

USER'S GUIDE

Upgrading MW11/12/15 Sounding
System MWG Card Firmware: GPS
Wind Finding Software Correction
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CHAPTER 1

GENERAL INFORMATION

This chapter provides general notes for the manual and the product.

About This Manual

This manual provides information for upgrading the card firmware for MW11/12/15 sounding systems by using a software correction package provided by Vaisala.

Contents of This Manual

This manual consists of the following chapters:

- Chapter 1, General Information, provides general notes for the manual and the product.
- Chapter 2, Upgrading MW11/12/15 Card Firmware, explains the upgrade procedure for MW11/12/15 sounding system card firmware using a software correction package.

Version Information

Table 1 **Manual Revisions**

Manual Code	Description
M211034EN-A	This version

General Safety Considerations

The GPS wind finding software correction package delivered to you has been tested for safety and approved as shipped from the factory. Throughout the manual, important safety considerations are highlighted as follows:

WARNING	Warning alerts you to a serious hazard. If you do not read and follow instructions very carefully at this point, there is a risk of injury or even death.
----------------	---

CAUTION	Caution warns you of a potential hazard. If you do not read and follow instructions carefully at this point, the product could be damaged or important data could be lost.
----------------	--

NOTE	Note highlights important information on using the product.
-------------	---

Feedback

Vaisala Customer Documentation Team welcomes your comments and suggestions on the quality and usefulness of this publication. If you find errors or have other suggestions for improvement, please indicate the chapter, section, and page number. You can send comments to us by e-mail: manuals@vaisala.com

Product Related Safety Precautions

Note the following precautions:

WARNING

Ground the product, and verify outdoor installation grounding periodically to minimize shock hazard.

CAUTION

Do not modify the unit. Improper modification can damage the product or lead to malfunction.

ESD Protection

Electrostatic Discharge (ESD) can cause immediate or latent damage to electronic circuits. Vaisala products are adequately protected against ESD for their intended use. However, it is possible to damage the product by delivering electrostatic discharges when touching, removing, or inserting any objects inside the equipment housing.

To make sure you are not delivering high static voltages yourself:

- Handle ESD sensitive components on a properly grounded and protected ESD workbench. When this is not possible, ground yourself to the equipment chassis before touching the boards. Ground yourself with a wrist strap and a resistive connection cord. When neither of the above is possible, touch a conductive part of the equipment chassis with your other hand before touching the boards.
- Always hold the boards by the edges and avoid touching the component contacts.

Recycling



Recycle all applicable material.



Dispose of batteries and the unit according to statutory regulations. Do not dispose of with regular household refuse.

License Agreement

All rights to any software are held by Vaisala or third parties. The customer is allowed to use the software only to the extent that is provided by the applicable supply contract or Software License Agreement.

Warranty

For certain products Vaisala normally gives a limited one-year warranty. Please observe that any such warranty may not be valid in case of damage due to normal wear and tear, exceptional operating conditions, negligent handling or installation, or unauthorized modifications. Please see the applicable supply contract or Conditions of Sale for details of the warranty for each product.

CHAPTER 2

UPGRADING MW11/12/15 CARD FIRMWARE

This chapter explains the upgrade procedure for MW11/12/15 sounding system card firmware using a software correction package.

Prerequisites

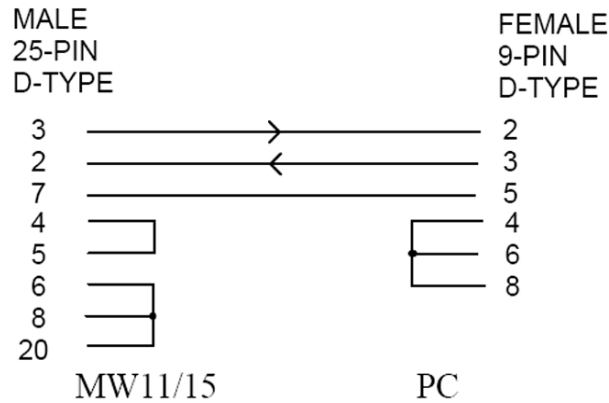
For this upgrade, you need a PC and a serial cable to connect the PC to the MW sounding system. The serial cables are listed in the table below, see also Appendix A on page 16 for the cable drawings:

Table 2 **MW11/12/15 Cables**

Sounding System	Cable
MW11/15	17049 ZZ
MW12	13205 ZZ

Note that if you are using METGRAPH or a similar system, the required connection already exists.

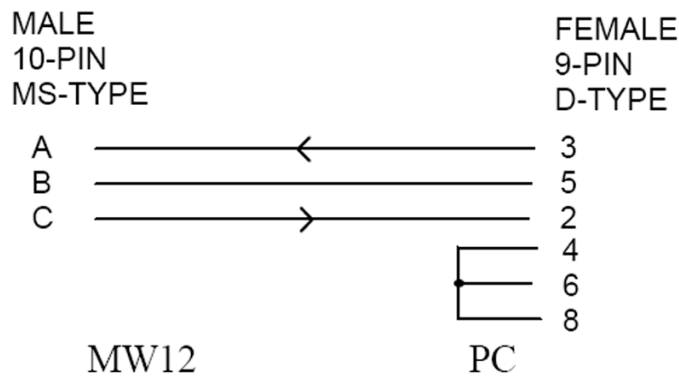
If you have an MW11 or an MW15 sounding system and your PC is provided with a 9-pin (D-type) connector, you should use the pin configuration described in Figure 1 for the cable (Vaisala part number 17049).



0906-100

Figure 1 Pin Configuration with MW11/15 and 9-pin Connector

If you have an MW12 sounding system and your PC is provided with a 9-pin (D-type) connector, you should use the pin configuration described in Figure 2 for the cable (Vaisala part number 13205).



0906-101

Figure 2 Cabling with MW12 and 9-pin Connector

Preparing for the Upgrade

Before the installation of the software correction package:

1. Connect the serial cable between the PC's serial port and the MW11/12/15 PC line serial connector P1 (S1 in MW12).
2. Start your PC and switch on the sounding system.
3. To make sure that you are installing the correct software correction package, check the MWG card version and the MWGS card software version.

Check the software version of the MWGS card by getting a printout from CMD-CONFIG as follows:

- When in the sounding system's main menu **SOND**, press the **CMD/CMND** key to access the **SYSGEN, CONFIG, TEST** menu.
- Press **CONFIG** (typically **C1**) to see and print the configuration list.
- To view the list on the sounding system's display, press the **DATA** key to display a new menu and **CONFIG** (typically **C1**) to display the list.

- Scroll the list with the up and down arrows on the sounding system keyboard.

- Check the MWGS version on the list. If the MWGS version is, for example,

```
MWGS20 5.04 9175 GIGF07
```

the corresponding new version to install is

```
MWGS20 5.04B 9175 GIGF07.
```

The new version number should otherwise be the same as the previous one, but the version is B.

To check the MWG card version, see the back of the card. In the MW12 sounding system, you have to open the front panel to access the cards. Open the front panel by undoing the three screws.

Installing the Software Correction Package

The installation process consists of downloading the software correction package, extracting the contents of the .zip file, and installing the software correction package on your PC.

To download the software upgrade package:

1. Go to <http://www.vaisala.com/weather/products/gpswindfindingstatus.html>.
2. Scroll down to section *MW15*, *MW12* and *MW11* and start downloading the correct software correction package by clicking on the link to the .zip file containing the upgrade package.
3. Click **Save** to save the .zip file on your PC and choose a location for the file.

To extract the contents of the .zip file, you can use, for example, the WinZip[®] program. Note that this procedure is only an example, there are several methods to extract the contents of a .zip file:

1. Right-click the .zip file. Choose **WinZip**.
2. Choose **Extract to here** from the menu that opens. The extracted files will be stored in the same location as the .zip file.
3. After the WinZip[®] program is finished extracting the file, you can see all the files included in the software correction package folder. If you want to see more detailed information on the upgrade, click on the help file **FPROM**.

To install the software correction package:

1. To begin the software installation, double-click on **FPROM** to run the application program. The following window opens:

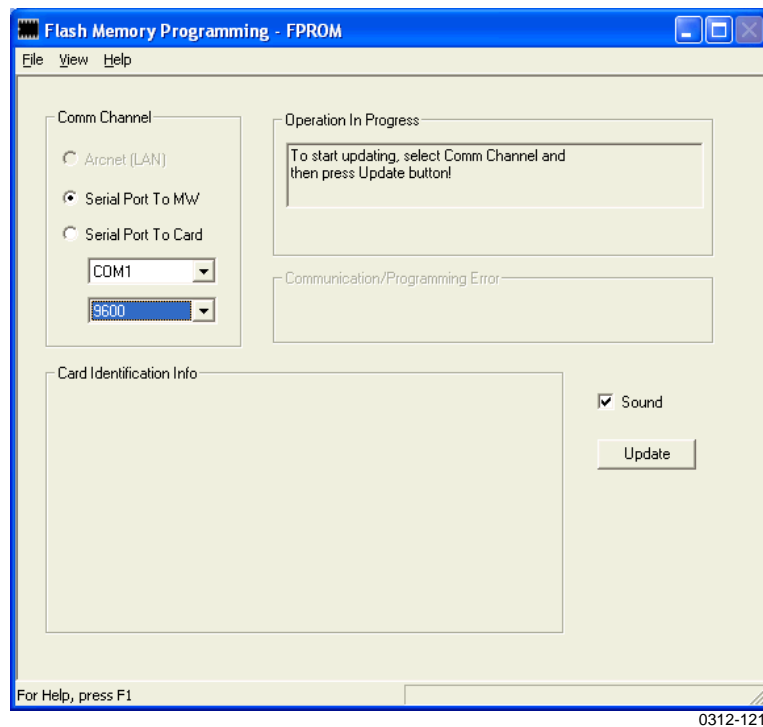


Figure 3 FPROM Application

2. In the **Comm Channel** field, select **Serial Port to MW** and a suitable baud rate. Use the default value 9600. See section Checking PC Line Baud Rate below for instructions on checking the PC line baud rate.
3. Click **Update**.
4. When the upgrade is finished, you will see a message stating that the upgrade installation has been completed successfully.
5. Switch off the MW sounding system.
6. Switch the MW sounding system power back on to initialize the card.

Checking PC Line Baud Rate

You can check the MW11/12/15 PC line connection and baud rate by following the steps below:

1. When the MW sounding system is in the **SOND** menu, press the **CMD/CMND** key.
2. Select **SYSGEN** from the menu that opens. The system loads and the display shows the message "MW11/MW12/MW15 SYSGEN".
3. Select **GO ON**. The display shows the message "Select SYSPAR Group to Edit".
4. Select **CONFIG**. The display shows the message "Configuration data".
5. Select **LINES**.
6. Press the **DOWN** key until the display shows the message "Line Description: PC HCopy".
7. Press **SELECT**. The display display shows the message "Line status: On".
8. Press **SELECT**. The display shows the message "Connect PC to: P1".
9. Press **SELECT**. The display shows the message "Line speed (bps) 9600".
10. Press **EXIT** until the message "Accept changes (temporary storage)?" appears.
11. Select **NO**. The display now goes back to **SOND** menu.

If the serial line in step 8 above is not P1/S1, use the serial line displayed for the PC cable connection.

If the baud rate in step 9 above is not 9600, use the baud rate displayed for the PC connection.

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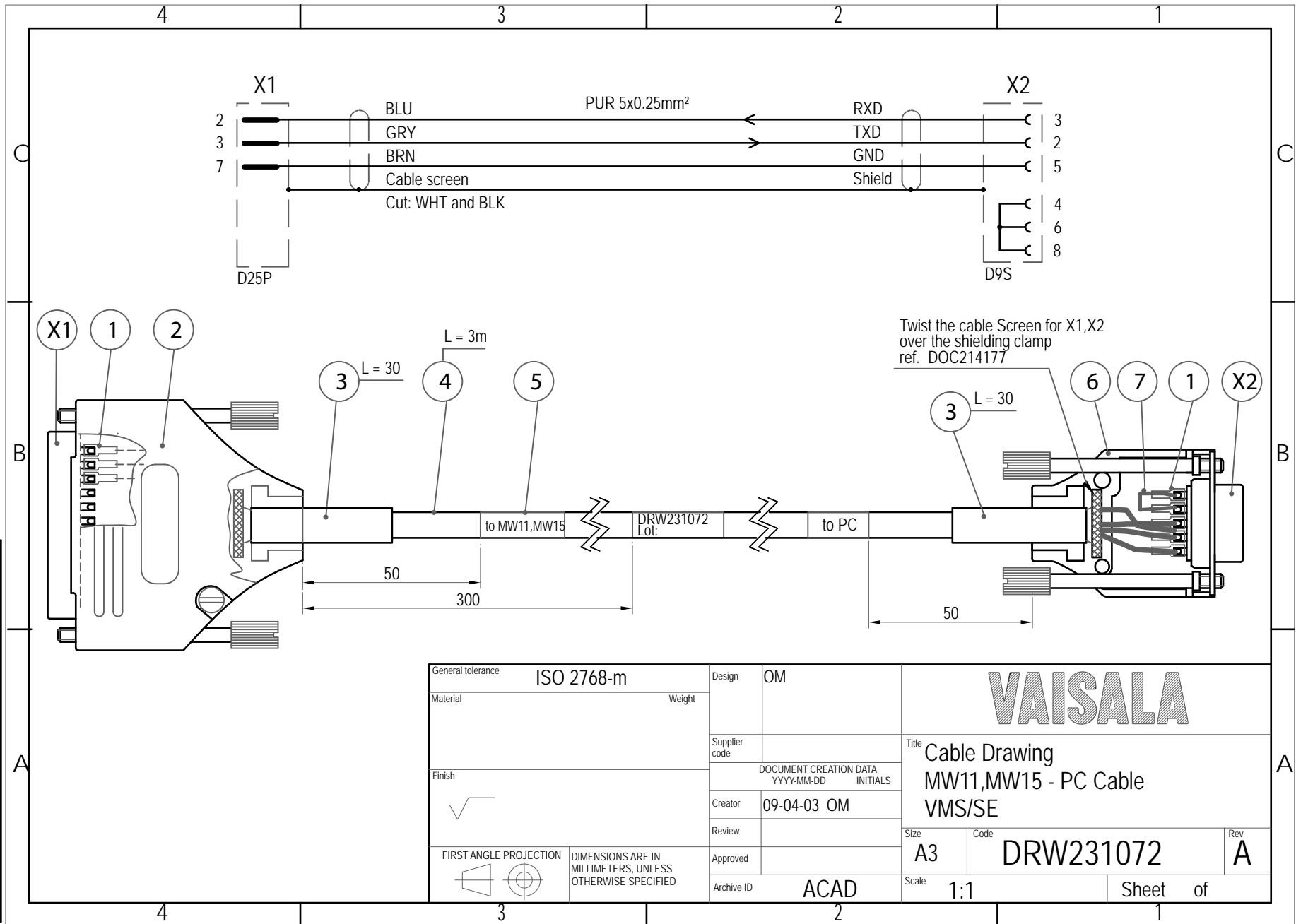
APPENDIX A

TECHNICAL DRAWINGS

This chapter provides the PC cable drawings for the MW11/12/15 sounding systems.

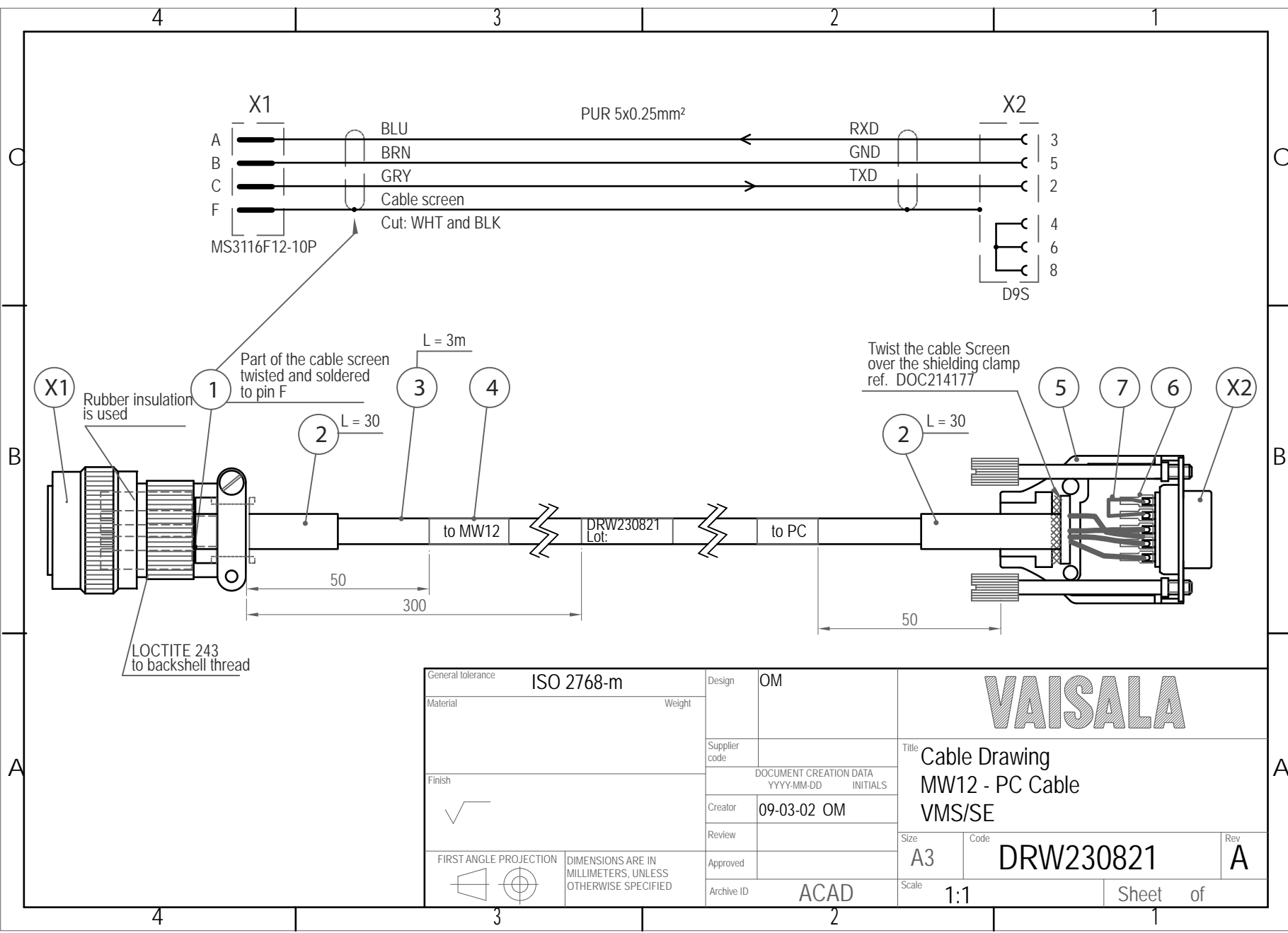
Description	Drawing Code
PC cable for MW11/15	DRW231072
PC cable for MW12	DRW230821

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General tolerance		ISO 2768-m		Design	OM		VAISALA				
Material	Weight			Supplier code							
Finish				DOCUMENT CREATION DATA		Title					
				Creator	09-04-03 OM	MW11,MW15 - PC Cable					
				Review		VMS/SE					
FIRST ANGLE PROJECTION				Approved		Size	A3	Code	DRW231072	Rev	A
		DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED		Archive ID	ACAD	Scale	1:1	Sheet		of	

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Material	Weight			Supplier code				
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DIMENSIONS ARE IN MILLIMETERS, UNLESS OTHERWISE SPECIFIED				Archive ID	ACAD		A3	DRW230821
						Scale	1:1	Rev
						Sheet		A
						of		

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