



UK - Type Examination Certificate

(1)

(2) Equipment and protective systems intended for use in potentially explosive atmospheres – **UKSI 2016:1107 (as amended)**

(3) UK - Type Examination Certificate Number

EPS 22 UKEX 1 236

Revision 0

(4) Equipment: VIBRONET Multiplexer VIB 8.3...--Ex--

(5) Manufacturer: Fluke Corporation

(6) Address: 6920 Seaway Blvd
Everett 98203
United States of America

(7) This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.

(8) Bureau Veritas Consumer Products Services United Kingdom Limited, approved body No. 8507 in accordance with UKSI 2016:1107 (as amended) Part 4, certifies that this equipment has been found to comply with the essential health and safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Schedule 1 of UKSI 2016:1107 (as amended). The examination and test results are recorded in the confidential documentation under the reference number 15TH0280.

(9) Compliance with the essential health and safety requirements has been assured by compliance with:

EN IEC 60079-0:2018

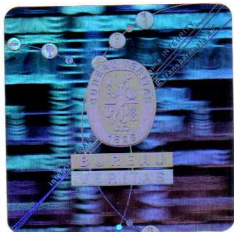
EN 60079-11:2012

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the annex to this certificate.

(11) This UK - Type Examination Certificate relates only to the design and construction of the specified equipment in accordance with UKSI 2016:1107 (as amended). Further requirements apply to the manufacture of this equipment and its placing on the market. Those requirements are not covered by this certificate.

(12) The marking of the equipment shall include the following:

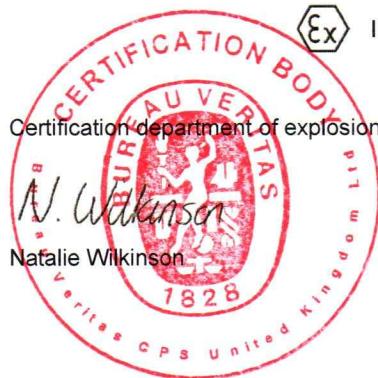
 II 2G Ex ib [ib] IIC T4 Gb



Certification department of explosion protection

Warrington, 21-10-2022

N. Wilkinson
Natalie Wilkinson



Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services United Kingdom Limited, EPS 22 UKEX 1 236, Revision 0.

Bureau Veritas Consumer Products Services United Kingdom Limited
<https://www.bureauveritas.co.uk/consumer-products-testing>
+44 (0) 1925 854 360

Registered Office: 31 Kingsland Grange,
Woolston, Warrington, Cheshire, WA1 4RW

Registered in England & Wales
Company Number: 00852439



(13)

Annex

(14) **UK - Type Examination Certificate EPS 22 UKEX 1 236**

Revision 0

(15) Description of equipment:

The VIBRONET Multiplexer type VIB 8.3...-EX- is an electrical device used for control of rotation frequency, temperature and vibration. It can be equipped with different sensor circuits listed below. Several multiplexer can be connected in series.

Maximum ambient temperature range: $-40\text{ °C} \leq T_a \leq +70\text{ °C}$

Electrical data:

All electronic circuits comply with kind of ignition protection Ex ib IIC. The sensor circuits shall only be connected to load circuits.

The VIBRONET Multiplexer type VIB 8.3...-EX is supplied by an associated apparatus type VIB 3.550. Electrical output ratings:

$U_o = 13\text{ V}$, $I_o = 18\text{ mA}$, $P_o = 240\text{ mW}$, rectangular characteristic.

Combined inductances and capacitances of the complete multiplexer circuit shall never exceed the following values:

L_o [mH]	1.000	0.500	0.200	0.100	0.050	0.020
C_o [μ F]	0.500	0.590	0.750	0.920	1.000	1.000

Impedances of the input line (Master_Line) and the output line (Next_Mux) are effectively connected through each multiplexer. This shall be respected for the assessment of the complete system. Impedances connected to each of the sensor-output and the sensor-input circuits are effectively separated.

Overview (electrical Data):

Master_Line type VIB 8.306--EX--	$U_i = 13\text{ V}$ $I_i = 18\text{ mA}$ $P_i = 240\text{ mW}$	$C_i = 17.33\text{ nF}$ $L_i = 0\text{ }\mu\text{H}$	C_o, L_o : see above
Next_Mux type VIB 8.306--EX--	$U_o = 13\text{ V}$ $I_o = 18\text{ mA}$ $P_o = 240\text{ mW}$	$C_i = 17.33\text{ nF}$ $L_i = 0\text{ }\mu\text{H}$	C_o, L_o : see above
Sensor Vibration type VIB 8.314--EX--	$U_o = 13\text{ V}$ $I_o = 18\text{ mA}$ $P_o = 240\text{ mW}$	$C_i = 0\text{ nF}$ $L_i = 0\text{ }\mu\text{H}$	$C_o = 25\text{ nF}$ $L_o = 30\text{ }\mu\text{H}$
Sensor Rotation type VIB 8.313--EX--	$U_o = 13\text{ V}$ $I_o = 18\text{ mA}$ $P_o = 240\text{ mW}$	$C_i = 11\text{ nF}$ (output) $L_i = 0\text{ }\mu\text{H}$	$C_o = 110\text{ nF}$ $L_o = 120\text{ }\mu\text{H}$
Sensor temperature type VIB 8.310--EX--	$U_o = 3.6\text{ V}$ $I_o = 18\text{ mA}$ $P_o = 65\text{ mW}$	$C_i = 0\text{ nF}$ $L_i = 0\text{ }\mu\text{H}$	$C_o = 3\text{ nF}$ $L_o = 10\text{ }\mu\text{H}$

Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services United Kingdom Limited. EPS 22 UKEX 1 236, Revision 0.

Bureau Veritas Consumer Products Services United Kingdom Limited
<https://www.bureauveritas.co.uk/consumer-products-testing>
+44 (0) 1925 854 360

Registered Office: 31 Kingsland Grange,
Woolston, Warrington, Cheshire, WA1 4RW

Registered in England & Wales
Company Number: 00852439



UK - Type Examination Certificate EPS 22 UKEX 1 236

Revision 0

- (16) Reference number: 15TH0280
- (17) Special conditions for safe use:
- None.
- (18) Essential health and safety requirements:

Met by compliance with standards.

Certification department of explosion protection

Warrington, 21-10-2011



Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services United Kingdom Limited. EPS 22 UKEX 1 236, Revision 0.

Bureau Veritas Consumer Products Services United Kingdom Limited
<https://www.bureauveritas.co.uk/consumer-products-testing>
+44 (0) 1925 854 360

Registered Office: 31 Kingsland Grange,
Woolston, Warrington, Cheshire, WA1 4RW

Registered in England & Wales
Company Number: 00852439

ZERT-0003-GBR-ZE-EX-V03 / TEMP-0005-GBR-ZE-EX-V01

3/3