ELCO Provides You with a Full Range of Automation Solutions

CONTENTS

C O N T E N T S

Sensor

Encoder

![ELCO INDUSTRIAL AUTOMATION]

PLC controller

LogicX

I/O modules

FX20

Compact67

IO-Link

RFID

RFID

Q80U

Q240M

Connectivity

ESP series—Distribution Box

Automation connector

M12 connector

M8 connector

Y-Spliter connector

Flange connector

Safety product

Safety light curtain

Safety Scanner

Safety Relay Module

Safety Lock & Safety Switch

E-Stop Button

Industrial lighting & Indicator

LF32 Strip lighting

LF48 Strip lighting
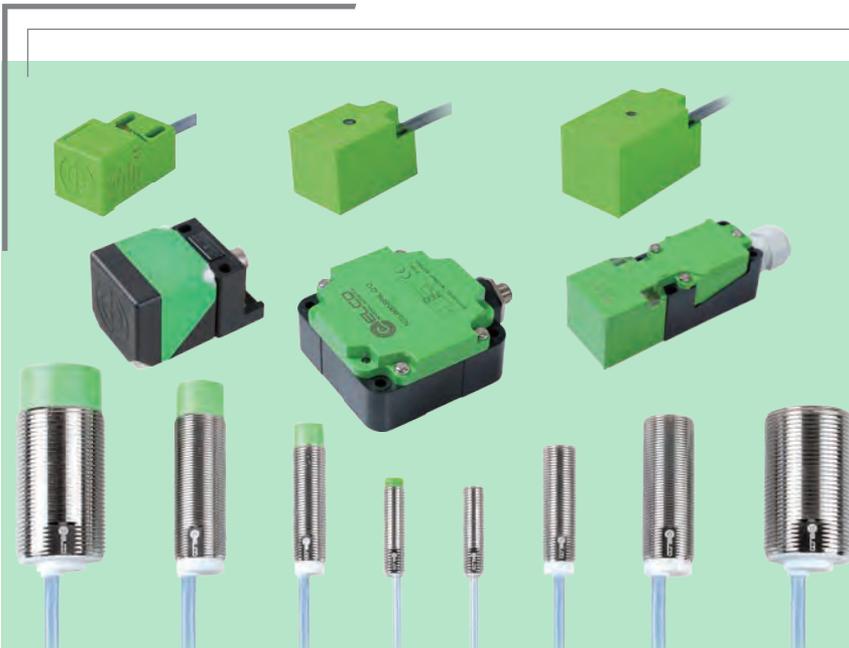
LL76 Integrated lighting

PG50 Signal Tower light

PR30 / PR50 / PR90 Bulb Indicators

Sensor SENSOR

Inductive Sensor

- Cylindrical, square and other shapes appearance
- G series design 2 times detection distance, temperature resistance up to -30-85℃
- ZG series design Wide voltage and Stainless steel housing
- Multiple connection methods and IP67/IP68 protection class

Capacitive Sensor

- Cylindrical and special square appearance products
- Possess potentiometer sensitivity adjustment device
- Possess different protection circuits and prodect the product proper functioning,
- Apply to liquid and object level monitoring and other non-metal or metal detection

![ELCO INDUSTRIAL AUTOMATION]

Special Inductive Sensor

- Cylindrical, square and other shapes appearance
- Product series include all-metal，long-sensing，
  wide temperature，magnetic field immune，
  high pressure resistant
- PTFE-coated,analog output and NAMUR
- Multiple connection methods and
  IP67/IP68 protection class

Ultrasonic Sensor

- Cylindrical shape,compactstructure
- Push button debugging
- Analog ,digital output ,full connector connection
- Applied to liquid and object level monitoring,
  and inspection position and status od object in
  long-distance

Sensor SENSOR

Universal Photoelectric Sensor
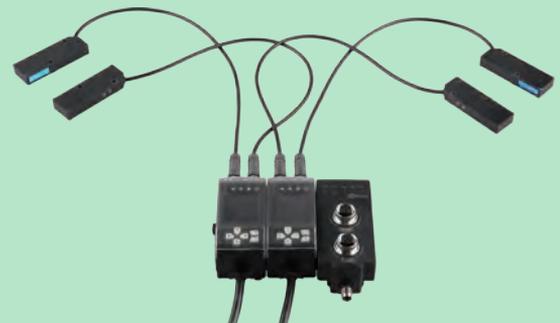
■ Red light, Laser,infrared light source

■ Different detection modes, through beam,

   reflector and diffuse

■ Features:

   BGS, stable bright and dark detection

■ Product range:

   OP12, OP18, OG18, OSQ18, OS4, OS22,

   OS26, OS10, OS10S, OS50, etc

Color and Deviation correction sensor

■ Color sensor

   Zoom spot + output Two-way switch

■ High-precision split through-beam correction

   needs to be used with a controller

■ Output：Two-way switch+Two analog or Two-way

   switch+RS485

■ The controller communication unit is cascaded

   to realize EC remote control

■ Product range:

   OSM47, OSMT60

Color recognition   Split through-beam correction

Distance Measurement Sensor

- Red light, Laser,infrared light source
- Analogue, Switching double, RS485, IO-Link, UART
- Teach-in button, Potentiometer adjustment LED display
- Product range：

  OS10S, OS10U, OSM40, OSM41, OSM42, OSM58, OSM61, OSM70, etc

Smart 3D Laser Profile Sensor

The LVM series 3D laser profile sensor adopts an ultra high-speed processor to scan and process object profiles and dimensions accurately. It can output line profile and point cloud data in real time, which is widely used in industries such as lithium batteries, new energy, consumer electronics, automobiles, food, pharmaceuticals, logistics, etc.

Encoder ENCODER

Photoelectric Incremental Encoder

■ AL-alloy housing is robust and durable

■ Advanced dual shaft structure, excellent mechanical load performance

■ Over-current and short-circuit protection to ensure product safety

■ Multi-resolution optional, excellent transmission distance

■ Heavydic design to meet the harsh environment of heavy industry

■ Large hollow shaft product is easy to install and save installation space

Photoelectric Absolute Encoder

■ Parallel interface, serial interface, analog interface are optional

■ Industrial Ethernet PROFINET/IO, EtherNet/IP, EtherCAT interface use with different host computers

■ Fieldbus PROFIBUS-DP, CANopen, DeviceNet meet different needs

■ Shaft and hollow shaft are available for option, with various European standard flanges

■ Single-turn resolution up to 19bits, multi-turn resolution up to 31bits

■ Provide mechanical and electronic multiturn measurement technology, excellent mechanical performance, meet the stringent requirements of various industrial sites

Special Application Encoder

■ Explosion-proof products: shaft and hollow shaft are available for option, a variety of electrical output interfaces are optional, AL-alloy and stainless steel are optional

■ High and low temperature products: high temperature products can reach a maximum working temperature of 110 °C, and low temperature products can reach a minimum working temperature of -40 °C

■ Corrosion-resistant products: stainless steel housing and components can be used in strong corrosive environments, such as metallurgical pickling line, marine petrochemical and other harsh sites

Encoder ENCODER

Magnetic Encoder

■ Magnetic technology, safe and reliable

■ Small size, save installation space

■ Complete magnetic technology solution, provide incremental and absolute products

■ Excellent magnetic chip technology, support SSI, 4...20mA and CANOPEN three interface signal outputs

■ Reverse protection and short circuit protection

■ Stainless steel and customized selection of low temperature resistant products

Accessory

■ Drag wire product is used together with the encoder to provide a variety of electrical output interface options, high repeat positioning accuracy is 0.05mm

■ Overspeed switch to ensure safe production on-site in heavy industry

■ Rich electrical connection accessories and mechanical installation accessories

PLC

Logic X series PLC

CODESYS

EtherCAT

COMING SOON

Logic X0   Logic X1   Logic X3

The newly launched LogicX series PLC further enriches ELCO's automation product portfolio and brings more choices for customers. The controller uses the latest Runtime system of CODESYS. The open and standard programming platform adopts CODESYS V3.5 SP19, which is in line with mainstream programming trends.

PLC

Logic X series PLC

Logic X0 Small Logic PLC

- High Real-Time operating system
- Support Modbus RTU/TCP master and slave stations
- Support CANopen master station (optional)
- Optional support EtherCAT master station (bus axis not supported), with a max. 32 EtherCAT slave station of IO
- Programspace 2M, dataspace 512KB
- Data variable support: I \ Q \ M area variables
- Support local 100K high-speed pulse output
- Support local 100K high-speed counter
- Support up to 512 points, local 16 points
- Programming language:ST \ LD \ CFC \ FBD \ SFC
- Support RS485, RS232, TF card
- Modular design, support high-speed backplane bus expansion with diverse modules such as DI, DO, AI, AO, temperature acquisition, pulse input, RS485 communication, etc

Logic X1 Small PLC

- For EtherCAT Small PLC with motion control
- Support EtherCAT master station (Max. 16 axis), with a max. connection of 72 EtherCAT slave stations of IO
- Support Modbus RTU/TCP master and slave stations
- Programspace 16M, dataspace 8M
- Support local 200K high-speed pulse output
- Support local 200K high-speed counter
- Support over 3000 points, and local 16 point PNP and NPN, optional high-speed IO
- Support PLCopen motion control specifications for single axis motion, electronic gears, and electronic camshafts.
- Programming language:ST \ LD \ CFC \ FBD \ SFC
- Support RS485, RS232, Type-C USB and TF card
- Modular design, support high-speed backplane bus expansion with diverse modules such as DI, DO, AI, AO, temperature acquisition, pulse input, RS485 communication, etc

Logic X3 Medium Motion Control PLC

- For EtherCAT Medium PLC with motion control
- Support EtherCAT master station (Max 32 axis), with a max. connection of 72 EtherCAT slave stations IO
- Support Modbus RTU/TCP master and slave stations
- Programspace 64M, dataspace 8M
- Support local 200K high-speed pulse output
- Support local 200K high-speed counter
- Local 16 point PNP and NPN, optional high-speed IO
- Support PLCopen motion control specifications for single axis motion, electronic gears, electronic cams, CNC G code control/Robot control, linear interpolation/circular interpolation/spiral interpolation.
- Programming language:ST \ LD \ CFC \ FBD \ SFC
- Support RS485, RS232, Type-C USB and TF card
- Modular design, support high-speed backplane bus expansion with diverse modules such as DI, DO, AI, AO, temperature acquisition, pulse input, RS485 communication, etc

FX20

FX20 Series Distributed IO

- The FX20 series distributed IO consists of a bus coupler, IO modules and functional modules
- The coupler is compatible with multiple Ethernet bus protocols such as EtherCAT, Profinet, Ethernet/IP, CC-LINK IE FB, and can expand up to 32 modules
- IO and functional modules include digital input and output, relay output, analog input and output, temperature measurement, high-speed counting, IO-Link Master station, communication bridge ...
- Adopts high-speed 100 Mbps backplane bus technology, with high communication bandwidth and fast response speed
- The modules and terminals are detachable, tool-free for quick installation and wiring
- Terminal color system for clear identification
- LED alarm indicator, online diagnostic message

Compact67

COMPACT67

Compact 67

PROFI BUS | PROFI NET | EtherCAT. | EtherNet/IP | DeviceNet CONFORMANCE TESTED | CC-Link

Introduction:

I/O systems used in harsh environments:

Standard 60mm and slim 30mm distributed I/O provide a reliable, trusted solution for connecting controllers and fieldbus I/O system in harsh environments. Based on a 30/60mm wide IP67 protective housing, fast and reliable standard connector connection, the module's internal insulating material encapsulated, can be installed in a standardized manner, and safely and reliably operated in the harsh working environment where water, dust and vibration may occur, meanwhile supporting standard industrial fieldbus, rich I/O configuration, good channel protection and online diagnostics make it suitable for applications such as metallurgy, automotive, and material transportation.

Application: ■ Metallurgical industry ■ Automotive industry ■ Material transportation ■ Machine tool industry ■ Packaging industry

Classic Modules

Features:

■ Classic design saves space for direct installation of mechanical device

■ Fast, reliable connector connection

■ Support PNP and NPN input

■ Freely configurable I/O combination

■ LED display

■ Online diagnosis of modules and channels

Slim Modules

Features:

■ IP67

■ For small and narrow installation space

■ M8 interface for power supply and network

■ Independent hub that can be directly connected to PLC

■ LED status display, channel-level protection and diagnosis
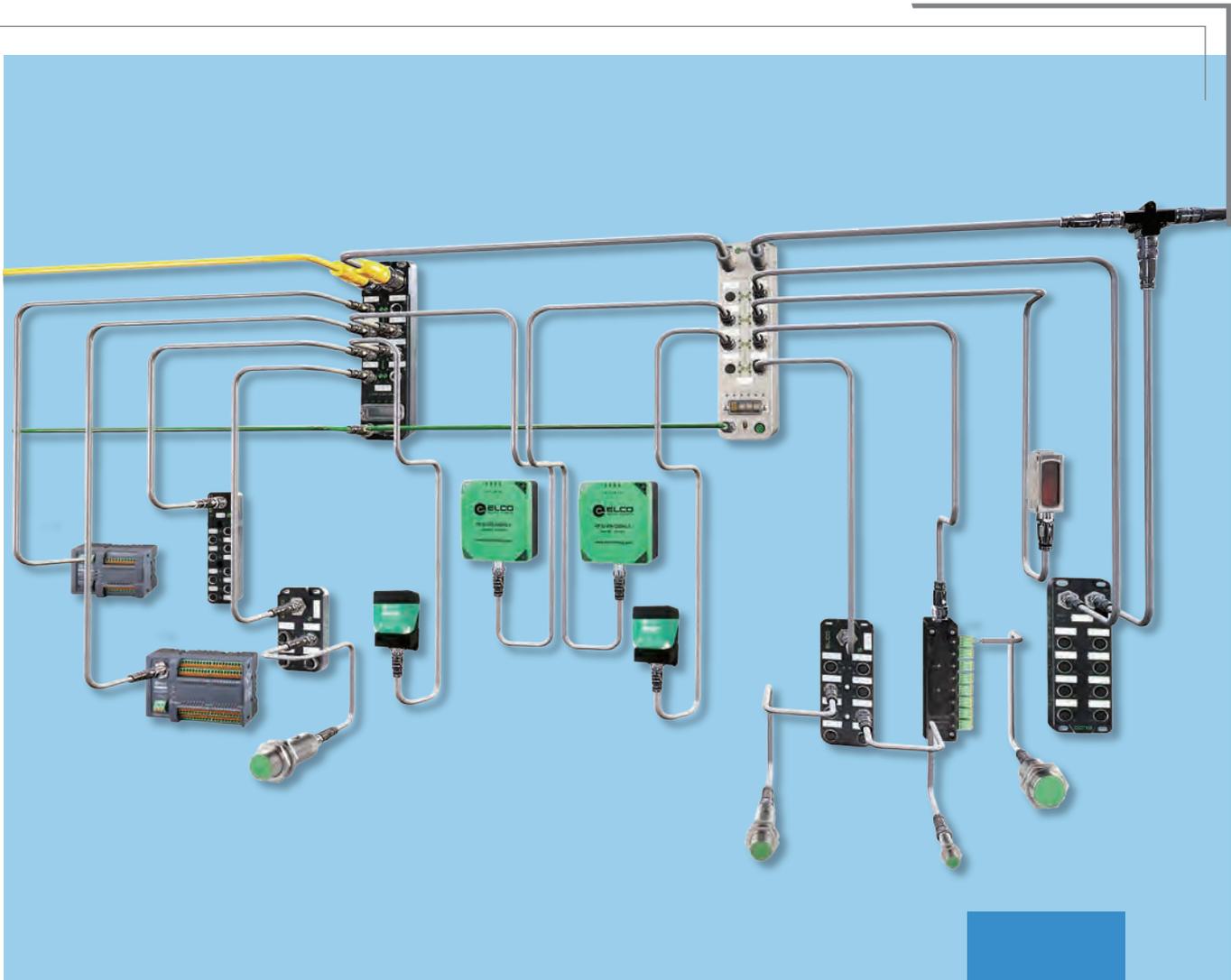
Digital module   Analog module

IO-Link

IO-l

IO-Link Master

ELCO provides you with comprehensive IO-Link system solutions, including IO-Link standard Master, metal housing Master, IP67 digital hub supporting IO-Link, IP20 digital and analog hub, IP20 digital mini hub, high-frequency RFID supporting IO-Link, etc., helping customers improve the performance of production lines, achieve efficient data collection and transmission, ensure safe communication, and cost control.

IO-Link

IO-LINK

IO-Link Master

Features:

■ The IO-Link Master supports 8 IO-Link interfaces in the form of Class-A or Class-B

■ Complies with the requirements of IO-Link v1.1.2

■ Support 3 communication rates: COM1 (4.8kbps), COM2 (38.4kbps), and COM3 (230.4kbps)

■ Support mainstream industrial Ethernet bus protocols such as Profinet, EtherCAT, Ethernet/IP

■ Can connect various IO-Link standard devices and switching signals

■ Standard and metal housing optional

■ LED status display, protection and diagnosis in channel level

IO-Link IP67 Digital Hub

■ Complies with the requirements of IO-Link v1.1.3

■ Support COM2 (38.4kbps) communication rate, compatible with ELCO or third-party IO-Link Masters

■ IP67 field-level hub is used to collect and control switch input and output signals on-site. It can connect up to 16 switch signals and can connect various IO-Link equipment and standard switch signals

■ Multiple IO and 16-point input and output configurable modules

■ Standard 0.5A output current, L-CODE auxiliary power supply slave module optional, max. 2A per channel

■ LED status display, protection and diagnosis in channel level

IO-Link IP20 Hub

IO-Link

IP20 IO-Link hub product based on DIN rail installation in the cabinet, which meets the IO-Link V1.1.3 standard, including standard 32-point digital, 16-point compact, and 4-channel analog products. To maximize the applicability of the product, each product can choose an industrial M12 circular interface or terminal to realize IO-Link communication. When driving large loads, auxiliary power supply can be selected, and for the convenience of supplying power to sensors,   equipotential terminal is optional, no additional terminal required.

32&16 digital 4AI/AO IO-Link hub

Features:

■ 4 pins or M12 connection

■ Optional equipotential terminal, convenient for sensor

  power supply

■ Installation of 35mm rail or hole installation

■ Optional auxiliary power supply - provides 2A output version

■ Resolution of 16 bit, accuracy of 0.3 %

■ Input signals 0... 20 mA, 4... 20 mA, 0... 10 V, ± 10 V

■ Output signals 0... 20 mA, 4... 20 mA, 0... 10 V, ± 10 V

FB20 series integrated IP20 I/O module

Features:

■ Standard 35mm DIN rail installation

■ Pluggable I/O wiring terminals and equipotential terminals

■ 32DI,16DI/16DO,16DI/16UP

■ Compatible with multiple Ethernet bus protocols

IO-Link

IO-LINK

IO-Link IP20 Mini Hub

Mini Hub is the most compact IP20 hub in IO-Link solutions. It adopts a standard M12 A-code interface, which meets the IO Link V1.1.3 standard. It has 3 pluggable terminals for easy installation and maintenance. 8DI and 4DI/4DIO, making it particularly suitable for small control cabinet, remote control cabinet, and other application with limited installation space.

Features:

■ Compliant with IO Link V1.1.3 standards

■ 8 × 3 single row pluggable spring terminals

■ Multiple IO types of 8DI, 4DI/4DIO

■ Mini 108 × 25 × 22 mm

■ Equipped with mounting bracket, easy to install

IO Link High Frequency RFID

Features:

■ High frequency RFID (13.56MHz), suitable for industrial near field recognition

■ Adopting IO-Link COM3 (230.4kbps) communication rate, data transmission is fast and efficient

■ Without the need for additional communication modules, it directly connects to the IO-Link Master, simplifying the customer's system structure and reducing usage costs

■ Provide standard functional modules, with a maximum of 1024 bytes of data R/W at once, to meet customers' high capacity R/W requirements

■ Optional Q95H and C40H high-frequency R/W heads with different R/W distances and sensing ranges

RFID

RF30 series RFID adopts ultra-high frequency (UHF)technology, and various R/W heads with different R/W distances and installation sizes can realize efficient and fast data exchange with the code carrier, and the longest read distance can be reached 10 m; the standard bus protocol compatible gateway can be easily combined with the PLC system; the modular design of the IP67 makes the RF30 series more suitable for direct installation in the industrial site; the firm packaged industrial grade code carrier accommodates reliable reading, writing and storage of a wide range of industrial environments. In addition, flexible customized connection cables and mating connectors provide customers with more ease of installation and use. RF30 Series RFID can be used in automotive manufacturing, automotive parts assembly, non-standard automation equipment, machinery manufacturing and other fields, providing complete identification solutions for production automation systems and information systems.

Features:

■ UHF can adapt to a variety of applications

■ The maximum readable range of R/W head is 0.07m-10m, which meets various industry recognition requirements.

■ Industrial fieldbus interface, RS485 and Ethernet interfaces are optional, compatible with a variety of control systems

■ Multi-type industrial grade UHF and HF tags to meet the installation requirements of different tested objects

■ IP67 protection class, suitable for industrial site environment

■ LED indication and online diagnosis function，easy to use, stable and reliable

RFID

Q80U

Features:

■ Built-in antenna, integrated design

■ Ultra high frequency fast R/W

■ Adjustable transmission power

■ IP67 protection grade

■ Optional TCP/IP and RS485 outputs

Q240M

Features:

■ UHF RFID integrated design

■ Maximum tag scanning distance is up to 10m

■ The maximum number of tag processed is 400 per second

■ Integrated 2-channel IO for easy sensor access

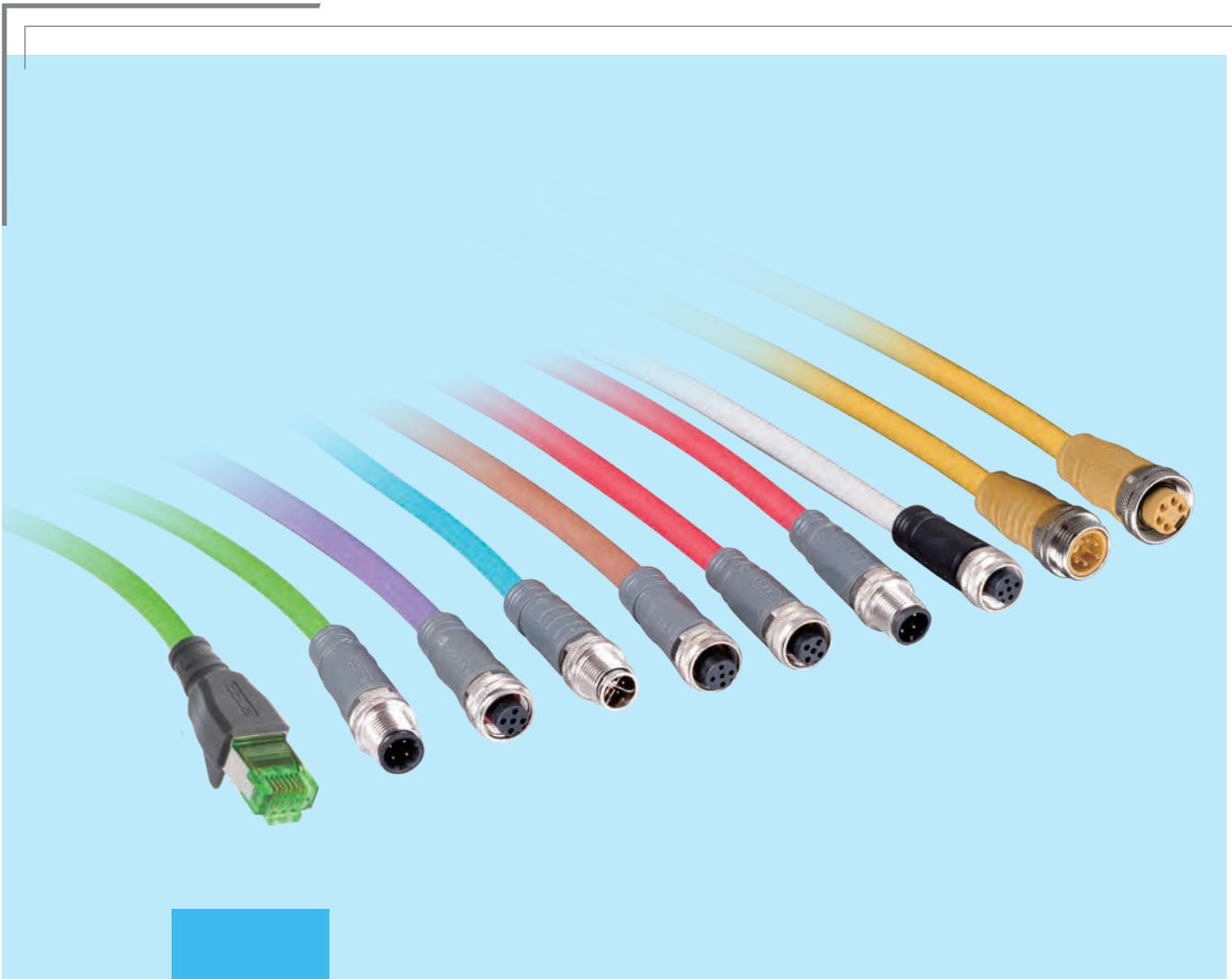■ Protection class IP67

Distribution Box

DISTRIBU

ESP series—Distribution Box

■ M8 interface provides five channels (ports) of 4, 6, 8, 10, and 12

■ M12 interface provides three channels (ports) of 4, 6, and 8

■ Direct output cable, M12, M23, terminal

■ PNP, NPN output indication

■ Protection class IP67

Connector

CONNECTORS

Connector

- M12, M8, 7/8 interface, M12 B-Code for Profibus, Mini-change, M12 A-code for

DeviceNet, M12 D-code for Profinet, RJ45 pre-wired and field connector, etc.

- Straight, angled

- Single-ended, double-ended

- Multiple number of core and various material of jacket

- Flexible cable length

- Protection class IP67

M12/M8Connector

M12 Connector

- M12 interface, A-Code, B-Code, D-Code, L-Code
- Straight, angled
- LED display
- Shielding function
- Single-ended, double-ended, Y-Spliter etc
- Multiple number of core and various material of jacket
- Flexible cable length
- Protection class IP67

M8 Connector

- M8 interface, A-Code
- Straight, angled
- LED display
- Shielding function
- Single-ended, double-ended, Y-Spliter, Snap-in φ8 etc
- Multiple number of core and various material of jacket
- Flexible cable length
- Protection class IP67

Y-Spliter / Flange Connector

CONNECTORS

Y-Spliter

- M12 interface, A-Code
- Straight, angled
- LED display
- Y-Spliter
- Multiple circuit design
- Flexible cable length
- Protection class IP67

Flange Connector

- M8, M12, 7/8 interface
- Rear panel installation/front panel installation
- Multiple number of core and various material of jacket
- Protection class IP67
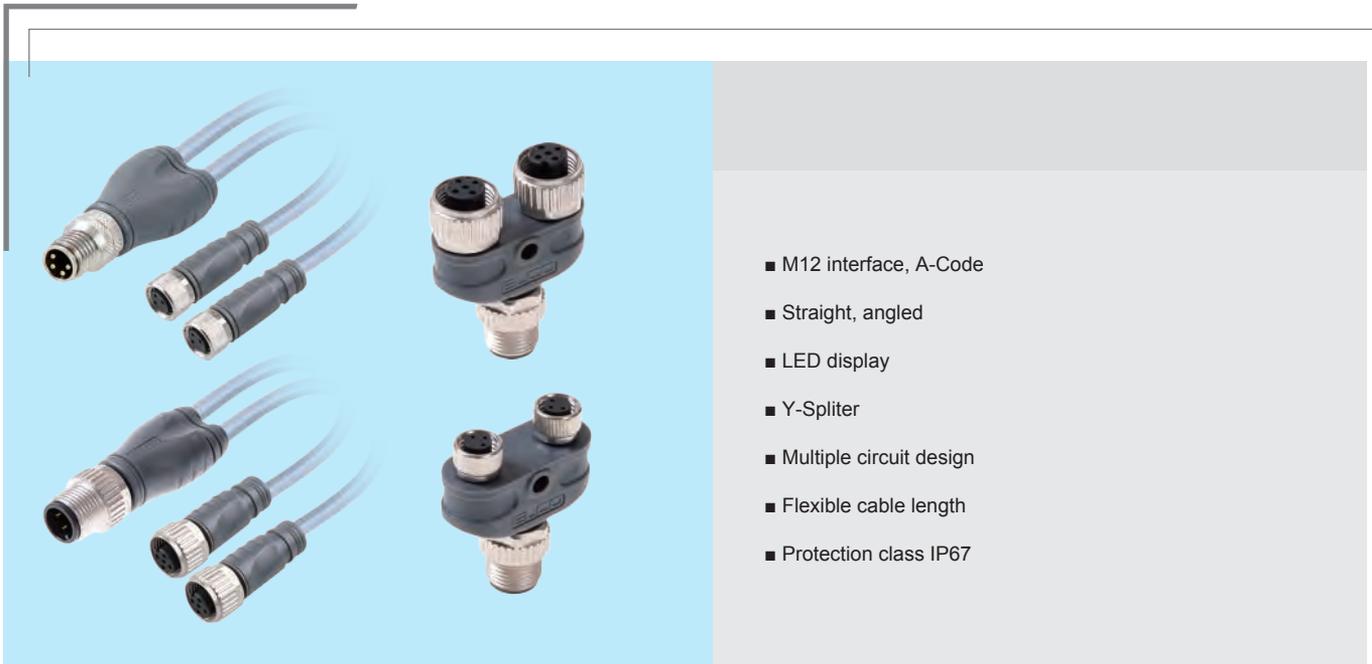
SAFETY Safety

Safety light curtain

■ Metal slim housing, durable

■ Distance, Max.19m

■ Rich product specifications, protection height: 150mm...1800mm

■ Multiple resolutions are optional: 14,30,50,90mm

■ EDM function

■ Automatic / manual reset function

■ Applied to machine tools, automobiles, logistics, printing and

  packaging, rubber and plastic machinery and other industries

Safety Scanner

■ Scanning range: 0-275°

■ Safety Operating Range: Max.5.5m

■ 2 Warning zones up to 40 m

■ 30/40/50/70/150 mm selectable detection capability

■ Partial dynamic muting

■ Metal brackets allowing full orientation and fast replacement

Safety Relay Module

■ Type 4, ISO 13849; Sil 3, IEC 61508

■ Compact design, 22.5mm

■ Various coil voltages and output contacts are optional, 24V AC/DC

■ Single / double channel input are optional

■ LED display channel 1, channel 2 working status

■ 1N.O+1N.C,2N.O, 3N.O+1 N.C,4N.O

■ Automatic / manual reset are optional

■ Applied to the control of dangerous movement, such as automobile,

  port, wind power, rail transit, printing and packaging industries, etc

Indicator INDICATOR

PG50 Signal Tower light

- Integrated tower light with simple and generous shape
- Diameter 50mm, and the 1 segment /3 segments are available with different heights. Different colors are available, single segment that can display RGB 3 colors, the color of three segment from top to bottom are red, yellow, green
- Input voltage: 24V DC
- Alarm buzzer is available
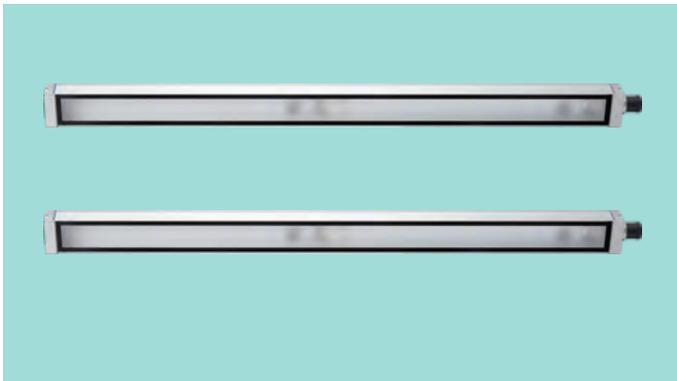- Cabled and quick-disconnect models available
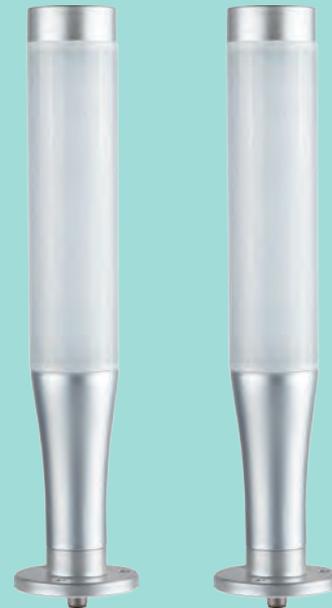
PR30/PR50/PR90 Bulb Indicators

- RGB 3 or more colors
- Body Diameter 30mm，50mm，90mm

# Industrial lighting

LF32 Strip lighting

- 250/500/750/1000mm 4 lengths
- Alumina housing and durable glass window , waterproof and dustproof up to IP65
- The L-type swivel mounting brackets
- Stand-alone and cascadable models available

LF48 Strip lighting

- 200/400/600/800mm 4 lengths
- Alumina housing with anodizing surface, durable toughened glass window , waterproof and dustproof up to IP67
- The L-type swivel mounting brackets
- Cascadable

LL76 Integrated lighting
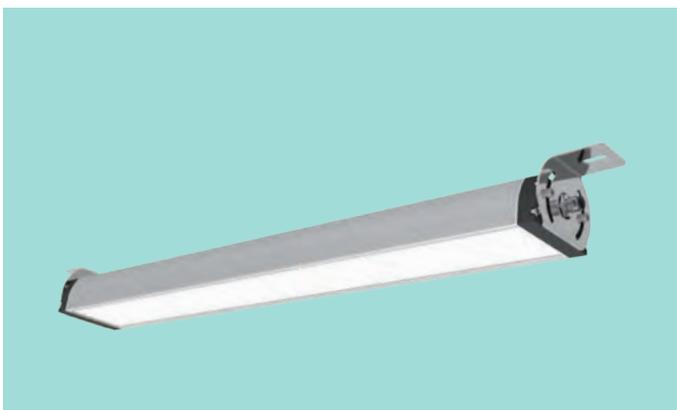
- 300/600/900/1200mm 4 lengths
- LED Module and driver integrated design, compact structure, easy to install, 2 fluorescent lamps with equal length can be replaced directly
- High-performance PMMA diffusers, uniform and soft light
- Isolated constant current driver for flicker-free, safe and reliable
- The L-bracket can adjust the angle within ±45° to illuminate the target surface and improve light utilization

NOTES

NOTES

Version: