QMFLN / QMFHLN

IP67 IP69K +60°C -30°C

Suitable for machine tool equipment that needs excellent water and oil proof features



QMFLN / QMFHLN

PRODUCT SPECIFICATION

QMFLN I QMFHLN

Materials Housing-Al, Lens-Tempered glass
Bracket-SPC-1
Ambient operating temperature -30°C to +60°C
Protection rating IP67, IP69K
Certificates CE, UL, RU

- Special sealing structure provides excellent oil resistance, suitable for environments with high temperature cutting oil
- Suitable for high pressure and high temperature water cleaning environments(IP69K)
- Tempered glass prevents damage from machine tool chips
- Bracket included has tilt adjustment with angle of 120°
- Can select from variety of body length of 200/ 300/ 400/ 500/ 600mm to fit your application needs
- Can choose anti-glare lens type depending on work environment needs
- High-intensity type available upon request(Model number: QMFHLN)
- Wired type and M12 connector type allow for a customized model that M12 connector can be attached at the end of wires.

Oil Resistance Verified in Various Oil Environments

QMFLN Series is designed for machine tools and industrial sites where products are continuously exposed to cutting fluids and oils.

An in-house oil resistance test was conducted by continuously immersing the product in 7 types of industrial oils at room temperature for 30 days, totaling 720 hours.

After the test, exterior damage, cracks, deformation, and functional abnormalities were comprehensively inspected to verify oil resistance and product reliability in water-soluble and non-water-soluble oil environments.

In addition, with an IP69K protection rating for high-pressure and high-temperature washdown environments, the product can be used reliably in harsh industrial environments exposed to oils, cutting fluids, and wash water.

Oils Used in the Test

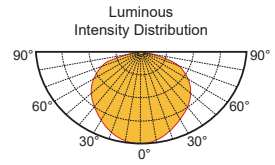
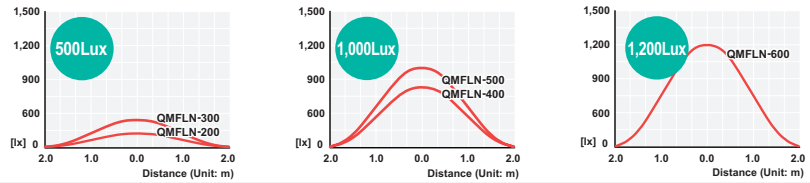
No.	Manufacturer	Oil Used
1	Hangsterfer's Laboratories, Inc.	Hangsterfer's S-500
2	GS Caltex	Kixx CUT COOL 1200S
3	Castrol	Syntilo MR 9974 BF
4	Blaser Swisslube	B-Cool MC 610
5		Grindex 10
6		Grindex S 35
7		Blasocut BC 35 LF SW

Test Conditions/Regulations

Vibration Resistance Test	· Acceleration: 20m/s^2 · Duration: 1 octave/min · Range of frequency: 10-150Hz · Amplitude: Maximum 7.5mm, Direction: tested 10times each 3 directions(X, Y, Z)
Shock Resistance Test	· Acceleration: 20g · Directions: ±X, ±Y, ±Z · Numbers: 3 times each directions · Time period: 11ms for each direction · Waveform: Half Sine
Oil Resistance Test	· General test: Tested in water soluble and non-water soluble flooded environments for 500 hours. · High temperature oil resistance test: Place the object in a constant temperature water bath at 80°C for two hours and then submerge the object in the room temperature oil diluent for 24hours.
Solid Particle Protection Test(IP6X)	· After reducing the pressure inside the test object, spray talcum powder with a nominal diameter of 50um for 2 hours at 40-60meters/hour inside the dust chamber. · IEC60529
Liquid Ingress Protection Test(IPX7)	· Test ingress by putting the object under 1000mm water with 2bar of pressure for 30 mins
High-pressure, High-temperature Wash-down Test (IP69K)	· Spray nozzle provides 80°C water with pressure of 80–100 bar and a flow rate of 14–16 L/min to the object · Distance between spray nozzle and the test object: 10-15cm · Water spray angle: 0˚, 30˚, 60˚, 90˚ · The nozzle is held at 4 of each angle for 30 seconds · DIN 40050 PART9

QMFLN / QMFHLN

Light Distribution and Illuminance

Model number	Light Distribution Curve	Luminance Feature
QMFLN QMFHLN		

Structural Features

Special sealing structure features superior oil resistance
Prevents components from moving in the sealed body due to warpage from high temperature over a period of time

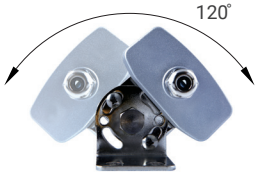
Chemically Tempered Glass Prevents shock damage from machine tool chips



Special Micro Lens
Provides high luminance with superior light focusing capability, suitable for work environments that need long distance direct visibility

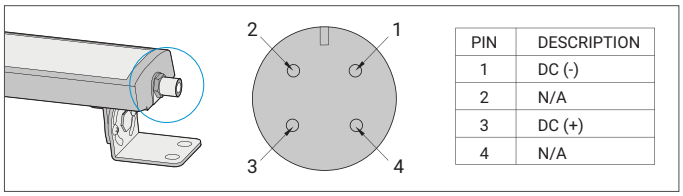
Aluminum Heat-Radiant Housing
Adopted special heat-radiant structure to provide stable luminance in high temperature sealed environment

Tilt Type K Bracket



The standard bracket included enables tilt adjustment with angle of 120°

M12 connector equipped



PIN	DESCRIPTION
1	DC (-)
2	N/A
3	DC (+)
4	N/A

QMFLN / QMFHLN Water, Vibration and Oil Resistant LED Work Lights

Optics Specifications

Model number		QMFLN-200	QMFHLN-200	QMFLN-300	QMFHLN-300	QMFLN-400	QMFHLN-400	QMFLN-500	QMFHLN-500	QMFLN-600	QMFHLN-600
Lens color	(Blank)	Transparent	Transparent	Transparent	Transparent	Transparent	Transparent	Transparent	Transparent	Transparent	Transparent
	TLC	Translucent	Translucent	Translucent	Translucent	Translucent	Translucent	Translucent	Translucent	Translucent	Translucent
Light color		Cooldaylight									
Color temperature		6,000-7,000K									
Luminous flux DC	(Blank)	400lm	500lm	900lm	940lm	1,400lm	1,450lm	1,700lm	1,630lm	1,700lm	2,490lm
	TLC	350lm	480lm	750lm	910lm	1,100lm	1,460lm	1,500lm	1,670lm	1,500lm	2,300lm
Illumination (at 1m) DC	(Blank)	240Lux	1,100Lux	500Lux	2,050Lux	850Lux	3,350Lux	1,000Lux	3,730Lux	1,200Lux	5,550Lux
	TLC	200Lux	775Lux	400Lux	1,500Lux	650Lux	2,000Lux	800Lux	2,270Lux	950Lux	3,270Lux

Specifications

Model number		QMFLN-200	QMFHLN-200	QMFLN-300	QMFHLN-300	QMFLN-400	QMFHLN-400	QMFLN-500	QMFHLN-500	QMFLN-600	QMFHLN-600
Voltage		DC24V									
Range for operation voltage	DC	DC22V-30V									
Power consumption	DC	5.7W		12.4W		19.5W		19.5W		28.8W	
Insulation resistance		Min. 100MΩ(500V DC mega ohm meter)									
Withstanding voltage		500VAC, 60Hz, 1 minute									
Operating temperature		-30°C to +60°C									
Protection rating		IP67/IP69K									
Materials		Housing-Al, Lens-Tempered glass, Bracket-SPC-1									
Certifications		CE UL cUL									
Weight(Approx.)		0.57kg		0.80kg		1.03kg		1.26kg		1.49kg	

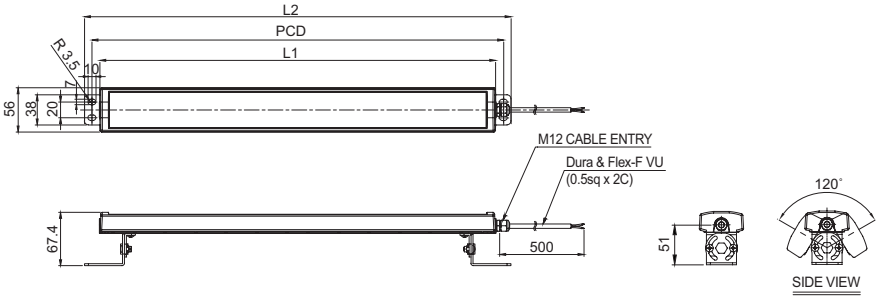
※ UL Listed (Cable Type) and UL Recognized Component (RU/UR, Cable & M12 Type): QMFLN Series only

IP67 IP69K +60℃ -30℃

Technical Diagram

·QMFLN-200 / QMFLN-300 / QMFLN-400 / QMFLN-500 / QMFLN-600
·QMFHLN-200 / QMFHLN-300 / QMFHLN-400 / QMFHLN-500 / QMFHLN-600

Units: mm



MODEL	L1	PCD	L2
QMF(H)LN - 200	190	210	230
QMF(H)LN - 300	290	310	330
QMF(H)LN - 400	400	420	440
QMF(H)LN - 500	500	520	540
QMF(H)LN - 600	600	620	640

· External power line - Dura & Flex-FVU(0.5sq) x 2C 450mm

Ordering Specification

QMFLN	-	200	-	24	-	TLC	-	M12
[Model number]		[Product length]		[Voltage]		[Lens type]		[Connector]
QMFLN QMFHLN		200-190mm 300-290mm 400-400mm 500-500mm 600-600mm		24-DC24V		(None) - Transparent lens TLC - Translucent lens		(None) - Power cable withdrawal type M12 - M12 connector type