



Feasa Optical Head – Data Sheet

The Feasa Optical Heads have been designed to ensure stability when testing the intensity of LEDs. The robust and compact design delivers consistent and repeatable readings with a <10% intensity change over a 1mm placement of the LED. The Optical Head addresses the following issues:

- Compensation for LED Placement
- Repeatable Intensity Readings
- Reduced sensitivity to ambient light

Optical Head Specification & Ordering Information

These Optical Heads (OH) have a Diameter of 2.54mm and are suitable for Led centre to centre distance of 2.8mm: They are used with 1mm Plastic Optical Fiber (POF) which needs to be glued in place. The Temperature range is 0C – 70C

Part No	Body Diameter - Imperial	Body Diameter - Metric	Drill Size in G10	Overall Length (inc. Screw holder if applicable)	Minimum Centre to Centre Distance	Fiber	Comments
OH-21	0.100 +/- .001	2.54 +/- 0.025 mm	2.5mm	1.000 +/- .005 in	2.8mm	POF 1mm	Standard Intensity Leds

These Optical Heads (OH) have a Diameter of 3mm and are suitable for Led centre to centre distance of 3.5mm: They are used with 1mm Plastic Optical Fiber (POF). The Temperature range is 0C – 70C

Part No	Body Diameter - Imperial	Body Diameter - Metric	Drill Size in G10	Overall Length (inc. Screw holder if applicable)	Minimum Centre to Centre Distance	Fiber	Comments
OH-1	0.120 +/- .001	3.022 – 3.048 mm	3.02mm	40mm	3.5mm	POF 1mm	Standard Intensity Leds
OH-1A	0.120 +/- .001	3.022 – 3.048 mm	3.02mm	40mm	3.5mm	POF 1mm	High Intensity Leds
OH-24	0.120 +/- .001	3.022 – 3.048 mm	3.02mm	40mm	3.5mm	POF 1mm	90°

These Optical Heads (OH) have a Diameter of 3.55mm and are suitable for Led centre to centre distance of 4mm: They are used with 1mm Plastic Optical Fiber (POF). The Temperature range is 0C – 70C

Part No	Body Diameter - Imperial	Body Diameter - Metric	Drill Size in G10	Overall Length (inc. Screw holder if applicable)	Minimum Centre to Centre Distance	Fiber	Comments
OH-5	0.141 +/- .001	3.556 – 3.607 mm	3.55mm	49mm	4mm	POF 1mm	Standard Intensity Leds
OH-5S	0.141 +/- .001	3.556 – 3.607 mm	3.55mm	28mm	4mm	POF 1mm	Short (OH5)

These Optical Heads (OH) have a Diameter of 4.55mm and are suitable for Led centre to centre distance of 5mm: They are used with 1mm Plastic Optical Fiber (POF). The Temperature range is 0C – 70C

Part No	Body Diameter - Imperial	Body Diameter - Metric	Drill Size in G10	Overall Length (inc. Screw holder if applicable)	Minimum Centre to Centre Distance	Fiber	Comments
OH-3	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	50mm	5mm	POF 1mm	Standard Intensity Leds
OH-2	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	30mm	5mm	POF 1mm	Short (OH3)
OH-2S	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	30mm	5mm	POF 1mm	Short (OH3)
OH3-RGB	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	50mm	5mm	POF 1mm	RGB Led Test
OH-4	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	59mm	5mm	POF 1mm	90°
OH-4S	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	39mm	5mm	POF 1mm	Short 90°
OH-23	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	51mm	5mm	POF 1mm	Super High Bright Intensity
OH-33	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	50mm	5mm	POF 1mm	High Bright Intensity



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These Optical Heads (OH) have a Diameter of 12mm and are suitable for Led centre to centre distance of 13mm: They are used with 1mm Plastic Optical Fiber (POF). The Temperature range is 0C – 70C

Part No	Body Diameter - Imperial	Body Diameter - Metric	Drill Size in G10	Overall Length (inc. Screw holder if applicable)	Minimum Centre to Centre Distance	Fiber	Comments
OH-30	0.472 +/- .001	11.80 – 12.02 mm	12mm	57mm	13mm	POF 1mm	Large Diameter Led

These Optical Heads (OH) are suitable for Leds in High Temperature Environments: They are used with 1.1mm Glass Optical Fiber. The Temperature range is -65C to +125C. They are Recommended to be used with the Led Life Tester Analyser.

Part No	Body Diameter - Imperial	Body Diameter - Metric	Drill Size in G10	Overall Length (inc. Screw holder if applicable)	Minimum Centre to Centre Distance	Fiber	Comments
OH-7LT	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	40mm	5mm	Glass 1.1mm	Standard Intensity Leds
OH-17LT	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	40mm	5mm	Glass 1.1mm	RGB Led Test
OH-10G-xxx	0.037 +/- .0025	0.876 – 1.003 mm	1.00mm	52mm + Fiber xxx cm	1.5mm	Glass 1.1mm	High Bright Int.

These Optical Heads (OH) have a Diameter of 4.55mm and are suitable for Led centre to centre distance of 5mm: They are used with 1.1mm Glass Optical Fiber. The Temperature range is 0C – +70C. They are Recommended to be used with the Infra Red Led Analyser for Wavelength up to 950nm

Part No	Body Diameter - Imperial	Body Diameter - Metric	Drill Size in G10	Overall Length (inc. Screw holder if applicable)	Minimum Centre to Centre Distance	Fiber	Comments
OH8-IR	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	50mm	5mm	Glass / POF	Testing IR Leds
OH8A-IR	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	51.5mm	5mm	Glass / POF	Testing IR Leds

These Optical Heads (OH) have a Diameter of 8.00mm and are suitable for Led centre to centre distance of 9mm: They are used with 1mm Plastic Optical Fiber (POF). The OH-6S has a diameter of 10.2mm and a centre to centre distance of 11mm. The Temperature range is 0C – 70C.

Part No	Body Diameter - Imperial	Body Diameter - Metric	Drill Size in G10	Overall Length (inc. Screw holder if applicable)	Minimum Centre to Centre Distance	Fiber	Comments
OH-6	0.315 +/- .001	7.975 – 8.026 mm	8.00mm	51mm	9mm	POF 1mm	High Bright Intensity Led
OH-6S	0.400 +/- .005	10.2 +/- 0.15 mm	10.2mm	34.5mm	11mm	POF 1mm	Short (OH-6) PVC
OH-6N	0.315 +/- .001	7.975 – 8.026 mm	8.00mm	50mm	9mm	POF 1mm	Standard Intensity Led
OH6-RGB	0.315 +/- .001	7.975 – 8.026 mm	8.00mm	50mm	9mm	POF 1mm	RGB Led Test
OH-26	0.315 +/- .001	7.975 – 8.026 mm	8.00mm	52mm	9mm	POF 1mm	Super High Bright Int.

These Optical Heads (OH) have a Diameter of 6.55mm and are suitable for Led centre to centre distance of 7mm: They are used with 1mm Plastic Optical Fiber (POF). The Temperature range is 0C – 70C. They are recommended for use in an RF Environment.

Part No	Body Diameter - Imperial	Body Diameter - Metric	Drill Size in G10	Overall Length (inc. Screw holder if applicable)	Minimum Centre to Centre Distance	Fiber	Comments
OH-9RF	0.257 +/- .002	6.25 – 6.55 mm	6.55mm	50mm	7mm	POF 1mm	RF Testing
OH-19RF	0.257 +/- .002	6.25 – 6.55 mm	6.55mm	35mm	7mm	POF 1mm	RF Testing 90°



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This Optical Heads (OH) have been developed for specific Customer Requirements

Part No	Body Diameter - Imperial	Body Diameter - Metric	Drill Size in G10	Overall Length (inc. Screw holder if applicable)	Minimum Centre to Centre Distance	Fiber	Comments
OH-7D	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	40mm + 2 Fibers 60cm	5mm	Optional	Dual fiber

These Optical Heads (OH) have a Diameter of 0.9mm - 1.00mm and are suitable for Leds centre to centre distance of 1.5mm: They are pre-fitted with 60cm long 1mm Plastic Optical Fiber (POF). The Temperature range is 0C – 70C for the OH-10 & OH-11. The Temperature range is -65C – +125C for the OH-10G-XX. They are recommended for testing High Bright Leds such as headlights and rear light of cars.

Part No	Body Diameter - Imperial	Body Diameter - Metric	Drill Size in G10	Overall Length (inc. Screw holder if applicable)	Minimum Centre to Centre Distance	Fiber	Comments
OH-10	0.037 +/- .0025	0.876 – 1.003 mm	1.00mm	52mm + Fiber 60cm	1.5mm	POF 1mm	High Bright Int.
OH-10G-xxx	0.037 +/- .0025	0.876 – 1.003 mm	1.00mm	52mm + Fiber xxx cm	1.5mm	Glass 1.1mm	High Bright Int. With Glass Fiber
OH-11	0.0357 +/- .0003	0.899 – 0.914 mm	0.90mm	35mm + Fiber 60cm	1.1mm	POF 1mm	High Bright Int.

These Optical Heads are recommended for testing with the Low Light Analyser. They require 2.2mm Plastic Optical Fiber (POF) to be glued in place except for the OH-16, OH-31 which have a fiber holder. The Temperature range is 0C – 70C.

Part No	Body Diameter - Imperial	Body Diameter - Metric	Drill Size in G10	Overall Length (inc. Screw holder if applicable)	Minimum Centre to Centre Distance	Fiber	Comments
OH-12	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	29mm	5mm	POF 2.2mm	Short (OH13)
OH-13	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	37mm	5mm	POF 2.2mm	Low Light Analyser
OH-14	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	45mm	5mm	POF 2.2mm	90°
OH-14S	0.180 +/- .002	4.521 – 4.623 mm	4.55mm	32mm	5mm	POF 2.2mm	Short (OH14)
OH-16	0.400 +/- .005	10.2 +/- 0.15 mm	10.2mm	51mm	11mm	POF 2.2mm	PVC + 2.2mm Fiber Holder.
OH-31	0.472 +/- .001	11.80 – 12.02 mm	12mm	54mm	13mm	POF 2.2mm	Large Diameter Led

Feasa continues to develop Optical Heads for new applications. We can provide specialised customer solutions when possible. Please contact Feasa if you require advice or assistance on Optical Head design.



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