



PD 688 Display

- 7" Colour Graphics Display with Capacitive Touch
- Programmable in COPP
- Dual 100 Mbit Ethernet
- 2 individual P-NET via RS485
- Joystick with pressure sensitive finger-pad and 4 function keys
- RFID Tag Reader with 13,56 MHz Multiprotocol and NFC
- 2 configurable digital I/O's
- Acoustic Alarm
- LED for power On and Error indication
- 16 MByte Flash, 256 MByte RAM with Battery backup
- Micro SD-Card slot
- Fully potted
- Completely sealed, IP67@ front panel mounting

APPLICATION

The PD 688 Display Device is a COPP controlled device that can operate as a display device as well as a programmable controller for the plant operation.

The device is programmable in COPP, which means that a part of, or complete automation application can be built and downloaded by the user.

The program can make use of ready-made components to control and monitor any process or machine application, both locally in the device but also via the network interacting with other devices.

The device operates in the P-NET environment and has been designed as a general-purpose operator interface with simple logon via the built-in RFID reader (Option).

PD 688 uses a 7" graphic colour touch display with LED backlight, providing high visibility and a large viewing angle.

The COPP programming of the unit enables that the capacitive touch can define any type of operator input field in any size and colour.

The front of the PD 688 is completely sealed (IP67), and is therefore suitable for use in any industrial environment. The compact design and outstanding environmental characteristics makes it highly suitable as a means for local operator intervention and control unit in process control and mobile applications.

PD 688 is equipped with a number of communication interfaces, both classic P-NET fieldbus RS485 and 100Mbit Ethernet.

Together with a large capacity for holding all kinds of data collections, this makes the device a very versatile unit in any kind of process control system.

SPECIFICATIONS

Colour Display 7"

Resolution 800 x 480 pixels
View Area..... 155 x 94 mm
Active Area 152,40 x 91,44 mm
Touch..... PCAP 2048 x 2048 points
Backlight Adjustable..... LED

Communication

2 x P-NET (Screw Terminals)..... IEC 61158 Type 4
2 x Ethernet (Modular) 10 BASE-T / 100 BASE-TX
1 x USB-A..... 2.0 HIGH SPEED

Memory

Onboard FLASH 16 MByte
RAM..... 256 MByte
MRAM 32 KByte
Memory Extension (4 - 32 GByte).....Micro SD-card Slot

Misc

- 2 x User switches on backplane with sealing options
- Error / ON LED (Rearside)
- Battery for Backup and UPS - External. Li Poly 3.7 V, 830 mAh
- 4 x User-defined-keys with domes
- Joystick with pressure sensitive finger pad
- Acoustic Alarm
- RFID (NFC) Tag Reader for Access Control, 13.56 MHz
- PD688 supports the following NFC devices:
NTAG 210 (Mifare Ultralight), NTAG 213, NTAG 214, NTAG 216

Digital Outputs (source)

Oneshot and Duty-cycle time resolution 417 μ s
Internal resistance..... Typ. 0.5 Ω
Output start current (duration max 200 ms) Typ. 5 A
Load current at ON (Source only)..... Max. 1.0 A
Short circuit cutoff delay time (current > 5A) 104 μ s
Leak current at OFF Max. 500 μ A

Digital Inputs (referenced to -24 Vin)

Frequency..... Max. 1 kHz @ 50% duty cycle
Input..... On: Vin < 4.5 V, Off: Vin > 6.5 V
Hysteresis: Typ. 1 V
Input pull down resistance:..... 6.8 k Ω
Input active pull up (configurable) 3 mA

Power Specifications

Supply voltage nominal..... 24 VDC
Supply voltage 12 - 32 VDC
Typ. power consumption (@ 24 VDC) 3.5 W

Environmental Conditions

Operation temperature front..... -20 $^{\circ}$ C to +55 $^{\circ}$ C
Ambient temperature rear..... -20 $^{\circ}$ C to +70 $^{\circ}$ C
Storage temperature..... -30 $^{\circ}$ C to +80 $^{\circ}$ C
Protection Class, frontpanel mount IP67
Protection Class, rear side IP40
Relative humidity (Rearside) < 95 % RH (non-cond.)

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PD 688 connections

The rear side of PD 688 provides terminals for all the connections to I/O's, power and communication ports.

Power and I/O's are connected to plug B.

Plug A is used for connecting the two individual P-NET RS485 ports.

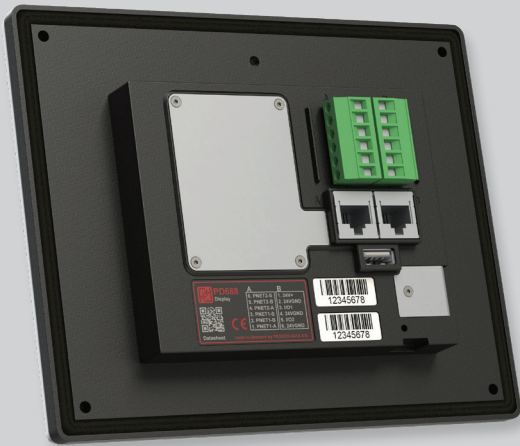
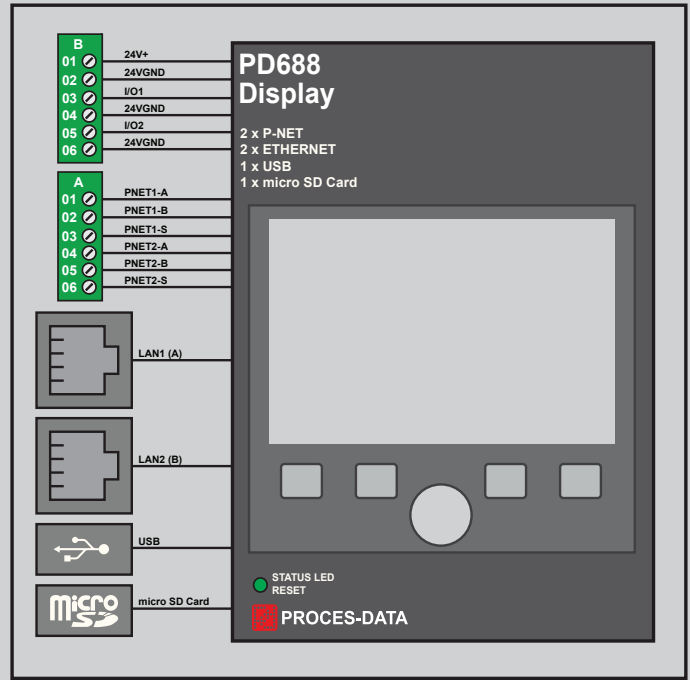
Two RJ-45 plugs are available for connecting P-NET via Ethernet through a two-port switch.

A USB-port is available as interface for e.g. a printer.

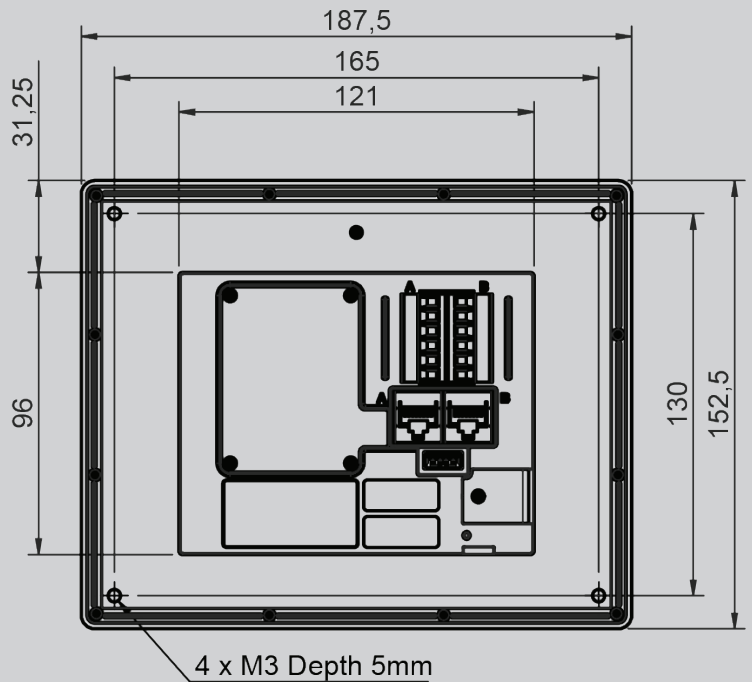
Two switches, with user-defined functions programmed in COPP, and a Micro SD-slot are available behind the sealing plate in the lower right corner.

Furthermore a battery for backup and UPS can be mounted below the sealing plate in the middle of the device.

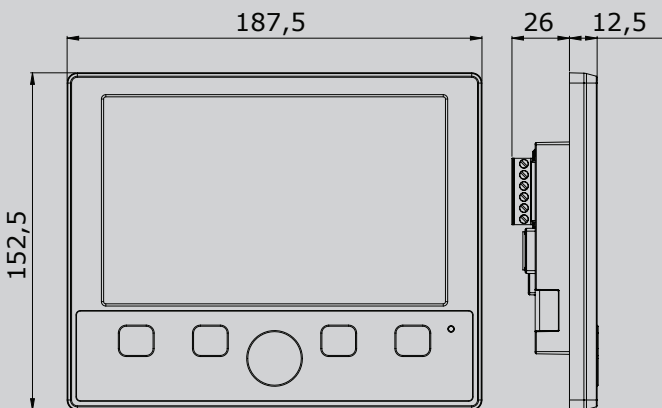
The Error/ON LED also works as a reset button for the device.



Rear View



MECHANICAL (mm)



Mechanical Specifications

Dimensions (HxWxD)..... 152.5 x 187.5 x 38.5 mm
 Weight approx..... 750 g
 Vibration IEC 60068-2-6 : 2007
 The PD 688 is fully potted.



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