






## IECEX TEST REPORT COVER


ExTR Reference Number .....	GB/FME/ExTR11.0005/04
ExTR Free Reference Number .....	3040496rev130710
Compiled by + signature (ExTL).....	N. Ludlam 
Reviewed by + signature (ExTL).....	T. Adam 
Approved by + signature (ExCB) ....	M. Gower  <small>Mick Gower cm=Mick Gower, ou=FM Approvals, ou, email=mick.gower@fmapprovals.com, c=GB 2013.09.23 11:40:34 +01'00'</small>
Date of issue .....	23 <sup>rd</sup> September 2013
Ex Testing Laboratory (ExTL) .....	FM Approvals LLC, Address .....
	1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
Ex Certification Body (ExCB) .....	FM Approvals Limited Address .....
	1 Windsor Dials, Windsor SL41RS United Kingdom
Applicant's name .....	ABB Limited Address .....
	Oldends Lane, Stonehouse, Gloucestershire GL10 3TA UK
Standards associated with this ExTR package.....	IEC 60079-0 Ed 5.0 IEC 60079-15 Ed 4.0 IEC 60079-31 Ed 1.0
Clauses considered.....	All clause considered
Test procedure .....	IECEX System
Test Report Form Number .....	ExTR Cover_4 (released 2010-12)
Test item description .....	EM Flowmeter
Model/type reference.....	WaterMaster FEF, FEV & FET ProcessMaster FEP and HygienicMaster FEH
Code (e.g. Ex __ II__ T__ ).....	Ex nA IIC T5 Gc and Ex tb IIIC T100°C Db
Rating .....	AC Version: 85 to 265 V AC @ <7 VA; Low Voltage Version: 24 V AC +10 %/-30 % @ <7 VA / 24 V ±30 % @ <0.4 A
All testing fully performed by ExTL staff at ExTL address above:	Yes

### **Instructions for Intended Use of ExTR Cover:**

*An ExTR Cover is the sole top-level document to associate together all other parts of an IECEx Test Report (ExTR) package. An ExTR package is comprised of an ExTR Cover and one or more associated ExTR documents (which may include Ex Test Reports, ExTR Addendums and ExTR of National Differences). All ExTR package documents are compiled and reviewed by the ExTL. The Issuing ExCB indicates final approval of the overall ExTR package on this ExTR Cover.*

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Manufacturer's name.....:	ABB Limited	ABB Engineering (Shanghai) Limited No.5, 369 Nong, Chuangye Road, Pudong District, Shanghai China
Address .....	Oldends Lane, Stonehouse, Gloucestershire, GL10 3TA United Kingdom	
Trademark.....:		
<b>Particulars: Test item vs. Test requirements</b>		
Classification of installation and use .....	stationary	
Ingress protection .....	IP67/IP68	
Rated ambient temperature range (°C).....:	-20°C to +70°C (Remote Sensor) -20°C to +60°C (Remote Transmitter & Integral Transmitter/Sensor)	
<b>General remarks:</b>		
The test results presented in this ExTR package relate only to the item or product tested.		
<ul style="list-style-type: none"> <li>▪ "(see Attachment #)" refers to additional information appended to the ExTR package.</li> <li>▪ "(see appended table)" refers to a table appended to the ExTR package.</li> <li>▪ Throughout this ExTR package, a point is used as the decimal separator.</li> <li>▪ <i>Where the term "N/A" appears in any part of an ExTR package, it indicates that the associated issue was considered "Not applicable" to the involved evaluation.</i></li> <li>▪ <i>In accordance with IECEx 02, a Receiving ExCB may request a sample of the Ex equipment and copies of the documentation referred to in an ExTR Cover.</i></li> </ul>		
The technical content of this ExTR package shall not be reproduced except in full without the written approval of the Issuing ExCB and ExTL.		
<b>Copy of Marking Plate:</b>		
Labels unchanged and reported in GB/FME/ExTR11.0005/02 and GB/FME/ExTR08.0006/09.		
<b>General product information:</b>		
The modification addresses the revision to the Type 4 Remote Housing. Assessment is addressed on FM Approvals Revision Request form 3040495rev130710.		
<b>In accordance with OD 024, testing not fully performed by ExTL staff at the above ExTL address:</b>		
N/A		
<b>National differences considered as part of this evaluation, if any:</b>		
N/A		
<b>"Conditions of Use" for Ex Equipment or "Schedule of Limitations" for Ex Components, if any:</b>		
Unchanged from original		
<b>Routine tests, if any:</b>		
Unchanged from original		

<b>Manufacturer's Documents</b>			
Title:	Drawing No.:	Rev. Level:	Date:
TYPE 4 HOUSING REMOTE	3KXF002002G0009	4	26/03/13
TYPE 4 HOUSING INTEGRAL	3KXF002003G0009	3	03/07/12
TYPE 4 HOUSING REMOTE	3KXF002004G0009	4	09/04/13
TYPE 4 HOUSING INTEGRAL	3KXF002005G0009	3	26/06/12

Title:	Drawing No.:	Rev. Level:	Date:
WATERMASTER TYPE 4 LID CASTING DRAWING	3KXF004000U0104	3	13/08/12
VM TYPE 4 LID PAINTED	3KXF004000U0106	2	02/04/12
EMF TERMINAL BOX LID LOCKING VERSION	3KXF004000U0301	2	11/02/13
TYPE 4 LID ASSEMBLY	3KXF004000U0400	1	21/06/12
TYPE 4 LID COMMON KIT BUILD ASSEMBLY	3KXF004000U0401	1	21/06/12
PLASTIC TERMINAL BOX INTEGRAL EARTH ASSY.	3KXF004000U0501	2	11/02/13
TYPE 4 INTEGRAL BASE CASTING	3KXF004001U0004	3	13/08/12
TYPE 4 BASE INTEGRAL PAINTED	3KXF004001U0006	3	21/06/12
TYPE 4 INTEGRAL BASE MACHINED TO M20	3KXF004001U0101	3	13/08/12
TYPE 4 INTEGRAL BASE MACHINED TO 1/2" NPT	3KXF004001U0201	3	13/08/12
PLASTIC TERMINAL BOX NPT COMMON KIT ASSY	3KXF004002U0001	3	-
TYPE 4 INTEGRAL BASE COMMON BUILD KIT	3KXF004003U0001	1	21/06/12
TYPE 4 INTEGRAL BASE WITH M5 INSERTS	3KXF004006U0001	1	20/06/12
PLASTIC TERMINAL BOX M20 COMMON KIT ASSY	3KXF004008U0007 _DRW	3	04/02/13
PLASTIC TERMINAL BOX COMMON KIT ASSEMBLY INSTRUCTIONS	3KXF004008U0100	3	11/02/13
LOCKABLE PLASTIC TERMINAL BOX BASE DRAWING	3KXF004008U0200	2	11/02/13
DN 40 MACHINED BODY AM/WATERMASTER	3KXF004013U0001	1	10/07/12
DN 40 CAST BODY AM/WATERMASTER	3KXF004013U0004	1	17/04/12
DN 50 MACHINED BODY AM/WATERMASTER	3KXF004014U0001	1	10/07/12
DN 50 CAST BODY AM/WATERMASTER	3KXF004014U0004	1	17/04/12
DN 65 MACHINED BODY AQUA/WATER/PROCESSMASTER	3KXF004015U0001	1	10/07/12
DN 65 CAST BODY AM/WM/PROCESSMASTER	3KXF004015U0004	1	17/04/12
DN 80 MACHINED BODY AM/WATERMASTER	3KXF004016U0001	1	10/07/12
DN 80 CAST BODY AM/WATERMASTER	3KXF004016U0004	1	17/04/12
DN 100 MACHINED BODY AM/WATERMASTER	3KXF004017U0001	1	10/07/12
DN 100 CAST BODY AM/WATERMASTER	3KXF004017U0004	1	18/04/12
DN 125 CAST BODY AQUA/WATER/PROCESSMASTER	3KXF004018U0001	1	18/04/12
DN 125 MACHINED BODY AQUA/WATER/PROCESSMASTER	3KXF004018U0004	1	10/07/12
DN 150 MACHINED BODY AM/WATERMASTER	3KXF004019U0001	2	12/17/12
DN 150 CAST BODY AM/WATERMASTER	3KXF004019U0004	2	12/17/12
DN 150 CAST BODY AM/WATERMASTER	3KXF004019U0004	2	12/07/12
TYPE 4 INTEGRAL M20 BASE	3KXF004006U0100	1	21/06/12
TYPE 4 INTEGRAL 1/2 NPT BASE	3KXF004006U0200	1	21/06/12
VKJ TYPE 4 REMOTE BASE CASTING	3KXF004005U0004	2	09/04/12

Title:	Drawing No.:	Rev. Level:	Date:
VKJ TYPE 4 LID SEAL	MJAG 9902	1	22/06/12
VKJ CARTRIDGE LID	MJAX9901	2	11/11/10
VKJ CARTRIDGE BODY	MJAX9902 SHT 1	2	11/11/10
VKJ CARTRIDGE BODY	MJAX9902 SHT 2	2	11/11/10
VKJ CARTRIDGE BASE	MJAX9903	2	11/11/10
VKJ TYPE 4 REMOTE BASE MACHINED - M20 OPTION	3KXF004005U0101	3	19/09/12
VKJ TYPE 4 REMOTE BASE MACHINED - 0.5" NPT	3KXF004005U0201	3	09/04/13
VKJ TYPE 4 TX INSULATION SHEET	MJAX9956-1	1	29/04/08
VKJ TYPE 4 INTEGRAL MOUNTING ASSEMBLY	MJBX9930-1	1	10/06/08
VKJ TYPE 4 TRANSMITTER ASSEMBLY	MJFA9000DWG-1	2	29/10/10
VKJ CARTRIDGE AC & DC ASSEMBLY	MJFA9901-1	1	07/04/08
VKJ CARTRIDGE LID ASSEMBLY	MJFA9911-1	1	14/04/08
ALTERNATIVE METAL TERMINAL BOX FOR WATERMASTER	MVEX0114	1	10/07/13
PRODUCT CODES FEV1, FEF1, & FET1 FEW1 AND FEW3	MVEX0120	4	10/08/12
WATERMASTER VKJ TX FM/CSA/ATEX/IECEX APPROVAL DRAWINGS - CARTRIDGE	MVEX2520-1	3	21/06/12
WATERMASTER VKJ TX FM/CSA/ATEX/IECEX APPROVAL DRAWINGS - BACKPLANE	MVEX2521-1	2	18/08/11
WATERMASTER VKJ TX FM/CSA/ATEX/IECEX APPROVAL DRAWINGS - SENSOR MEMORY	MVEX2522-1	2	18/08/11
VKJ (WATERMASTER) TRANSMITTER FLASH & EARTH CONTINUITY TEST SPECIFICATION	TS1768-1	2	06/07/12
VKJ TX DATA LABEL	WAAB2505	7	22/06/12
TERMINAL BOX DATA LABEL SHEET 2 & 3	WAAB2543	6	13/08/12
VKJ ATEX / IECEX LABEL	WAAB2552	1	15/09/11
VKJ TRANSFORMER - DC	WABM2501-1	2	29/09/09
VKJ TRANSFORMER - AC	WABM2502-1	2	29/09/09