



DESCRIPTION

The Tactical Electronics Optic Fiberscope is a precision Fiber Optic Inspection Tool utilizing a 6mm, two-way, 120 degree articulating probe for inspection of enclosed objects. The non-conductive tip makes the unit suitable for inspection of volatile liquids. The FSNET Optic Fiberscope can be ordered in 1 or 2 meter lengths.

CHARACTERISTICS

The Optic Fiberscope has a flexible body to facilitate insertion into the area to be viewed. The articulating section significantly simplifies guiding the flexible portion through complicated bends.

A sharp, well-defined, bright image is viewed due to high quality light fibers and a high resolution optical system.

The articulating section can move up or down in a single plane and then be locked in a precise location.

The flexible metal cable, used to protect the light guide and the stainless steel sheathing used over the flexible body, increases the fiberscope's strength and durability.

The flexible portion (flexible body and articulating section) is hermetically sealed and water resistant. This allows it's use in liquid environments. However, this does not apply to the handle (hand held control section of fiberscope).

The FSNET's flexible body can be one of the following lengths: 1000 / 1500 / 2000 / 2700 mm. Selection of needed working length should be based upon individual requirements and consideration of the geometric parameters of the article or object to be inspected, viewed or checked.

DESIGN AND DESCRIPTION

Flexible Part of Fiberscope:

The flexible portion of the fiberscope is covered with flexible plastic tubing for water resistance and stainless steel sheathing for strength.

Articulating Section:

The articulating section can bend within the bend plane +/-120°. The cavity to be investigated must have a distance of at least 40 mm for full articulation in one direction.

End Tip Articulation Section:

The end tip has threads for connecting the protective cap or the 90° end tip. The flat area on the tip is for correctly aligning the 90° end tip.



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DESIGN AND DESCRIPTION

900 viewing tip:

The 90° end tip allows for a 90° view without bending the articulation section. This allows side investigation in a much smaller cavity. It must be seated fully for proper use.

Control Lever:

The control lever is located on the right hand side and extends down and below the scope's housing for easy use with the right hand and thumb. The control lever can be in one of two positions:

The FREE MOVEMENT POSITION is extreme left.

The LOCKED POSITION is extreme right.

The FREE MOVEMENT POSITION allows easy movement during insertion. The LOCKED POSITION freezes the tip for stable viewing at the inspection site.

Ocular:

You will observe the INDEX mark when viewing the image through the eyepiece. The INDEX mark is located in the up position of the bend plane of the articulating section of the fiberscope.

Focusing Ring:

This allows for sharp focus based on the individual operator's vision.

Eye-Shade:

The ocular eye-shade isolates the observer from the metal parts.

Eye-Cup:

The eye-cup fits over the ocular eye-shade to provide a darker background for the field of view. The eye-cup can be included in the fiberscope kit at the customer's request.

Light Guide:

The fiberscope light guide includes the light guide cable and plug. The light guide cable is protected by rust-resistive cable casing. Do not allow excessive bending or coiling of the cable (less than 1.38 in. radius).

Light Guide Plug:

The plug should be inserted into light source with operator only touching plastic grip of plug. This is to avoid burns and damaging the cable.

Plug Adapter:

The changeable screw-on plug adapter allows for use in many different light sources.



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FSNET: OPTIC FIBERSCOPE

SPEC SHEET: TACTICAL ELECTRONICS

EOD SCOPE
TOOLS



OPERATIONAL PARAMETERS

FLEXIBLE BODY AND ARTICULATION SECTION (FLEXIBLE PORTION)	
AIR TEMPERATURE OF OPERATION	-10 ~ +80°C
WATER TEMPERATURE OF OPERATION	0 ~ +30°C
RANGE OF PRESSURE IN AIR	1 ~ 1.3 at
RANGE OF PRESSURE IN WATER	1 ~ 1.3 at
FLEXIBLE PORTION IS STABLE IN A WATER SOLUTION OF 5% NACL	
FIBERSCOPE HOUSING (HANDLE) AND LIGHT GUIDE	
AIR OPERATING TEMPERATURE	-10 ~ +50°C
RANGE OF PRESSURE IN AIR	1 ~ 1.1 at
WATER RESISTANCE - TO LIGHT SPLASHES OR DROPS HITTING THE DEVICE	

BASIC PARAMETERS

OBSERVATION DIRECTION ANGLE	
END TIP CAP	0°
90° VIEWING TIP	90°
FIELD OF VIEW ANGLE	60°
RESOLVING POWER OF THE OPTICAL SYSTEM FOR OPERATING DISTANCE OF 15 MM	5mm ⁻¹
RANGE OF OPERATING DISTANCE	5 to 100mm
LENGTH OF HOUSING	9.45in
LENGTH OF FLEXIBLE BODY	39.37in
MAXIMUM DIAMETER OF FLEXIBLE BODY	6mm
LENGTH OF THE ARTICULATING SECTION	1.97in
RANGE OF ARTICULATING SECTION ANGULAR DEVIATIONS	+/- 120°
MAXIMUM RANGE OF LINEAR (RADIAL) DEVIATIONS OF THE ARTICULATING SECTIONS	+/- 1.38in
MINIMUM RADIUS OF THE FLEXIBLE BODY BEND	1.38in
LIGHT SOURCE LENGTH	5.29in
WEIGHT OF FIBERSCOPE, NOT MORE THAN	0.5kg
OVERALL SIZE OF FIBERSCOPE CASE L/W/H	16.13in x 12.42in x 6.75in



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