



# UK DECLARATION OF CONFORMITY



## Kurz Instruments B-Series Mass Flow Transmitters

is in conformity with the provisions of the following UK Designated standards:  
UKEx EMC EE PE RoHS

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

### UKEx Ex e (S.I. 2016/1107) Equipment Intended for Use in Potentially Explosive Atmospheres Regulations 2016

The following Kurz Instruments Mass Flow Transmitters are in compliance with the regulations for Group II, Category 3 Explosive Gas Atmospheres.

#### II 3 G:

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

All the above models have been designed and manufactured to the EN IEC 60079-0 (2018) and EN IEC 60079-7 (2015) standards for increased safety. They are marked: II 3 G and Ex ec IIC T5...T3 Gc.

#### Type 4 / IP66 Enclosure, Aluminum

DC powered units:	24 VDC, 1 A
Electronics housing:	-40°C to 65°C: T4
Sensing element:	-40°C to 55°C: T5 or to 130°C: T3
AC powered units:	85 to 264 VAC, 24 W, 50/60 Hz ph1
Electronics housing:	-40°C to 50°C: T4, or to 65°C: 150°C (T3)
Sensing element:	-40°C to 55°C: T5 or to 130°C: T3

#### Type 4 / IP54 Enclosure, Polycarbonate

DC powered units:	24 VDC, 1 A
Electronic Housing:	-25°C to 50°C: T4
AC powered units:	85 to 264 VAC, 24 W, 50/60 Hz ph1
Electronic housing:	-25°C to 50°C: T4

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

### UKEx Ex d (S.I. 2016/1107) Equipment Intended for Use in Potentially Explosive Atmospheres Regulations 2016

The following Kurz Instruments Mass Flow Transmitters are in compliance with the regulations for Group II, Category 2 Explosive Gas Atmospheres.

#### II 2 G:

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

All the above models have been designed and manufactured to the EN IEC 60079-0 (2018) and EN IEC 60079-1 (2014) standards for flame-proof. They are marked: II 2 G and Ex db IIB + H2 T5...T3 Gb.

#### Type 4 / IP66 Enclosure, Aluminum; Type 4x/ IP66 Enclosure, Steel

DC powered units:	24 VDC, 1 A
Electronics housing:	-40°C to 65°C: T4
Sensing element:	-40°C to 45°C: T4 or to 110°C: T3
AC powered units:	85 to 264 VAC, 24 W 50/60 Hz ph1
Electronics housing:	-40°C to 50°C: T4 or to 65°C: 150°C (T3)
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 Display version and -40°C for the non-Display 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.

The notified bodies for this product and production approval are:

#### Quality Assurance Notification (QAN)

Cert #FM21UKQAN0102  
FM Approvals Ltd UK NB #1725  
Voyager Place, Shoppenhangers Road  
Maidenhead Berkshire  
SL6 2PJ United Kingdom

#### UK-Type Examination Certificate

Cert #ITS21UKEX0238X & #ITS21UKEX0239X  
Intertek Testing & Certification Ltd NB #0359  
Academy Place, 1-9 Brook Street  
Brentwood Essex  
CM14 5NQ United Kingdom

### PER (S.I. 2016/1105) Pressure Equipment (Safety) Regulations 2016

Kurz B-Series flow meters are rated for Category I applications. All versions of the 454FTB are so small that the PER does not apply; there are no PER limitations on its use. This is also true of the 454PFTB. The inline products: 504FTB, 524FTB, 534FTB up to 4" (DN100) nominal size are rated up to 1.0 MPa or 150 PSI. The 2" (50 mm) and smaller can be used up to 2.0 MPa (300 PSI) or less, depending on the use of flanges, etc. Inline models above the 4" (DN100) nominal size may only be used below 50 kPa where the PER does not apply. The 534FTB-32C has a 2" (DN50) test section, but the 4" (DN100) inlets and outlets are the limit for a Category I PER device. Due to these changing pipe sizes in the 534FTB, any model using a pipe section larger than 4" is only PER rated for 50 kPa maximum pressure.

Model	Size	Rating
454FTB, 454FTB-WGF and 454PFTB	Up to 1" (DN 25)	Not Applicable.
504FTB, 524FTB, 534FTB	Up to 2" (DN 50)	Up to 2.0 MPa (300 PSI)
504FTB, 524FTB	Up to 4" (DN 100)	Up to 1.0 MPa(150 PSI)
504FTB, 524FTB, 534FTB	Over 4" (DN 100)	Up to 50 kPa BAR (7.5 PSI)
534FTB	-32C (2" throat, 4" inlet/outlet)	Up to 1.0 MPa (150 PSI)

### EMC (S.I. 2016/1091) Electromagnetic Compatibility Regulations 2016

The electromagnetic compliance of the B-Series is in accordance with EN 61326-1 (2013) Class B light Industrial emission standard. Heavy Industrial immunity standard. EN 61000-4-5 and EN 61326-1 surge requirements, 2 kV on AC line, 1 kV on DC line, 0.5 kV on all I/O lines.

All units must be installed per the field-wiring diagram 342038, 342039, 342058, and installation instructions in the Kurz B-Series Hardware Reference Guide (see Support on the Kurz website). A 12.7 mm aperture, clip-on ferrite is required for all I/O wiring inside the enclosure, except the AC power, unless a shielded cable or shielded conduit is used for the I/O wiring connections.

### EE (S.I. 2016/1101) Electrical Equipment (Safety) Regulations 2016

This declaration is made on the basis that the above equipment has been designed and manufactured according to the essential health and safety requirements of the Low Voltage Directive and uses good engineering practice where other aspects of safety are concerned. IEC 61010-1:2010 Intertek Testing Services N.A., Inc. Report 103942484DAL-003

### RoHS (S.I. 2012/3032) Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

All electronics, enclosure parts, paints, etc. used in this design comply with the requirements of the RoHS Regulations.

Kurz Instruments, Inc. is ISO 9001 certified to ensure that the products are always made in conformance of the UK-Type approved designs. The top-level technical report in support of this UKCA Declaration is Kurz Document 430067.

Sign Name

Title

SALES MANAGER

Print Name

NANDERMOLLEN

Date

8 October 2024