

TL70 Pro Modular Tower Lights

5	OFF	Audible
4	ON	Blue
3	FLASH	White
2	ON	Magenta
1	FLASH	Green

 **IO-Link**®

PROFI®
INDUSTRIAL ETHERNET
NET

EtherNet/IP®

 **Modbus**

Easily Integrate Customized Dynamic Indication Throughout a Facility

- Expand what is visually communicated via tower lights by using multi-color light segments with animations including flash, strobe, rotate, and more
- Allow users to stock just a few unique parts and construct the exact tower light needed for their application with a modular design, scaling easily from just one segment up to six segments
- Combine sound with visual notifications to bring greater awareness to people working near equipment by adding an audible segment with selectable tones and intensities
- Control dynamic indication and audible alerts throughout a facility using a choice of IO-Link, Modbus RTU, Ethernet, and/or Power over Ethernet (PoE) models

BANNER®



Each segment can be one of 14 standard colors.

TL70 Pro Tower Lights with Modbus RTU

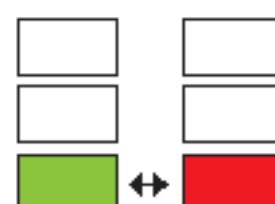
- Configured to communicate via Modbus RTU without the need to connect the device to a computer for setup
- Simple and fast connection with M12 quick-disconnect connectors
- Modbus RTU gives full access to color, flashing, and intensity settings



Modes and Animations



Flash



Two Color Flash



50/50



50/50 Rotate



Intensity Sweep



Chase

Audible and Alerts



Single Tone



Audible

Programmable



	Frequency*	Maximum Intensity
Tone 0	1.7 kHz	81 dB at 1 m (3.3 ft)
Tone 1	2.2 kHz	100 dB at 1 m (3.3 ft)
Tone 2	2.7 kHz	104 dB at 1 m (3.3 ft)

Reduce Unplanned Downtime with Modular Tower Lights

Challenge

A manufacturer relied on the steady performance of their machines to ship orders out in a timely manner. Unplanned downtime resulted in costly delays. Technicians needed a solution that would help them identify and respond to issues by clearly indicating various machine conditions.

Solution

The facility installed TL70 Pro modular tower lights with Modbus atop each machine to help alert operators of stoppages, jams, and other issues.

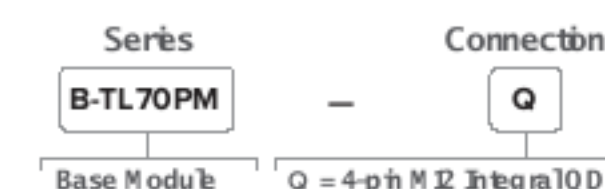
- Since the machines already used Modbus communication, these tower lights easily integrated into the existing system without significant control system changes
- To quickly convey machine status, the TL70 Pro colors and animations were changed via communication from the PLC
- Its modular design meant that they could stock few parts and build the tower lights in the desired configurations



TL70 Pro with Modbus RTU preconfigured three segment tower light installs quickly to convey machine status.

Build Your Tower Light

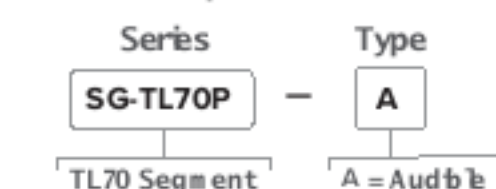
TL70 Pro with Modbus Base



Select up to Five TL70 Pro Light Segments

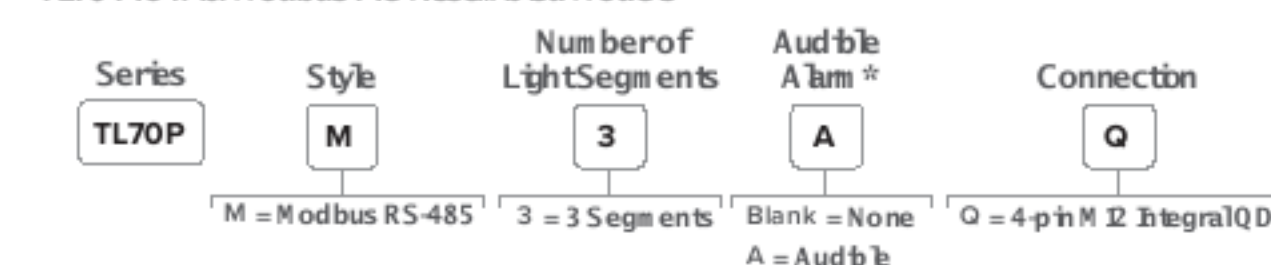


Select an Optional TL70 Pro Audible Segment



Select Your Pre-Assembled Tower Light

TL70 Pro with Modbus Pre-Assembled Models





Each segment can be one of 14 standard colors.

TL70 Pro Tower Lights with Ethernet

- Provides full access to color, flashing, and intensity settings
- Simplify installation with PoweroverEthernet (PoE) mode that uses just one cable to connect directly to a PoE-equipped Ethernet switch, eliminating the need to have a separate power supply

EtherNet/IP®

PROFI[®]
INDUSTRIAL ETHERNET

Modbus

Workstation Status Indication with PoE

Challenge

A manufacturing facility lacked a clear system for displaying workstation efficiencies and operational status at several assembly stations, making it difficult to quickly identify and address issues. The team decided that tower lights would be effective for visual status indication but had no way to control them.

Solution

They connected TL70 Pro tower lights with PoweroverEthernet (PoE) to each workstation via an Ethernet switch, reducing wiring complexity and installation costs, no power supply needed.

- This scalable solution didn't require a qualified electrician for installation, making it easy to add new devices
- Programmable mode offers workstation status indication with 14 color options and various animations to signify different states



TL70 Pro with PoweroverEthernet connects directly to the Ethernet switch at a workstation.

Modes and Animations



Flash

Two Color Flash



50/50

50/50 Rotate



Intensity Sweep

Chase

Audible and Alerts



Single Tone

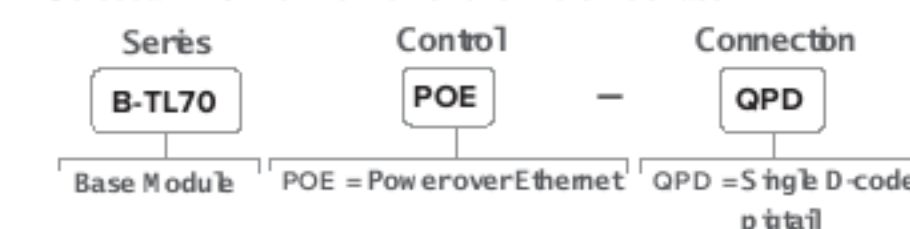
Programmable



	Frequency*	Maximum Intensity
Tone 0	1.7 kHz	81 dB at 1 m (3.3 ft)
Tone 1	2.2 kHz	100 dB at 1 m (3.3 ft)
Tone 2	2.7 kHz	104 dB at 1 m (3.3 ft)

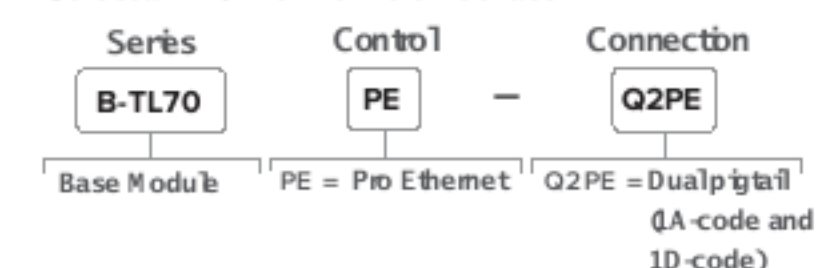
Build Your Tower Light

Select a TL70 Pro with PoweroverEthernet Base



or

Select a TL70 Pro with Ethernet Base



Select up to Five TL70 Pro Light Segments

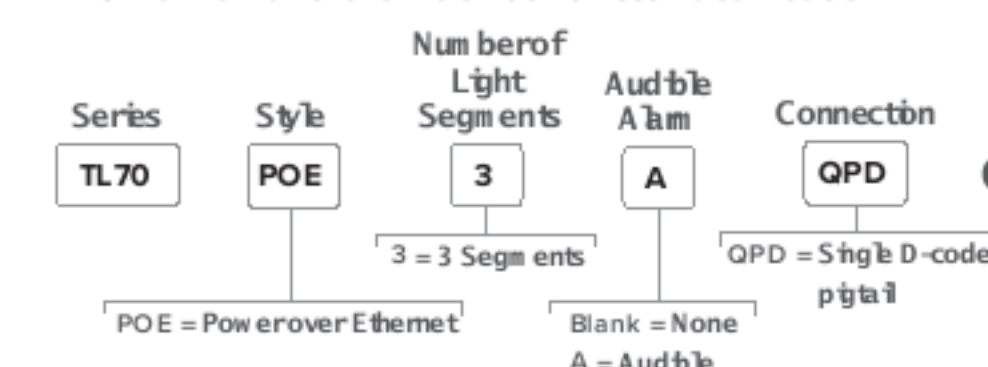


Select an Optional TL70 Pro Audible Segment

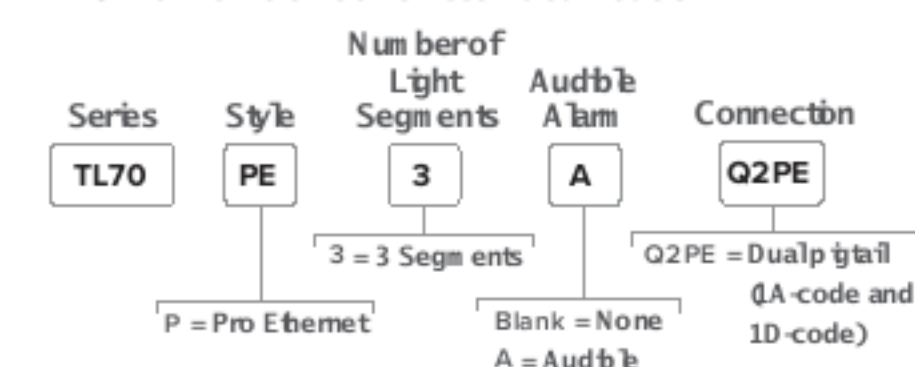


Select Your Pre-Assembled Tower Light

TL70 Pro with PoweroverEthernet Pre-Assembled Models



TL70 Pro with Ethernet Pre-Assembled Models





TL70 Pro Tower Lights with IO-Link

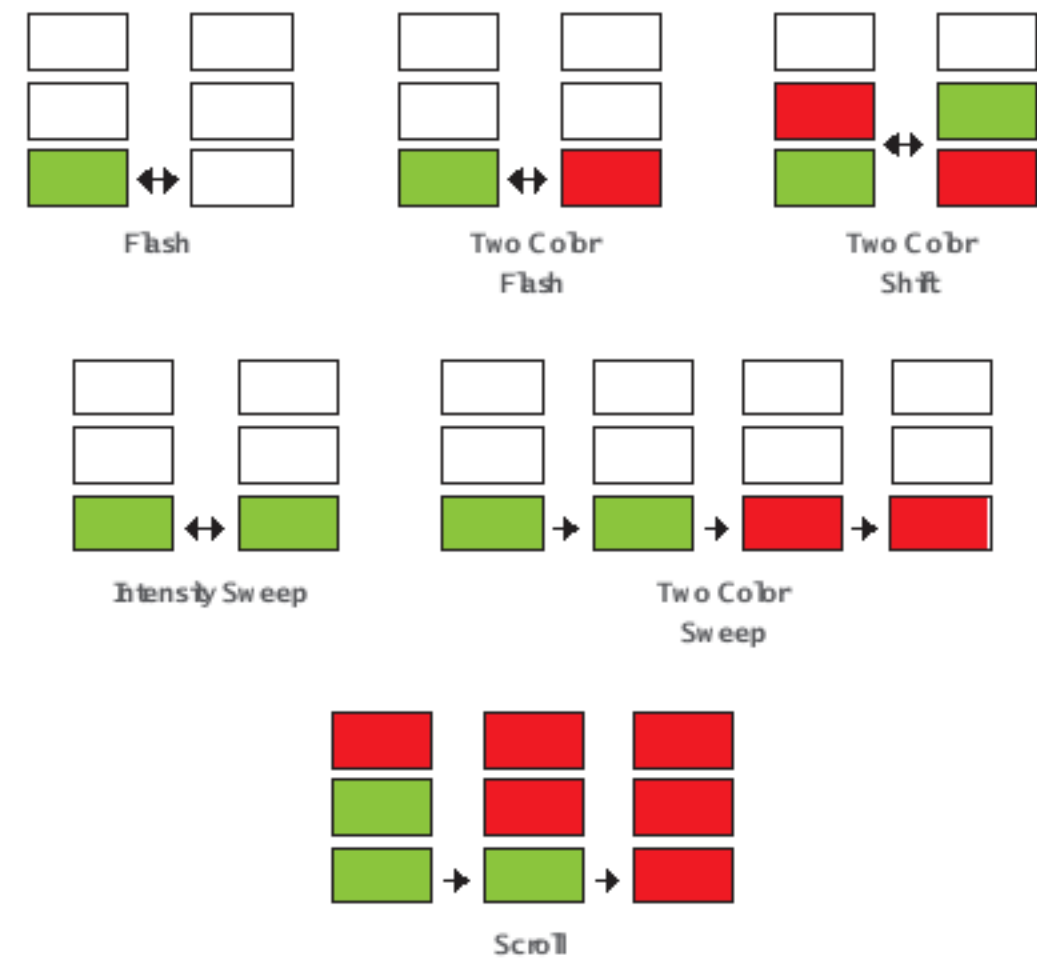
TL70 Pro Series Tower Light provide custom indication by combining the vast color options provided by RGB LEDs with the versatile control capabilities offered via IO-Link.

- IO-Link gives full access to color, flashing, and dimming settings, as well as advanced animations like run and level modes which provides dynamic response to changing machine conditions
- Modular design allows users to easily configure segments depending on application needs
- Audible modules are available with tones including continuous, siren, chirp, and pulse

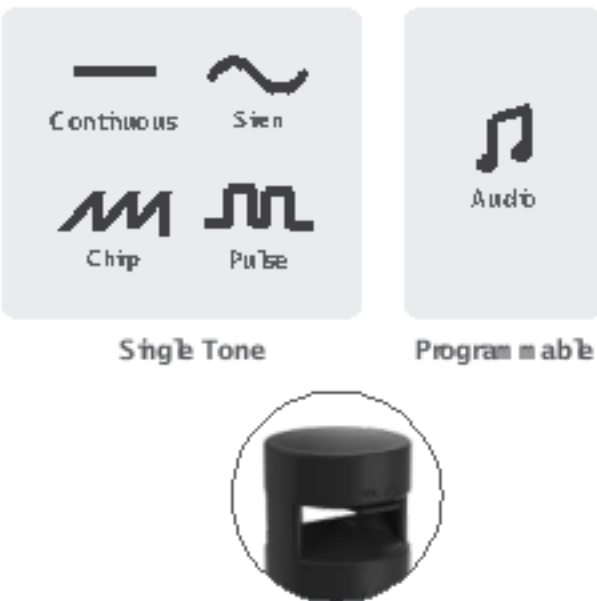


Each segment can be one of 16 standard colors, or a custom RGB blend via IO-Link.

Modes and Animations



Audible and Alerts



Consolidating Inventory with a Modular, Programmable Tower Light

Challenge

An engineer building packaging equipment had a large production line with several tower lights. They had to keep track of numerous combinations of tower lights throughout the facility. The goal was to find a solution that would standardize the parts needed along the production line along with full control over the function of tower light.

Solution

Due to its modularity, programmability, and versatility, the engineer began using TL70 Pro Series modular tower lights on the production line.

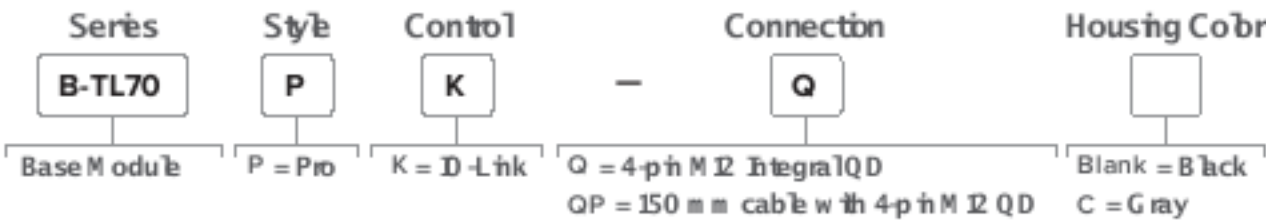
- Modular RGB segments significantly reduced the part numbers that the engineer needed to stock
- Programmed standard colors, custom colors, animations, and status via IO-Link communication



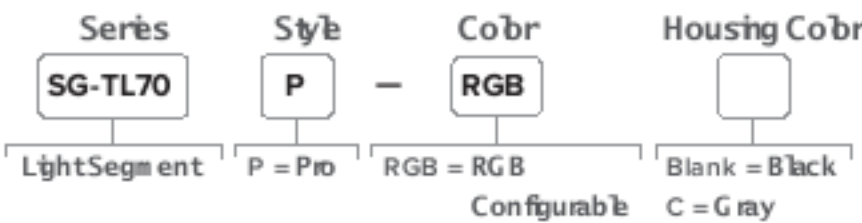
TL70 Pro with IO-Link allows for custom color configuration for each individual light segment.

Build Your Tower Light

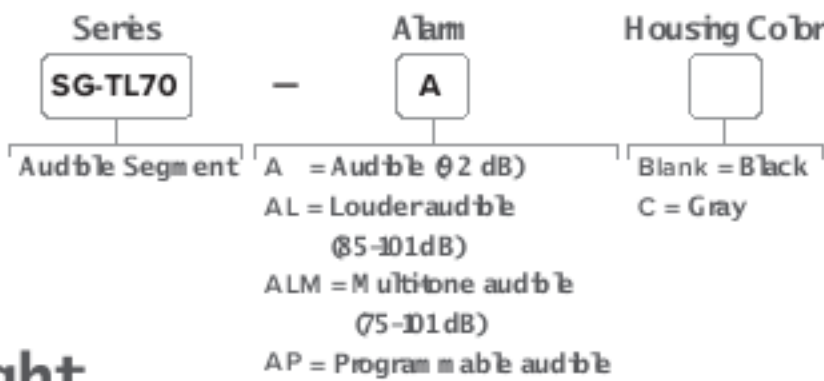
Select a TL70 Pro with IO-Link Base



Select up to Six TL70 Pro Light Segments with IO-Link



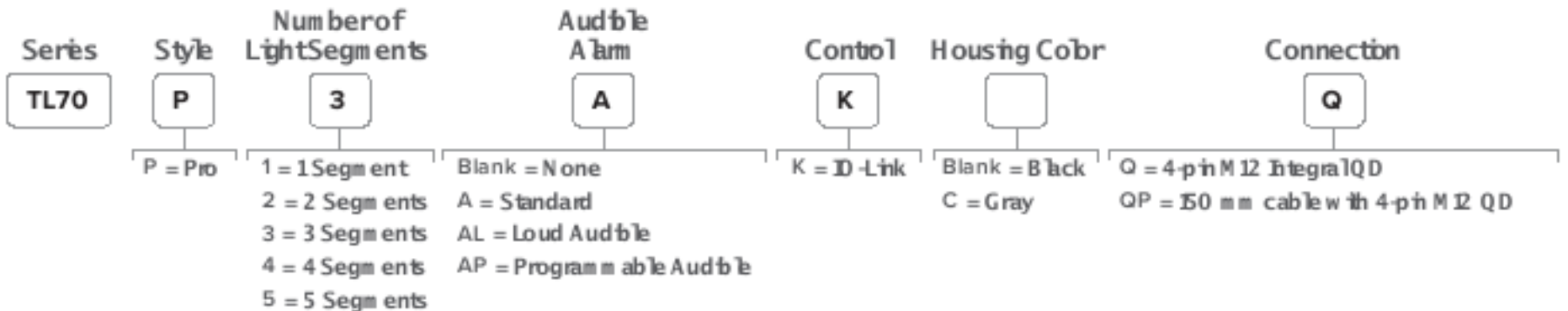
Select an Optional TL70 Audible Segment with IO-Link*



*Can be combined with up to five light segments

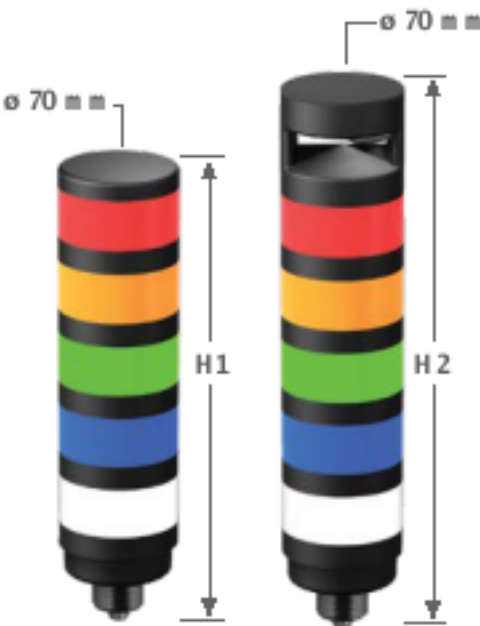
Select Your Pre-Assembled Tower Light

TL70 Pro with IO-Link Pre-Assembled Models



TL70 Pro Tower Lights

Specifications



ø 70 mm

H1

H2

ø 70 mm

Light Segments	Tower Height (H1)	Tower Height with Audible (H2)
1	88 mm	144 mm
2	137 mm	194 mm
3	187 mm	244 mm
4	237 mm	293 mm
5	286 mm	343 mm
6	336 mm	—

Supply Voltage

Construction

Environmental Rating

Operating Temperature

Certifications

PoE Models: 42.5 to 57 V DC
Other Models: 18 to 30 V DC

Polycarbonate

P65, UL Type 4X

≈40 to +50 °C (≈40 to +122 °F)

CE UL LISTED IO-Link

Accessories

Elevated Mount System



SA-M30
Black polycarbonate adapter cover

SA-M30C
Gray polycarbonate adapter cover

SOP-E12-150A (150 mm)
SOP-E12-300A (300 mm)
SOP-E12-900A (900 mm)
Black anodized aluminum pipe

SOP-E12-150AC (150 mm)
SOP-E12-300AC (300 mm)
SOP-E12-900AC (900 mm)
Clear anodized aluminum pipe

SOP-E12-150SS (150 mm)
SOP-E12-300SS (300 mm)
SOP-E12-900SS (900 mm)
304 stainless steel pipe

SA-E12M30
Black Acetal mounting base

SA-E12M30C
White UHMW mounting base

SA-F12
Black Zinc mounting base

Cordsets

4-Pin M12
Straight connector models listed; for right angle models, add RA to the end of model number (example, MQDC-406RA)

4-Pin D-Code M12 to RJ45
Double-ended connector models

MQDC-406
2 m (6.56')

MQDC-415
5 m (16.4')

MQD1-430
9 m (29.5')

STP-M12D-403
0.9 m (2.95')

STP-M12D-406
1.83 m (6')

STP-M12D-415
4.57 m (15')

STP-M12D-430
9.14 m (30')

4-Pin M12
Double-ended connector models

4-Pin D-Code M12
Double-ended connector models

MQDEC-401SS
0.31 m (1.0')

MQDC1-403SS
0.61 m (2.0')

MQDC1-406SS
2 m (6.5')

M12D-M12D
4 m (13.1')

Controllers



IO-Link Master DXMR90-4K

Industrial Controller DXMR90-X1

- Connects to PLCs via common protocols such as EtherNet/IP to send commands via IO-Link to control tower light segments and more
- Capable of controlling up to four TL70 Pro IO-Link tower lights
- Transmits Modbus RTU signals to common industrial Ethernet protocols such as Modbus TCP, Ethernet/IP and ProfNet to communicate with a PLC
- Capable of controlling hundreds of TL70 Pro tower lights due to Modbus ports being able to support hundreds of server I/O per network

Brackets



SMB30MM



SMB30A



SMBAMS30P

