

6AV6545-0DA10-0AX0 MP370 12 TOUCH

Technical Data

SIMATIC MULTIPANEL MP370 12" COLOR TFT DISPLAY, TOUCH WINDOWS CE 3.0 CONFIGURABLE WITH PROTOOL FROM VERSION V5.2+SP3

Supply voltage

Supply voltage	24 V DC
permissible range	+20.4 V to +28.8 V DC
Type of voltage	DC
I ² t-level / maximum	0.5 A ² ·s
Rated current	1.15 A
Power	28 W
UPS connectable (serial)	Yes

Backup battery

Backup battery	optional 3.6 V
minimum backup duration	3 a

Memory

Type	Flash / RAM
Usable memory for user data	7168 KB usable memory for user data / 5689 KB additional memory for options

Time of day

Clock	
Type	Hardware clock, battery backup, synchronizable

Configuration

Configuration tool	ProTool Version 5.2 SP 3 or higher, or WinCC flexible Standard Version 2004 or higher (to be ordered separately)
1st configuration kit	ProTool
Version	Version 5.2 SP 3
Configuration tool	ProTool
2nd configuration kit	WinCC flexible Standard
Version	Version 2004
Configuration tool	WinCC flexible
Type	Standard

Display

Display type	TFT, 256 Farben
Design of display	TFT
Size	12.1" (246 mm x 184 mm)
Screen diagonal	12.1 in
Resolution (WxH in pixel)	800 x 600
Horizontal image resolution	800
Vertical image resolution	600
Color type	Colors

Backlighting

MTBF backlighting (at 25 °C)	about 50,000 hours
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Expansions for operator control of the process

DP direct keys (screen buttons and keys as S7)	Number of bytes for configurable
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input I/O)	buttons: 5
Operating mode	
Control elements	Touch screen
Operating options	Touch
Connection for mouse/keyboard/barcode reader	USB / USB / USB
external mouse	USB
Keyboard	
external keyboard	USB
Touch operation	
Touch screen	analog, resistive
freely inscribable membrane keys	No
Number of multi-key operations	0
Numeric/alphabetical input	Yes / Yes
hexadecimal keyboard	Yes
Multi-key operation	No
Barcode reader	
Connection for barcode reader	USB
Special operator controls	
Illuminated pushbutton	Yes
Ambient conditions	
Mounting position	vertical
maximum permissible angle of inclination without external ventilation	+/- 35 °
max. relative humidity	85 %
Temperature	
Operation (vertical installation)	0 °C to +50 °C
Operation (max. tilt angle)	0 °C to +35 °C
Transport, storage	-20 °C to +60 °C
Degree of protection	
Front	IP65
IP (at the front)	IP65
Rear	IP20
IP (rear)	IP20
Certifications & standards	
Certifications	CE, FM Class I Div. 2, cULus, EX Zone 2/22
I/O / Options	
I/O devices	Printer, barcode reader
Type of output	
Info LED	No
Power LED	No
Error LED	No
Acoustics	Buzzer
Interfaces	
Interfaces	1 x TTY, 2 x RS232, 1 x RS422, 1 x RS485, 1 x Ethernet (RJ45) (max. 12 Mbit/s)
Number of interfaces/according to RS 485	1
Transmission rate, max.	12 Mbit/s
PC card slot	1 x PC card slot
CF card slot	1 x CF card slot
USB port	1 x USB
Industrial Ethernet interface	1 x Ethernet (RJ45)
Operating systems	

Operating system	Windows CE
Pre-installed operating system	Windows CE
Product function	
Customer-specific configuration	No
other	
free hotline	Yes
Warranty period	1 a
Processor	
Processor	MIPS
Processor type	MIPS
MIPS	Yes
Drives	
Diskette drive	No
CD-ROM	No
Design of drive/storage medium, hard disk	No
Functionality under ProTool	
Applications/options	ProAgent, Internet Explorer, ThinClient, Soft-PLC
Visual Basic Script	Number = 50 / Number of lines per script = 100
Alarm clock	Yes
Clean screen	Yes
Number of levels for password protection	10
Help system	Yes
Number of info. texts	70
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of tooltips	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Status/control	With SIMATIC S5/S7
With alarm logging system (incl. buffer and acknowledgment)	
Number of operating messages	2000
Memory requirement for first unit	272 byte
Memory requirement for each additional unit	207 byte
Number of fault messages	2000
Memory requirement for first unit	272 byte
Memory requirement for each additional unit	207 byte
System messages	Yes
Message length (lines x characters)	1 x 70
Number of process values in messages	8
Message indicator	Yes
Acoustic feedback	No
First/last value	Yes
Message buffer	Ring buffer (n x 1024 entries)
Recipes	
Number of recipes	500
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of data records per recipe	1000
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of entries per data record	1000

Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Recipe memory	128 KB integrated Flash, expandable
Number of process images	
Number of process images	300
Memory requirement for first unit	48072 byte
Memory requirement for each additional unit	115 byte
Number of variables	2048
Number of variables of Date & Time type	2048
Number of variables of Array type	2048
Number of variables of Internal Variable type	2000
Number of initial values	2048
Limit values	Yes
Multiplexing	Yes
Image elements	
Text objects	30,000 text elements
Number of fields per screen	115
Number of variables per screen	400
Permanent window/default	Y
Image selection via PLC	Yes
Index of screen context	No
Start screen configurable	Yes
Image number in the PLC	Yes
Return	Yes
Graphics object	Bit maps, icons, vector graphics
Number of icons	2000
Memory requirement for first unit	1144 byte
Memory requirement for each additional unit	1345 byte
Number of screen filling icons	0
Memory requirement for first unit	12000 byte
Memory requirement for each additional unit	11600 byte
dynamic objects	Diagrams, bar graphs, sliders, analog display, invisible buttons
Number of objects per project	2000
Number per image	20
Memory requirement for first unit	1036 byte
Memory requirement for each additional unit	801 byte
Number of curves per diagram	8
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	284 byte
Write direction	horizontal
vertical	No
Online operation of trends	Compress / shift
trigger	Bit / time
Methods	Trend / profile
Limit value lines	Yes
Number of bars per chart	20
Direction	vertical / horizontal
Limit value lines	Yes
Number of alphanumerical fields	300
Number of alphanumerical fields per screen	400
Memory requirement for first unit	588 byte
Memory requirement for each additional unit	308 byte
Number of numerical fields	2048

Number of numerical fields per screen	400
Memory requirement for first unit	588 byte
Memory requirement for each additional unit	308 byte
Number of date and time fields	400
Memory requirement for first unit	312 byte
Memory requirement for each additional unit	183 byte
Number of password fields	2048
Memory requirement for first unit	596 byte
Memory requirement for each additional unit	316 byte
Number of slides per image	20
Memory requirement for first unit	496 byte
Memory requirement for each additional unit	469 byte
Number of analog indicators per image	20
Memory requirement for first unit	972 byte
Memory requirement for each additional unit	635 byte
Number of visible switches per project	400
Number of visible switches per screen	400
Memory requirement for first unit	496 byte
Memory requirement for each additional unit	469 byte
Number of invisible switches per screen	400
Memory requirement for first unit	496 byte
Memory requirement for each additional unit	469 byte
Number of status switches per project	400
Number of buttons for state switches per screen	400
Memory requirement for first unit	496 byte
Memory requirement for each additional unit	469 byte
Number of selector switches per project	400
Number of selector switches per screen	400
Memory requirement for first unit	660 byte
Memory requirement for each additional unit	415 byte
Number of decade switches per project	400
Number of decade switches per screen	400
Memory requirement for first unit	496 byte
Memory requirement for each additional unit	469 byte
Number of signal lamps per project	400
Number of indicator lights per screen	400
Memory requirement for first unit	496 byte
Memory requirement for each additional unit	469 byte
Attributes for dynamic objects	
Color change	Yes
X/Y movement	Yes
Hide	Yes
Angle of turn	No
Lists	
Number of text lists per project	500
Number of text lists per image	400
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of entries per project	256
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of graphics lists per project, max.	500
Number of graphic lists per image, max.	400

Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of entries per project	256
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Libraries	Yes
Archiving	
Number of measuring points per archive	50
Number of entries per archive	50000
Archiving types	Sequence archive, circular log, alarm log, process value archive
Memory location	PC card, CF card, Ethernet
Data storage format	CSV file, readable, e.g. with MS Excel, MS Access
external evaluation	Readable, e.g. with MS Excel, MS Access, etc.
Size of archive	depending on free memory on ext. card/stick or on free hard disk space via network drive
Online evaluation	via trends
Filters	
cyclic	Yes
Tolerance	Yes
Change	Yes
Data carrier support	
PC card	Yes
CF card	Yes
Multi Media Card	N
SD card	No
USB Memory Drive	No
Diskette drive	No
Hard disk	No
DVD/CD-ROM	No
Recording	
Recording/Printing	Alarms, report (shift report), color print, hardcopy
Printer driver	ESC/P2, PCL3/PCL6
Character sets	
Keyboard character sets	US American
Languages	
Number of online languages	5
Number of online languages per project	32
Memory requirement for first unit	23420 byte
Memory requirement for each additional unit	26820 byte
Configuration languages	D, GB, F, I, E, CHN "traditional", CHN "simplified", DK, FIN, GR, J, KP / ROK, NL, N, PL, P, RUS, S, CZ / SK, TR, h
Character sets	Tahoma, Arial, Courier New, Pro Tool-Standard, symbol languages, 4 additional character sets can be loaded, all freely scalable
Transfer (upload/download)	
Transfer of configuration	MPI/PROFIBUS DP (where available), serial, USB, Ethernet, by means of external storage medium, automatic transfer recognition

Download	
optional software	Y
Operating system update	Y
Process coupling	
Connection to controller	S5, S7-200, S7- 300/400, TI 505, PC (TCP/IP), SINUMERIK, SIMOTION, Allen Bradley (DF1), Allen Bradley (DH485), Mitsubishi (FX), Telemecanique (ADJUST), OMRON (LINK/Multilink), Modicon (Modbus), see section on "System interfaces"
S5	Yes
serial	Yes
PROFIBUS DP	Yes
S7-200	Yes
PPI (point-to-point)	Yes
PPI network	Yes
MPI	Yes
PROFIBUS DP	Yes
Ethernet	Yes
S7-300/400	Yes
MPI	Yes
PROFIBUS DP	No
PROFINET IO	Yes
TI 505	Yes
Point-to-point	Yes
Network	Yes
Allen Bradley (DF1)	Yes
Point-to-point	Yes
Network	Yes
Allen Bradley (DH485)	Yes
Point-to-point	Yes
Network	Yes
Mitsubishi (FX)	Yes
Point-to-point	No
Network	Yes
Mitsubishi (MP4)	Yes
Point-to-point	Yes
Network	Yes
Telemecanique (ADJUST)	Yes
Point-to-point	Yes
Network	Yes
Telemecanique (Uni-Telway)	Yes
Point-to-point	Yes
Network	Yes
OMRON (LINK/Multilink)	Yes
Point-to-point	Yes
Network	Yes
Modicon (Modbus)	Yes
Point-to-point	Yes
Network	Yes
GE-Fanuc (SNP)	Yes
Point-to-point	Yes
Network	Yes

Functions	
Key repeat	No
TAB sequence	Yes
Calculating functions	Yes
Animate	Yes
Menu tree editor	No
Unit switchover	No
Booting via external memory	Yes
Service tools/configuration aids	
Touch calibration	Yes
Backup/restore	Yes
Simulation	Yes
Language tool	No
System messages Edit	No
Device switchover	Yes
Delta transfer	No
Monitoring the battery, memory,...	Yes
Trace (operation archive)	No
Expandability/openness	
Open Platform Program (OPP)	Yes
Functionality under WinCC flexible	
Applications/options	ProAgent, Internet Explorer, ThinClient, Sm@rtService, Sm@rtAccess
Number of Visual Basic Scripts	100
Debugging in the simulator	No
Task planner	Yes
Help system	Yes
Number of info. texts	70
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of tooltips	0
Memory requirement for first unit	0 byte
Memory requirement for each additional unit	0 byte
Status/control	with SIMATIC S7
With alarm logging system (incl. buffer and acknowledgment)	
Number of messages	4000
Bit messages	Yes
Analog messages	Yes
Number of bit messages	4000
Number of analog messages	4000
Number of alarm classes	32
Telegram message procedure Alarm S	Yes
System messages HMI	Yes
System messages PLC	Yes
System messages, other (Sinumerik, Simotion,...)	Yes
Message length (in characters)	80
Lines	1
Number of process values per message	8
Acknowledgment groups	Yes
Message indicator	Yes
Acoustic feedback	No
First/last value	Yes

Message buffer	Ring buffer (n x 1024 entries), non-retentive
Recipes	
Recipes	500
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Data records per recipe	1000
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Entries per data record	1000
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Recipe memory	128 KB integrated Flash, expandable
Number of process images	
Process images	500
Variables	2048
Type Date & Time	2048
Number of internal variable	2000
Initial values	2048
Limit values	Yes
Multiplexing	Yes
Structs	Yes
Image elements	
Text objects	30,000 text elements
Fields per image	400
Variables per image	400
Permanent window/default	Yes
Image selection via PLC	Yes
Index of screen context	No
Start screen configurable	Yes
Image number in the PLC	Yes
Return	Y
Graphics object	Bit maps, icons, vector graphics
Icons	2000
Memory requirement for first unit	1144 byte
Memory requirement for each additional unit	1345 byte
Icon (full screen)	0
Memory requirement for first unit	12000 byte
Memory requirement for each additional unit	11600 byte
dynamic objects	Diagrams, bar graphs, sliders, analog display, invisible buttons
Number of objects per project	2000
Number per image	20
Memory requirement for first unit	1036 byte
Memory requirement for each additional unit	801 byte
Write direction	horizontal
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	284 byte
Online operation of trends	Compress / shift
trigger	Bit / time
Methods	Trend / profile
Limit value lines	Yes
Number of bars per chart	20
Memory requirement for first unit	644 byte

Memory requirement for each additional unit	364 byte
Memory requirement for first unit	644 byte
Memory requirement for each additional unit	364 byte
Direction	vertical / horizontal
Limit value lines	Yes
alphanumeric fields	300
alphanumeric fields per image	400
Memory requirement for first unit	588 byte
Memory requirement for each additional unit	308 byte
numerical fields	2048
numerical fields per image	400
Memory requirement for first unit	588 byte
Memory requirement for each additional unit	308 byte
Date and time field	400
Memory requirement for first unit	312 byte
Memory requirement for each additional unit	183 byte
Password errors	2048
Memory requirement for first unit	596 byte
Memory requirement for each additional unit	316 byte
Number of slides per image	20
Memory requirement for first unit	496 byte
Memory requirement for each additional unit	469 byte
Number of analog indicators per image	20
Memory requirement for first unit	972 byte
Memory requirement for each additional unit	635 byte
Number of visible switches per project	400
visible switches per image	400
Memory requirement for first unit	496 byte
Memory requirement for each additional unit	469 byte
hidden switches per image	400
Memory requirement for first unit	496 byte
Memory requirement for each additional unit	469 byte
Number of status switches per project	400
Button status switches per image	400
Memory requirement for first unit	496 byte
Memory requirement for each additional unit	469 byte
Number of selector switches per project	400
Selector switches per image	400
Memory requirement for first unit	660 byte
Memory requirement for each additional unit	415 byte
Number of decade switches per project	400
Decade switches per image	400
Memory requirement for first unit	496 byte
Memory requirement for each additional unit	469 byte
Number of signal lamps per project	400
Signal lamps per image	400
Memory requirement for first unit	496 byte
Memory requirement for each additional unit	469 byte
Attributes for dynamic objects	
Color change	Yes
X/Y movement	Yes
Hide	Yes
Angle of turn	No

Lists	
Text lists	500
Number of text lists per image	400
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of entries in text lists	256
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Graphics list	500
Number of graphic lists per image	400
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Number of entries in graphics lists	256
Memory requirement for first unit	10 byte
Memory requirement for each additional unit	10 byte
Libraries	Yes
Archiving	
Number of archives per project	50
Number of measuring points per project	50
Number of entries per archive	50000
Archiving types	Long-term archive, short-term archive, message archive, process value archive
Sequential archive	Yes
Short-term archive	Yes
Message archive	Yes
Process value archive	Yes
Memory location	PC card, CF card, Ethernet
PC card	Yes
CF card	Yes
RAM	No
Ethernet	Yes
Data storage format	CSV file, readable, e.g. with MS Excel, MS Access
CSV	Yes
TXT	No
external evaluation	readable, e.g. with MS Excel, MS Access, etc.
Size of archive	depending on free memory on ext. card/stick or on free hard disk space via network drive
Online evaluation	Using trend curves
Using trend curves	Yes
Filters	
cyclic	Yes
Tolerance	Yes
Change	Yes
Security	
Number of user groups	50
Passwords exportable	Yes
Number of user rights	32
Data carrier support	
PC card	Yes
CF card	Yes
Multi Media Card	No

SD card	No
USB Memory Drive	No
Diskette drive	No
Hard disk	No
CD-ROM	No
Recording	
Recording/Printing	Alarms, report (shift report), color print, hardcopy
Printer driver	ESC/P2, PCL3/PCL6
Fonts	
Keyboard fonts	US American (English)
Languages	
Online languages	5
Languages per project	32
Memory requirement for first unit	23420 byte
Memory requirement for each additional unit	26820 byte
Configuration languages	D, GB, F, I, E, CHN "traditional", CHN "simplified", DK, FIN, GR, J, KP / ROK, NL, N, PL, P, RUS, S, CZ / SK, TR, H
Character sets	Tahoma, Arial, Courier New, symbol languages, 4 additional character sets can be loaded, all freely scalable
Transfer (upload/download)	
Transfer of configuration	MPI/PROFIBUS DP, serial, USB, Ethernet, by means of external storage medium, automatic transfer recognition
Process coupling	
Connection to controller	S5, S7-200, S7- 300/400, TI 505, Win AC, PC (TCP/IP), SINUMERIK, SIMOTION, Allen Bradley (DF1), Allen Bradley (DF485), Mitsubishi (FX), Telemecanique (ADJUST), OMRON (LINK/Multilink), Modicon (Modbus), for further non-Siemens drivers, see section on "System interfaces"
S5	Yes
serial	Yes
PROFIBUS DP	Yes
S7-200	Yes
PPI (point-to-point)	Yes
PPI network	Yes
MPI	Yes
PROFIBUS DP	Yes
S7-300/400	Yes
MPI	Yes
PROFIBUS DP	Yes
PROFINET	Yes
TI 505	Yes
Point-to-point	Yes
Network	Yes
Allen Bradley (DF1)	Yes
Point-to-point	Yes
Network	Yes
Allen Bradley (DF485)	Yes
Point-to-point	Yes
Network	Yes

Mitsubishi (FX)	Yes
Point-to-point	Yes
Network	Yes
Mitsubishi (MP4)	Yes
Point-to-point	Yes
Network	Yes
Telemecanique (ADJUST)	Yes
Point-to-point	Yes
Network	Yes
Telemecanique (Uni-Telway)	Yes
Point-to-point	Yes
Network	Yes
OMRON (LINK/Multilink)	Yes
Point-to-point	Yes
Network	Yes
Modicon (Modbus)	Yes
Point-to-point	Yes
Network	Yes
GE-Fanuc (SNP)	Yes
Point-to-point	Yes
Network	Yes
Functions	
Key repeat	No
TAB sequence	Yes
Calculating functions	Yes
Animate	Yes
Menu tree editor	No
Unit switchover	No
Service tools/configuration aids	
Clean screen	Yes
Touch calibration	Yes
Backup/restore	Yes
Simulation	Yes
Device switchover	Yes
Delta transfer	Yes
Monitoring function for battery and memory	Yes
Trace (operation archive)	No
Expandability/openness	
Open Platform Program	Yes
Mechanics	
Type of housing (front)	Aluminum
Mounting technology	Clamp terminals
Dimensions	
Front of enclosure (W x H)	335 mm x 275 mm
Mounting cutout/device depth (W x H / D)	310 mm x 248 mm / 59 mm device depth
Dimensions and weight	
Weight	
Weight	4.5 kg
Status	Nov 15, 2010