

Soft and Comfortable Signal Light Emitted through the Translucent Milky Lens



Common Specifications(QTR50/ QTR60/ QTR70)

- 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
- Built-in buzzer available (Volume : Max 85dB at 1m)
- Available in customized 2 sound buzzer type and high volume(100dB) buzzer type
- Pre-wired is standard. Can customize the product with the M12 connector if requested
- Can be used with NPN open collector transistor driven input, which allows direct connection to a PLC
- Flashing rate : 60-80 flashes/min.
- Materials : Lens-PC, Housing-ABS, Pole-Al
- Ambient operating temperature : -30°C to +50°C
- Protection rating: Standard type-IP65, Built-in buzzer type-IP54
- Certificates : CE Compliant, UL Listed
- Compliant with RoHS directive



- **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.



• 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)

- 1 High volume buzzer (100dB) option can be fitted to the top of the product.**
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)
- 2 Integrated Housing cover and lens model (QTRA50/ QTRA60/ QTRA70)**
The sleek housing cover and lens model is made of one piece for a simple unified look.
- 3 Cable end M12 connector attached type (Customization)**
Pre-wired is standard. Can customize the product with the M12 connector if requested.
- 4 Can select from a variety of mounting bracket options to fit your application needs and build environment**
There are a variety of mounting bracket options available depending on cost and installation requirements.

QTR70ML

Ø70mm LED Steady/Flashing Tower Lights

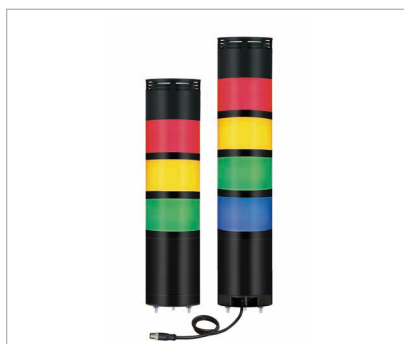


QTR70ML series



QTRA70ML series

• Customization



- Customized cable end M12 connector attached type available.



QTR70ML Ø70mm Direct Mount, LED Steady/Flashing Type

Model number	Layer	Voltage	Current	Certificates	Weight	Color
QTR70ML Steady	1	AC/DC12V AC/DC24V AC110V-220V	0.100A 0.070A Max. 0.055A	 DC24V only	0.42kg 0.42kg 0.52kg	• R-Red
QTRA70ML-BZ Steady /w built-in buzzer	2	AC/DC12V AC/DC24V AC110V-220V	0.200A 0.140A Max. 0.075A		0.56kg 0.56kg 0.66kg	• R-Red • G-Green
QTR70MLF Steady/Flashing	3	AC/DC12V AC/DC24V AC110V-220V	0.300A 0.210A Max. 0.095A		0.77kg 0.77kg 0.87kg	• R-Red • A-Amber • G-Green
QTRA70ML Steady	4	AC/DC12V AC/DC24V AC110V-220V	0.400A 0.280A Max. 0.115A		0.92kg 0.92kg 1.02kg	• R-Red • A-Amber • G-Green • B-Blue
QTRA70MLF Steady/Flashing /w built-in buzzer	5	AC/DC12V AC/DC24V AC110V-220V	0.500A 0.350A Max. 0.135A		1.07kg 1.07kg 1.17kg	• R-Red • A-Amber • G-Green • B-Blue • W-White

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

Signal/ Audible Line Current(per each layer)

Voltage	AC/DC12V	AC/DC24V	AC110V-220V
Signal line current	0.100A	0.070A	Max 0.055A
Audible line current	0.020A	0.050A	Max 0.045A



Wiring Instructions

- External power line : UL1015 AWG18(0.75sq)×2C 400mm
- External signal line : UL1007 AWG22(0.3sq) 400mm
- LED tower light can be wiring with external contact and transistor

※ Please refer to page 88-89 for detailed wiring instructions.



Customization

- High buzzer module equipped on top(Lens should be 4 layers or less)
- Cable end 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 mount



Wall Mount Bracket
TWS80



Wall Mount Bracket
TWA80



Ordering Specification

QTR70ML	-	3	-	24	-	RAG
[Model number]		[Layer]		[Voltage]		[Color]
<ul style="list-style-type: none"> • QTR70ML • QTR70ML-BZ • QTR70MLF • QTR70MLF-BZ • QTRA70ML • QTRA70ML-BZ • QTRA70MLF • QTRA70MLF-BZ 		<ul style="list-style-type: none"> • 1-1Layer • 2-2Layers • 3-3Layers • 4-4Layers • 5-5Layers 		<ul style="list-style-type: none"> • 12-DC12V • 24-DC24V • 110/220V -AC110V-220V 		<ul style="list-style-type: none"> • R-Red • A-Amber • G-Green • B-Blue • W-White



Technical Diagram

(Units : mm)

QTR50ML : DC
QTR50MLF : DC
QTR50ML-BZ : DC

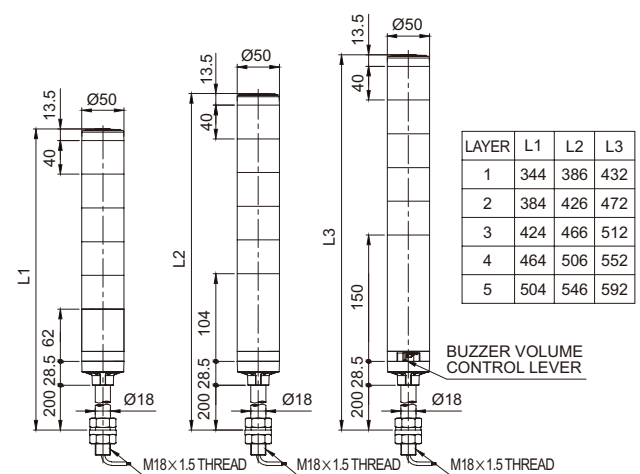
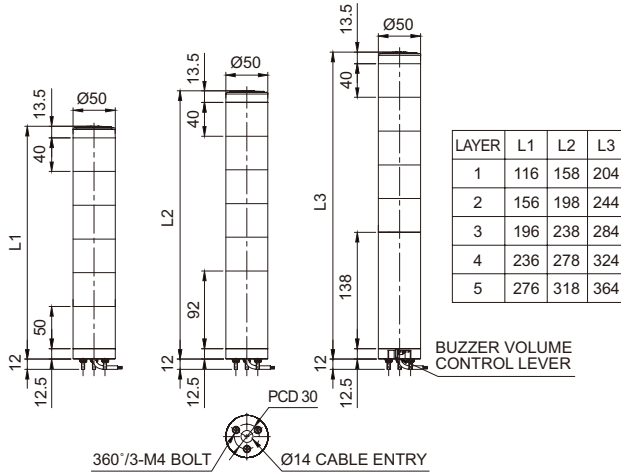
QTR50ML : AC
QTR50MLF-BZ : D

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

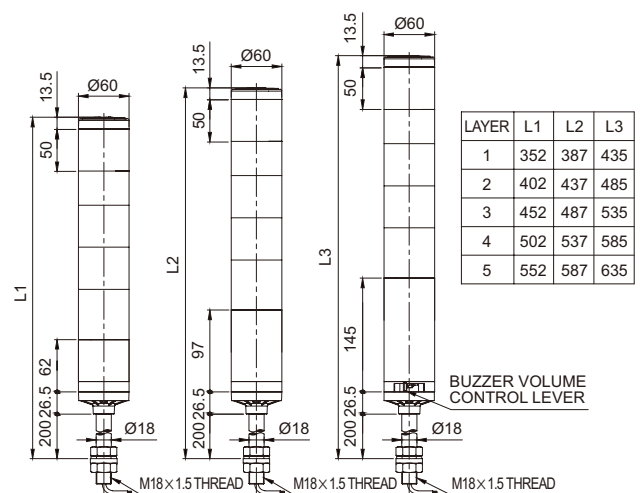
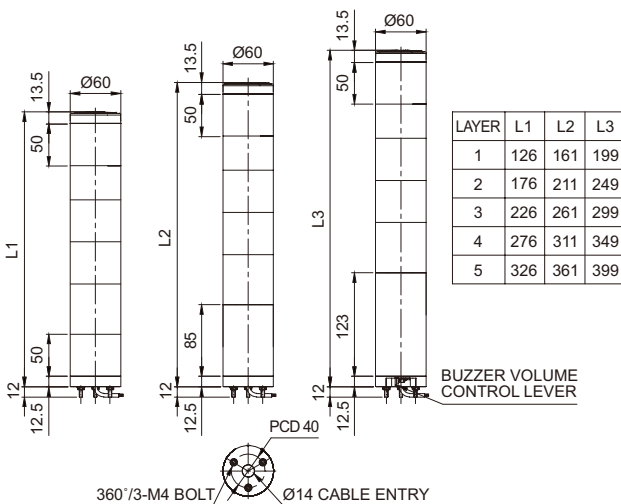
QTR60ML : AC
QTR60MLF-BZ : D

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

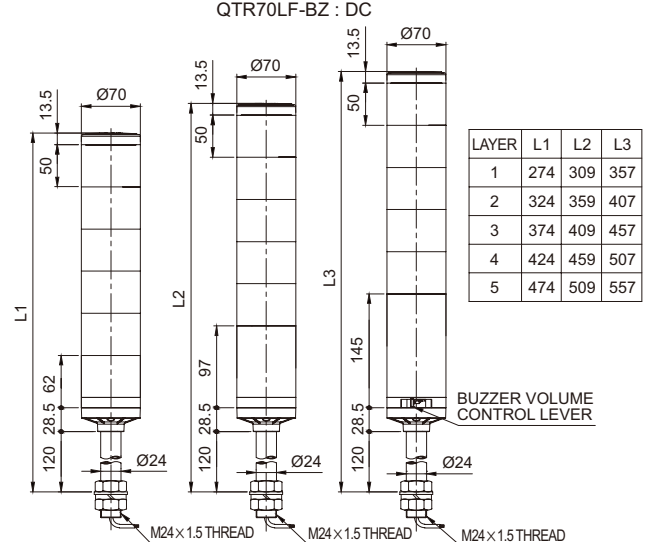
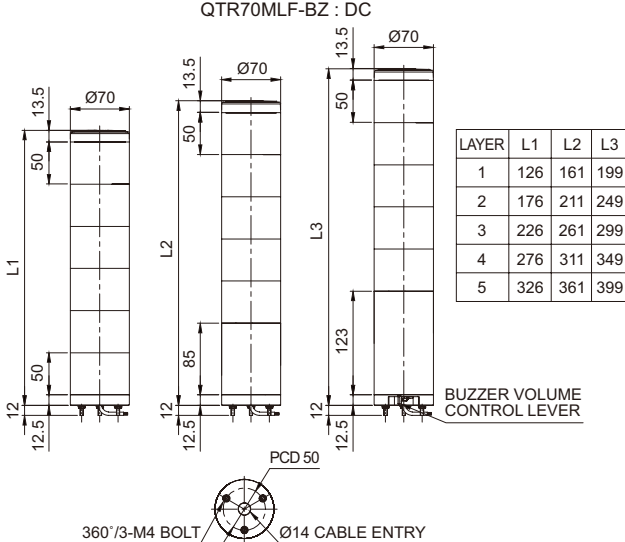
QTR70ML : AC
QTR70MLF : AC
QTR70ML-BZ : AC

QTR70MLF-BZ : AC

QTR70L : DC
QTR70LF : DC
QTR70L-BZ : DC

QTR70L : AC
QTR70LF : AC
QTR70L-BZ : AC

QTR70LF-BZ : AC



QTG/ QTC/ QTR series



Wiring Instructions(using external contact)

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

Applied products	Wiring Instructions	Applied products	Wiring Instructions
DC Steady	<div><div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div></div><div><div>Red(R)</div><div>Amber(A)</div><div>Green(G)</div><div>Blue(B)</div><div>White(W)</div><div>Brown(BN)</div><div>Black(BK)</div></div><div><div>Layer 1</div><div>Layer 2</div><div>Layer 3</div><div>Layer 4</div><div>Layer 5</div><div>Buzzer</div><div>Steady</div></div><div><div>Fuse</div><div>POWER</div></div></div> <div>QTG50ML QTG50L QTG60ML QTG60L QTG70ML QTG70L QTC50ML QTC50L QTC60ML QTC60L QTC70ML QTC70L QTR50ML QTR50L QTR60ML QTR60L QTR70ML QTR70L</div> <div><div>• QTG(A)XX(M)L - Same wiring including buzzer type</div><div>• QTC(A)XX(M)L - Same wiring including buzzer type</div><div>• QTR(A)XX(M)L - Same wiring including buzzer type</div><div>• QTGXXL</div><div>• QTCXXL</div><div>• QTRXXL</div></div> <div><div>└ Lens diameter 50(50mm) : QTR50(M)L</div><div>60(60mm) : QTR60(M)L</div><div>70(70mm) : QTR70(M)L</div></div>	AC Steady	<div><div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div></div><div><div>Red(R)</div><div>Amber(A)</div><div>Green(G)</div><div>Blue(B)</div><div>White(W)</div><div>Brown(BN)</div><div>Black(BK)</div><div>White(W)</div><div>Black(BK)</div></div><div><div>Layer 1</div><div>Layer 2</div><div>Layer 3</div><div>Layer 4</div><div>Layer 5</div><div>Buzzer</div><div>Steady</div><div>Common</div><div>Power</div></div><div><div>Fuse</div></div></div> <div>QTG50ML QTG50L QTG60ML QTG60L QTG70ML QTG70L QTC50ML QTC50L QTC60ML QTC60L QTC70ML QTC70L QTR50ML QTR50L QTR60ML QTR60L QTR70ML QTR70L</div> <div><div>• QTG(A)XX(M)L - Same wiring including buzzer type</div><div>• QTC(A)XX(M)L - Same wiring including buzzer type</div><div>• QTR(A)XX(M)L - Same wiring including buzzer type</div><div>• QTGXXL</div><div>• QTCXXL</div><div>• QTRXXL</div></div> <div><div>└ Lens diameter 50(50mm) : QTR50(M)L</div><div>60(60mm) : QTR60(M)L</div><div>70(70mm) : QTR70(M)L</div></div>
DC Steady/Flashing	<div><div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div></div><div><div>Red(R)</div><div>Amber(A)</div><div>Green(G)</div><div>Blue(B)</div><div>White(W)</div><div>Brown(BN)</div><div>Black(BK)</div><div>White(W)</div><div>Black(BK)</div></div><div><div>Layer 1</div><div>Layer 2</div><div>Layer 3</div><div>Layer 4</div><div>Layer 5</div><div>Buzzer</div><div>Flash</div><div>Steady</div><div>Common</div><div>Power</div></div><div><div>Fuse</div></div></div> <div>QTG50MLF QTG50LF QTG60MLF QTG60LF QTG70MLF QTG70LF QTC50MLF QTC50LF QTC60MLF QTC60LF QTC70MLF QTC70LF QTR50MLF QTR50LF QTR60MLF QTR60LF QTR70MLF QTR70LF</div> <div><div>• QTG(A)XX(M)L - Same wiring including buzzer type</div><div>• QTC(A)XX(M)L - Same wiring including buzzer type</div><div>• QTR(A)XX(M)L - Same wiring including buzzer type</div><div>• QTGXXL</div><div>• QTCXXL</div><div>• QTRXXL</div></div> <div><div>└ Lens diameter 50(50mm) : QTR50(M)L</div><div>60(60mm) : QTR60(M)L</div><div>70(70mm) : QTR70(M)L</div></div>	AC Steady/Flashing	<div><div><div>1</div><div>2</div><div>3</div><div>4</div><div>5</div></div><div><div>Red(R)</div><div>Amber(A)</div><div>Green(G)</div><div>Blue(B)</div><div>White(W)</div><div>Brown(BN)</div><div>Black(BK)</div><div>Gray(GR)</div><div>White(W)</div><div>Black(BK)</div></div><div><div>Layer 1</div><div>Layer 2</div><div>Layer 3</div><div>Layer 4</div><div>Layer 5</div><div>Buzzer</div><div>Flash</div><div>Steady</div><div>Common</div><div>Power</div></div><div><div>Fuse</div></div></div> <div>QTG50MLF QTG50LF QTG60MLF QTG60LF QTG70MLF QTG70LF QTC50MLF QTC50LF QTC60MLF QTC60LF QTC70MLF QTC70LF QTR50MLF QTR50LF QTR60MLF QTR60LF QTR70MLF QTR70LF</div> <div><div>• QTG(A)XX(M)L - Same wiring including buzzer type</div><div>• QTC(A)XX(M)L - Same wiring including buzzer type</div><div>• QTR(A)XX(M)L - Same wiring including buzzer type</div><div>• QTGXXL</div><div>• QTCXXL</div><div>• QTRXXL</div></div> <div><div>└ Lens diameter 50(50mm) : QTR50(M)L</div><div>60(60mm) : QTR60(M)L</div><div>70(70mm) : QTR70(M)L</div></div>

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

QTG/ QTC/ QTR series



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.

Applied products	Wiring Instructions	
DC Steady	<p>EXTERNAL TRANSISTOR-NPN</p> <p>EXTERNAL TRANSISTOR-PNP</p> <p> QTG50ML QTG50L QTG60ML QTG60L QTG70ML QTG70L QTC50ML QTC50L QTC60ML QTC60L QTC70ML QTC70L QTR50ML QTR50L QTR60ML QTR60L QTR70ML QTR70L QTGXXL QTCXXL QTRXXL Lens diameter 50(50mm) : QTR50(M)L 60(60mm) : QTR60(M)L 70(70mm) : QTR70(M)L </p>	<p>EXTERNAL TRANSISTOR-PNP</p> <p> QTG50MLF QTG50LF QTG60MLF QTG60LF QTG70MLF QTG70LF QTC50MLF QTC50LF QTC60MLF QTC60LF QTC70MLF QTC70LF QTR50MLF QTR50LF QTR60MLF QTR60LF QTR70MLF QTR70LF QTGXXL QTCXXL QTRXXL Lens diameter 50(50mm) : QTR50(M)L 60(60mm) : QTR60(M)L 70(70mm) : QTR70(M)L </p>
DC Steady/Flashing	<p>EXTERNAL TRANSISTOR-PNP</p> <p> QTG50MLF QTG50LF QTG60MLF QTG60LF QTG70MLF QTG70LF QTC50MLF QTC50LF QTC60MLF QTC60LF QTC70MLF QTC70LF QTR50MLF QTR50LF QTR60MLF QTR60LF QTR70MLF QTR70LF QTGXXL QTCXXL QTRXXL Lens diameter 50(50mm) : QTR50(M)L 60(60mm) : QTR60(M)L 70(70mm) : QTR70(M)L </p>	<p>EXTERNAL TRANSISTOR-PNP</p> <p> QTG50MLF QTG50LF QTG60MLF QTG60LF QTG70MLF QTG70LF QTC50MLF QTC50LF QTC60MLF QTC60LF QTC70MLF QTC70LF QTR50MLF QTR50LF QTR60MLF QTR60LF QTR70MLF QTR70LF QTGXXL QTCXXL QTRXXL Lens diameter 50(50mm) : QTR50(M)L 60(60mm) : QTR60(M)L 70(70mm) : QTR70(M)L </p>
AC Steady/Flashing	<p>EXTERNAL TRANSISTOR-PNP</p> <p> QTG50MLF QTG50LF QTG60MLF QTG60LF QTG70MLF QTG70LF QTC50MLF QTC50LF QTC60MLF QTC60LF QTC70MLF QTC70LF QTR50MLF QTR50LF QTR60MLF QTR60LF QTR70MLF QTR70LF QTGXXL QTCXXL QTRXXL Lens diameter 50(50mm) : QTR50(M)L 60(60mm) : QTR60(M)L 70(70mm) : QTR70(M)L </p>	<p>EXTERNAL TRANSISTOR-PNP</p> <p> QTG50MLF QTG50LF QTG60MLF QTG60LF QTG70MLF QTG70LF QTC50MLF QTC50LF QTC60MLF QTC60LF QTC70MLF QTC70LF QTR50MLF QTR50LF QTR60MLF QTR60LF QTR70MLF QTR70LF QTGXXL QTCXXL QTRXXL Lens diameter 50(50mm) : QTR50(M)L 60(60mm) : QTR60(M)L 70(70mm) : QTR70(M)L </p>

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