SIEMENS

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Field PG M6

Overview

- The mobile, industry-standard programming device for automation engineers with a powerful, eighth-generation Intel® Core™ i processor (Coffee Lake) and high-speed RAM (DDR4 RAM)

- Elegant, robust enclosure made of light-weight stable injection-molded magnesium with rubber-protected corners and retractable carry-handle

- Can optimally be used both for engineering in the office and for the commissioning, service or maintenance of automation systems

- Industrial notebook with all commonly used interfaces for industrial applications

- Can be used immediately thanks to pre-installed SIMATIC engineering software

Application

SIMATIC Field PG M6 is the optimal tool for automation engineering, and an ideal platform for the SIMATIC engineering software.

It can be used in the commissioning, service and maintenance of automation systems and, of course, also in office environments.

Design

SIMATIC Field PG M6 is based on the latest Intel Coffee Lake processor technology. It can be equipped with up to 32 GB of high-speed DDR4 work memory and with an SSD that is up to 1 TB in size. The 2.5" hard disk can also be easily replaced from the side.

Integrated wireless and Bluetooth technology and a non-reflective, high-resolution 15.6" display allow optimal working conditions in the machine and plan-related environment.

In addition, the programming device has all of the standard industrial and SIMATIC interfaces. Thus, it has two Gigabit Ethernet, a PROFIBUS DP/MPI and a serial interface "on board". SIMATIC memory cards are also universally supported.

Thanks to the retractable carry-handle, the programming device can always be safely transported anywhere. The robust, completely shielded injection-molded magnesium enclosure also provides protection against vibration and electrical radiation.

Function

The programming device, which is optimized for engineering with TIA Portal, is delivered with pre-installed SIMATIC engineering software STEP 7 and WinCC for configuring PLCs and HMI. With the SIMATIC Field PG M6, you thus receive a turnkey device for mobile use during configuration, commissioning, service or maintenance for all kinds of automation tasks.

The integrated Intel® Active Management Technology (iAMT) permits remote access to the SIMATIC Field PG via Standard Ethernet. Remote control of the SIMATIC Field PG, e.g. for restoration, upgrades, diagnostics and troubleshooting, is thus possible and very easy.

The Microsoft BitLocker functionality is supported by the integrated Trusted Platform Module TPM 2.0 and thus offers access and operating system protection as well as secure data encryption.

Technical specifications

Article number	6ES7718-.....-....
	SIMATIC Field PG M6
General information	
Design of the programming device	Notebook
Display	
Design of display	15.6" full HD display in 16:9 format
Resolution (pixels)	
● Horizontal image resolution	1 920 pixel
● Vertical image resolution	1 080 pixel
General features	
● Non-reflecting	Yes
● Luminance	300 cd/m²
Backlighting	
● Type of backlighting	LED
Control elements	
Keyboard fonts	
● Design	QWERTZ/QWERTY or AZERTY (French); 87 keys
Touch operation	
● Integrated touch pad	Yes; Clickpad
Supply voltage	
Design of the power supply	External wide-range power supply; 3-pole
permissible range, lower limit (AC)	100 V; ±10 %, sinusoidal
permissible range, upper limit (AC)	240 V; ±10 %, sinusoidal
Line frequency	
● permissible range, lower limit	47 Hz
● permissible range, upper limit	63 Hz
Processor	
Processor type	Intel Core i5-8400H (2.5 to 4.2 GHz, 4 cores and hyper-threading, 8 MB Smart Cache) or i7-8850H (2.6 to 4.3 GHz 6 cores and hyper-threading, 9 MB Smart Cache)
Chipset	Intel CM246
Hyper-threading	Yes
Turbo Boost Technology 2.0	Yes
Graphic	
Graphics controller	Intel® UHD Graphics 630
Drives	
DVD-RW	Yes
SSD	Yes; Easy to replace
● Memory capacity	256 Gbyte; Up to 2 TB SSD
TPM Security Chip	Yes; 2.0 (version for China without TPM)

Memory	
Type of memory	DDR4 SO-DIMM
Work memory	
● Number of slots	2
Accumulator	
Replaceable	Yes; Lithium-ion battery
Capacity	8.25 A·h
Interfaces	
Number of interfaces PROFIBUS DP	1; 1x PROFIBUS DP / MPI; 9-pin Sub-D socket; 9.6 kBaud to 12 MBaud
Number of RS 232 interfaces	1; 25-pin socket
Number of USB interfaces	4
● Type A	3; 1x USB port incl. integrated charging function for USB devices (e.g. smartphone) - also with device switched off
● Type C	1; USB 3.1 Gen. 2
Number of chip-card readers	1; Smart Card Reader (ISO/IEC 7816)
Bluetooth radio standard	Yes; V5.0
Multimedia card/SD card slot	2 in 1 (SDHC UHS-II, MMC)
Card reader for SIMATIC memory cards	SIMATIC memory cards (for S7-300/400), SMC (for S7-1x00), SIMATIC micro memory card (for S7-300/C7/ET 200) - including programming interfaces
Universal Audio Jack	Yes; Audio socket for 3.5 mm jack
Video interfaces	
● analog video signal (VGA)	Yes; via adapter from DVI to VGA
● DVI-I	Yes; 1x
● DisplayPort	Yes; 1x
Industrial Ethernet	
● Industrial Ethernet interface	2x Ethernet (RJ45)
— 100 Mbps	Yes
— 1000 Mbps	Yes; Gigabit Ethernet; 2x RJ45 with 2 independent MAC/IP addresses
● Wake on LAN	Yes
● IAMT (Intel Active Management Technology)	Yes
WLAN	
● Type	802.11ac
Interrupts/diagnostics/status information	
LED status display	Battery status, device status, access to HDD/DVD, access to SD/MMC, MPI/DP, S5 and S7 modules / Card Reader (except Smart Card Reader), Num Lock, Caps Lock, WLAN active
EMC	
Interference immunity against discharge of static electricity	
● Interference immunity against discharge of static electricity acc. to IEC 61000-4-2	Yes; ±4 kV contact discharge acc. to IEC 61000-4-2, ESD; ±8 kV air discharge acc. to IEC 61000-4-2, ESD

Interference immunity to cable-borne interference

● Interference immunity on supply cables	±2 kV (according to IEC 61000-4-4, burst); ±1 kV (according to IEC 61000-4-5, surge pulse/line to line); ±2 kV (according to IEC 61000-4-5, surge pulse/line to ground)
● Interference immunity on signal cables	±1 kV (according to IEC 61000-4-4, burst, length < 30 m); ±2 kV (according to IEC 61000-4-4, burst, length > 30 m); ±2 kV (according to IEC 61000-4-5, surge sym./line to ground, length > 30 m)

Standards, approvals, certificates

CE mark	Yes
CSA approval	Yes
UL approval	Yes
DIN/ISO 9001	Yes

Ambient conditions

Ambient temperature during operation

● min.	5 °C; Max. 10 °C/h (no condensation)
● max.	40 °C; Max. 10 °C/h (no condensation)

Ambient temperature during storage/transportation

● min.	-20 °C; Max. 20 °C/h (no condensation)
● max.	60 °C; Max. 20 °C/h (no condensation)

Relative humidity

● Operation, min.	5 %
● Operation, max.	85 %; At 30 °C/h (no condensation); Tested according to IEC 60068-2-78, IEC 60068-2-30, IEC 60068-2-14

Vibrations

● Operation, tested according to IEC 60068-2-6	Yes

Shock testing

● tested according to IEC 60068-2-27	Yes

Operating systems

Local language of operating system	Multi-Language User Interface (MUI): 6 languages (English, German, French, Spanish, Italian, Chinese)

pre-installed operating system

● Windows 10	Yes; Windows 10 Enterprise 64-bit

Software

Preinstalled

● STEP 7 Professional (TIA Portal)	Yes
● STEP 7	Yes
● WinCC flexible Advanced 2008	Yes; Software version: SP5
● WinCC Advanced (TIA Portal)	Yes; software version: V16
● STEP 5	Yes; Optional; software version: STEP 5 V7.23 HF2 (incl. GRAPH 5/II V7.15)

Mechanics/material	
Material of housing	metal
Handle	Yes; retractable
Socket for Kensington lock	Yes
rubber corner guards	Yes
Dimensions	
Width	385 mm
Height	53 mm
Depth	275 mm
Weights	
Weight, approx.	3.4 kg; incl. rechargeable battery
Scope of supply	
Accumulator	Yes
Power supply	Yes
Backpack	Yes
SIMATIC Software	Yes
Recovery media	Yes; Restore & Recovery
Other	
free hotline	Yes
Note:	Made in Germany: development and production in Germany

Accessories

Backpack	Backpack, for SIMATIC Field PG	6ES7798-0DA02-0XA0
Memory Expansion	1x 8 GB DDR4 SD-RAM SO-DIMM, 2666 MHz	6ES7648-3AK00-0PA0
	1x 16 GB DDR4 SD-RAM SO-DIMM, 2666 MHz	6ES7648-3AK10-0PA0
Exchangable SSD kit	SSD 256 GB (incl. protective case and Torx screw driver)	6ES7791-2BA24-0AA0
	SSD 512 GB (incl. protective case and Torx screw driver)	6ES7791-2BA22-0AA0
	SSD 2 TB (incl. protective case and Torx screw driver)	6ES7791-2BA25-0AA0
USB to SATA adaptor	USB 3.0 to SATA adaptor for exchangable drive kit, for SIMATIC Field PG M6/M5/M4/M3	6ES7790-1AA01-0AA0
Spare battery	Lithium-Ionen battery for SIMATIC Field PG M6, 8.25 Ah	6ES7798-0AA10-0XA0
MPI cable	MPI connecting cable between SIMATIC S7 and SIMATIC Field PG, 5m	6ES7901-0BF00-0AA0

S5 AG cable	S5 connecting cable between SIMATIC S5 and SIMATIC Field PG, 5m	6ES5734-2BF00
S5 EPROM adaptor	Adaptor for SIMATIC Field PG to program S5 EPROMs	6ES7798-0CA00-0XA0
SIMATIC software	SIMATIC IPC Image & Partition Creator V3.5, USB Flash-Drive	6ES7648-6AA13-5YA0
Software update service (SUS)	STEP 7 Prof. Combo SUS, download	6ES7810-5CC04-0YY2
	STEP 7 Prof. im TIA Portal, SUS, download	6ES7822-1AE00-0YY0
	STEP7 Safety Advanced SUS, download	6ES7833-1FC00-0YY0
	WinCC Advanced SUS, download	6AV6613-0AA00-0AY0

SIMATIC Field PG – Ready to use

High-performance programming

• Maximum performance, optimized for efficient engineering
• Ready-to-run through pre-installed, system-tested programming software
• High-resolution display to relieve the eyes and support ergonomic operation
• Complete package comprising hardware and software with an unrivaled price/performance ratio
• Best possible availability thanks to highest quality, 'Made in Germany', exclusive development and manufacturing in Karlsruhe

Design

• Rugged hardware throughout: lightweight magnesium enclosure
• Designed to withstand shocks and vibrations with rubber bumpers on device corners
• Integrated Interfaces for direct machine and plant connectivity
• Option for connecting external monitors via DVI-I or Display Port as well as an USB docking station for the normal office environment

Fit for industry

• Complete shielding against electromagnetic interference (EMC/EMS tested)
• Dirt resistant industrial design with dark color scheme and high-contrast keyboard with abrasion-resistant laser inscription
• Lightweight, compact power supply and a safe grip facilitate mobile use in alternating sites of operation

Take-aways

• Two configurable versions
• Available with licenses for trial, TIA Portal or Combo (TIA Portal + predecessor) pre-installed TIA Portal engineering software for fast and efficient configuring, commissioning and service

If you have questions concerning our SIMATIC Field PG systems? You want to discuss your specific challenges with us or are looking for the right project partner? Contact CHESS CONTROLS at 705 682 2828.