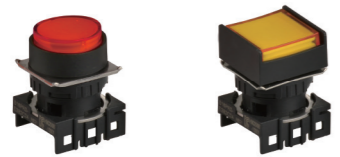Intelligent Type Temperature Transmitters

S / L / B Series

Control Switches, Pilot Lights, and Buzzers (※)Illuminated Type Available

CE c(UL)us

(UL - except emergency switches, buzzers)

Round/Square Push Button Switches

S16PR Series (Ø16)

S16PR-E□(※)

S16PRS-H□(※)

S16PRT-H□(※)

S2PR Series (Ø22/25)

S2PR-P1□

S2PR(U)-P3□(※)

S2PR(U)-E□(※)

S2PRS(U)-P□(※)

S3PR / S3PF / SQ3PFS Series (Ø30, □30)

S3PR-P1□

S3PF(U)-P□(※)

SQ3PFS(U)-P□(※)

Selector Switches

S16SR Series (Ø16)

S16SR-S□(※)

S16SRS-L□(※)

S16SRT-S□(※)

S2SR Series (Ø22/25)

S2SR-S1/3/5/7/A/C□(※)

S2SRN-□1/3/5/7/A/C□(※)

S2SR-S2/4/6/8/B/D□

S2SRN-□2/4/6/8/B/D□(※)

S3SF Series (Ø30)

S3SF-S1/3/5/7/A/C□(※)

S3SFN-□1/3/5/7/A/C□(※)

S3SF-S2/4/6/8/B/D□

S3SFN-□2/4/6/8/B/D□(※)

Emergency Switches

S16ER Series (Ø16)   S2ER Series (Ø22/25)

S16ER-E□

S2ER-E1□

S2ER-E2□

S2ER-E3□

S2ER-E4□(※)

S2ER-E5□

Pilot Lights

L16RR Series (Ø16)
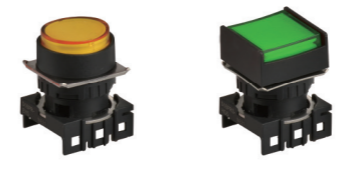
L16RR-E□(※)

L16RRS-H□(※)

L16RRT-H□(※)

L2RR Series (Ø22/25)

L2RR-L1(※)

L2RR-L2(※)

L2RR(U)-L3(※)

L2RR(U)-L4(※)

L3RF Series (Ø30, □30)

L3RF(U)-L3(※)

LQ3RF(U)-L4(※)

Key Selector Switches

S16KR / S2KR / S3KF Series (Ø16, Ø22/25, Ø30)

S16KR

S16KRS

S16KRT

S2KR

S3KF

Mushroom-Head Push Button Switches

S16BR / S2BR Series (Ø16, Ø22/25)

S16BR-H□(※)

S2BR-P1□

Double Push Button Switches

S2TR Series (Ø22/25)

S2TR-P3(※)

Buzzers

B6MA Series

Melody Buzzer

B2PB-B1D

Piezo Buzzer

B2NB-B1D Series

Magnetic Buzzer

Accessories

※Only for Ø16

※Only for Ø22/25, Ø30, □30

Switch Contact Blocks
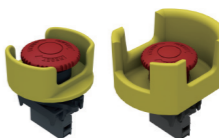
Emergency Switch Protective Shrouds

EMERGENCY PUSH STOP

EMERGENCY PUSH STOP

Emergency Switch Nameplates

Waterproof Cap

Switch Enclosures

※Only for Ø16

※Only for Ø22/25, Ø30, □30

Locking Handle for Switches

※Only for Ø16

Lens removal tool

Driving towards global leadership in the automation industry

Autonics, a leading expert of the industrial automation industry in South Korea, provides efficient and productive automation solutions to customers across the globe.
Our mission is to enrich the quality of human lives by delivering new values that will make the world more convenient.

Autonics U.S.A

Autonics Mexico

Autonics Brazil

Autonics Russia

Autonics Headquaters South Korea

Autonics Turkey

Autonics Iran

Autonics China

Autonics Japan

Autonics India

Autonics Malaysia

Autonics Vietnam

Autonics Indonesia

Distributor

● **Major Products**

· Photoelectric Sensors · Fiber Optic Sensors · Door Sensors · Door Side Sensors · Area Sensors
· Proximity Sensors · Pressure Sensors · Connectors / Sockets · Rotary Encoders · Panel Meters
· Counters · Timers · Temperature Controllers · SSR / Power Controllers · Sensor Controllers
· Graphic / Logic Panels · Temperature / Humidity Transducers · Switching Mode Power Supplies
· Stepper Motors / Drivers / Motion Controllers · I/O Terminal Blocks & Cables · Display Units
· Control Switches / Lamps / Buzzers · Field Network Devices · Tachometer / Pulse (Rate) Meters
· Laser Marking System (Fiber, CO_2 , Nd:YAG) · Laser Welding / Cutting System

※ The dimensions or specifications on this selection guide may change and some models may be discontinued without notice.

■ **Corporate Headquarters / Overseas Business Headquarters**
18 Bansong-ro, 513 Beon-gil, Haeundae-gu, Busan, South Korea 48002
Tel : 82-51-519-3232 / Fax : 82-51-519-3031 / E-mail : sales@autonics.com

■ **Brazil - Autonics do Brasil Comercial Importadora Exportadora Ltda**
Tel: 55-11-2307-8480 / Fax: 55-11-2309-7784 / E-mail: comercial@autonics.com.br

■ **China - Autonics electronic(Jiaxing) Corporation**
Tel: 86-21-5422-5969 / Fax: 86-21-5422-5961 / E-mail: china@autonics.com

■ **India - Autonics Automation India Private Limited**
Tel: 91-22-2768-2570 / E-mail: india@autonics.com

■ **Indonesia - PT. Autonics Indonesia**
Tel: 62-21-8088-8814/5 / Fax: 62-21-8088-4442/0 / E-mail: indonesia@autonics.com

■ **Iran - Autonics Corp. Iran Representative Office**
Tel: 98-21-8872-7251/2 / Fax: 98-21-8872-8556 / E-mail: iran@autonics.com

■ **Japan - Autonics Japan Corporation**
Tel: 81-3-3950-3111 / Fax: 81-3-3950-3191 / E-mail: ja@autonics.com

■ **Malaysia - Mal-Autonics Sensor Sdn. Bhd.**
Tel: 60-3-7805-7190 / Fax: 60-3-7805-7193 / E-mail: malaysia@autonics.com

■ **Mexico - Autonics Mexico S.A. DE C.V**
Tel: 52-55-5207-0019 / Fax: 52-55-1663-0712 / E-mail: ventas@autonics.mx

■ **Russia - Autonics Rus**
Tel/Fax: 7-495-660-10-88 / E-mail: russia@autonics.com

■ **Turkey - Autonics Otomasyon Ticaret Ltd. Sti.**
Tel: 90-216-365-9117/3/4 / Fax: 90-216-365-9112 / E-mail: turkey@autonics.com

■ **USA - Autonics USA, Inc.**
Tel: 1-847-680-8160 / Fax: 1-847-680-8155 / E-mail: sales@autonicsusa.net

■ **Vietnam - Cong Ty Tnhh Autonics Vina**
Tel: 84-28-3771-2662 / Fax: 84-28-3771-2663 / E-mail: vietnam@autonics.com

CE ᴄ🆄ᴌus ISO-14001 ISO-9001 EHC RoHS NO.20180206_ENG_Product Guide_08