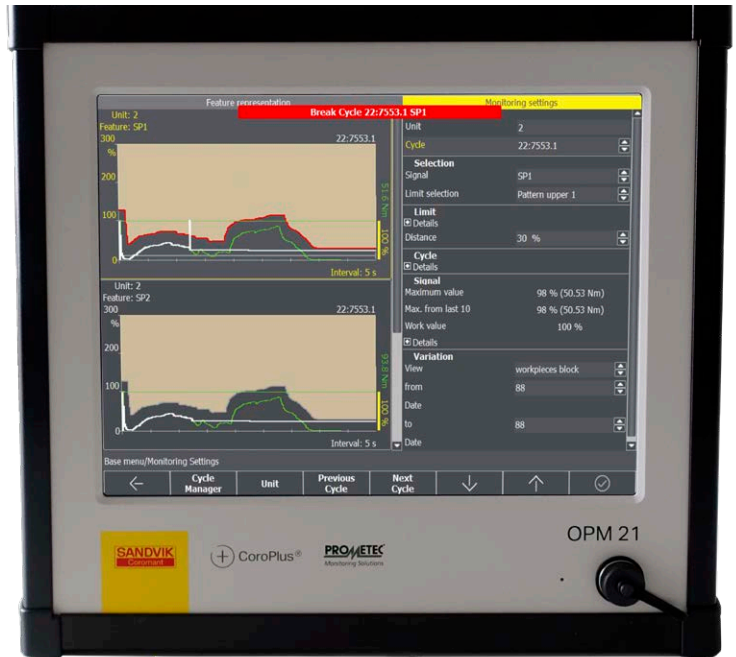


Operating module

OPM 21 monitor

With the OPM 21, you can visualise and optimise any monitoring task. Use the OPM 21 to detect collisions with the Collision detector of CoroPlus® ProcessControl and turn off the processing automatically.

Together with the CoroPlus® Tool guard, you can monitor the performance of the cutting tools. The machine tool status can be logged in the OPM 21 and the CoroPlus® Machine health inspector, thus saving costs through planned maintenance.



Benefits of OPM 21

- Powerful operation module and display for CoroPlus® ProcessControl
- Industrial usage
- No adaption of the control software necessary
- Large, easy to read touchscreen
- Robust design with no mechanical parts (like hart-disk or buttons)
- Also runs customer-specific software

Technical Data

Screen size / resolution	12,7" (30,7 cm) TFT
Operating elements	Touchscreen, connection of mouse or keyboard optional
Interfaces	SI-Bus, Ethernet, USB 2.0 connection for keyboard, mouse, data medium etc.
Operating system	Windows® 7 embedded, pre-installed
Power supply	12 ... 26 V DC ±20 %, 1000 mA max.
Protection class panel variant	front side IP 54, back side IP 20
Protection class box variant	IP 54
Temperature range	Usage/operation 0 ... 40 °C Storage/transport -20 ... 40 °C



CoroPlus® ProcessControl

- Part of CoroPlus platform from Sandvik Coromant
- Increases the machine security
- Ensures that the machines are delivering according to the expectations
- Enables cloud-base solutions that gives instant access to the latest information from a micro to a macro perspective

For more information about CoroPlus visit:

www.coroplus.sandvikcoromant/

Notes on software and operation

- If several software products was per-installed on your OPM 21, you can start the desired application automatically by dragging its program icon (found on the desktop) into the autostart directory.
- Depending on the context, numeric keys or keyboard fields appear in the software to speed up the input of numbers or text via the touch screen.
- **Caution: Only fingers or a suitable touch pen are allowed to use for operation, under no circumstances hard or sharp objects (i. e. no screwdrivers, switch cabinet keys or similar) may be used**

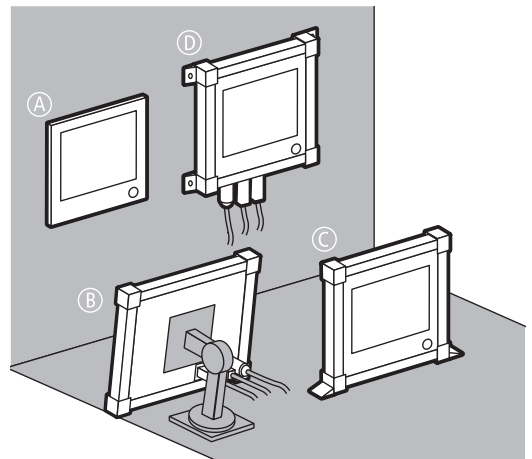


- **USB 2 connector** for service purposes as well as for connection of USB devices, like memory stick, hard drives, as well as mouse or keyboard. Please recap the connector after usage.
- **Reset button** for restarting, in case of problems that can not be solved by using the touch screen keyboard. The button is hidden behind a hole; use a paper clip or a similar tool to press it.

Mounting variants

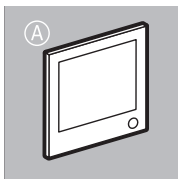
The OPM 21 is available in four mounting variants:

- **Variant A:** panel mount unit without protection box for wall mounting
- **Variant B:** in protection box for installation of a VESA compatible monitor stand
- **Variant C:** in protection box for floor/overhead mounting
- **Variant D:** in protection box for wall mounting

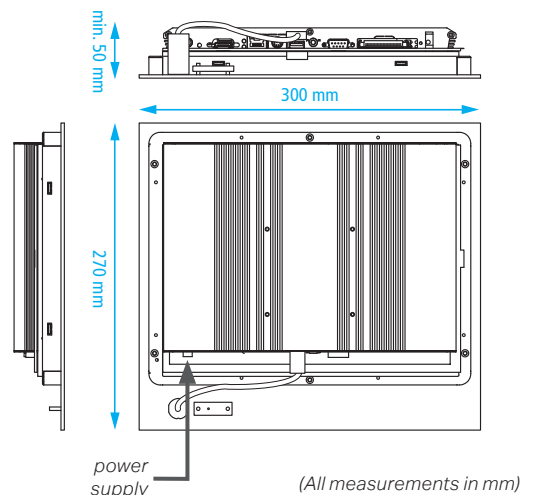
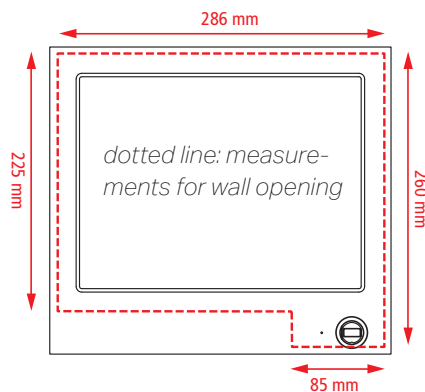


Measurements

Variant A



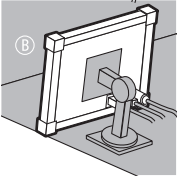
Operating module OPM 21 as panel mounted unit



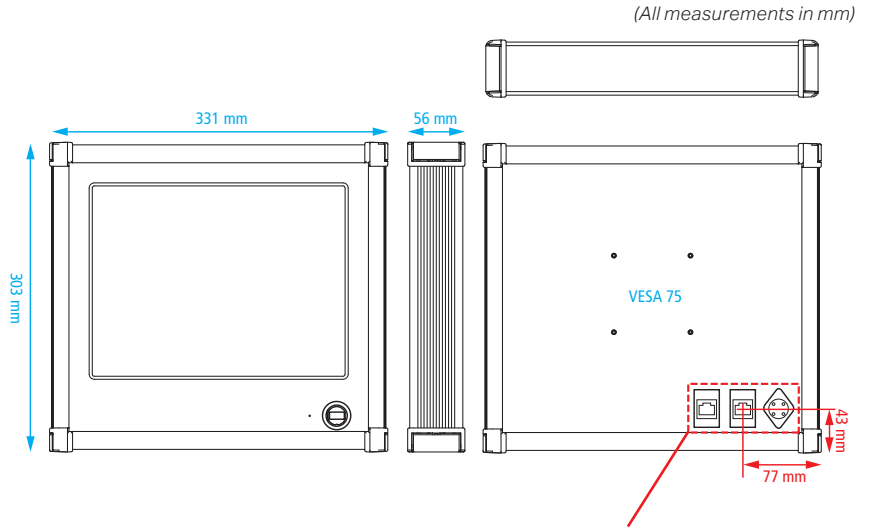
Installation note for panel mounted variant:

- ① Make an opening in the desired area, see measurements variant A
- ② After the Operating module has been put into the recess from the front side, put the seven black mounting clamps into the corresponding recesses on OPM 21. Turn the mounting clamps so that the screws point towards the front plate.
- ③ Then gently tighten the screws in the mounting clamp's screws until the OPM 21 is fixed correctly in its recess.

Variant B

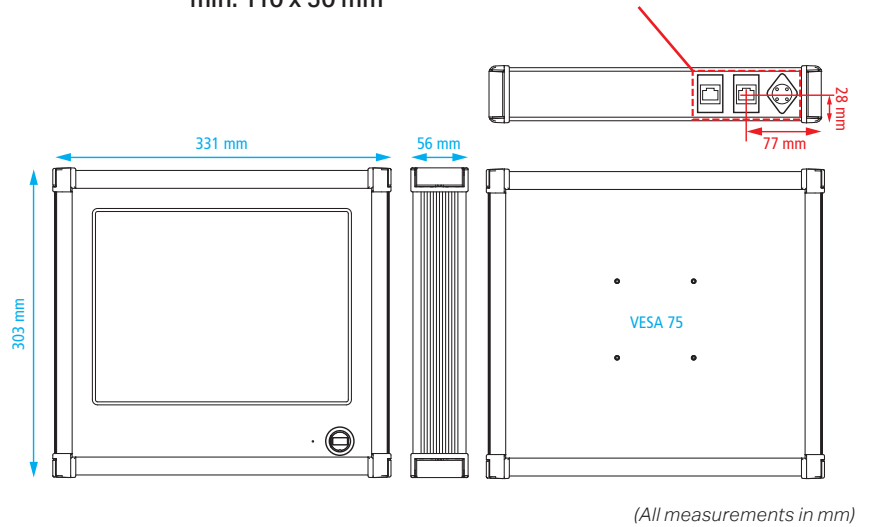


Operating module OPM 21 in protection box with **sockets on the back plate**

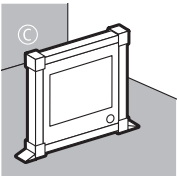


If the lower edge or the back plate of the OPM 21 is mounted on a flat surface, a cut-out for the plugs and sockets must be provided:
min. 110 x 50 mm

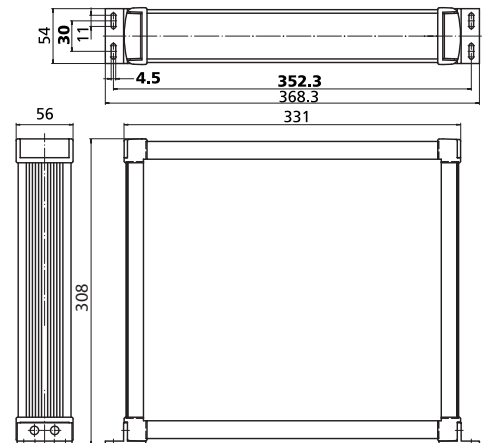
Operating module OPM 21 in protection box with **sockets on the base**



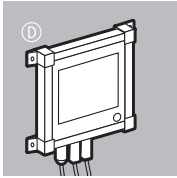
Variant C



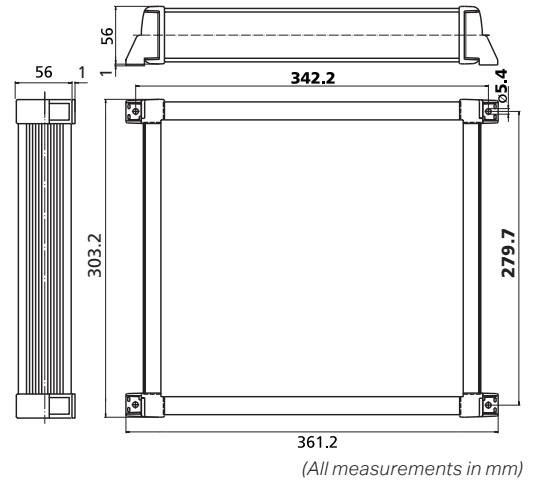
Operating module OPM 21 in protection box, using brackets for floor mounting, **sockets on the back plate or on the base**



Variant D



Operating module OPM 21 in protection box, using mounting brackets for wall mounting, **sockets on the back plate or on the base**



Connections

The Operating module OPM 21 can be used with all PROMOS (1), PROMOS 2 and the monitors of CoroPlus® ProcessControl. The connections are as follows:

Ethernet

GBit Ethernet standard pin assignment

SI-Bus CAN

(RJ45 connector, field assembly, assembly instructions are attached)

PIN	Connection
1	CAN-H
2	CAN-L
3	CAN-Gnd

SI-Bus Ethernet

100 MBit Ethernet standard pin assignment

Power

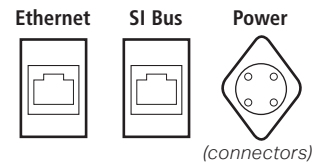
(Hirschmann connector, 4-pole)

PIN	Connection
1	+24-V-DC
2	(GND)-DC
3	NC
⊥	NC

Power plus MBus (PROMOS (1) compatible)

(Hirschmann connector, 4-pole)

PIN	Connection
1	+24-V-DC
2	(GND)-DC
3	MBus, M5
⊥	MBus, M6



Part numbers

Panel mount unit

Operating module OPM 21 as Panel mount unit, includes all needed plugs and cables for power supply:

Part No.: **0.OP.21G.M**

Sockets in back plate

Operating module OPM21 in protection box, sockets in back plate, includes different mounting brackets and all needed plugs

Variant SI-Bus CAN: Part No.: **0.OP.21G.MPCAN**

Variant SI-Bus Ethernet: Part No.: **0.OP.21G.MPBETH**

Variant MBus: Part No.: **0.OP.21G.MPB485**
(PROMOS (1) compatible)

Sockets on base

Operating module OPM21 in protection box, sockets on base, includes different mounting brackets and all needed plugs

Variant SI-Bus CAN: Part No.: **0.OP.21G.MPBBCAN**

Variant SI-Bus Ethernet: Part No.: **0.OP.21G.MPBETH**

Variant MBus: Part No.: **0.OP.21G.MPB485**
(PROMOS (1) compatible)

Monitor stand

Monitor stand according VESA 75 standard with 3D joint for tilting and rotating, for OPM 21 variants B, C and D (please refer to the enclosed installation manual):

Part No.: **Z.AN.DER.000106**