IR Fiber Optic With 3' or 5' Fiber Bundle Used With 48PT2-100X Infrared Scanner

APPLICATION

The FIREYE fiber optic bundle has been designed for installation on burners where diffusers, sight pipe alignment, or burner apparatus would obscure the target flame away from the line of sight of a conventional surface mounted scanner. In burner boiler applications, where it is undesirable to mount the scanner in the blast tube, the 48PT2-100X scanner can be extended external to the burner. To avoid mechanical damage, care must be used during the handling of the fiber optic bundle and during assembly installation.

DO handle the fiber optic bundle gently.

DO NOT drop the fiber optic bundle.

DO NOT force a bend radius smaller than 4" or start a bend radius closer than 2" from either end.

SPECIFICATIONS

FIBER OPTIC BUNDLE:
> 1/2" NPT mounting lens holder head: 303 Stainless steel.
> Fiber outer carrier flexible stainless steel
> Rear portions: rigid stainless steel 1/2 in. (Scanner Connection)
> Optics: High temperature glass.

DIMENSIONS:
> See Figure 1.

MOUNTING:
> Burner Throat: 1/2" NPT lens holder assembly. Figure 1
> Scanner assembly: 1/2" NPT fiber/scanner assembly. Figure 1

ELECTRICAL:
> Refer to Fireye Flame Scanner bulletin SC-103.
> 48PT2-100X

TEMPERATURE:
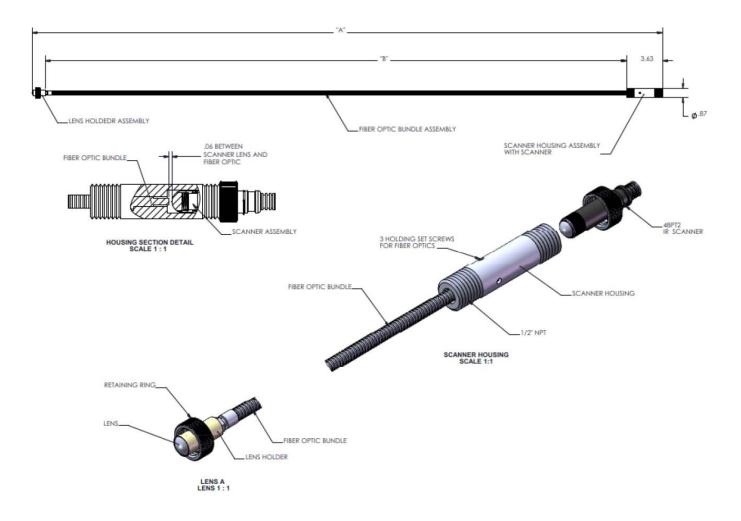> Scanner: Model 140° F max., (60° F) min., 60°C max., (-40°C) min.
> Fiber Optics: 800°F (427°C) max. glass (for infrared)

OPTICAL FIELD OF VIEW: 13 sq. in. @ 3 feet (100 sq. cm. @ 1.0 meter)

DIMENSIONS:

Table 1		
Part	Dim A	Dim B
IRFK-3	39.8	34.9
IRFK-5	63.8	58.9

"A"

"B"

3.63

LENS HOLDEDR ASSEMBLY

FIBER OPTIC BUNDLE ASSEMBLY

SCANNER HOUSING ASSEMBLY
WITH SCANNER

ø .87

FIBER OPTIC BUNDLE

.06 BETWEEN
SCANNER LENS AND
FIBER OPTIC

SCANNER ASSEMBLY

HOUSING SECTION DETAIL
SCALE 1 : 1

3 HOLDING SET SCREWS
FOR FIBER OPTICS

48PT2
IR SCANNER

FIBER OPTIC BUNDLE

SCANNER HOUSING

1/2" NPT

SCANNER HOUSING
SCALE 1:1

RETAINING RING

LENS

FIBER OPTIC BUNDLE

LENS HOLDER

LENS A
LENS 1 : 1

ORDERING INFORMATION

IRFK-3   Glass Fiber Optic With 3' Fiber Bundle

IRFK-5   Glass Fiber Optic With 5' Fiber Bundle

48PT2-100X   Infra-Red Scanner

⚠	**CAUTION: Fireye scanners are for use only with Fireye controls. Do not connect Fireye scanners with controls not manufactured by FIREYE.**
⚠	**CAUTION: If component checking is required during burner operation for constantly fired burners, utilize the infrared flame scanner (48PT2) with associated AutoCheck amplifier. For Flame-Monitor systems use the E1R1, E1R3 or E1R2 and for MicroM systems use the MEIR1 or MEIR4.**
⚠	**Warning- all installation, service and troubleshooting of Fireye products must be performed by a qualified technician.**

NOTICE

When Fireye products are combined with equipment manufactured by others and/or integrated into systems designed or manufactured by others, the Fireye warranty, as stated in its General Terms and Conditions of Sale, pertains only to the Fireye products and not to any other equipment or to the combined system or its overall performance.

WARRANTIES

FIREYE guarantees for *one year from the date of installation or 18 months from date of manufacture* of its products to replace, or, at its option, to repair any product or part thereof (except lamps, electronic tubes and photocells) which is found defective in material or workmanship or which otherwise fails to conform to the description of the product on the face of its sales order. **THE FOREGOING IS IN LIEU OF ALL OTHER WARRANTIES AND FIREYE MAKES NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED.** Except as specifically stated in these general terms and conditions of sale, remedies with respect to any product or part number manufactured or sold by Fireye shall be limited exclusively to the right to replacement or repair as above provided. In no event shall Fireye be liable for consequential or special dam- ages of any nature that may arise in connection with such product or part.