

HMI B1

Graphic display unit with touch screen

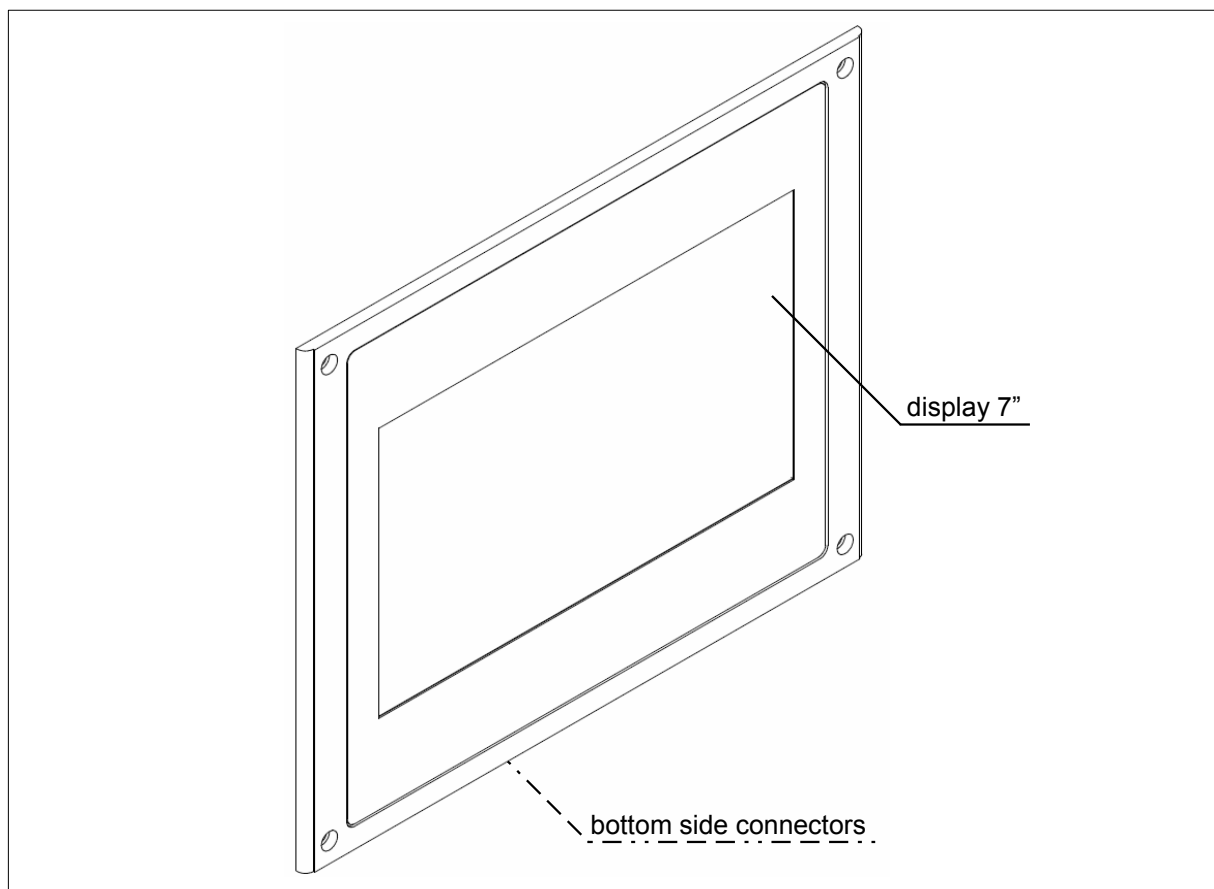
Datasheet

Description

Module HMI B1 consists in a graphic display unit with touch screen for HMI operations, especially designed for connection with CPC and MST Flxmod modules by SDVL (SMITEC Digital Video Link) interface.

Main characteristics:

- wide 7" screen display with 800x480pixels resolution, 18bit/pixel (262K colors)
- 4 wires touch-screen
- local USB 2.0 port
- SDVL (SMITEC Digital Video Link) proprietary interface with DVI-I physical connection



Ordering informations

Products	SMITEC part number
HMI B1 module	KZ010266

Accessories	SMITEC part number
Power supply connector (Phoenix Contact p/n 1851041)	KF101052
Power supply fuse (Littelfuse p/n 0452 005)	KD200038
SDVL cable length 3m	EC100200
SDVL cable length 5m	EC100201

Compatibility	SMITEC part number
CPC 01	KZ010251
CPC 02	KZ010267
CPC 0401	KZ010366
MST S3	KZ010219, KZ010350, KZ010369, KZ010455, KZ010474, KZ010481, KZ010506
MST S401	Contact us

Documentation	SMITEC part number
Datasheet for HMI B1	DK400079

Technical data

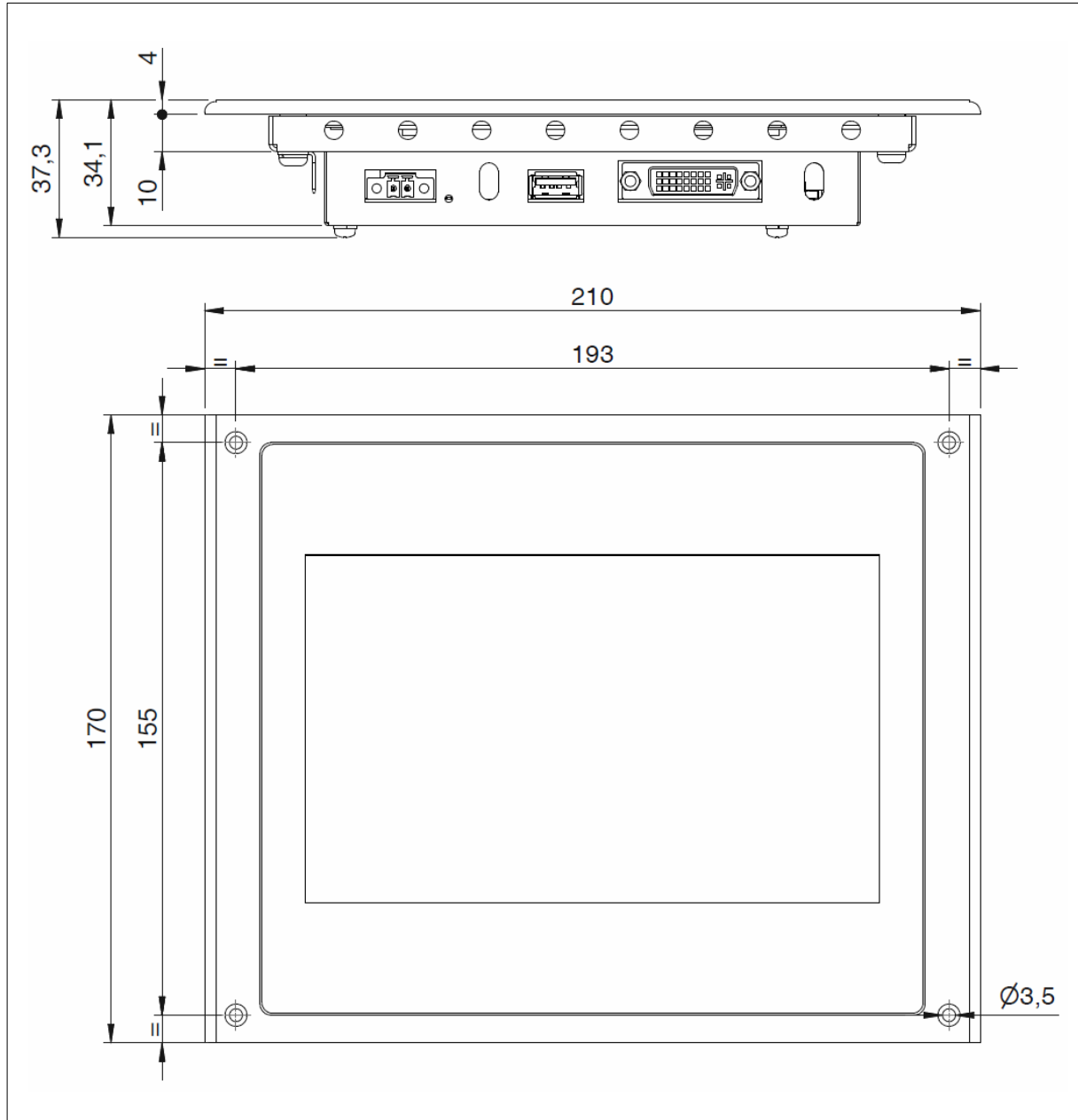
General data	
Housing dimensions (width x height x depth)	207 mm x 170 mm x 39 mm
Weight	770 g
Connection method for power connector	Spring cage terminals
Conductor cross-section for power connector	0.14 to 1.5 mm ² (26 – 16 AWG)
Recommended cable for SDVL connection	Dual link DVI with ferrite chokes
Functional earth connection	To the Faston contact
Mode state visual indicators	Power (PWR) LED lamps on bottom side

Environment data	
Permissible operating temperature	+5° to +55°C
Permissible storage and transport temperature	-25° to +85°C
Permissible humidity	10% to 95%, not condensing
Permissible air pressure (operation)	80 to 106 kPa (up to 2000 m above sea level)
Permissible air pressure (storage and transport)	70 to 106 kPa (up to 3000 m above sea level)
Rear degree of protection	IP20 according to IEC 60529
Front degree of protection	IP65 according to IEC 60529 (with foam gasket properly installed)
Overvoltage category	II
Pollution degree	2

Power supply	
Main power supply V _M	24 V DC == (-15% ÷ + 20% according to IEC 61131-2)
Maximum allowed ripple	5% of supply voltage (according to IEC 61131-2)
Current consumption from main supply	0,25 A max.
Supply overvoltage protection on V _M	Unidirectional Zener clamp (V _z > 30 V)
Supply reverse polarity protection	Input shunt diode, reverse connected
Supply fuse	2 A
Power presence visual indicators	Green LED lamp, lighted if main supply is present (PWR)

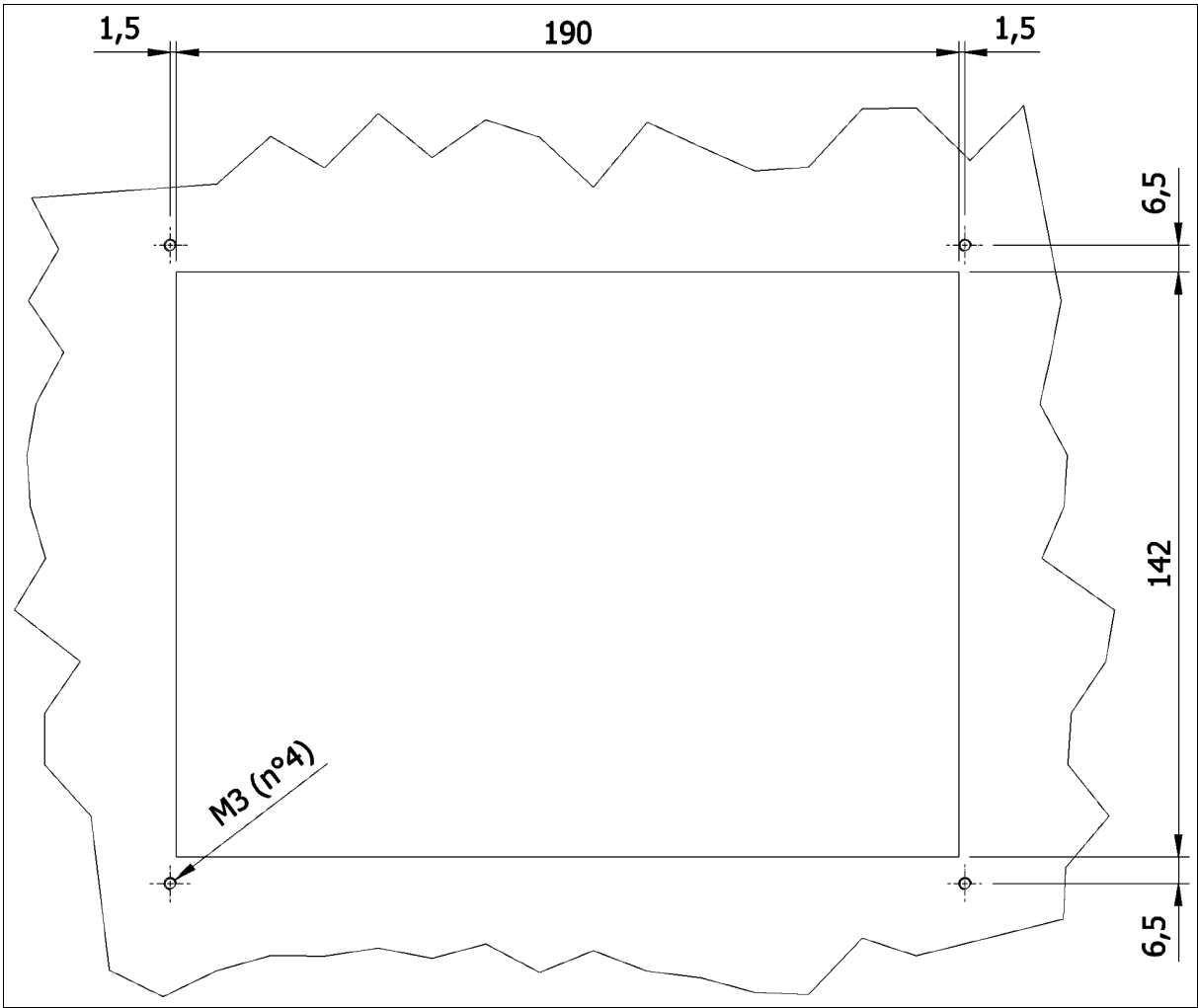
Mechanical drawing

Dimensions



The module HMI B1 needs to be fixed on a stable and rigid panel provided with 4xM3 metal threaded hole, min. 1.5mm deep. Use 4xM3x10mm Fe/Zn (not countersunk head type) screws, min. class 8.8, tightened at 1Nm.

Recommended panel-cut-out

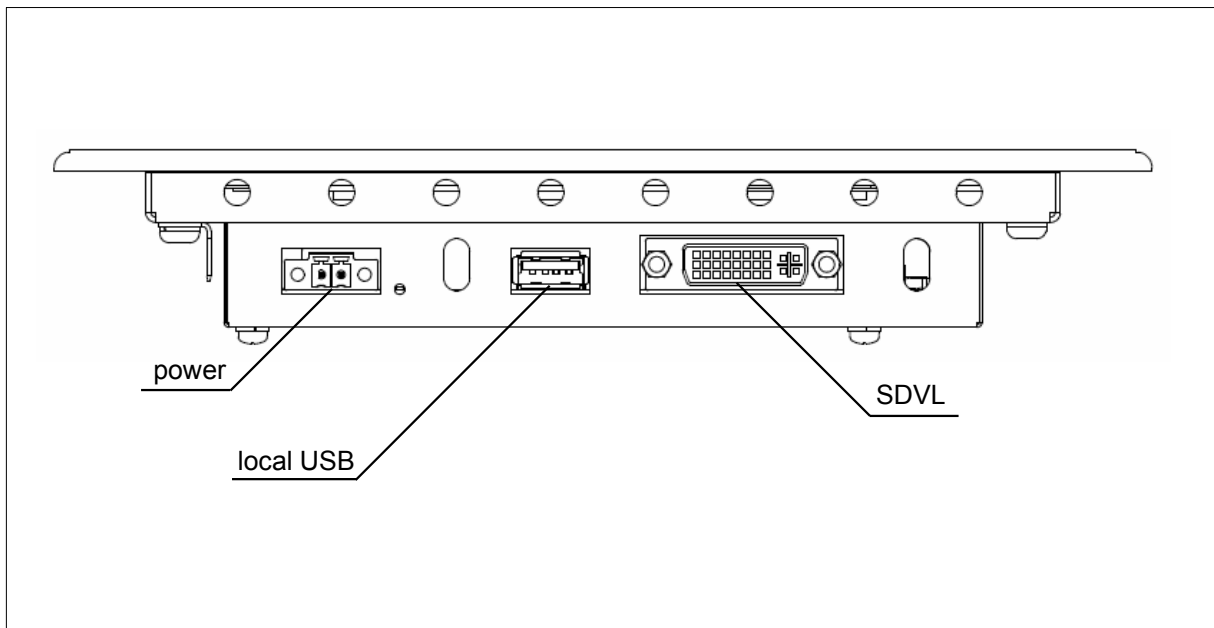


Connections

The module HMI B1 has several connectors for connecting peripherals and the power supply. All connectors are located on the bottom side of the module (power supply, local USB and SDVL).



Warning: HMI B1 module is an electronic high technology device with numerous connectors; for these reasons it result a ESD sensitive device. Observe ESD mitigation techniques or damage might occur.



Power connector

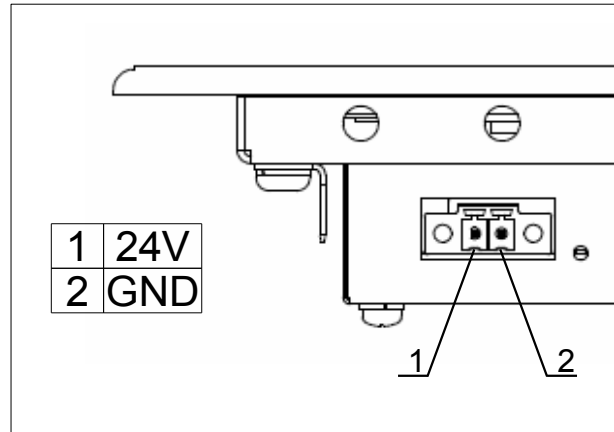
The power connector is located on the bottom side of the module. Here its pinout:



Warning: Use a cable with cross-section suited to the current involved. A wire smaller than necessary could cause risk of fire and unwanted voltage drops.



Warning: To ensure conformance with EMC directive 2014/30/UE, the length of the cables must not exceed 30 m!



Local USB connector

The USB connector is located on the bottom side of the module.

The local USB pinout and use are the same of the USB that are present in common computers.

SDVL connector

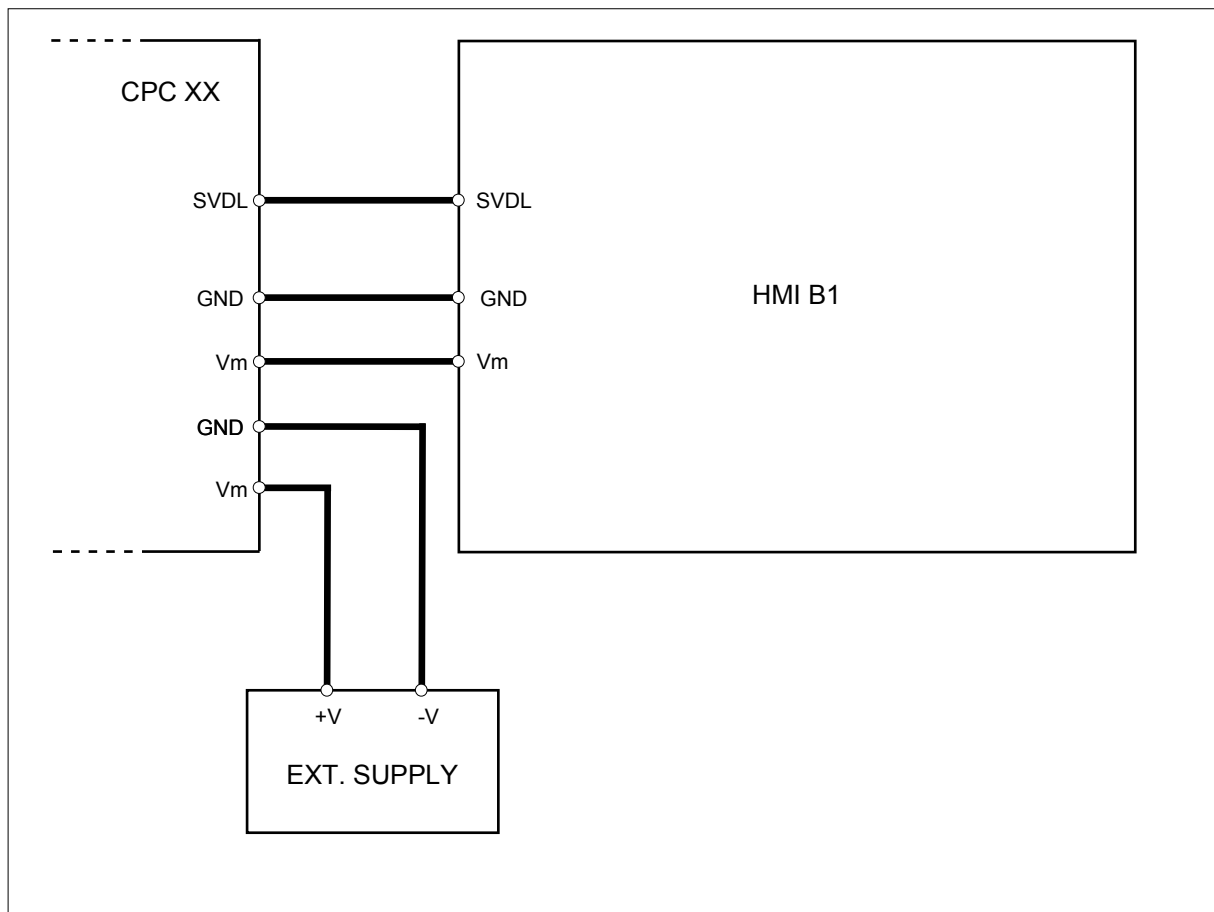
This connector is located on the bottom side of the module and physically is DVI-I type. SDVL is the acronym of SMITEC Digital Video Link that is a proprietary type of connection for SMITEC HMI graphic devices; this type of connection shares with a standard DVI-I connection only the physical connector and standard dual link cable to connect to the video signal source.



Warning: connecting a PC standard DVI output to SDVL input may cause damage to the PC or to the HMI B1 itself.



Warning: plugging or unplugging the SDVL cable where the system is powered may cause system damage. Never do it unless the power supply is switched off in this module and in the video signal source module.



SDVL and power supply cables connecting CPC XX and HMI B1 must have the same length and should be bundled together.

Diagnostic and status indicators

Each module is provided with a green PWR LED lamps; this led is lighted if the 24 V supply (V_M) is present and the internal fuse is not blown.

