

Gönnheimer
Elektronik GmbH

PC 100

Modular Ex-PC



PC100 - Concept

The future of HMI-devices for the use in explosion endangered areas is less based on short lived proprietary products but more on all-purpose, modular products of latest technology and highest capability.

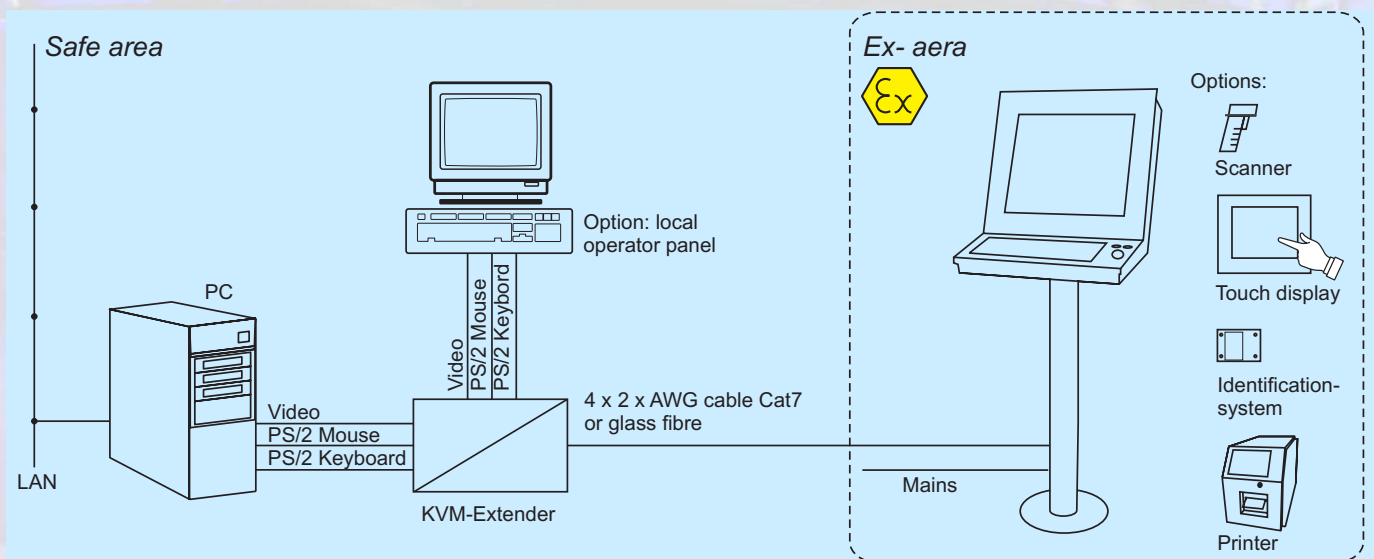
As a user, you should have a HMI-device at your disposal, which is completely autonomous from today's PC-platforms and software and thereby featuring a long product life cycle.

This trend led to the development of the PC100-concept, which comes up to today's and future requirements by use of an intelligent combination of different Ex-protection classes.

A high degree of technical and functional independency is reached by the use of standard components, which allows the integration of latest technology at anytime.

The stainless steel designer housing is specific to the needs of international production facilities with varying requirements (GMP-guideline, clean rooms, etc.).

The PC100 offers a multiplicity of potentials to cope with the special demands of our customers. On this account, numerous options are available for the PC100 as well as a non-Ex-device for industry-compatible applications in non-hazardous areas.



Advantages in comparison

- ↳ No additional, complex Ex i- solution with multiple power supplies, which must be installed in a short distance (approx. 5 m) to the display. No Ex i- multi wire connection between Ex i- power supply and display
 → PC100: Direct feed of the main voltage (230V AC or others) using the integrated Ex e terminal box at the TFT display
- ↳ No special Ex i- KVM- Extender
 → PC100: Standard VGA- KVM- extender based on copper 2 x 4 x AWG 24 or glass fibre, connected in the integrated Ex e- terminal box – **no intrinsic safety proof is required!**
- ↳ No molding at the display needed to handle the energy by coupling of intrinsically safe circuits
 → PC100: Standard display with resin filling
- ↳ No pressured air and waiting time while purging required, no turn off by failure of pressured air
 → PC100: Only electrical power required
- ↳ No special displays limited by maximum power consumption, special technology or selected manufacturer
 → PC100: update to newest display technology at any time
- ↳ No resistive touch display with polyester foil
 → PC100: Touch display
 The PC100 owns a robust surface from hardened glass. Thereby it is superior to the usually used resistive touch solutions in the properties of contrast, viewing angle and mechanical lifespan.
- ↳ No multi wiring at installation
 → PC100: All modules of the PC100 like display, KVM, keyboard and Trackball are coupled by plug connectors
- ↳ No Ex d housing
 → PC100: Display module depth of 105 mm, built in the Design housing. Available material: stainless steel, steel, aluminium or in your actual existing control panel
- ↳ No short lived proprietary housing
 → PC100 The modules are mounted in a design housing of stainless steel (IP65), suitable for food or pharmaceutical industry

Display modules (TÜV 00 ATEX 1607X)



Touch display module 8,4"

PC100- Module with superior PC100- Touch-technology (non resistiv)
Max. resolution: VGA

Touch display module 10,4"

PC100- Module with superior PC100- Touch-technology (non resistiv)
Max. resolution: XGA

Display module 15"

Module with standard TFT- display or with PC100- Touch technology
Max. resolution: XGA

Display module 19"

Module with standard TFT- display or with PC100- Touch technology
Max. resolution: SXGA



Pointing devices



Track ball

Intrinsically safe track ball with two buttons and stainless steel ball 38 mm
Protection class IP65
TÜV 99 ATEX 1442

Industry mouse

Alternative intrinsically safe pointing device
Protection class IP65
TÜV 99 ATEX 1442

Accessories



Keyboards



Standard keyboard

Protection class IP65
105 Keys,
Language specific layouts
TÜV 99 ATEX 1441

Keyboard with mouse pad

Like standard device, with additional mouse pad
TÜV 99 ATEX 1441

Touch display

PC100- module with superior PC100- Touch-technology (non resistive)
TÜV 00 ATEX 1607 X

Identification ID153

Contactless reading of several protocols
Serial Interface to PC
TÜV 01 ATEX 1720 X

Scanner HS153

EEx i- Barcode scanner for all usual barcodes
Robust design
Serial connection to PC
TÜV 02 ATEX 1811

EEx p- Printer

Customized printer with paper output in hazardous area, specific stainless steel housing
DMT 02 ATEX E 086

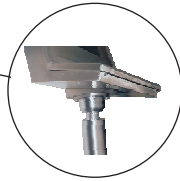
Key switch

Provides secure access to the PC terminals (conform FDA)

Additional serial Interfaces



PC100 - Standard housing mounted on a pillar,

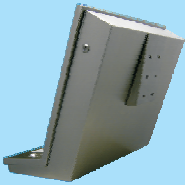


Solid mounted or with swivel joint (350 °)
Pillar diameter 100 mm, more warp resistance than usual 60 mm systems



PC100 Standard housing mounted direct to wall

Mounting with a minimum construction height
Construction height at the display area approx. 140 mm, Construction height at the keyboard area maximum 350 mm
Case opening at the front with pneumatic spring - for easy wiring



PC100 Standard housing with 15° angle adapter

Provides ergonomic wall mounting
Angle adaptor for operator workstation according NAMUR-recommendation
Keyboard and display in 15 ° inclination to the operator



PC100 Standard housing mounted on a wall bracket

Solid mounted or on a swivel joint (350 °)
Wall bracket system with 100 mm pipe diameter
Raised bends and warp resistance



PC100 Display module for panel mounting

Front-sided protection class of the display: IP65
Necessary protection class of the panel: at least IP54
Small module depth: 105 mm (8.4 " and 10.4 " displays: 85 mm)
Simple panel mounting with threaded bolts



PC100 Touch housing for direct wall mounting

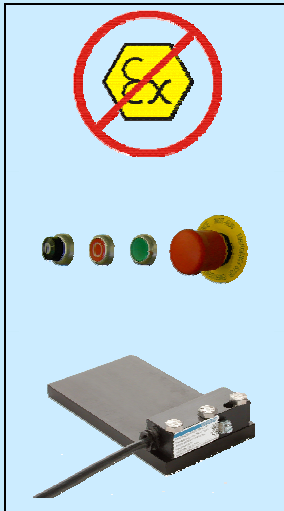
Construction height only 140 mm
Case opening on the front provides direct mounting on the wall
Opening assisted by pneumatic spring - for easy wiring



PC100 Ergonomy

Special edition with variable inclination of display and keyboard

PC 100 - Options



PC100 for non Ex- Area

- Reduced weight (no filling material)
- Optional fan on the rear plate of display module
- Optional signal lights (e.g. on the top of the housing)

Special buttons

- Integration of any switch and push-button series
- For the realization of an individual control function
- Protection class IP65 front-sided

Ex- heating / cooling

- For application in outdoor-area with extreme ambient temperatures
- Supply via separate EEx e- clamp housing inside the PC100

Technical Details

	Display module 19"	Display module 15"	Display module 10,4"	Display module 8,4"
Ex- protection	II 2 G, EEx e q [ib] IIC T4			
EC- Certificate	TÜV 00 ATEX 1607 X			
Mounting	Hazardous area, Zone 1 and Zone 2			
Mains	230V AC, 110V AC, 24V DC			
Display- resolution	SXGA: 1280 x 1024	XGA: 1024 x 768	XGA: 1024 x 768	VGA: 640 x 480
Dimensions front frame (Module)	530 x 450 mm	530 x 450 mm	329 x 274 mm	286 x 238 mm
Installation depth	105 mm	105 mm	85 mm	85 mm
Weight (Module)	ca. 37 kg	ca. 29 kg	ca. 12 kg	ca. 10 kg
Weight (complete Standard housing)	ca. 58 kg	ca. 50 kg	depends on housing	depends on housing
Housing protection	Front: IP 65			
Ambient temperature	0°C up to 40°C, extended temperature range on demand			

See EC-TYPE EXAMINATION CERTIFICATE TÜV 00 ATEX 1607 X for further specifications

Type code

PC100	.x	.x	.x	.x	.x	.x
Mains	230V AC .....	.0				
	110V AC .....	.3				
	24V DC .....	.6				
Display: TFT, 8,4"	.....	.02				
TFT, 10,4"	.....	.01				
TFT, 15"	.....	.0				
TFT, 19"	.....	.3				
Remote to PC:						
4 x 2 x twisted pair cable .....		.0				
Glass fibre .....		.1				
Ambient housing:						
Without (only display- module) .....		.0				
Design housing ² with writing desk ..		.1				
Design housing ² without writing d.		.4				
Individual housing .....		.9				
Front window:						
Normal .....		.0				
Anti reflexion coating .....		.1				
Touch screen:						
Without .....		.0				
Integrated Touch screen .....		.1				

Transmission capacity

Standard KVM- extender

Distance	Display- resolution
Up to 300 m	XGA (1024 x 768)
Up to 120 m	SXGA (1280 x 1024)
Up to 60 m	UXGA (1600 x 1200)

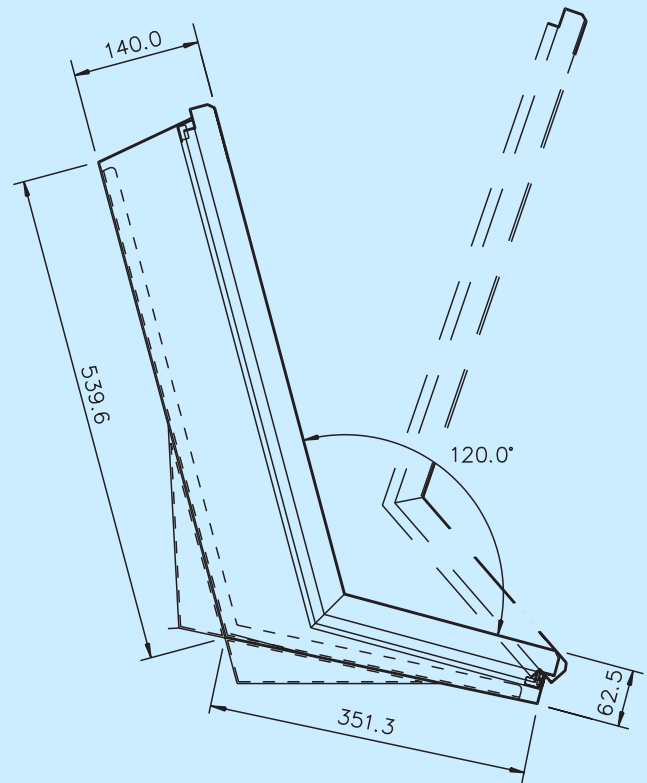
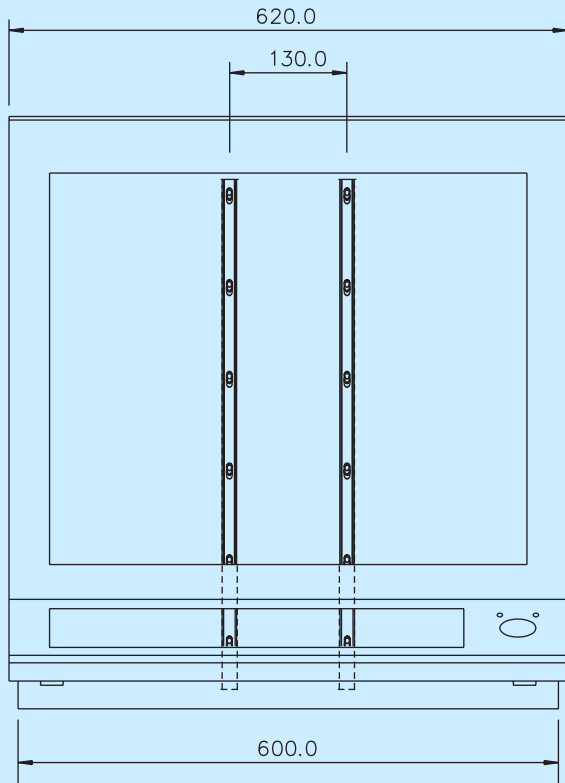
KVM- Extender up to 10 km on demand

Further Options on Demand:

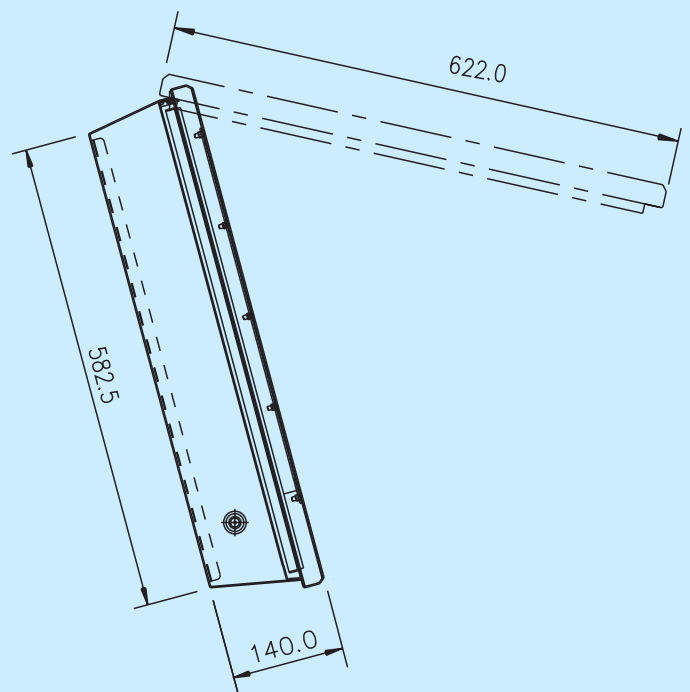
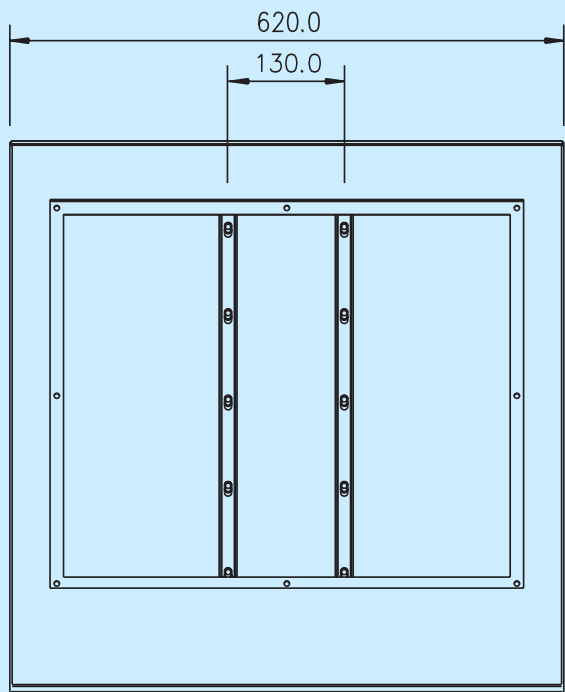
- Individually adapted housing
- Housing material: V4A, stainless steel coated or varnished,
- Bracket mounting, pillar mounting and angle adaptor
- Three keys Trackball

2: Suitable only for display size 15" and bigger

Dimensions of design housing with writing desk



Dimensions of design housing without writing desk



Details at www.goennheimer.de



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