

Specifications

Models

Scope Description	Diameter	Diameter (with standard protection sleeve)	Working Length	Direction of View †	Field of View	Depth of Field
MK012-009-000-45	1.2 mm	1.6 mm	90 mm	0°	45°	1 mm - ∞
MK012-009-015-53	1.2 mm	1.6 mm	90 mm	15°	53°	1 mm - ∞
MK017-009-000-62	1.7 mm	2.3 mm	90 mm	0°	62°	1 mm - ∞
MK017-018-000-62	1.7 mm	2.3 mm	180 mm	0°	62°	1 mm - ∞
MK017-009-015-80	1.7 mm	2.3 mm	90 mm	15°	80°	1 mm - ∞
MK017-018-015-80	1.7 mm	2.3 mm	180 mm	15°	80°	1 mm - ∞
MK017-009-090-62	1.7 mm	2.3 mm	90 mm	90°	62°	1 mm - ∞
MK017-018-090-62	1.7 mm	2.3 mm	180 mm	90°	62°	1 mm - ∞
MK027-018-000-62	2.7 mm	3.0 mm	180 mm	0°	62°	1 mm - ∞
MK027-018-015-80	2.7 mm	3.0 mm	180 mm	15°	80°	1 mm - ∞
MK027-018-090-62	2.7 mm	3.0 mm	180 mm	90°	62°	1 mm - ∞

† 0° - Direct
 15° - Fore-oblique
 90° - Lateral

Operating Specifications

Operational temperature	Complete instrument -10 to 50 °C in air Insertion tube only -10 to 80 °C in air Insertion tube only 10 to 30 °C in water
Humidity	Relative Humidity: 15% to 90%
Pressure - Insertion tube	up to 1700 hPa absolute in water, 700 hPa - 1700 hPa in air
Pressure - Complete instrument	700 hPa to 1060 hPa in air
Fluid resistance	Insertion tube: Resistance to water, 5% saline, petrol, diesel, mineral and synthetic oils Complete instrument: Surface contact wiping only

Light Source Specifications

	ILD-3 Battery Version	ILD-3 DC Version
LED Voltage		3.2 V DC
LED Power Consumption		1.12 W
Dimensions		30 mm (W) x 55 mm (H)
Weight		Less than 65 g (including battery)
Power Input	Integrated Battery	Desktop PSU Input
	Rechargeable	Desktop PSU Input
	Non Rechargeable	100-240 V AC 50-60 Hz
Recommended Battery	Enix Energy FML8668 3 V	-
	123 3 V Lithium Battery	-
	Battery Charger Input	100-240 V AC 50-60 Hz
		-

ILD-C Control Box	
Input Voltage	9 to 19 V DC
Power Consumption	38 W maximum
Dimensions	90 mm (W) x 38 mm (H) x 130 mm (D)
Weight	Less than 650 g

Operating Specifications

Operational temperature	ILD-3 Battery Version: 0 to 45 °C ILD-3 DC Version: 0 to 40 °C ILD-C Control Box: 0 to 50 °C
Humidity	Relative Humidity: 15% to 90%
Pressure	710 hPa to 1060 hPa absolute in air
Fluid resistance	Surface contact wiping only

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OLYMPUS

Your Vision, Our Future

Industrial Rigid Borescope
 MK Modular Mini-Scope



The innovative modular design in ultra-thin borescopes allows cost-effective inspections. The compact and versatile system design is ideal for routine inspections such as those found in the automotive industry.

Overview

Mini-bolescopes are optical instruments with small diameter insertion tubes, designed for the observation of locations with small access points that cannot be viewed directly from the outside.

The MK Modular Mini-Scope can be offered as a complete system with the use of a compact LED light source. This combination provides:

- Significant reduction of running costs for inspections
- Increased durability for industrial environments
- Bright and high quality images for accurate reproduction of the smallest defects
- Improving inspection efficiency through compact and versatile system design



Features

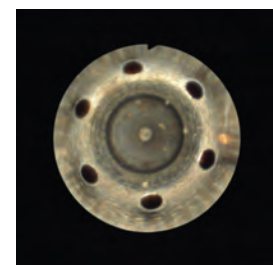
Modular Design

The MK Modular Mini-Scope represents a truly versatile design with interchangeable eyepiece and CCTV adaptors which allow convenient connection to varied camera systems or for use by eye. The overall system dimensions are reduced to aid fixture mounting for routine inspections. The ability to change the insertion tube in-field by the user is a significant benefit and helps minimise equipment down-time.

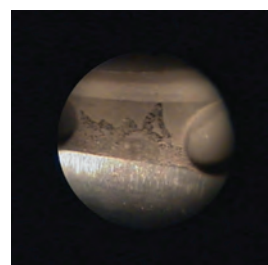


Improved Image Quality

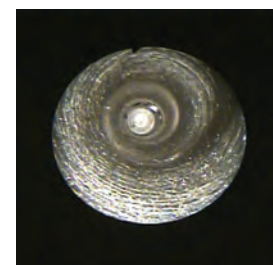
The proven high resolution SELFOC lens system has been optimised for even clearer detail due to innovative new ring fiber illumination particularly at close working distances. A new modular focusing eyepiece and CCTV adaptors provide sharp images and effective results, aiding quick decision making.



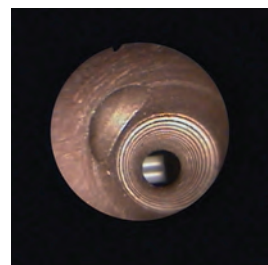
Fuel injection nozzle



Hydraulic pressure part



Inside camshaft



Transmission part

Durability

Considerable improvements in insertion tube construction have been introduced to achieve greater resistance to wear. A sapphire window is incorporated to the tip of most models in the range. Protection tubes provide additional strengthening of the insertion tube. Adjustable and rotational protection tubes are also available for further strengthening and to help avoid damage to the distal end.



Cost-effective and compact LED light source

The ILD-3 is a battery powered, lightweight and compact LED light source that has been designed for use primarily with the new MK Modular Mini-Scope.

The modular design allows the ILD-3 to be connected directly to the MK scopes, dramatically reducing losses through unnecessary light guides. This gives the light source (65 grams including battery) a higher scope tip brightness than other conventional light sources of much greater power.



Accessories for MK Mini-Scope

Modular Focusing Eyepiece

Provides fully adjustable focus for greater depth of field. Industry standard 32 mm diameter eyepiece ensures compatibility with existing adaptors.



CCTV Adaptors

Incorporates focusing for improved close focus resolution. A range of C-mount adaptors are available to suit a variety of CCTV cameras.



Models	Applicable CCTV Camera
MK-A2	1/2 in. CCD cameras
MK-A3	1/3 in. CCD cameras
MK-A4	1/4 in. CCD cameras

MK Liquid Light Guide Cable

Small diameter 3 mm liquid light guide cables are available, designed to optimise light transmission when used with the MK Modular Mini-Scope and conventional light sources.

Models
1.8 m
2.5 m

Rotational Protection Sheath

Protection sheaths can be used on 90° direction of view bolescopes to protect the distal end of the insertion tube. The aperture can be rotated to cover or uncover the borescope viewing optics as required.

Models
MK017-018-090-62
MK017-009-090-62
MK027-018-090-62



Adjustable Protection Sheath

The protection sheath can be used on all variants of borescope. It enables the length of the protection sheath to be adjusted and provides additional support for the insertion tube at its root.

Models
MK012-009
MK017-009
MK017-018
MK027-018



MK Storage case

The storage case consists of a carrying case with custom foam inserts designed to protect the MK Modular Mini-Scope and its accessories.

LED Light Sources

The ILD-3 series of light sources is exclusively designed for the MK Modular Mini-Scope to facilitate cost-effective and high quality inspections. Using LED technology gives superior brightness and colour reproduction at reduced power consumption and the greatly increased LED life offers lower long term cost and reduced environmental impact.

ILD-3 Battery Version

The ILD-3 can be powered for up to two hours from its removable, rechargeable battery for complete untethered freedom.



ILD-3 DC Version

In addition to battery operation, power can be provided to the ILD-3 via a power supply for continuous use.



ILD-C Control Box

Used in conjunction with the ILD-3, the ILD-C Control Box offers higher sustained brightness options, brightness control, and over eight hours' battery life at maximum brightness. The ILD-C will also power the ILD-3 whilst simultaneously charging from an AC power supply.

