

## QTR Series

Soft and Comfortable Signal Light Emitted through the Translucent Milky Lens

### PRODUCT SPECIFICATION

QTR Series

**Materials** Lens-PC, Housing-ABS, Pole-Al

**Ambient operating temperature** -30°C to +50°C

**Volume** Max.85dB at 1m

**Protection rating** Standard type-IP65, Built-in buzzer type-IP54

**Flashing rate** 60-80/min

**Compliant with RoHS directive**

- Modular LED steady/flashing signal tower lights
- Soft and comfortable signal light emitted through the translucent milky lens
- When the product is turned off the milky color filter provides comfortable viewing at close proximity for the operator
- Can select from size selections of Ø50mm, Ø60mm, and Ø70mm to fit your sophisticated application needs
- The addition of modules and change in color arrangement can be achieved without the use of tools by using the Lock-type structure
- QTRA type offers a nifty integrated lens and cover for a simple aesthetically pleasing product
- A variety of Mounting brackets selections for the pole mount type to fit your location and mounting needs
- Standard model and built-in buzzer model can be used by selecting the specifications suitable for the operating environment.
- Available in customized 2 sound buzzer type and high volume(100dB) buzzer type
- Wired type and M12 connector type allow for a customized model that M12 connector can be attached at the end of wires.
- Transistors can be connected and can be operated on PLC directly



### Each modular color lens can be added without additional tools



QTR model uses a special contact structure for stable operation, the lens modules lock into place by rotating the modular structures together. This allows for easy changes to the color arrangement without any tools. Additional modules can be added.

- High volume buzzer (100dB) option can be fitted to the top of the product. (Customization)**  
High volume 100dB volume buzzer module fastened to the top of the product provides 360 degree buzzer signal output which cannot be achieved with the single directional buzzer.(Buzzer volume cannot be adjusted)
- Integrated cover and lens model(QTRA50 / QTRA60 / QTRA70)**  
QTRA50 / QTRA60 / QTRA70 The sleek lens cover model is made of one piece for a simple unified look.
- QTR Series special lens**  
QTR Series provides soft and comfortable signal light emitted through the translucent milky lens.
- Buzzer volume is adjusted via the volume control lever**  
QTR type volume can be adjusted for each specific working condition with the equipped buzzer volume control lever at the bottom of the product.(-BZ type)
- M12 connector attached type**  
M12 connector is standard(Female M12 connector is not provided).
- Can select from a variety of Mounting brackets option to fit your application needs and build environment**  
There are a variety of Mounting bracket options available depending on cost and installation requirements.



# QTR70ML / QTR70L



QTR70ML Series



QTRA70ML Series



High-volume buzzer module



## QTR70ML Ø70mm Direct mount, LED Steady/Flashing

Model number	Layers	Voltage	Certificates	Weight	Color
QTR70ML Steady	1	DC12V		0.42kg	● R-Red
QTR70ML-BZ Steady w/built-in buzzer		DC24V AC110V-220V		0.42kg 0.52kg	
QTR70MLF Steady/Flashing	2	DC12V		0.56kg	● R-Red ● G-Green
QTR70MLF-BZ Steady/Flashing w/ built-in buzzer		DC24V AC110V-220V		0.56kg 0.66kg	
QTRA70ML Steady	3	DC12V	CE UL	0.77kg	● R-Red ● A-Amber ● G-Green
QTRA70ML-BZ Steady w/built-in buzzer		DC24V AC110V-220V		0.77kg 0.87kg	
QTRA70MLF Steady/Flashing	4	DC12V		0.92kg	● R-Red ● A-Amber ● G-Green ● B-Blue
QTRA70MLF-BZ Steady/Flashing w/ built-in buzzer		DC24V AC110V-220V		0.92kg 1.02kg	
QTRA70MLF-BZ Steady/Flashing w/ built-in buzzer	5	DC12V		1.07kg	● R-Red ● A-Amber ● G-Green ● B-Blue ○ W-White
		DC24V AC110V-220V		1.07kg 1.17kg	

※ AC type model has a free-voltage range of 100V-240V.

※ UL Listed: DC24V

### Light source/buzzer current(based on 1 layer)

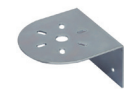
Voltage	DC12V	DC24V	AC110V~220V
Light source current(1 layer)	0.105A	0.070A	Max.0.060A
Buzzer current	0.040A	0.075A	Max.0.055A

### Wiring Instructions

- External power line UL1015 AWG18(0.75sq) x 2C 400mm
- External signal line UL1007 AWG22(0.3sq) 400mm
- LED tower light can be wired by using transistor and External Contact

### Customization

- DC24V voltage UL listed product
- M12 connector attached type
- 2 buzzer sound types : Both prolonged (beep, beep) and staccato (beep, beep, beep) buzzer output available
- Wall mount bracket options : Bracket structure allows for threading through the bracket hole or into the wall
- Top high-volume buzzer module mounted (lens limited to 4 stages or less)



Wall mount bracket  
TWS80



Wall mount bracket  
TWA80

### Ordering Specifications

QTR70ML	-	3	-	110/220	-	RAG
[Model number]		[Layers]		[Voltage]		[Color]
QTR70ML		1-1 Layers		12-DC12V		● R-Red
QTR70ML-BZ		2-2 Layers		24-DC24V		● A-Amber
QTR70MLF		3-3 Layers		110/220-AC110V-220V		● G-Green
QTR70MLF-BZ		4-4 Layers				● B-Blue
QTRA70ML		5-5 Layers				○ W-White
QTRA70ML-BZ						
QTRA70MLF						
QTRA70MLF-BZ						



## QTR70L Ø70mm Pole mount, LED Steady/Flashing

Model number	Layers	Voltage	Certificates	Weight	Color
QTR70L Steady	1	DC12V	CE UL	0.54kg	● R-Red
QTR70L-BZ Steady w/built-in buzzer		DC24V		0.54kg	
		AC110V-220V		0.64kg	
QTR70LF Steady/Flashing	2	DC12V		0.66kg	● R-Red
QTR70LF-BZ Steady/Flashing w/ built-in buzzer		DC24V		0.66kg	● G-Green
		AC110V-220V		0.76kg	
QTRA70L Steady	3	DC12V		0.81kg	● R-Red
QTRA70L-BZ Steady w/built-in buzzer		DC24V		0.81kg	● A-Amber
		AC110V-220V		0.90kg	● G-Green
QTRA70LF Steady/Flashing	4	DC12V		0.96kg	● R-Red
QTRA70LF-BZ Steady/Flashing w/ built-in buzzer		DC24V		0.96kg	● A-Amber
		AC110V-220V		1.06kg	● G-Green
	5	DC12V		1.20kg	● B-Blue
		DC24V		1.20kg	● W-White
		AC110V-220V		1.29kg	

※ AC type model has a free-voltage range of 100V-240V.

※ UL Listed: DC24V



### Light source/buzzer current(based on 1 layer)

Voltage	DC12V	DC24V	AC110V~220V
Light source current(1 layer)	0.105A	0.070A	Max.0.060A
Buzzer current	0.040A	0.075A	Max.0.055A

### Wiring Instructions

- External power line UL1015 AWG18(0.75sq) x 2C 400mm
- External signal line UL1007 AWG22(0.3sq) 400mm
- LED tower light can be wired by using transistor and External Contact

### Mounting bracket

Standard	LB24	LW24	QZ24	SZ24	QL24	SL24
Steel	Steel	ABS	ABS	Al	ABS	Al

※ Please refer to [Tower Light Mounting bracket] on this catalogue for detailed dimensions



### Ordering Specifications

QTR70L	-	3	-	110/220	-	RAG	-	LW24
[Model number]		[Layers]		[Voltage]		[Color]		[Bracket]
QTR70L		1-1 Layers		12-DC12V		● R-Red		· None-
QTR70L-BZ		2-2 Layers		24-DC24V		● A-Amber		Standard
QTR70LF		3-3 Layers		110/220-AC110V-220V		● G-Green		· Bracket
QTR70LF-BZ		4-4 Layers				● B-Blue		-LB24 -LW24
QTRA70L		5-5 Layers				○ W-White		-QZ24 -SZ24
QTRA70L-BZ								-QL24 -SL24
QTRA70LF								
QTRA70LF-BZ								

### Customization

- 2 buzzer sound types : Both prolonged(beep, beep) and staccato(beep, beep, beep) buzzer output available
- DC24V voltage UL listed product
- M12 connector attached type
- Customized pole length available
- Top high-volume buzzer module mounted (lens limited to 4 stages or less)

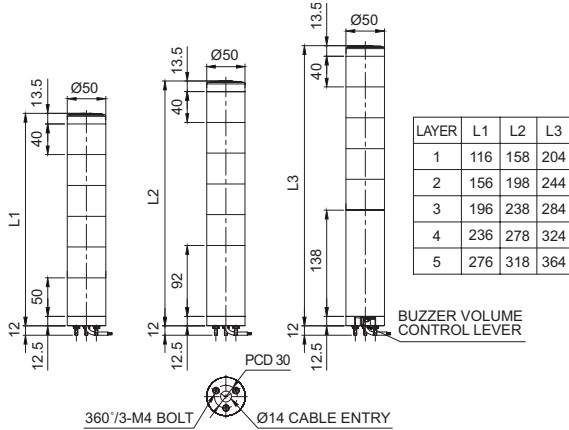
## Technical Diagram

Units : mm

·QTR50ML-DC  
·QTR50MLF-DC  
·QTR50ML-BZ-DC

·QTR50ML-AC  
·QTR50MLF-BZ-DC

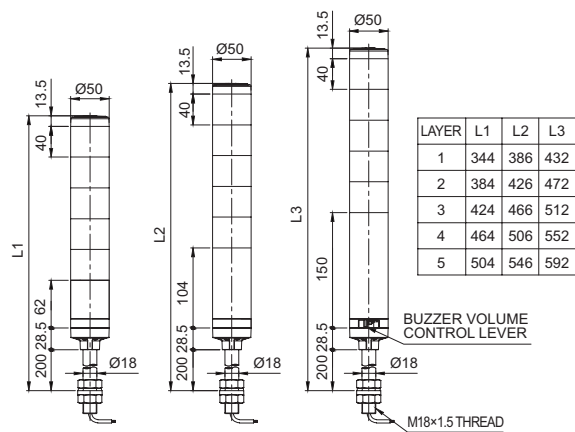
·QTR50MLF-AC  
·QTR50ML-BZ-AC  
·QTR50MLF-BZ-AC



·QTR50L-DC  
·QTR50LF-DC  
·QTR50L-BZ-DC

·QTR50L-AC  
·QTR50LF-BZ-DC

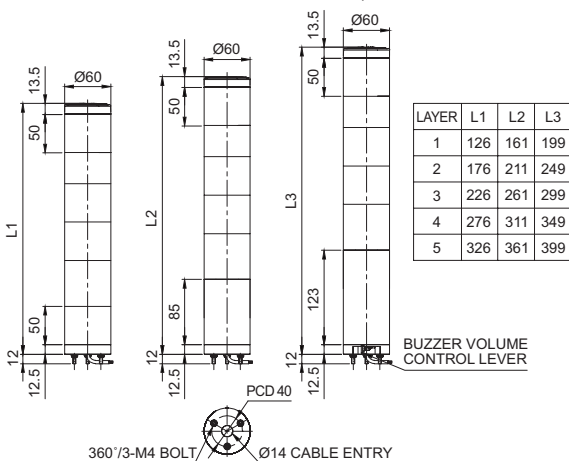
·QTR50LF-AC  
·QTR50L-BZ-AC  
·QTR50LF-BZ-AC



·QTR60ML-DC  
·QTR60MLF-DC  
·QTR60ML-BZ-DC

·QTR60ML-AC  
·QTR60MLF-BZ-DC

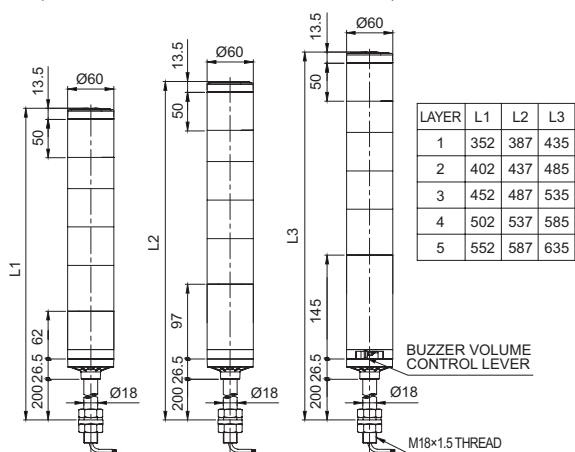
·QTR60MLF-AC  
·QTR60ML-BZ-AC  
·QTR60MLF-BZ-AC



·QTR60L-DC  
·QTR60LF-DC  
·QTR60L-BZ-DC

·QTR60L-AC  
·QTR60LF-BZ-DC

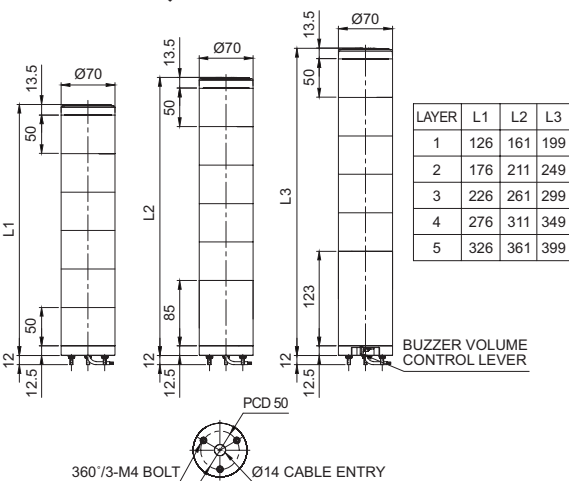
·QTR60LF-AC  
·QTR60L-BZ-AC  
·QTR60LF-BZ-AC



·QTR70ML-DC  
·QTR70MLF-DC  
·QTR70ML-BZ-DC

·QTR70ML-AC  
·QTR70MLF-AC  
·QTR70ML-BZ-AC  
·QTR70MLF-BZ-DC

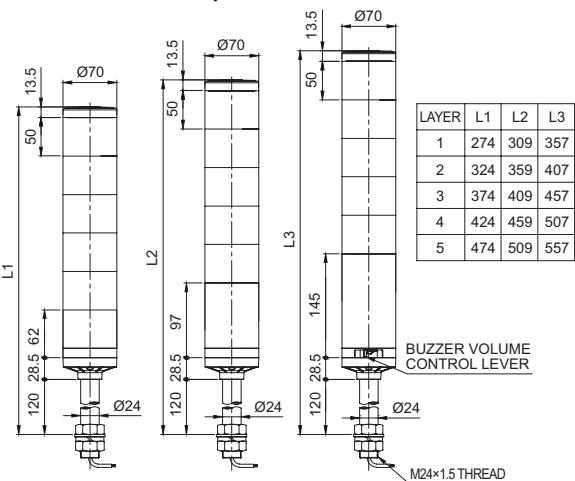
·QTR70MLF-BZ-AC



·QTR70L-DC  
·QTR70LF-DC  
·QTR70L-BZ-DC

·QTR70L-AC  
·QTR70LF-AC  
·QTR70L-BZ-AC  
·QTR70LF-BZ-DC

·QTR70LF-BZ-AC

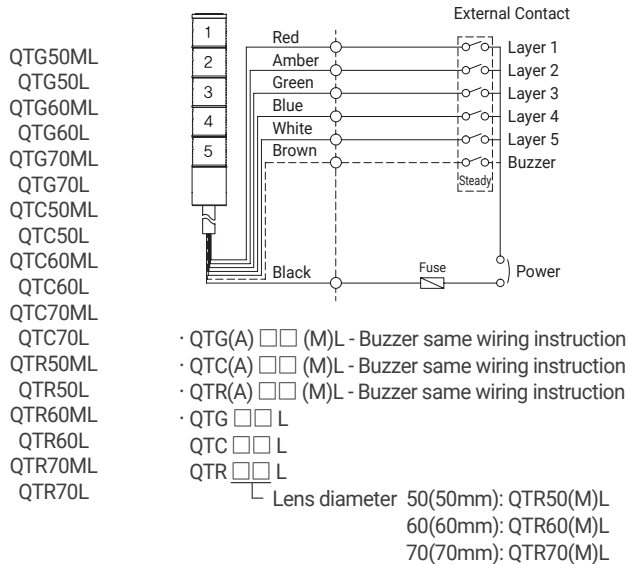


### Wiring Instructions(using External Contact)

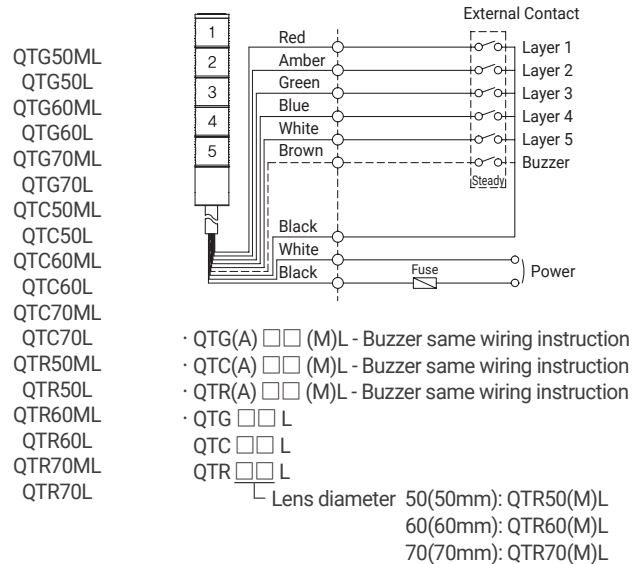
· In case of wiring with External Contacts, refer to the wiring diagrams below according to your product's type and voltage setting.

#### Wiring Instructions

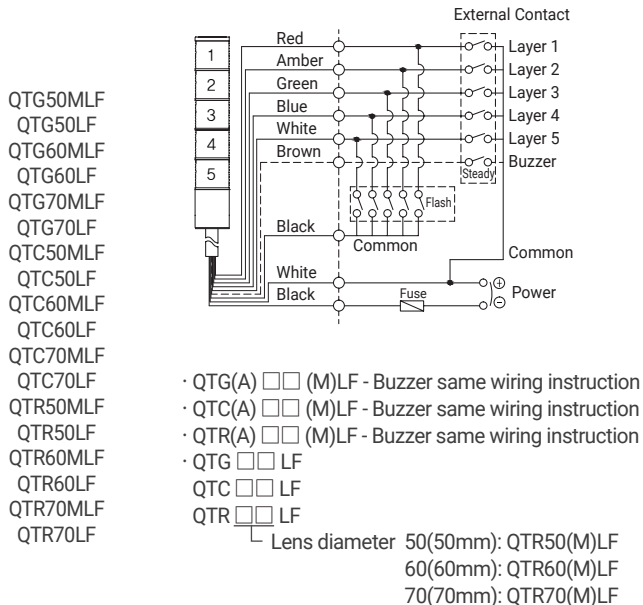
##### DC Steady



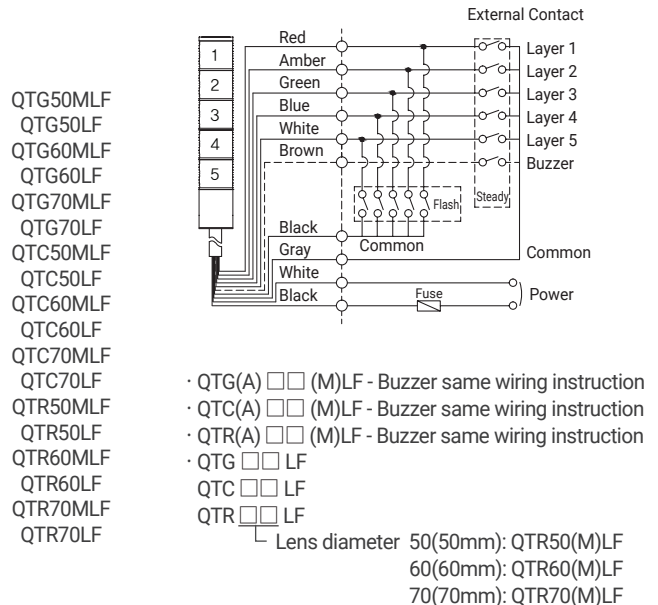
##### AC Steady



##### DC Steady/ Flashing



##### AC Steady/ Flashing



- DC steady type cable specification: External power line/External signal line UL1007 AWG22(0.3sq) 400mm
- AC steady, AC/DC steady/flashing type cable specification: External power line UL1015 AWG18(0.75sq) x 2C 400mm  
External signal line UL1007 AWG22(0.3sq) 400mm

## Wiring Instructions(using transistor)

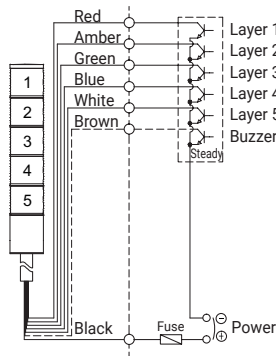
· In case of wiring with transistors, please select the proper transistor type : either NPN or PNP based on the source voltage setting.

### Wiring Instructions

#### DC Steady

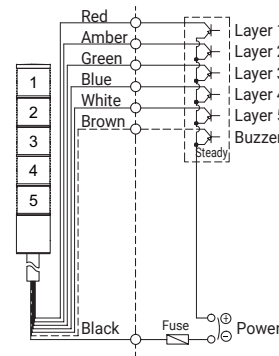
QTG50ML  
QTG50L  
QTG60ML  
QTG60L  
QTG70ML  
QTG70L  
QTC50ML  
QTC50L  
QTC60ML  
QTC60L  
QTC70ML  
QTC70L  
QTR50ML  
QTR50L  
QTR60ML  
QTR60L  
QTR70ML  
QTR70L

External Transistor



- QTG(A) □□ (M)L - Buzzer same wiring instruction
- QTC(A) □□ (M)L - Buzzer same wiring instruction
- QTR(A) □□ (M)L - Buzzer same wiring instruction
- QTG □□ L
- QTC □□ L
- QTR □□ L
- └ Lens diameter 50(50mm): QTR50(M)L  
60(60mm): QTR60(M)L  
70(70mm): QTR70(M)L

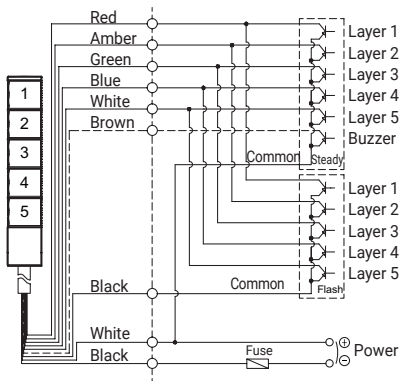
External Transistor



#### DC Steady/ Flashing

QTG50MLF  
QTG50LF  
QTG60MLF  
QTG60LF  
QTG70MLF  
QTG70LF  
QTC50MLF  
QTC50LF  
QTC60MLF  
QTC60LF  
QTC70MLF  
QTC70LF  
QTR50MLF  
QTR50LF  
QTR60MLF  
QTR60LF  
QTR70MLF  
QTR70LF

External Transistor

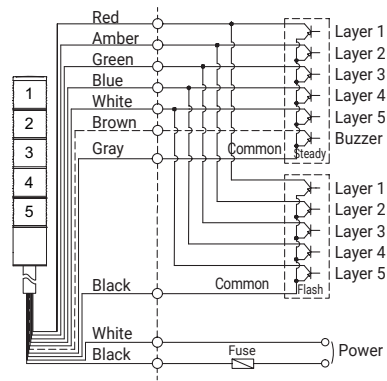


- QTG(A) □□ (M)LF - Buzzer same wiring instruction
- QTC(A) □□ (M)LF - Buzzer same wiring instruction
- QTR(A) □□ (M)LF - Buzzer same wiring instruction
- QTG □□ LF
- QTC □□ LF
- QTR □□ LF
- └ Lens diameter 50(50mm): QTR50(M)LF  
60(60mm): QTR60(M)LF  
70(70mm): QTR70(M)LF

#### AC Steady/ Flashing

QTG50MLF  
QTG50LF  
QTG60MLF  
QTG60LF  
QTG70MLF  
QTG70LF  
QTC50MLF  
QTC50LF  
QTC60MLF  
QTC60LF  
QTC70MLF  
QTC70LF  
QTR50MLF  
QTR50LF  
QTR60MLF  
QTR60LF  
QTR70MLF  
QTR70LF

External Transistor



- QTG(A) □□ (M)LF - Buzzer same wiring instruction
- QTC(A) □□ (M)LF - Buzzer same wiring instruction
- QTR(A) □□ (M)LF - Buzzer same wiring instruction
- QTG □□ LF
- QTC □□ LF
- QTR □□ LF
- └ Lens diameter 50(50mm): QTR50(M)LF  
60(60mm): QTR60(M)LF  
70(70mm): QTR70(M)LF

· DC steady type cable specification: External power line/External signal line UL1007 AWG22(0.3sq) 400mm

· AC steady, AC/DC steady/flashing type cable specification: External power line UL1015 AWG18(0.75sq) x 2C 400mm  
External signal line UL1007 AWG22(0.3sq) 400mm