

OPTIO MICRO

Designed specifically for the residential street lighting market



www.trtlighting.co.uk/products/optio-micro

Discover more.

INNOVATE | INTEGRATE | ILLUMINATE

OPTIO MICRO

FEATURES

SPECIFICATIONS

ORDERING

Designed with the real world in mind, the new Optio Micro lantern offers workable on-site solutions.

Our designers were led by how this lantern and its features could be used in situ and what benefits it could bring.

Optio Micro has been created to provide for multiple stakeholders with easy fit shields to address light spill, and multiple CCTs to suit the requirements of ecologists and ecologically sensitive areas.

Discover more in each of our sections

DISCOVER MORE.



This range of residential street lighting LED lanterns provides a long-term installation with **tool free access** and **easy gear and light engine replacement** combined with **ultimate upgradability**.

Designed specifically for residential street lighting applications, the Optio Micro LED lantern has been developed by TRT to not only embrace the latest technologies available but to also take into consideration the feedback and input from our valued and knowledgeable customers.

With unrivalled levels of flexibility, adaptability and choice, the Optio Micro provides effective and efficient solutions for installation today, whilst also considering the circular economy of the future.

WHAT IS OPTIO MICRO?



Light shield fixing points
(front & sides)

Reliable and durable
closed cell silicone gaskets

Light shield fixing points
(back & sides)

Removable LED module

- Highly transparent toughened glass
- Exposed lens option available
- Built-in pressure equalization (glass only)

Levelling indicator
on top

Coloured optical
distribution identifier

High quality
LM6 aluminium
alloy body

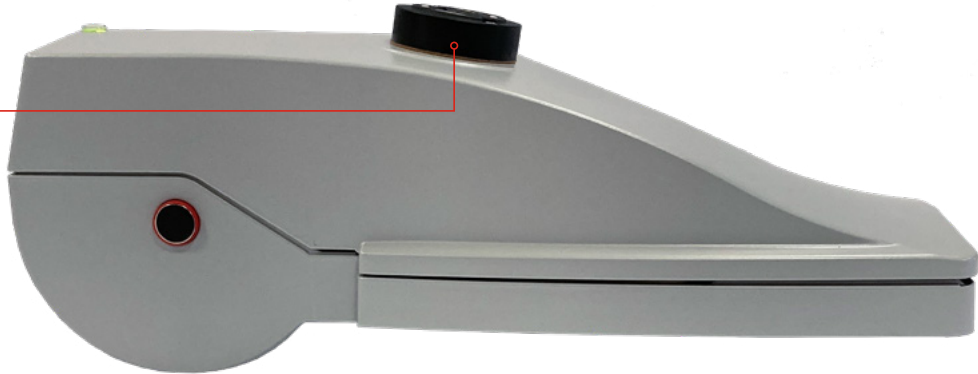
Polyester powder coat achieving
1000 hour salt spray resistance

Universal mounting utilising
MountSet (patent granted)

PRODUCT FEATURES



CMS ready
simply connect with a
7 pin NEMA socket



Staying Connected

Easily replaceable LED module and control gear along with the capability for on-site power output adjustment (see PowerSet feature).

Future proof with the latest
Zhaga Book 18 4 pin socket
(top and bottom)



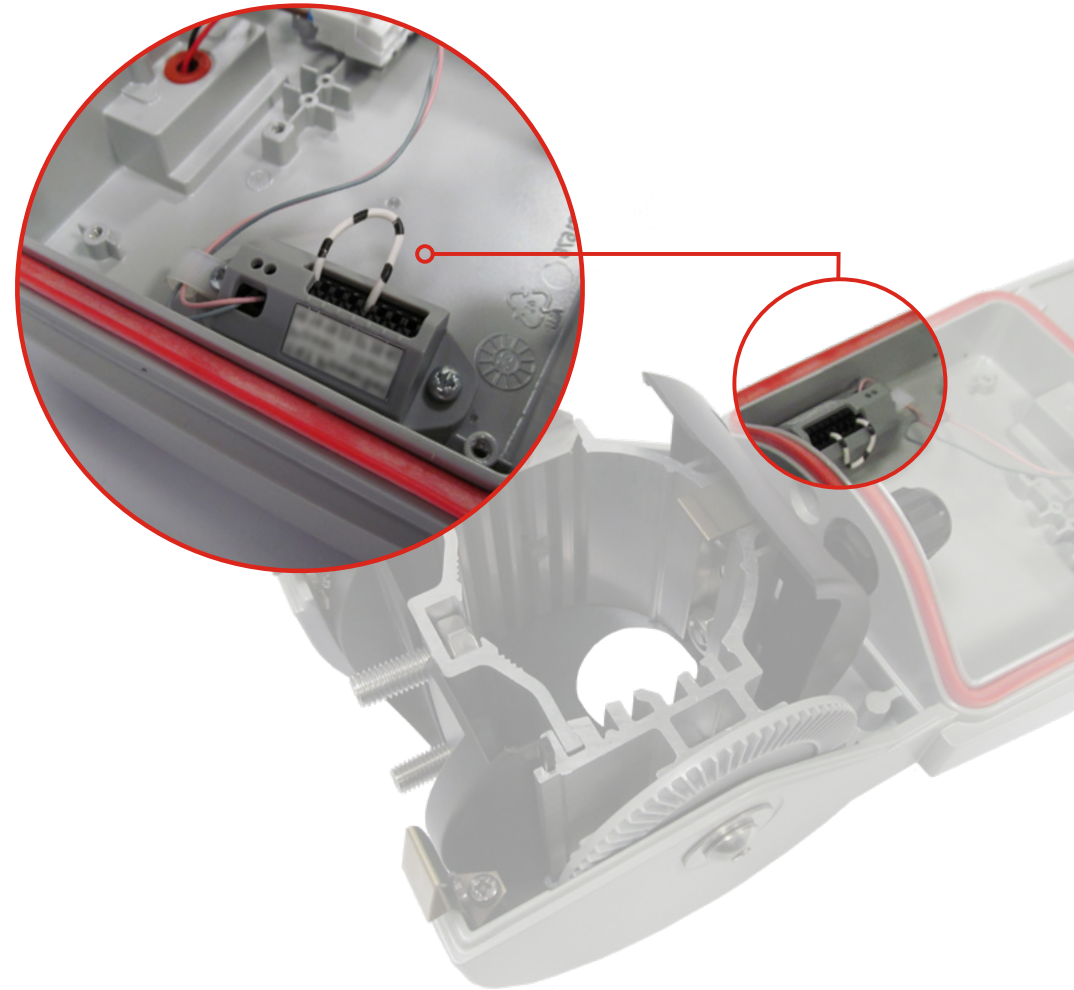
PRODUCT FEATURES

PowerSet

An innovative power selection module that provides the end user with the flexibility to easily adjust power and lumen output whilst the luminaire is installed or in the depot. The PowerSet feature allows for reduced stock holding and each module is specifically designed for all luminaires provided by TRT Lighting.

Optio Micro PowerSet Settings

Standard	CLO
10W	10W
14W	14W
19W	19W
23W	22W
27W	26W
35W	34W
42W	41W



PRODUCT FEATURES



Upgradeable Light Engine

With minimal future costs, the lantern is designed so that upgrades can be achieved quickly and cost effectively.

1. Release concealed latch with a flat bladed screwdriver

2. Lever open with finger



PRODUCT FEATURES

Interchangeable LED Modules

The Optio Micro LED module is available with flat glass or exposed lenses, up to 6 different optical distributions and a choice of PC-Amber, 2200K, 2700K, 3000K or 4000K colour temperatures. Easily identifiable using coloured identifiers.

Optio Micro 4 Photometry Footprints

GA2 Yellow

GA3 Purple

GR2 Red

GR5 Blue

GR7 Green



Optio Micro 16 Photometry Footprints

GA2 Yellow

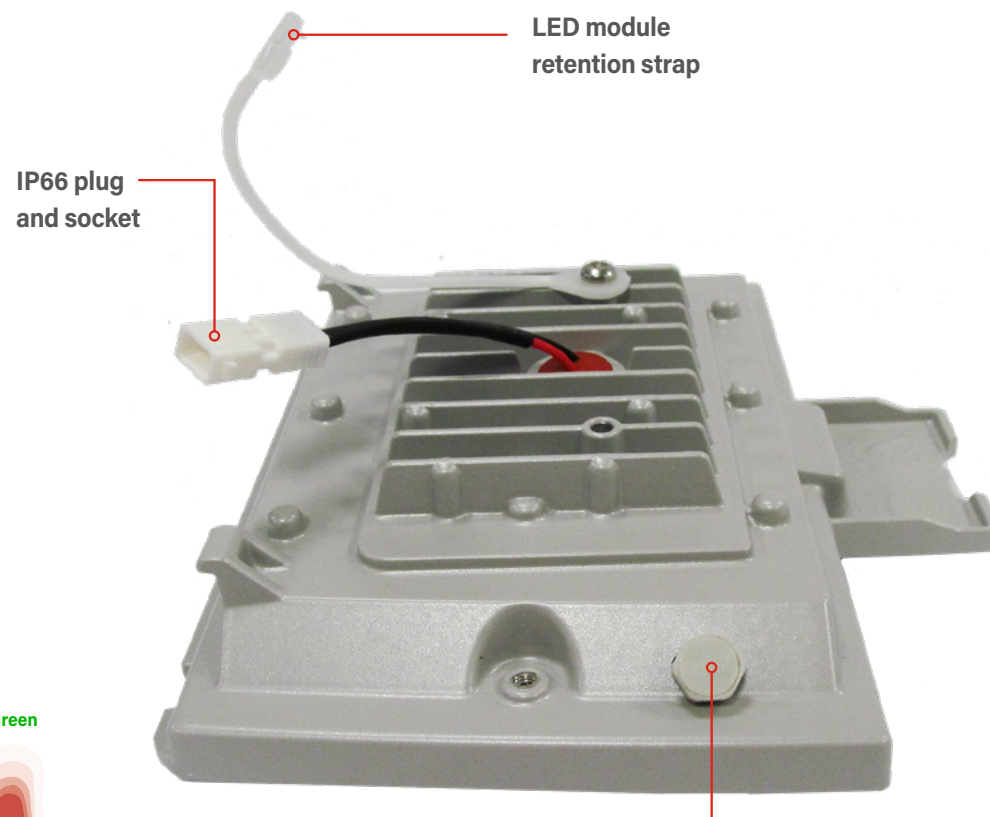
GA3 Purple

GR1 Black

GR3 White

GR5 Blue

GR7 Green



LED module retention strap

IP66 plug and socket

Built-in pressure equalisation (glass only)

PRODUCT FEATURES

OPTIO MICRO

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Loosen pivot locking screw to adjust mounting between pole top and side entry

5° increments for easy elevation and declination

MountSet (Patent Granted)

Enables the Optio Micro to be mounted onto a wide array of column and bracket sizes without the need for additional reducers or inserts. The dual combination of a stainless steel grub screw and nut means that the lantern will be easily removable from the installation at the end of its useful life.

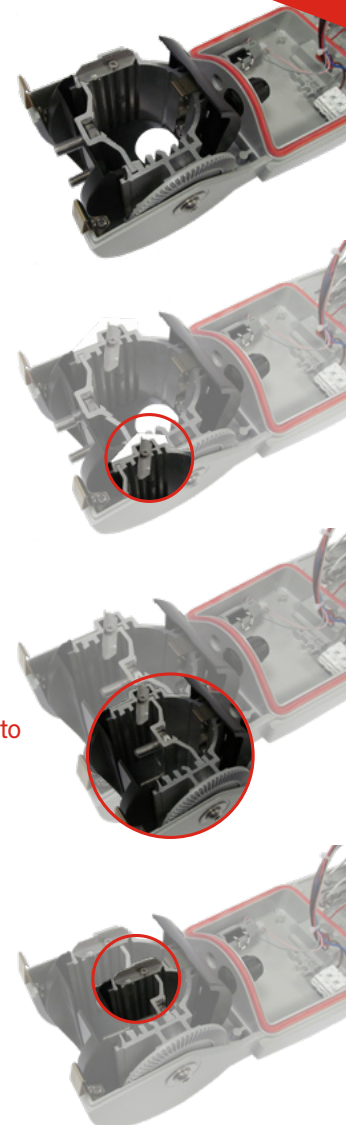
PRODUCT FEATURES

Factory set 76mm

STEP 1
Open locking plate

STEP 2
Move column clamp and rotate assembly to desired position

STEP 3
Close locking plate



Summary & Benefits

Circular economy design – designed to be maintained - all key components can be easily replaced with maximum component re-use - the “most circular economy ready” lantern we are aware of.

Future 'ready' – with the option of Zhaga Book 18 (SR) sockets, top and bottom. Simple upgrade options with minimal future costs - the lantern is designed so that upgrades can be achieved quickly and cost effectively (gear and LEDs) – with the addition of options for onsite power adjustment of gear and LED output.

Adjustability – allowing installations to be optimised and operatives to carry out varied lantern replacements if needed with lanterns they carry – especially with the variety of mounting options available.

Compact & lightweight – discrete and unobtrusive to the 'street-scape' - smaller in size to suit existing column and bracket infrastructure.

Clarity of communication – which lenses are in use can easily be checked by colour coding; this relates to the names of photometric files for ease of relating designs to installations.

Recyclable – the luminaires castings are manufactured from LM6 aluminium and 1000 hours salt spray compliant. The Optio Micro has also been extensively mechanically and electrically tested to ensure that it is built to last.

Minimised stock holding – due to the lantern's flexibility stock holding becomes more agile and practical which reduces the administration and deliveries required by ordering in per design.



PRODUCT FEATURES

OPTIO MICRO

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SPECIFICATIONS

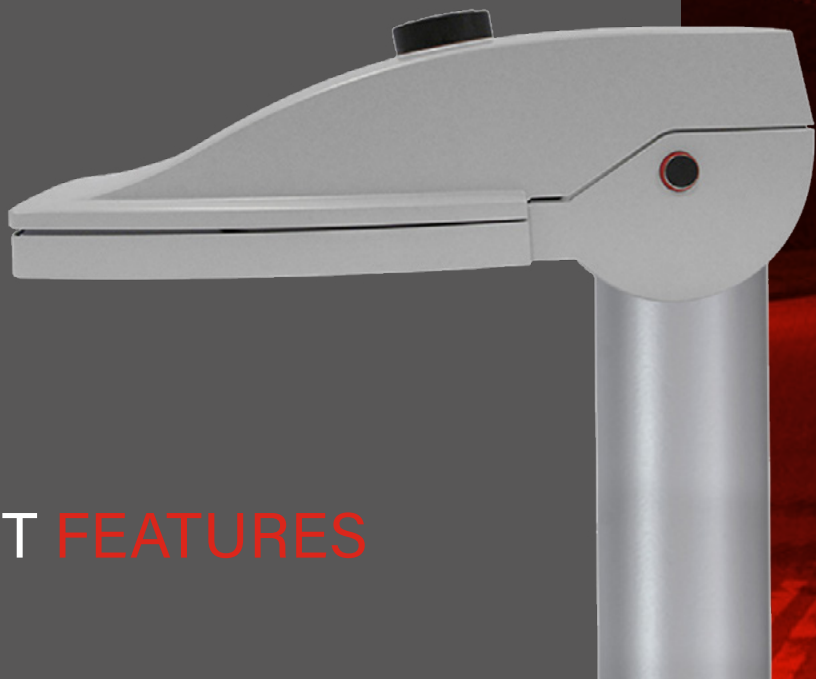
ORDERING

Suppliers of the 1st Dark Sky Community (Wales & Mainland England).

TRT are proud to have supplied thousands of Optio Micro street lighting products for the first Dark Sky Community in Wales & Mainland England.

The historic Radnorshire towns of Presteigne and Norton are now officially certified by DarkSky as the newest Dark Sky Community in the UK.

PRODUCT FEATURES



Certified by DarkSky.org

TRT is committed to reducing obtrusive light and light trespass in order to protect the night sky from light pollution.

The preservation of the dark sky is critical not only for the well-being of people and wildlife, but also for scientific and astronomical purposes.

The Optio Micro is compliant when using a colour temperature of 3000K or below at 0° tilt as this results in zero upward light.

OPTIO MICRO 4

ELECTRICAL CHARACTERISTICS

System Power	10-42W
LED CCT	3000K Or 4000K
LED CRI	>70
Lumen Output	Up to 5,553lm
Lumen Maintenance	Projected L90 after 100,000 hours
Drive Current	150-835mA
Driver Output	Constant current output with AM dimming
Power Factor (Full Load/Half Load)	0.95/0.90
Operational Voltage	220-240VAC rms
Operating Frequency	50/60Hz
Inrush Current (Apk/50%- μ S)	53A/200 μ S
Running Current	208mA
Surge Protection (COM/DIF)	8kV/6kV
Additional Surge Protection (on request)	10kV/10kA
Lighting Controls Options	NEMA 3, 7, Miniature Photocell, Zhaga Book 18 (SR) Socket (top and bottom), PND and CMS compatible
Dimming Protocols	DALI

TECHNICAL SPECIFICATIONS



OPTIO MICRO

FEATURES

SPECIFICATIONS

ORDERING

OPTIO MICRO 16

ELECTRICAL CHARACTERISTICS

System Power	10-42W
LED CCT	PC-Amber*, 2200K, 2700K, 3000K & 4000K
LED CRI	>70 (*>55)
Lumen Output	Up to 6,290lm
Lumen Maintenance	Projected L90 after 100,000 hours
Drive Current	150-835mA
Driver Output	Constant current output with AM dimming
Power Factor (Full Load/Half Load)	0.95/0.90
Operational Voltage	220-240VAC rms
Operating Frequency	50/60Hz
Inrush Current (Apk/50%- μ S)	53A/200 μ S
Running Current	208mA
Surge Protection (COM/DIF)	8kV/6kV
Additional Surge Protection (on request)	10kV/10kA
Lighting Controls Options	NEMA 3, 7, Miniature Photocell, Zhaga Book 18 (SR) Socket (top & bottom), PND and CMS compatible
Dimming Protocols	DALI



TECHNICAL SPECIFICATIONS

OPTIO MICRO

FEATURES

SPECIFICATIONS

ORDERING

OPTIO MICRO 4 & 16

MECHANICAL CHARACTERISTICS

Housing Material	High quality high pressure die cast LM6 aluminium
Housing Finish	Chromate free pre-treatment, polyester powder coat, light grey (RAL9006), dark grey (RAL7022) black (RAL9005) or bespoke colours on request
Cover Material	Toughened flat safety glass
Lens Material	PMMA
Ingress Protection Rating	IP66
Weight	5.5kg
Wind Area	0.05m ²
Impact Resistance Rating	IK08
Mounting Methods	Post top 60mm or 76mm Side entry 34mm, 42mm, 60mm or 76mm
Mounting Inclination	-10°, -5°, 0°, 5°, 10°
Photometric Centre	312mm (to centre of PCB)

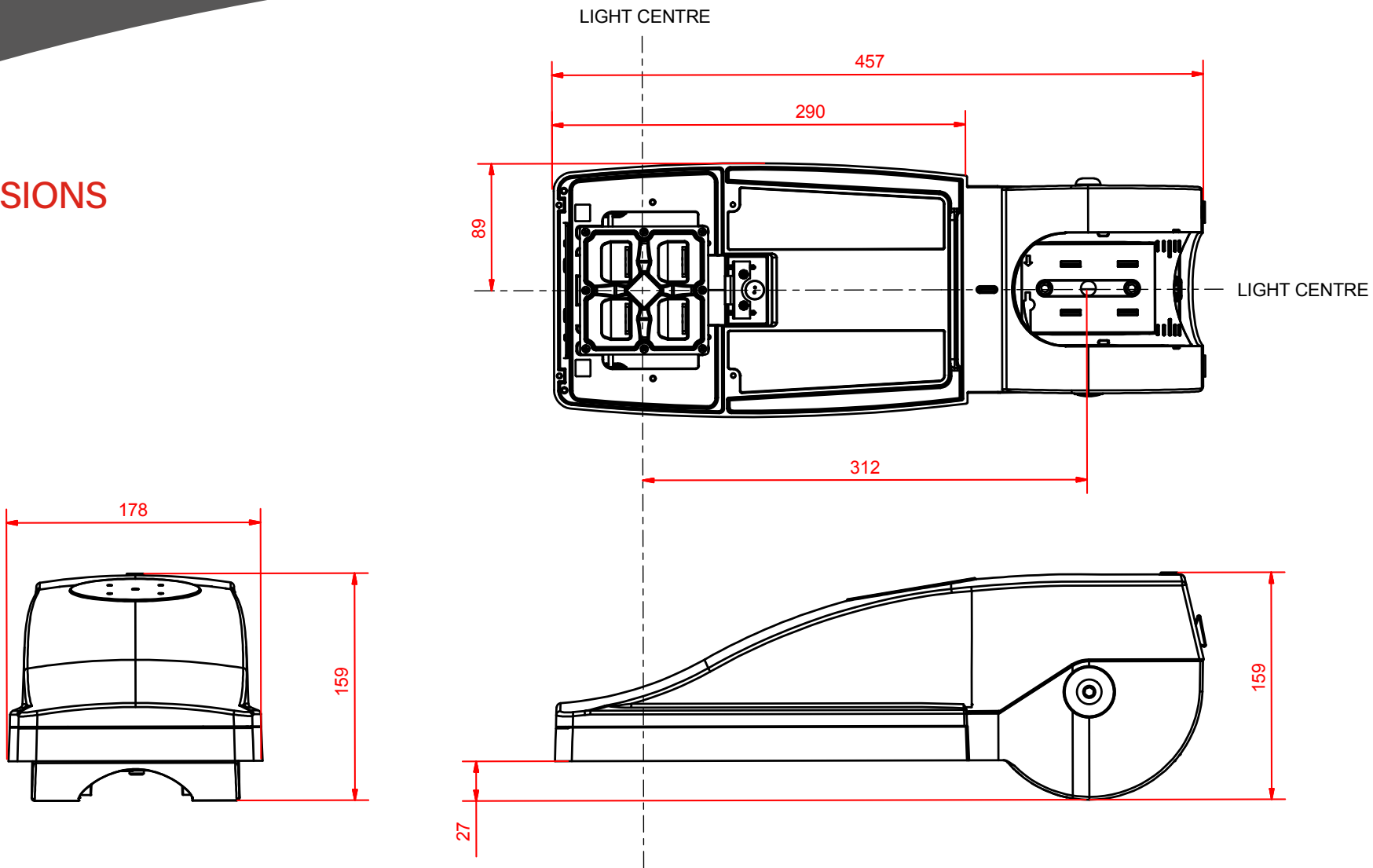
SHIELD OPTIONS

Universal Front/Rear	83BAF72019
Universal Side	83BAF72020

TECHNICAL SPECIFICATIONS



DIMENSIONS



TECHNICAL SPECIFICATION

OPTIO MICRO

FEATURES

SPECIFICATIONS

ORDERING

Step 1: Select Product Variant	Step 2: Select Power Level	Step 3: Select Distribution	Step 4: Select CCT	Step 5: Select Paint Colour	Step 6: Select Cover Type	Step 7: Select Mounting	Step 8: Select Accessories					
OPM4 Standard Optio Micro 4 LED	10	GR2 General Road 2	3K 3000K	LG Light Grey	G Glass	PT60 Post Top 60mm	MC10 35/18 Minicell NEM3 3 Pin NEMA Socket NEM7 7 Pin NEMA Socket XMARC1.5 Xm of Arctic 1.5mm ² Cable XMARC2.5 Xm of Arctic 2.5mm ² Cable NEM3/PC 3 Pin NEMA Socket with 35/18 NEMA Photocell NEM7/PC 7 Pin NEMA Socket with 35/18 NEMA Photocell ZB18T SR Socket on Top with Sealing Cap ZB18B SR Socket on Bottom with Sealing Cap LS Left Shield RS Right Shield FS Front Shield BS Back Shield					
	14											
19												
23												
27												
35												
42												
OPM4P Optio Micro 4 LED with PowerSet	26							GR5 General Road 5	4K 4000K	DG Dark Grey	E Exposed Lens	PT76 Post Top 76mm
OPM4C Optio Micro 4 LED with Constant Light Output (CLO)	10							GR7 General Road 7	4K 4000K	B Black	E Exposed Lens	SE34 Side Entry 34mm
	14							GA2 General Area 2				SE42 Side Entry 42mm
OPM4CP Optio Micro 4 LED with PowerSet & Constant Light Output (CLO)	19	GA3 General Area 3	4K 4000K	B Black	E Exposed Lens	SE60 Side Entry 60mm						
	22					SE76 Side Entry 76mm						
	26											
	34											
	41											

Example

Product	Power (W)	Distribution	LED Temp	Paint Colour	Cover Type	Mounting	Accessories
OPM4	10	GR2	4K	LG	G	SE76	MC10, 7MARC1.5



ORDERING CODES FOR OPTIO MICRO 4

OPTIO MICRO

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SPECIFICATIONS

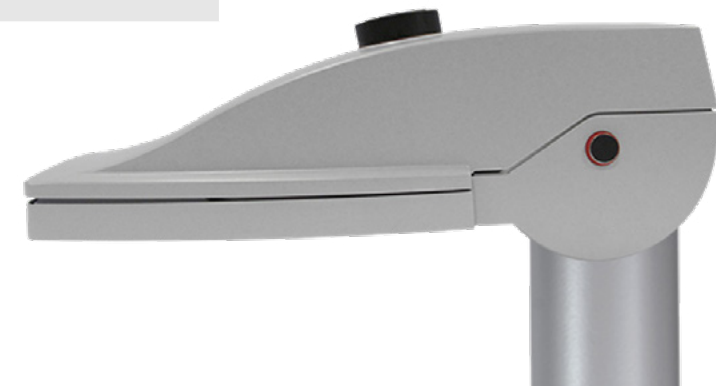
ORDERING

Step 1: Select Product Variant	Step 2: Select Power Level	Step 3: Select Distribution	Step 4: Select CCT	Step 5: Select Paint Colour	Step 6: Select Cover Type	Step 7: Select Mounting	Step 8: Select Accessories
OPM16 Standard Optio Micro 16 LED	10 up to 42 (in 1w steps)	GA2 General Area 2	4K 4000K	LG Light Grey	G Glass	PT60 Post Top 60mm	MC10 35/18 Minicell
OPM16P Optio Micro 16 LED with PowerSet	10 14 19 23 27 35 42						GA3 General Area 3
OPM16C Optio Micro 16 LED Constant Light Output (CLO)	10 up to 41 (in 1w steps)	GR1 General Road 1	3K 3000K	LG Light Grey	G Glass	SE34 Side Entry 34mm	NEM3/PC 3 Pin NEMA Socket with 35/18 NEMA Photocell
OPM16CP Optio Micro 16 LED Constant Light Output (CLO) & PowerSet	10 14 19 22 26 34 41	GR3 General Road 3	27K 2700K	DG Dark Grey		SE42 Side Entry 42mm	NEM7/PC 7 Pin NEMA Socket with 35/18 NEMA Photocell
		GR5 General Road 5	22K 2200K	B Black		SE60 Side Entry 60mm	ZB18T SR Socket on Top with Sealing Cap
		GR7 General Road 7	PCA PC-Amber			SE76 Side Entry 76mm	ZB18B SR Socket on Bottom with Sealing Cap
		GR11 General Road 11				LS Left Shield RS Right Shield BS Black Shield FS Front Shield	

Example

Product	Power (W)	Distribution	LED Temp	Paint Colour	Cover Type	Mounting	Accessories
OPM16P	10	GA2	4K	B	G	PT76	LS

ORDERING CODES FOR OPTIO MICRO 16



OPTIO MICRO

FEATURES

SPECIFICATIONS

ORDERING



For more information

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www.trtlighting.co.uk

TRT Lighting evolved from Thorlux Lighting in 2012 as a specialist division of the FW Thorpe Group with a core focus on developing innovative lighting products for streets, roads and tunnels using only LED technology.

Culture of transparency – we provide clear, honest information designed to be useful so clients have a clear understanding of what can be expected from the product and the company.

Sustainability – we are a CO₂ neutral supplier with strong roots in British manufacturing dating back to 1936.

Locally supported – we manufacture our luminaires in Redditch, Worcestershire and are proud members of the official Made in Britain campaign and their Green Growth programme.

WORKING WITH TRT



INNOVATE | INTEGRATE | ILLUMINATE