

Kurz Instruments, Inc.
2411 Garden Road
Monterey, CA 93940
USA
(831)-646-5911
www.kurzinstruments.com

EC Declaration of Conformity MFT B-Series


The Kurz Instruments, Inc., MFT B-Series have six applicable European Economic area Council directives:

ATEX (94/9/EC) for equipment used in potentially explosive atmospheres
PED (97/23/EC) for pressure equipment
LVD (2006/95/EC) the low voltage directive for all electrical equipment
EMC (89/336/EEC) which covers electromagnetic compatibility: emissions and susceptibility
RoHS (2002/95/EC) Reduction of Hazardous Substances in Electrical and Electronic Equipment
WEEE (2002/96/EC) Waste of Electrical and Electronic Equipment

This product was first put on the market, January 2007.

ATEX

The following Kurz Instruments Mass Flow Transmitters are in compliance with the ATEX requirements for Group II, Category 3 explosive Gas and Dust atmospheres and have been self declared.

 II 3 GD:

Series 454FTB-a

a = Probe support diameters 08-12-16, 16th of an inch.
454PFTB-16

Series 504FTB-b

Series 524FTB-b

b = Flow Body diameters 6A though 96, 16th of an inch.

Series 534FTB-c

c = Flow Body throat diameter 6A/B/C through 64A/B/C, 16th of an inch

Series 544FTB-d

d = Flow Body throat diameter, 06 to 36 of an inches.

K-BAR2000B

K-BAR2000BP

All the above models have been designed and manufactured to the EN60079-0 (2006) and EN60079-15 (2005) standards for non-incendive and the combustible dust requirements of EN61241-1(2004). They are marked:

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Ex nA II

Type 4X/7 IP66 enclosure

DC powered units: 24 VDC, 1A

Electronics housing: -40 °C to 50 °C: T6 or to 65 °C: T5

Sensing element: -40 °C to 55 °C: T5 or to 130 °C: T3

AC powered units: 85 to 265 VAC, 24 W, 50-60 Hz ph1


Electronics housing: -40 °C to 50 °C: T4, or to 65 °C: T150 °C

Sensing element: -40 °C to 55 °C: T5 or to 130 °C: T3

The equivalent sensor temperature rise is 70 °C. The lower survival temperature limit is -25 °C for the LCD version and -40 °C for the blind or non-LCD version.

The following Kurz Instruments Mass Flow Transmitters are in compliance with the ATEX requirements for Group II, Category 2 explosive Gas atmospheres. The Ex d ATEX product type approval was made by KEMA under project file: 09ATEX0084.

*(Notified Body and Number: KEMA, No. 0344,
Utrechtseweg 310, 6812 AR Arnhem P.O. Box 6802
ED Arnhem, The Netherlands)*

 II 2 G:

Series 454FTB-a

a = Probe support diameters 08-12-16, 16th of an inch.
454PFTB-16

Series 504FTB-b

Series 524FTB-b

b = Flow Body diameters 6A through 96, 16th of an inch.

Series 534FTB-c

c = Flow Body throat diameter 6A/B/C through 64A/B/C, 16th of an inch

Series 544FTB-d

d = Flow Body throat diameter, 06 to 36 of an inches.

All the above models have been designed and manufactured to the EN60079-0 (2006) and EN60079-1 (2004) standards for flameproof. They are marked:

Ex d IIB + H2

DC powered units: 24 VDC, 1A

Electronics housing: -40 °C to 40 °C: T6 or to 65 °C: T110 °C

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Sensing element: -40 °C to 45 °C: T4 or to 110 °C: T3
 AC powered units: 85 to 265 VAC, 24 W 50-60 Hz ph1
 Electronics housing: -40 °C to 50 °C: T4 or to 65 °C: T150 °C
 Sensing element: -40 °C to 45 °C: T4 or to 110 °C: T3

The equivalent sensor temperature rise is 90 °C above process gas temperature. While not a safety hazard, the lower survival temperature limit is -25 °C for the LCD version and -40 °C for the blind or non-LCD version. Potted conduit seals or cable glands must be directly attached to the enclosure. The 454PFTB purge cleaning gas must be inert for flammable gas applications.

PED

The MFT B-Series are rated for Category I applications. All versions of the 454FTB are so small, the PED does not apply, that is there are no PED limitations on its use. This is also true of the 454PFTB. The in-line products: 504FTB, 524FTB, 534FTB up to 4" (DN100) nominal size are rated up to 10 BAR or 150 PSI. The 2" (50 mm) and smaller can be used up to 20 BAR (300 PSI) or less depending on the use of flanges etc. The K-BAR 2000B and 2000PB are 1.5" tubing so are valid for pressures up to 20 BAR (300 PSI). In-line models above the 4" (DN100) nominal size may only be used below 0.5 BAR where the PED does not apply. The 534FTB-32C which has a 2" (DN50) test section but 4" (DN100) inlets and outlets would be at the limit for a Category 1 PED device. Due to these changing pipe sizes in the 534FTB, any model using a pipe section larger than 4" is only PED rated for 0.5 BAR maximum pressure.

Summary of PED ratings

Model	Size	Rating
454FTB and 454PFTB	Up to 1" (DN 25)	Not Applicable.
504FTB, 524FTB, 534FTB	Up to 2" (DN 50)	Up to 20 BAR (300 PSI)
504FTB, 524FTB	Up to 4" (DN 100)	Up to 10 BAR (150 PSI)
504FTB, 524FTB, 534FTB	Over 4" (DN 100)	Up to 0.5 BAR (7.5 PSI)
534FTB	-32C (2" throat, 4" inlet/outlet)	Up to 10 BAR (150 PSI)
K-BAR-2000B and 2000BP	1.5" (DN75)	Up to 20 BAR (300 PSI)

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EMC

The electromagnetic compliance of the MFT B-Series is in accordance with
EN 61000-6-3 (2001) Class B light industrial emissions standard
EN 61000-6-2 (2001) heavy industrial immunity standard.
EN61000-4-5 and EN610006-2 surge requirements, 2 kV on AC line, 1 kV
on all I/O lines and DC 24V power.

All units must be installed per the field-wiring diagram 342038, 342039 and
installation instructions in the Kurz Product Manual 360209.

In the case of the K-BAR, the field-wiring diagrams are 342040 and 342041. A
12.7 mm aperture, clip-on Ferrite is required for all I/O wiring in side the
enclosure, except the AC power, unless a shielded cable or shielded conduct is
used for the I/O wiring connections.

LVD

This declaration is made on the basis that the above equipment has been
designed and manufactured according to the essential health and safety
requirements and the Low Voltage Directive and uses good engineering practice
where other aspects of safety are concerned.

RoHS

All the electronics, enclosure parts, paints etc. used in this design comply with all
the requirements of the RoHS Directive. We take exemption (article 1,
paragraph 11) to the lead-free solder as this has a low activation temperature flux
which shorts out components and thus disables the measurement instrument for
the high ambient temperatures expected for this type of high reliability product.
Being used as industrial measurement and control equipment, its reliability and
thus safety for the process it is associated with, takes precedence.

WEEE

MFT B-Series is exempt from the WEEE Directive. Being “measurement and
control equipment” category 9 (see annex IA), the directive does not apply.

The top-level technical report in support of this CE declaration is Kurz Document
430067. Kurz Instruments, Inc. is ISO 9001 registered to ensure that the
products are always made in conformance of the EC-type approved designs.

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Signed: 

Date: 07/02/10

Name: Daniel Kurz

Position: president