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www.wachendorff-prozesstechnik.de

# **Wachendorff Display** Series 2

DPL005-xxxxxx2P

# **Installation Manual**



Version 1.0



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#### 1. Introduction

Thank you for choosing a Wachendorff product. We are convinced that the product will serve you well for many years. To ensure the product has a long lifespan, please check and compare all connections of the device with the installation manual before switching on the device.

#### 2. Warranty Terms

Defective devices will either be repaired or replaced. However, this does not apply to the following points:

- 1. The warranty is void if the device is older than 3 years from the date of purchase.
- 2. Damage caused by force majeure, accident, negligence, improper installation, or misuse.
- 3. The product was operated or repaired by unauthorized personnel.
- 4. By removing or damaging labels.

## 3. Warning Notice

Ensure that all local and national electrical standards are met when installing the device.

# 4. Safety instructions



**Power Supply:** Use an output power that meets SELV (Safety Extra-Low Voltage) requirements. The device can only be operated with direct current, voltage range: 12 to 32 VDC, compatible with most controller DC systems. The peak start-up current can be up to 4 A.

**Fuse/Power On:** Secure your system/machine properly. If the display does not turn on within 5 seconds after switching on, turn it off. Check the proper wiring and try to turn the device back on.

**Overvoltage:** DC power sources should ensure adequate separation from the main power supply and similar hazards.

**Emergency Stop:** A hard-wired emergency stop should be installed in every system to meet ICS safety recommendations.

**Power Supply Conditions:** Do not turn on the device under inductive load or use the same power supply as the controller. Note: The 24 VDC output of some controllers does not provide enough power to operate the monitor.

#### Wiring:

- a. The length of the power cables should be minimized (max: 500m shielded, 300m unshielded).
- c. If the wiring could be exposed to lightning strikes or overvoltage, suitable surge arresters should be used.
- d. Keep AC-, high energy- and fast switching DC-power-cables separate from signal cables.
- e. Add a resistor and capacitor in the parallel circuit between the ungrounded DC power supply and chassis ground. This provides a path for static and high frequency power dissipation. Typical values are 1M Ohm and 4,700pF.

Be aware that the devices could fail due to an internal fault and thus reach an unsafe state. In addition, electrical faults in the user interface can cause the connected devices to start unintentionally. This can lead to material damage and/or injury to the operator. If you use programmable controllers that require an operator to use them, be aware of the safety risks and take appropriate precautions.



# 5. Commissioning

This document describes the commissioning and installation of the Wachendorff DPL005-xxxxxx2P display. Detailed descriptions of the specifications and applications can be found in the data sheet.

Electronic Environment	The DPL005-xxxxxx2P has been tested and complies with European CE requirements. This means that the electronics in the device are protected against external electrical influences. In special cases, however, there is no complete protection. Correct routing of the cables and proper earthing ensure that the device functions properly.
Environment	<ul> <li>Ensure that the device has been installed correctly and that the device specifications have been adhered to.</li> <li>Avoid installing the devices in places where mechanical vibrations or shocks are present.</li> <li>Do not work with the device in places where there is a risk of explosion, e.g. due to flammable gases, vapors or dust.</li> <li>Do not install the device in places where corrosive gases such as SO2 exist.</li> <li>The device is intended for vertical installation on a flat surface.</li> <li>Do not expose the device to direct sunlight or other sources of heat.</li> <li>Relative humidity: 10 % to 90 % (non-condensing)</li> </ul>
IP protection class	IP65 / at the front
Cleaning instructions	Disconnect the appliance from the power supply before cleaning it. Clean the appliance with cloths moistened with clean water. Do not use liquid or spray cleaning agents for cleaning.



# 6. Unpacking the Device

Unpack the delivery and check it for completeness. If any damage is found, notify the supplier.

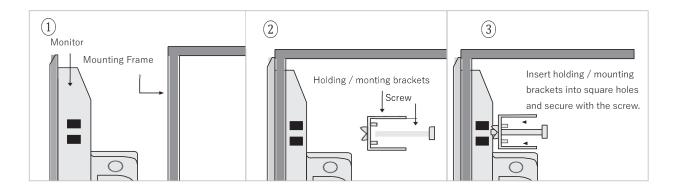
#### Inhalt

- (1) Installation Manual
- (2) DPL005-xxxxxx2P
- (3) Mounting Material
- (4) RJ-45 to USB cable (if equipped with touch)
- (5) VGA cable
- (6) Seal for front frame

#### 7. Mounting Instructions

Use a mounting frame that ensures sufficient rigidity. The cut-out dimensions can be found in the data sheet. **Attention: Before installation, glue the enclosed seal into the recess of the rear front frame.** Mount the monitor using all mounting holes and the supplied brackets and screws. Screw torque: 0.294 to 0.441 Nm. (To achieve a watertight effect and to avoid deformation of the panel.) Plan enough space around the device and inside the installation site for ventilation and cables. Consider the heat from other devices inside the installation site. The ambient temperature around the device must be -10 to 60°C.

It is recommended to plan a distance of 3 cm between the back of the device and other devices.



#### 8. Power Connection

The display has 2 power supply connections:

- 2-pin screw terminal for 12 to 36 VDC
- Socket 5.5 x 2.1 mm: 12 VDC to 36 VDC for external power supply (accessory)





#### Connecting

- 2-pole terminal strip for 12 to 36 VDC:
  - **1**. Connect the "+" line of your DC power source to the "+" input of the 2-pin terminal block and the "-" line to the "-" input.
  - **2.** To avoid potential differences and damage to the USB ports, NEVER connect the display to multiple devices with different ground potentials.
- Socket 12 VDC to 36 VDC via external power supply: For connection to the mains voltage of 230 VAC, an external power supply is available as an accessory. This is not included in the scope of delivery.

Caution: NEVER use both connections at the same time. This can lead to damage.



#### 9. Interfaces

Top view:



Bottom view:



# 10. Adjustment options on the back



Lable	Function
AUTO	Automatic display adjustment
MENU	Open the main menu
POWER	Turn the display on or off
LEFT	Navigate left / decrease a value
RIGHT	Navigate right / increase a value
LED1	Status LED



#### 11. Ordering information

Article description	OrderNo.
Display, xx" TFT	DPL005-xxxxxx2P
External power supply unit, 230 VAC to 24 VDC for display	DPL-PWRADAP_24VDC1.5A
230 VAC connection cable power supply unit display	PPC-PWRCRD 01
RJ-45 to USB-Typ-A cable	PPC-TOUCH-RJ-USB

To operate the display via the 5.5 x 2.1 mm socket, it is necessary to order the power supply unit and the connection cable.

#### 12. Copyright

This document is the property of Wachendorff Prozesstechnik GmbH & Co. Copying and reproduction are prohibited without prior authorization. The contents of this documentation refer to the device described therein.

## 13. Disclaimer of liability

All technical content within this document may be modified without prior notice. The contents of this document are subject to periodic revision.

Repairs will be charged to the user in the event of loss due to fire, earthquake, third party interference or other accidents, or in the event of intentional or accidental misuse or abuse or use under abnormal conditions. Wachendorff Prozesstechnik is not liable for accidental loss due to use or non-use of this product, such as loss of business revenue.

Wachendorff Prozesstechnik is not liable for the consequences of improper use.

#### 14. Other provisions and standards

#### **WEEE Information**



Disposal of waste electrical and electronic equipment (valid in the European Union and other European countries with separate collection systems). This symbol on the product or on the packaging means that this product must not be treated as household waste. Instead, this product should be taken to the appropriate disposal point for the recycling of electrical and electronic equipment. If the product is disposed of correctly, you will help to prevent negative

environmental impacts and damage to health that could be caused by improper disposal. Recycling material will preserve our natural resources. For more information about recycling this product, please contact your local city office, your household waste collection service or the retailer where you purchased this product.

#### **RoHS Directive**

The device complies with the latest version of the 2011/65/EU Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (commonly referred to as the Restriction of Hazardous Substances Directive or RoHS).



#### 15. Technical support & service

If you have any questions about the product, you can find technical support on our homepage: <a href="https://www.wachendorff-prozesstechnik.de/tbs/">https://www.wachendorff-prozesstechnik.de/tbs/</a>

- For technical support after a purchase (commissioning, project planning, parameterisation, configuration, programming, etc.), please dial: **+49 6722 9965-966** or send an e-mail to: <a href="mailto:support@wachendorff.de">support@wachendorff.de</a>
- For application advice before a possible purchase (product selection, suitability, recommendation), please call: +49 6722 9965-544 or send an e-mail to: beratung@wachendorff.de

In the event of a repair or device failure, please contact our technical advice & service team first. More than 75% of all cases are resolved over the phone, saving you any costs or the dispatch of your product. You will also receive information on the return procedure.

For the return process, please go to our homepage at https://www.wachendorff-prozesstechnik.de/garantie-und-reparatur, open the "Request return number" form and follow the instructions. After we have checked your form, we will send you a document with a return authorisation number (RSN) by e-mail. Please enclose this document with your return.



#### Note:

The return authorisation number (RSN) is generated specifically for your return. It regulates the conditions and ensures direct allocation and faster processing of your return. It is therefore extremely important that the RSN is enclosed with your return.

Your partner:

#### Contact:

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