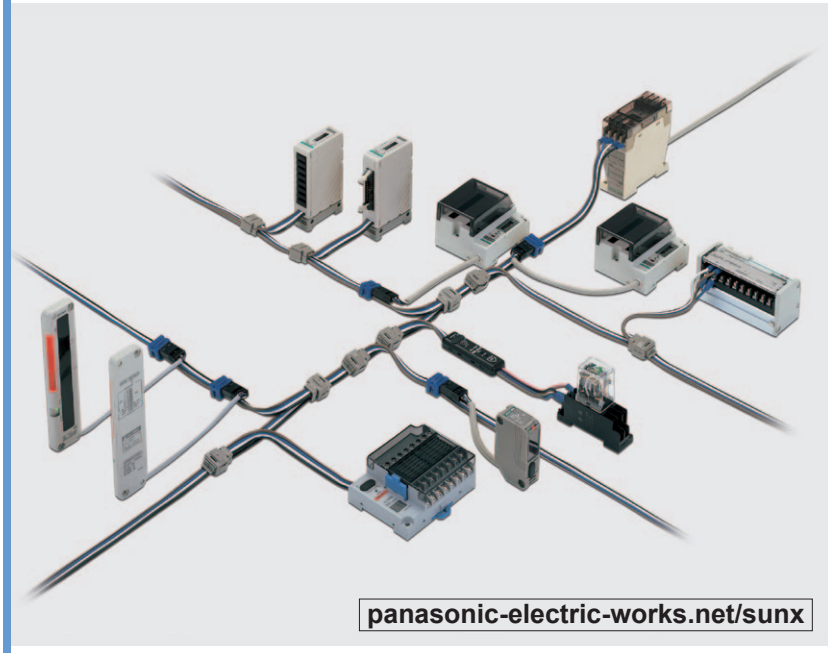
Sensor & Wire-saving Link System

# S-LINK

Related Information ■ General terms and conditions..... F-17





panasonic-electric-works.net/sunx

CE Conforming to EMC Directive (Excluding some models)

This product is introduced to only limited countries. Please contact our office for details.

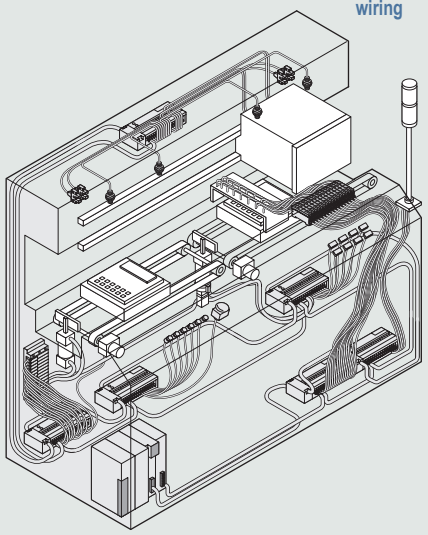
## S-LINK transmits 128 points on two signal lines, and “T”-branch multi-drop system enabling flexible cable layout

### We’ve realized a wire-saving system that’s easy to use

**Remote I/O**

Just with the wire-saving between the PLC and the sub-stations, you’ll be able to save a mountain of I/O device connection wires.

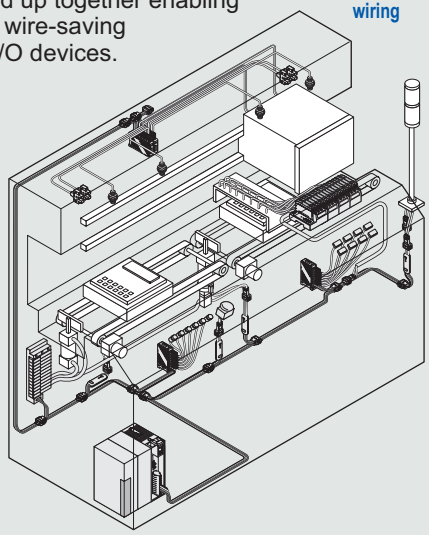
The remote I/O is one-dimensional wiring



**S-LINK**

Allows for great wire-saving for all connections. Installation is made easy with no faulty wiring. The power supply line can also be wired up together enabling true wire-saving for I/O devices.

The S-LINK is two-dimensional wiring



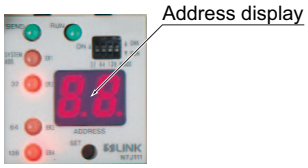
Transmission distance:
200 m 656.168 ft (400 m 1312.336 ft when using booster)
Total wiring length:
400 m 1312.336 ft (800 m 2624.672 ft when using one booster)
Connectable I/O: 128 points
(The maximum number of sub-stations which can be connected: 128 nodes)

## High noise immunity

Large voltage amplitude (24 V) and wide pulse width (35 µs) signal transmissions make for units less prone to impulse noise effects with no code errors.
This high level of noise proofing enables them to be used even in worksites with conventional, high-priced optical communication remote I/O units.

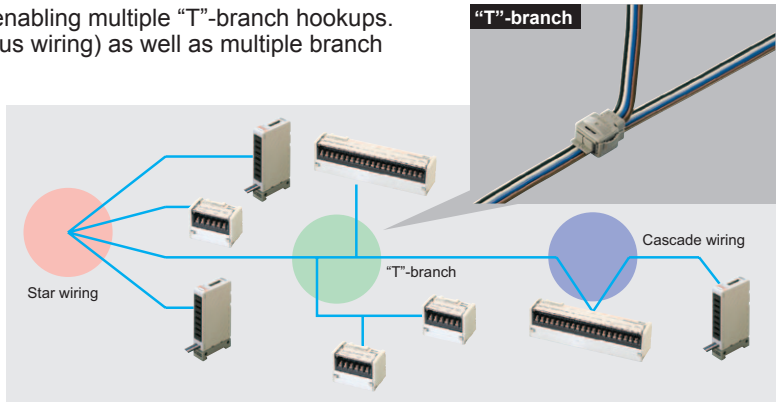
## Specifies malfunctioning S-LINK I/O devices

In the event that verification cannot be obtained from an **S-LINK** I/O unit, such as if the main cable is cutoff, the address of the particular unverifiable **S-LINK** I/O unit is specified and displayed allowing equipment recovery time to be greatly reduced.




## Alleviates the burden laid on engineer for designing and wiring

Labor-saving hook-up connectors are used enabling multiple “T”-branch hookups.
It goes without saying that cascade wiring (bus wiring) as well as multiple branch wiring (star wiring) is also possible.



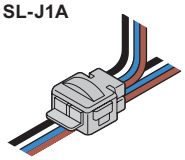

## Simple and reliable connections

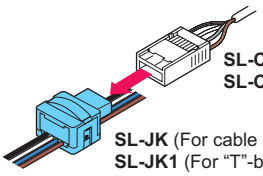
We’ve provided all types of hook-up connectors. Connections from **S-LINK** I/O devices to the main cable and from sensors and other devices to **S-LINK** I/O devices are all realized with one-touch hook-up connectors. They can be connected anywhere quickly and maintenance is easy.

### Branch cable to main cable connection and S-LINK I/O device to main cable connection

* The values in ( ) represent conductor cross-section areas.

**SL-J1A**

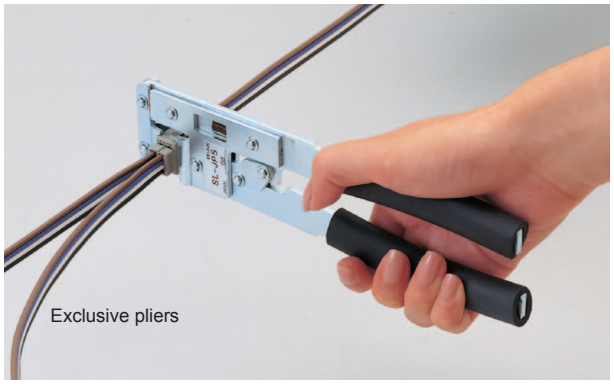




**SL-CP2** (0.3 mm²)
**SL-CP3** (0.5 mm²)

**SL-JK** (For cable end)
**SL-JK1** (For “T”-branch)

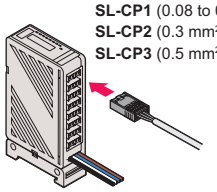
In addition, to enhance the reliability of the crimping, **S-LINK** exclusive pliers are made available so that anyone can do it with ease.




### Connection from various connected units to S-LINK I/O devices

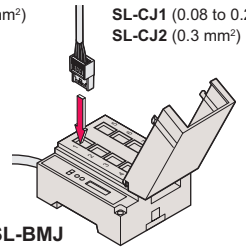
* The values in ( ) represent conductor cross-section areas.

**SL-CP1** (0.08 to 0.2 mm²)
**SL-CP2** (0.3 mm²)
**SL-CP3** (0.5 mm²)



**SL-T8J**

**SL-CJ1** (0.08 to 0.2 mm²)
**SL-CJ2** (0.3 mm²)



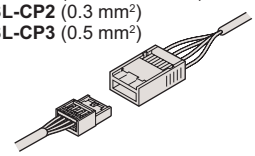
**SL-BMJ**

### Connected device extensions

* The values in ( ) represent conductor cross-section areas.

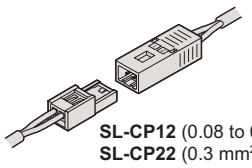
**4-pin type**

**SL-CP1** (0.08 to 0.2 mm²)
**SL-CP2** (0.3 mm²)
**SL-CP3** (0.5 mm²)



**SL-CJ1** (0.08 to 0.2 mm²)
**SL-CJ2** (0.3 mm²)
**SL-JK** (0.5 mm²)

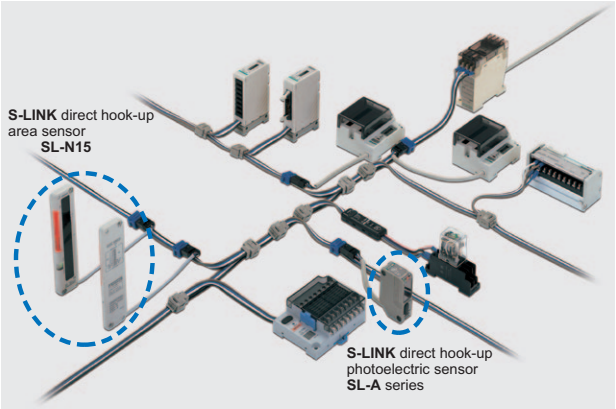
**2-pin type**



**SL-CP12** (0.08 to 0.2 mm²)
**SL-CP22** (0.3 mm²)

**SL-CJ12** (0.08 to 0.2 mm²)
**SL-CJ22** (0.3 mm²)

## Direct main cable connecting of sensors and actuators possible




All types of transmission line direct-connecting type sensors are made available. Even partner makers are putting on the market manifold electromagnetic valves and limit switches that can be directly connected with the **S-LINK** system making wire-saving and labor-saving a reality.

### Items offered by partner makers

Manifold electromagnetic valve manufactured by Koganei Corp.

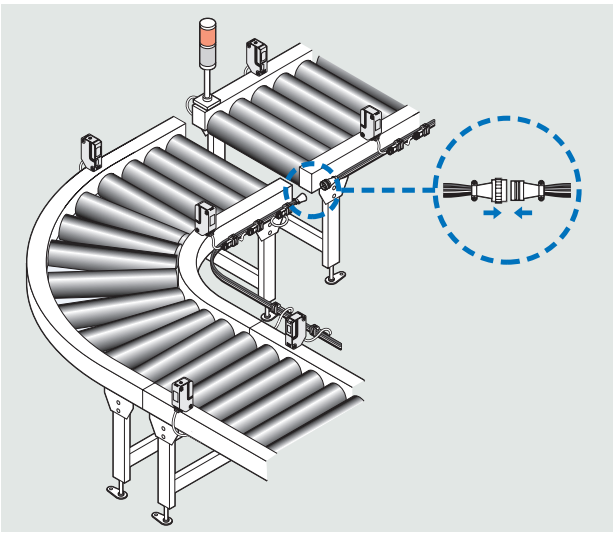
Manifold electromagnetic valve manufactured by SMC Pneumatics

Manifold electromagnetic valve manufactured by CKD Corp.

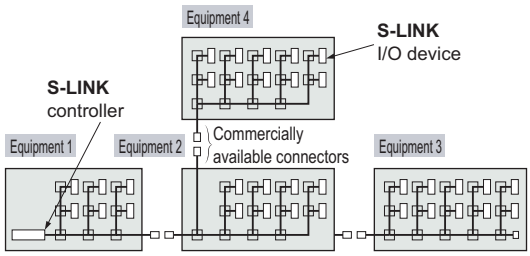
Component indicator lamp manufactured by Yazaki Industrial Chemical Co., Ltd.

## Mid-system main / branch cable installation and removal possible

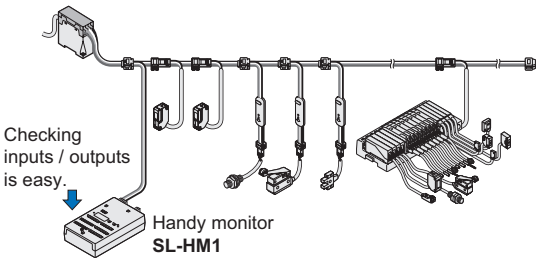
For conveyors or other large scale equipment, transport can also be done after dividing the whole into units of several meters in length right at the factory. Then, reassembly and wiring can be effectuated onsite afterwards. Because the **S-LINK** can be easily divided even from mid-system main / branch cables with the help of commercially available connectors and terminals, the segmented equipment can be wired up prior to transport. Once onsite, assembly work is all but complete with just the connecting of the individual units to each other.
In addition, when assembling the equipment, the **S-LINK** can work even disconnected from the PLC enabling software (PLC programming) and hardware (machine assembly, I/O check) work to be done concurrently, which results in quick delivery time. With the handy monitor, I/O devices can be checked for each piece of equipment separately enabling subcontractors to conduct check work on delivery. This results in a total delivery deadline reduction and clearly defined subcontractor responsibilities. Also, checking can be performed even without programming so you'll know immediately if malfunctions are coming from the PLC or the **S-LINK**.



### Dividing equipment into subunits possible



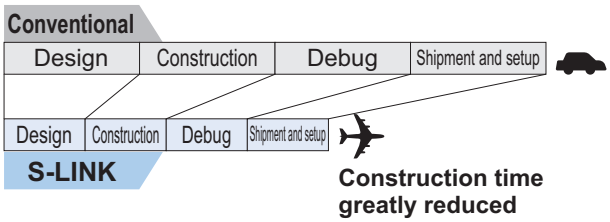

### Individual equipment subunits can be checked separately



## Total cost reductions and great savings in setup time

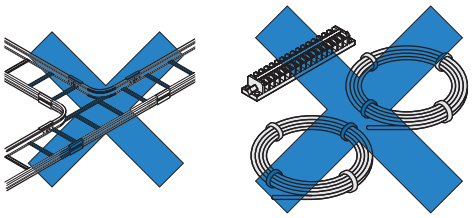
By introducing the **S-LINK**, you can reduce the total cost of system construction to one-fifth. Total costs including for materials go down dramatically and, by decreasing the workload, construction time is lessened which means you can easily meet that tough deadline.
The **S-LINK** system:

- A hardware-only construction makes layout design simple
- With hook-up connectors, construction time is greatly reduced
- Layout modifications made easy
- Equipment divided into separate segments make for easy debugging
- Segmented equipment can be easily interlinked with commercially available connectors



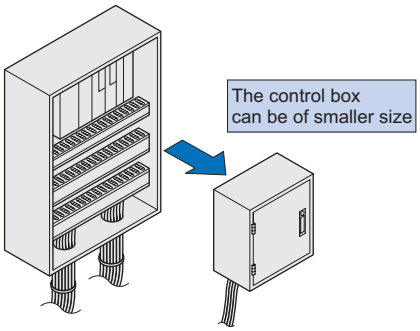

## Auxiliary materials reduced

Great reductions in auxiliary materials such as cable racks, cable ducts, intermediate terminal blocks, and cables. This system also contributes greatly to the reduction waste caused by cutting cable ends.



## Space-saving

Because of great reductions in the amount of intermediate terminal blocks and cables needed, you can save space and minimize the size of your control board and machines.
This will finally let you put all that wasted space to good use.




## Upper-level network connection possible

Because it can be connected to any main open network, long-distance and multi-point transmission networks can be constructed enabling a greatly enhanced network upgrade. Also, by wiring up scattered bit-oriented I/O devices that include mostly connected sensors and switches, an efficient wire-saving layout can be realized. If exporting equipment that was setup with any open network, it can be made to correspond to different networks just by installing an **S-LINK** gateway controller with the entire **S-LINK** system left as it is.