



Mining And Surface Certification (Pty) Ltd

2015/021934/07

IN TERMS OF REGULATION 21.17.2 OF THE MINERALS ACT (INCORPORATION THE MINE HEALTH AND SAFETY ACT) AND REGULATION 9 (1) OF THE ELECTRICAL MACHINERY REGULATIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT

IA CERTIFICATE	MASC S/18-0737X	Issue	1
Issue Date	10 August 2021	Expiry Date	23 July 2024
*Based on Certificate No	IECEX BVS 10.0022X	Issue / Variations / Amendment	2
Requested by	Pepperl+Fuchs (Pty) Ltd 1st fl Zerwick Forum, 8 Glen Eagle Office Park, Cnr Monument Rd and Braambos St, Glen Erasmia, Kempton Park 1619, South Africa		
Manufacturer	Pepperl+Fuchs SE Lilienthalstrasse 200, 68307 Mannheim Germany		
Description	<p>Terminator type F*-FT-Ex1*. In the complete type designation, the asterisks are replaced as follows: First asterisk: A letter to indicate different types of threads P for Pg13.5 S for M20x1.5 N for 1/2" NPT</p> <p>Second asterisk: Additional symbols to indicate various variants without relevance for explosion protection. The terminator consists of a tubular enclosure made of stainless steel. One end of the tube is a closed end. The other end of the tube is open and machined to form a threaded nipple. The electrical and electronic components are inserted into the tubular enclosure and then the free volume is potted with a compound. The electrical connection conductors protrude from the compound. The enclosure of the terminator fulfils the applicable requirements of the type of protection Flameproof enclosure. The compound fulfils the applicable requirements of the type of protection Encapsulation. The electronics fulfils the applicable requirements of the type of protection Intrinsic safety. The terminator is intended to be used as line terminator in bus systems. For this use the threaded nipple of the terminator has to be screwed into thread bores of enclosures in type of protection Flameproof enclosure "d" or Increased safety "e" or enclosures for intrinsically safe circuits. The conductors of the terminator have to be connected to terminals inside the enclosure to which the terminator is mounted. The terminator is connected to intrinsically safe circuits or non-intrinsically safe circuits. See base certificate for the full description.</p>		
Equipment	Terminator	Type	F*-FT-Ex1*
MARKING: Original marking as per certificate * remains applicable. IA number to be added.	Type Ex Marking IA Number Warnings	Terminator type F*-FT-Ex1* Ex ia IIC T6...T4 Ga or Ex ia IIC T6... T4 Ex b ia IIC T6...T4 Gb or Ex db ia ICC T6...T4 Ex db mb IIC T6...T4 Gb or Ex db mb IIC T6...T4 MASC S/18-0737X See Base Certificate * and original marking	
Quality Assurance report (QAR) / Notification (QAN):	DE/PTB/QAR06.0008/16		
Compliance:	The equipment as described above has been allocated the Explosion Protected per rating above utilizing the SANS/IEC Standards: <ul style="list-style-type: none"> SANS (IEC) 60079-0: 2012 Explosive atmospheres - Part 0: Equipment - General Requirements SANS (IEC) 60079-1: 2015 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" SANS (IEC) 60079-11: 2012 Explosive atmospheres Part 11: Equipment protection by intrinsic safety "i" SANS (IEC) 60079-18: 2016 Explosive atmospheres Part 18: Equipment protection by encapsulation "m" 		
Special conditions of safe use "X":	<ul style="list-style-type: none"> See "Annex A" below 		
Conditions of manufacture:	<ul style="list-style-type: none"> See "Annex A" below 		
 N Viljoen TECHNICAL OFFICER	 D.P Visser TECHNICAL SPECIALIST		

This certificate covers all units sold as long as the QAR/QAN remains valid.
According to the relevant requirements of the MHS Act and the OHS Act, production units of explosion protected equipment are required to comply with third party quality assurance (an approved mark scheme or batch testing by an accredited test laboratory).

/I. ANNEX A...

Apparatus in hazardous locations is subject to the following provisions as applicable, which shall be adhered to:
SANS 10086 requirements;
Any conditions mentioned in the above report
Any restrictions and conditions enforced by the chief inspector of mines or chief inspector of factories
Any relevant requirements of the MHS Act.

This certificate may only be reproduced in full.
This certificate is not transferable and remains the property of the issuing body

Mining And Surface Certification (Pty) Ltd
Unit 5 Lelyta Park, 45 Jurg Ave, Hennospark Ext 87
Centurion, 0157

IA CERTIFICATE: MASC S/18-0737X

Equipment: Terminator

ANNEX A

This document is based on and must be read in conjunction with certificate IECEX BVS 10.0022X.	
Description (According to Base Certificate *)	
"Refer to description in Base Certificate * (and any applicable schedules/issues/variatioins)."	
Issue 1:	Supplemented for review as per ARP 0108.
Standard compliance	See Base Certificate *
Special conditions of safe use ("X")	<ul style="list-style-type: none"> • The Terminator has to be screwed secured against loosening or twisting into the wall of a suitable equipment in type of protection flameproof enclosure, increased safety or intrinsic safety. The terminator has to be included into local potential equalization by installation. • When screwed into an enclosure in type of protection increased safety or an enclosure in type of protection flameproof enclosure: Because of the capacitors (energy storages) inside the terminator, the enclosure in which the terminator is installed must not be opened inside explosive atmospheres even after the external voltage supply is switched off. • When screwed into an enclosure in type of protection increased safety: The necessary degree of protection by enclosure (IP54) at the thread of the terminator has to be ensured by suitable tightness measures (see manual) by the user. The wires of the terminator have to be connected inside the enclosure under consideration of the requirements of IEC 60079-7. When appropriate, the wires have to be mechanically protected or secured. • When screwed into an enclosure in type of protection flameproof enclosure: The installation is only permissible for enclosures, which have a reference pressure not exceeding 20 bar. The threaded joint between terminator and enclosure wall has to comply with the requirements of clause 5.3 of IEC 60079-1:2014. This flameproof threaded joint has to be considered as part of the flameproof enclosure within the type tests of the respective enclosure. Therefore, it is not necessary to perform these type tests with the terminator. • For connection to an intrinsically safe circuit, the following applies additionally: The connection terminals of the intrinsically safe circuit have to be separated from the connection terminals of non-intrinsically safe circuits or other intrinsically safe circuits or from earthed metal parts in accordance with clause 6.2.1 of IEC 60079-11:2011. • The terminator is suitable for use in the following ambient temperature ranges: <ul style="list-style-type: none"> - Temperature class T6 -50 °C up to +60 °C - Temperature class T5 -50 °C up to +75 °C - Temperature class T4 -50 °C up to +85 °C
Conditions of manufacture	<ul style="list-style-type: none"> • None
Conditions of Certification	<ul style="list-style-type: none"> • This IA Certificate covers all units sold from the date of this document to the expiry date of this certificate. • As per ARP 0108 a maximum three yearly review is required on this IA Certificate (expiry is determined as per the QAR/QAN/QMS expiry date). • The apparatus must be additionally marked with the MASC marking details above. • This approval only covers the equipment as certified above and does not include any scheduled additions or variations / amendments / new issues to the certificate(s), made after the above date. • The equipment does not need to be re-tested when used on the conditions and with such restrictions as prescribed by the certificate on which this IA Certificate is based and any other conditions in this IA Certificate. • The certification on which this IA Certificate is based must remain valid. • The extent of the requirements in the ARP 0108 (or regulations), SANS 10108 and any other applicable regulations on the certification of the equipment must remain unchanged. • The Ex quality assurance notification/report for the equipment must remain valid.
Conclusion:	<ul style="list-style-type: none"> • From the above and the selective examination of the documentation, nothing contrary to the requirements of the applicable standards was found, provided that the equipment / component is used as described in the above document / certificate and according to the MASC conditions below. A MASC IA certificate is issued based on the work done as per the Base Certificate *. • The routine tests for production units according to the Base Certificate * must be complied with (if applicable).

This document is issued based on Mining And Surface Certification's Standard Contract terms and conditions available on request.

While every endeavour is made to ensure that a test / assessment / inspection is representative and accurately performed, and that a report / certificate is accurate in the quoted results and conclusions drawn from the test / assessment / inspection, MASC or its directors/employees shall in no way be liable for any error made in carrying out the test / assessment or for any erroneous statement, whether in fact or in opinion, contained in a report / certificate issued pursuant to a test / assessment / inspection.

MASC takes no responsibility for any non-conformances, exclusions or any results / assessments / inspections not in compliance with the standards. By marking the equipment in accordance with the documentation / standard, the manufacturer / applicant attests on his own responsibility that the equipment / installation has been designed and constructed in accordance with the applicable requirements of the relevant standards and documentation, that the routine verifications / routine tests have been correctly completed and the equipment / installation complies with the documentation and standard(s).

This document is only for use and application in South Africa. It is issued based on National interpretations and accepted practices