

FLUKE®

Reliability

Installation protocol

for the CMS VIBGUARD® IIoT

 **PRÜFTECHNIK**



This protocol is only intended for use with GL-certified VIBGUARD CMS on wind turbines.

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Type: VIB 7.800, VIB 7.810, VIB 7.811, VIB 7.815, VIB 7.820, VIB 7.825
Serial number and year of manufacture: see type plate
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1 General information

- This installation log is part of the installation manual.
- This installation log is to be used to document installation work when installing the CMS on wind turbines.
- The safety instructions stated in the installation manual are to be observed.
- Installation of the CMS is to be documented by means of photos.

VIBGUARD IIoT CMS	Serial number	
	Version number	
	Date of Installation	
System	Type	
	Wind park	
	Number	
	ZIP, City	
	State/Country	
Installation, Person in charge	Name	
	Tel.	
	E-mail	
Gearboxes	Manufacturer	
	Type	
	Serial number	
Generator	Manufacturer	
	Type	
	Serial number	
Rotor bearing	Manufacturer	
	Type	

2 Accelerometers

2.1 Sensor A1, serial number:

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end ferules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

2.2 Sensor A2, serial number:

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end fer-rules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

2.3 Sensor A3, serial number:

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end ferrules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

2.4 Sensor A4, serial number:

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end fer-rules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

2.5 Sensor A5, serial number:

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end fer-rules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

2.6 Sensor A6, serial number:

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end fer-rules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

2.7 Sensor A7*, serial number:

* Cross out sensor if it is not installed.

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end fer-rules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

2.8 Sensor A8*, serial number:

* Cross out sensor if it is not installed.

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end ferules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

3 Analog inputs

3.1 Analog IN AI9

Label / Name:

Sensor type / Signal type:

If applicable, sensor serial number:

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end ferrules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

3.2 Analog IN AI10

Label / Name:

Sensor type / Signal type:

If applicable, sensor serial number:

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end fer-rules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

3.3 Analog IN AI11

Label / Name:

Sensor type / Signal type:

If applicable, sensor serial number:

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end fer-rules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

3.4 Analog IN AI12

Label / Name:

Sensor type / Signal type:

If applicable, sensor serial number:

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end fer-rules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

3.5 Analog IN AI13

Label / Name:

Sensor type / Signal type:

If applicable, sensor serial number:

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end fer-rules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

3.6 Analog IN AI14

Label / Name:

Sensor type / Signal type:

If applicable, sensor serial number:

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end fer-rules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

3.7 Analog IN AI15

Label / Name:

Sensor type / Signal type:

If applicable, sensor serial number:

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end fer-rules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

3.8 Analog IN AI16

Label / Name:

Sensor type / Signal type:

If applicable, sensor serial number:

Step	Remark	Done
Tapping drill hole drilled to a depth of at least 15 mm		
The contact area of the sensor surface is ground flat using a spot facer		
M8 thread cut		
Threaded pin in the sensor is stuck together with a screw lock		
Sensor with the threaded pin is screwed into the housing. Pin is fastened using a screw lock adhesive		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly and shield is exposed and twisted		
Fit the wire ends and shield with end fer-rules		
Shield sheathed with heat shrink tubing		
Lay the wires in accordance with the wiring diagram.		
Photo of the accelerometer that has been installed is produced		
	Signature:	

4 RPM sensors

4.1 RPM sensor TP1

Sensor name / Sensor type:

Step	Remark	Done
Sensor is fastened in the retaining plate and aligned to the trigger mark in accordance with technical specifications. The distance is 2.3..8 mm for the VIB 5.992-NX sensor		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly.		
Fit the wire ends with end ferrules		
Lay the wires in accordance with the wiring diagram.		
Photo of the RPM sensor that has been installed is produced		
	Signature:	

4.2 RPM sensor TP2*

Sensor name / Sensor type:

Step	Remark	Done
Sensor is fastened in the retaining plate and aligned to the trigger mark in accordance with technical specifications. The distance is 2.3..8 mm for the VIB 5.992-NX sensor		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly.		
Fit the wire ends with end ferrules		
Lay the wires in accordance with the wiring diagram.		
Photo of the RPM sensor that has been installed is produced		
	Signature:	

* Cross out sensor if it is not installed

5 Process signals

5.1 Process signal at AI17

Label / Name:

Signal type: Voltage () Current ()

Step	Remark	Done
Dip switch set on the system module for voltage or current signal		
Checked that the process signal is available as a galvanically isolated signal.		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly.		
Fit the wire ends with end ferrules		
Shield is insulated so that no contact can occur between the shield and CMS		
Wires laid in the CMS in accordance with the wiring diagram.		
On the controller side: Sheath removed accordingly.		
On the controller side: Fit the wire ends with end ferrules.		
Lay the wires in the controller in accordance with the wiring diagram.		
	Signature:	

5.2 Process signal at AI18

Label / Name:

Signal type: Voltage () Current ()

Step	Remark	Done
Dip switch set on the system module for voltage or current signal		
Checked that the process signal is available as a galvanically isolated signal.		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly.		
Fit the wire ends with end ferrules		
Shield is insulated so that no contact can occur between the shield and CMS		
Wires laid in the CMS in accordance with the wiring diagram.		
On the controller side: Sheath removed accordingly.		
On the controller side: Fit the wire ends with end ferrules.		
Lay the wires in the controller in accordance with the wiring diagram.		
	Signature:	

5.3 Process signal at AI19*

Label / Name:

Signal type: Voltage () Current ()

Step	Remark	Done
Dip switch set on the system module for voltage or current signal		
Checked that the process signal is available as a galvanically isolated signal.		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly.		
Fit the wire ends with end ferrules		
Shield is insulated so that no contact can occur between the shield and CMS		
Wires laid in the CMS in accordance with the wiring diagram.		
On the controller side: Sheath removed accordingly.		
On the controller side: Fit the wire ends with end ferrules.		
Lay the wires in the controller in accordance with the wiring diagram.		
	Signature:	

* Cross out the connection if it is not used

5.4 Process signal at AI20*

Label / Name:

Signal type: Voltage () Current ()

Step	Remark	Done
Dip switch set on the system module for voltage or current signal		
Checked that the process signal is available as a galvanically isolated signal.		
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Screw connection secured in such a way that the cable is fully tensioned		
Sheath removed accordingly.		
Fit the wire ends with end ferrules		
Shield is insulated so that no contact can occur between the shield and CMS		
Wires laid in the CMS in accordance with the wiring diagram.		
On the controller side: Sheath removed accordingly.		
On the controller side: Fit the wire ends with end ferrules.		
Lay the wires in the controller in accordance with the wiring diagram.		
	Signature:	

* Cross out the connection if it is not used

6 Voltage supply

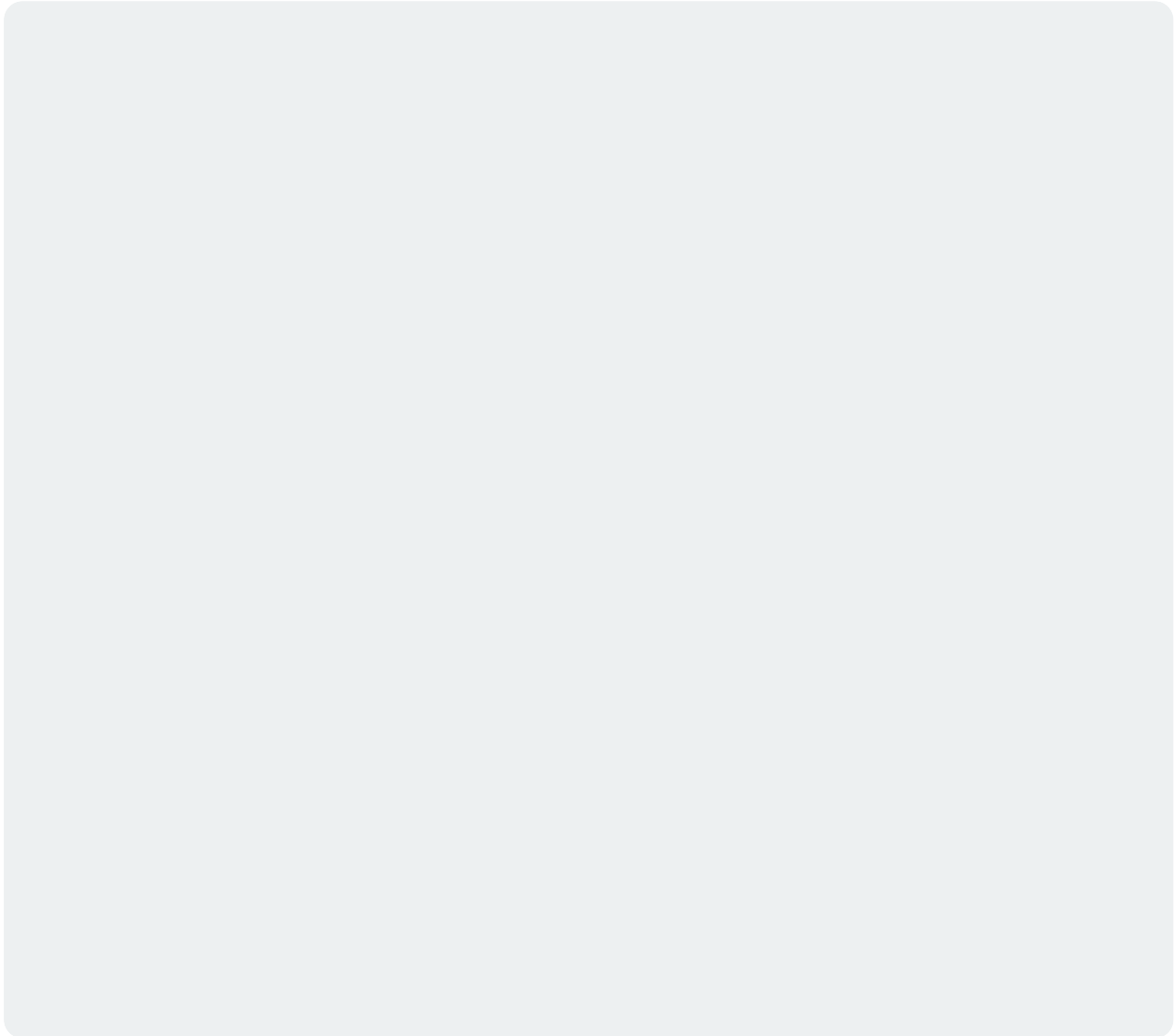
Step	Remark	Done
The voltage is supplied via a UPS.	UPS available? Yes () No ()	
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Sheath removed accordingly.		
Fit the wire ends with end ferrules		
Wires laid on the CMS in accordance with the wiring diagram.		
Sheath removed accordingly.		
Fit the wire ends with end ferrules		
Wires laid in the switch cabinet in accordance with the wiring diagram		
	Signature:	

7 Network cable (LAN)

Step	Remark	Done
Lay the cable on the shortest possible route in compliance with the provisions for the CMS		
Sheath removed accordingly.		
Fit the wire ends with end ferrules		
Wires laid on the CMS in accordance with the wiring diagram.		
The other side of the cable with wires or RJ45 plug is connected or plugged in according to the wiring diagram in the control cabinet		
	Signature:	

8 Remarks

Here you have the option of noting relevant information and making remarks about Installation:



InstalledOn:

By: