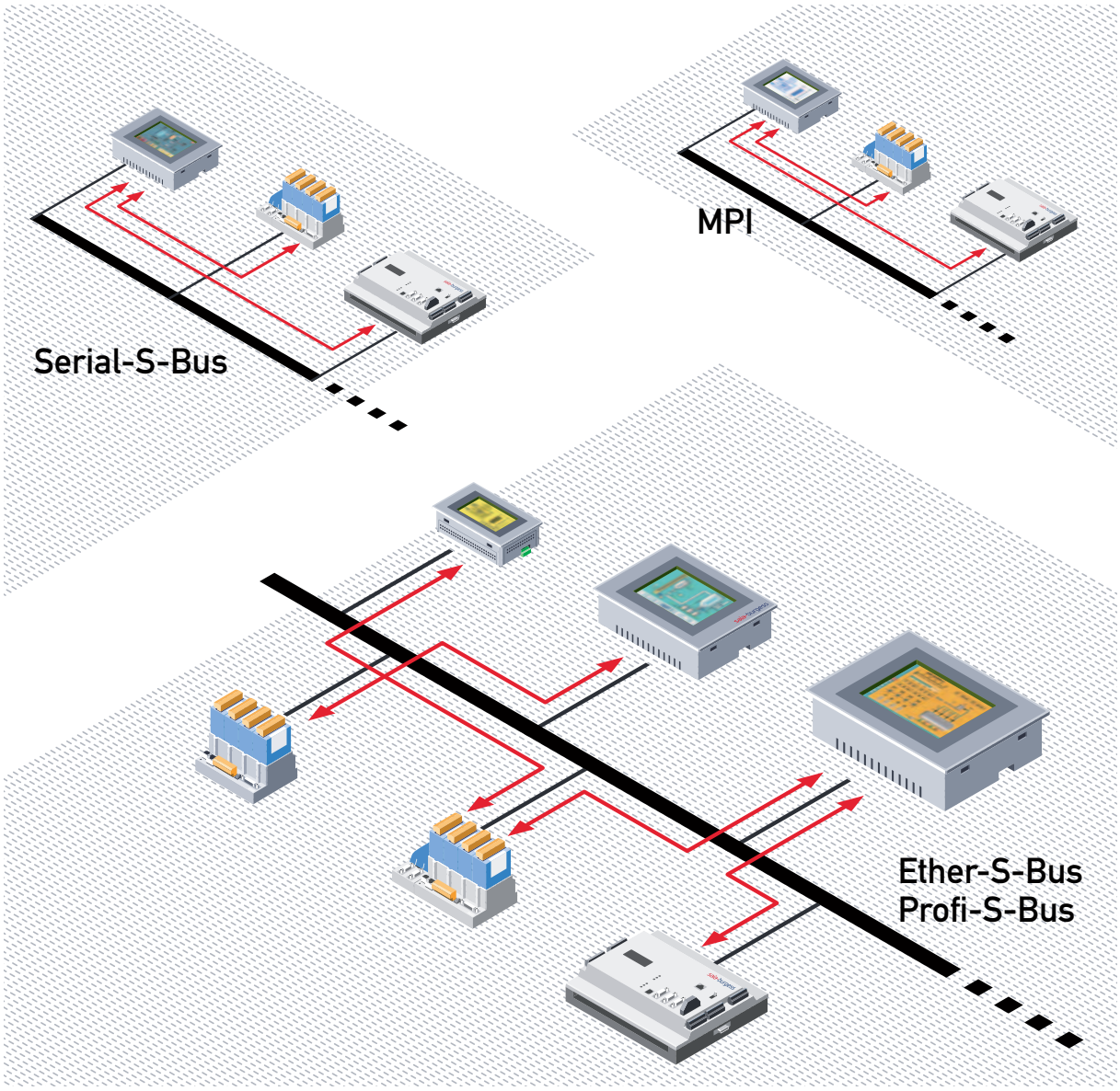
Technical information



saia-burgess
Control Systems and Components

New advantageous touch screen Saia®PCD7.D7xx «proprietary panels»

Controls Division

These touch screens are a part of a large family of «proprietary panels» which have their own software for the configuration and the programming of HMI functions.

The economic but effective PCD7.D761 is the first in the range of Saia®touch screen terminals. This 4" LCD graphic screen with 4 levels of gray can be used either horizontally or vertically.

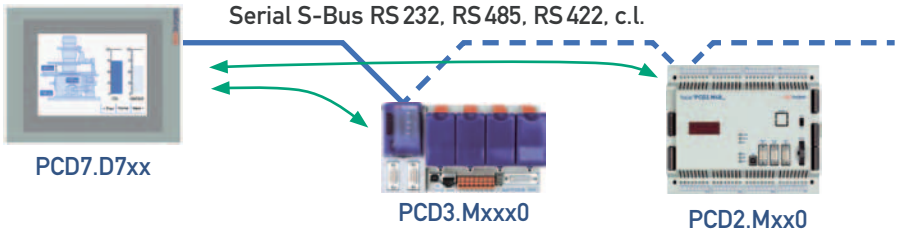
The top-of-the-range 12.1" TFT with a resolution of 800 x 600 pixels completes the range of tactile terminals with various screen dimensions: 5.7" ¼ VGA with 4 levels of blue, 5.7" ¼ VGA colour, 7.5" and 10.4" colour.

- All the models have a Multi-serial port (RS 232, 422, 485, current loop, MPI) which allows the Saia®S-Bus, Saia®Profi-S-Bus and MPI protocols to be used
- There are PCD7.D7xxET models available with the Ethernet 10/100 integrated port, in order to connect the panels to the range of PCDs with an Ethernet port as communication standard. S-Bus is the protocol used for communication over Ethernet
- Depending on the model, an ASP-8 port or a centronics LPT port can be also connected to a serial or parallel printer, for printing data and alarm reports during normal plant operation
- The applications are programmed with PCD8.D81W software, working with Windows 95/98, ME, NT, 2000 and XP, available in 5 languages and maintaining compatibility with projects developed on all the PCD7.D7xx panels range

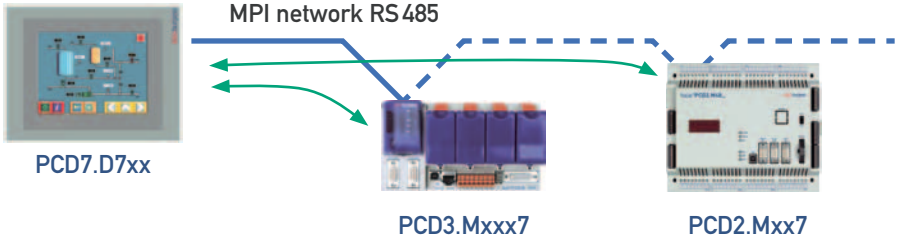
PCD7.DxxxXX Panels in Saia® Networks

The standard PCD7.D7xx panel series and PCD7.D7xxET Ethernet panel series can be connected to 4 different types of network:

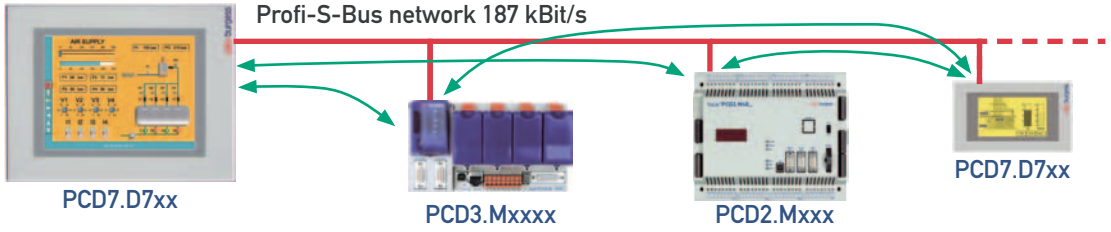
The standard PCD7.Dxxx panel series connected to Serial S-Bus network



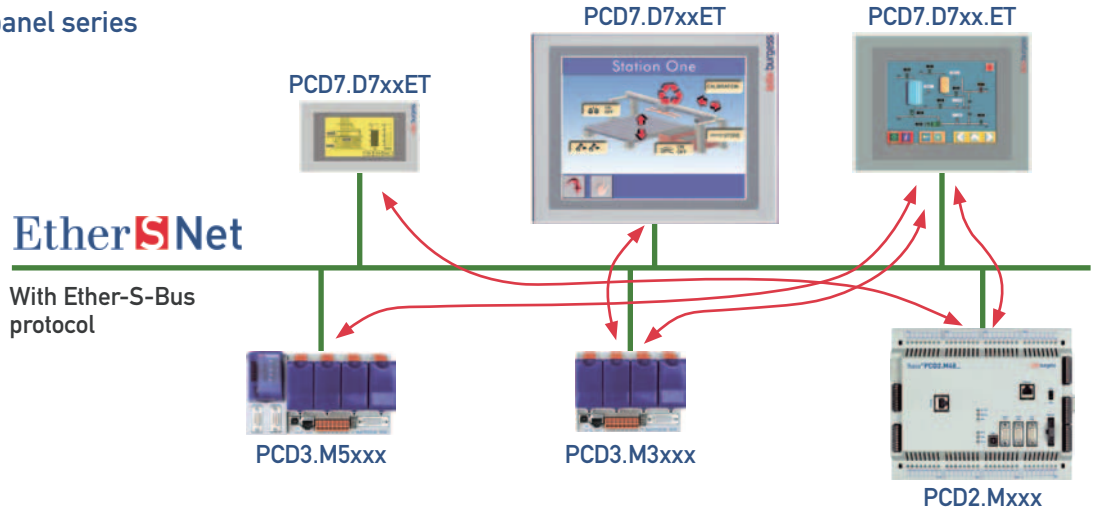
The standard PCD7.Dxxx panel series connected to MPI network



The standard PCD7.Dxxx panel series connected to Profi-S-Bus



The availability of the Saia®S-Bus Protocol over Ethernet TCP-IP with the new PCD7.DxxxET panel series



It is possible to transfer the project, the firmware, the recipes, etc. using the Ethernet 10/100 port, thus simplifying and speeding up the connection.

The advantages of this kind of transfer are:

- fast transfer (up to 100 Mbit/s)
- it is not necessary to disconnect the panels from the net
- automatic download mode (the user doesn't need to do anything: the panel downloads automatically)
- the transfer works also via network hubs

In this way it will be possible to program all the D7xxET panels connected to Ethernet, from the office, without any intervention by the operator.

Programming software PCD8.D81WLT

Programming Software

The PCD8.D81WLT programming software includes cables, adapters and manuals in 5 languages in .pdf format. The software can be installed in 5 different languages, with on-line help.

Languages

- The projects can use up to 8 languages simultaneously

Text import & export

- Texts (page and alarm texts, messages…) can be exported to any external word processor, then imported again. The translator doesn't need to have the software tool.

Graphics

- Realistic representation of the machine/plant
- Importing high-quality images and photos BPM, JPEG, TIFF, PSD, WMF, PNG, EPS, etc...
- No need to adapt the images: all the work is automatically done by PCD8.D81W

MS®Windows® fonts are supported on graphic panels

- Video pages with higher quality
- The text can be highlighted easier
- Visual compatibility with the Windows® programs

The images can be compressed before downloading to the PCD7.D7xx

- Less memory usage
- More space for the application and other images

Dynamic graphic objects

- Graphic display of analogue values
- SCADA functionalities in an operator panel

Color selection

- The color (or tone of grey or blue) of the displayed objects can be selected by a PCD variable
- Color selection and blinking for a better highlighting of values when they reach predefined ranges

Graphic object positioning

- The position of graphic objects can be set by PLC/field variables, so moving parts of the machine can be simulated by means of only one dynamic image
- Saving of programming time and memory in the panel

Trends

- Real-time and buffered

Symbols library

- Predefined symbols allow saving of time and easier programming

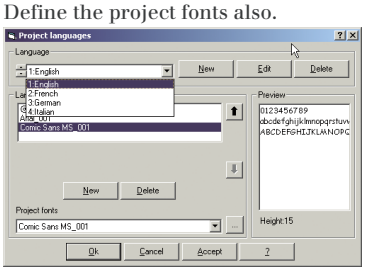
Importing variables (global symbols) from the PCD programming tool «PG5» (in preparation)

- The variables can be imported from PG5 and the symbols can be used directly by the programming software of the panels. All media types can be associated to these symbols.

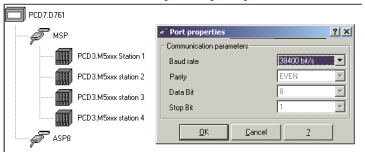
Change the language of the software tool during a project

Project Languages

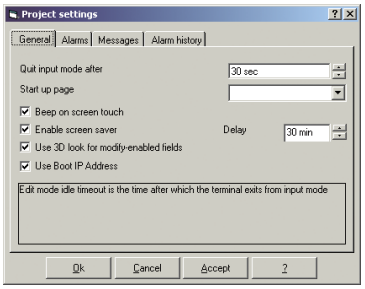
Define the language for displaying the project on the PCD7 panel.
In this case, the languages chosen are English, German and Italian.
Define the project fonts also.



Selection of the port properties



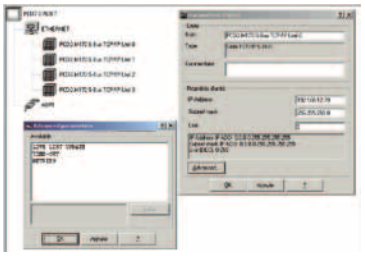
Project settings



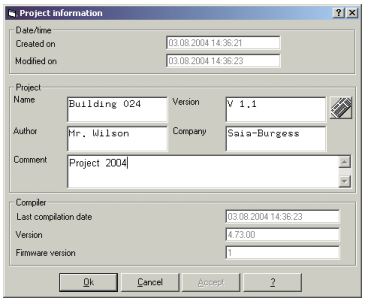
Selection of the parameters

Parameters of S-Bus-, Ether-S-Bus- and Profi-S-Bus communication are editable.

1 live list update (s)
The interval of time between 2 tests of reconnection
2 time-out (msec)
Time between 2 attempts at connection
3 number of retries
The number of dialing attempts



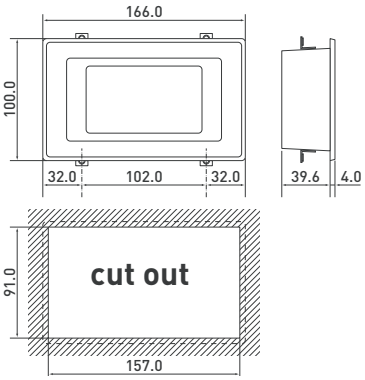
Project information settings (date of creation, designation, compilation...)



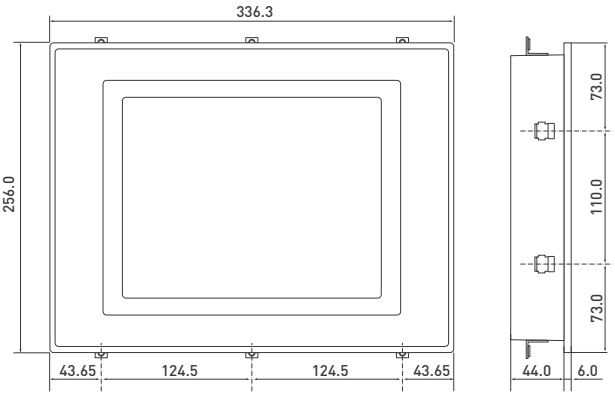
Selection of the panels
PCD7.D761 and PCD7.D761ET

Dimension drawings

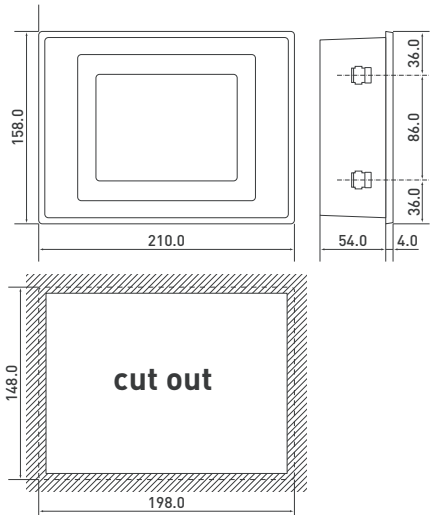
PCD7.D761/PCD761ET



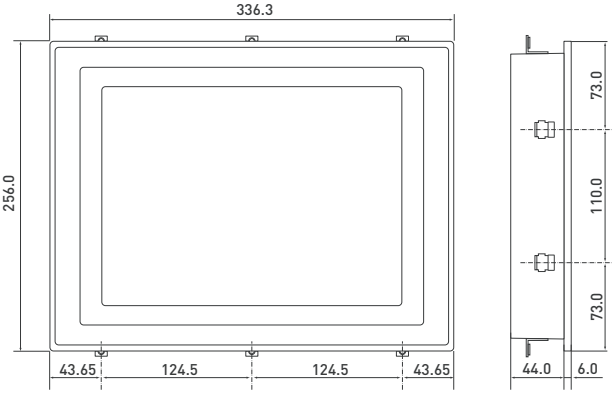
PCD7.D786/PCD786ET



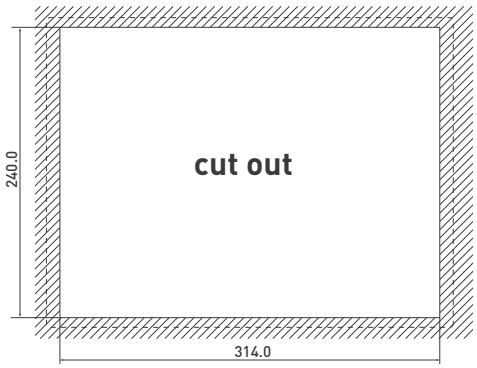
PCD7.D763/D763ET and PCD7.D771/D771ET



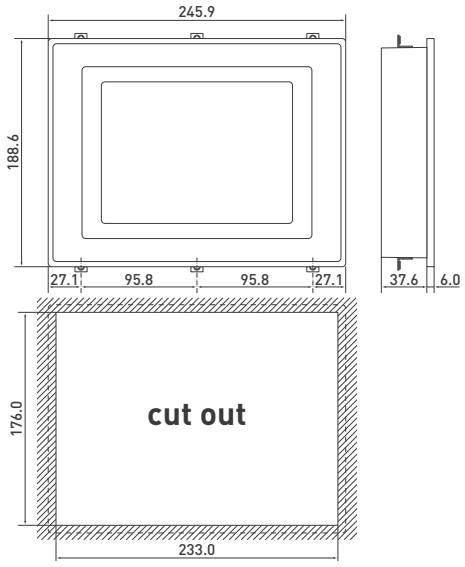
PCD7.D787/PCD787ET



PCD7.D786/.D786ET/.D787/.D787ET

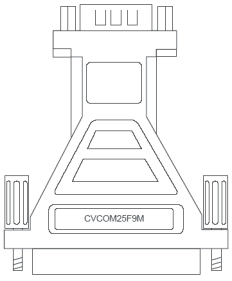


PCD7.D776/D776ET



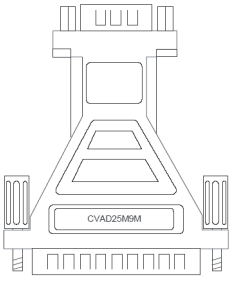
CVCOM25F8M

CVCOM25F9M



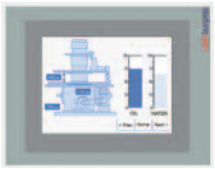
PC side
25 to 9 pins

CVCOM25M9M



MODEM side
25 to 9 pins

Technical data



Technical data

Type	PCD7.D761	PCD7.D761ET	PCD7.D771	PCD7.D771ET
Display				
Touch screen matrix	20 × 8 (cell dimensions: 12 × 16 pixels)		20 x 8 (cell dimensions: 16 x 15 pixels)	
Resolution [pixels]	240 × 128		320 × 240 (¼ VGA)	
Columns by rows (text)	40 × 16 / 20 × 8 / 10 × 4		40 × 16 / 20 × 8 / 10 × 4	
Display area size [mm]	94.5 × 54.5		115.2 × 86.4	
Character dimensions [mm]	2.3 × 5.2 (×1)		2.8 × 5.2 (x1)	
Text character matrix [pixels]	6 × 8 / 12 × 16 / 24 × 32		8 × 15 / 16 × 30 / 32 × 60	
Contrast adjustment	Software		Software	
Character sets	Programmable fonts / TTF Windows®		Programmable fonts / TTF Windows®	
Backlighting	LED		CCFL	
Min. lamp life at 25°C [hours]	—		45'000	
User memory				
Project (text + graphic) [bytes]	640 k		640 k	
Recipes / Alarmbuffer [bytes]	16 k / 8 k Flash		16 k / — Flash	
Memory card for backup	no		no	
Interface				
Ethernet	—	Ethernet (RJ45 8 pins)	—	Ethernet (RJ45 8 pins)
MSP (Multi-serial port)	RS 232 / RS 422 / RS 485 / TTY-20mA	—	RS 232 / RS 422 / RS 485 / TTY-20mA	—
ASP (Auxiliary serial port)	RS 232 (8 pins)		RS 232 (8 pins)	
Networks				
Saia® S-Bus	as master	—	as master	—
MPI	multi master	—	multi master	—
Ether-S-Bus	—	as master	—	as master
Profi-S-Bus	as master	—	as master	—
Objects / functions				
Alarm history buffer	220		—	
Max. bargraphs per page	32		34	
Dynamic texts / list of images	depending on dimensions of project memory		depending on dimensions of project memory	
ISA alarms / info-messages	256 / 256		— / 256	
Help messages (pages / info / alarms)	64 / 256 / 256		128 / 256 / —	
Format of variables	DEC, HEX, BIN, BCD, ASCII, Floating point		DEC, HEX, BIN, BCD, ASCII, Floating point	
Project languages	4		4	
Pages / variables per page	64 / 32		128 / 34	
Password levels / bits per password	10 / 8		10 / 8	
Macro (number / commands per macro)	1024 / 16		1024 / 16	
Recipes (no. / variables per recipe)	128 / 256		128 / 256	
Print pages (total, no. of fields per page)	64 / 128		—	
Automatic operations / timers / equations	32 / 32 / 32		32 / 32 / 32	
Buttons per page	No. corresponding to touch-screen cells no.		No. corresponding to touch-screen cells no.	
Hardware clock	Supercap 72 h		no	
Dimensions				
External (W × H × D) [mm]	166 × 100 × 39.6		210 × 158 × 54	
Cut out (W × H) [mm]	157 × 91		198 × 148	
Technical data				
Power supply	18 ... 32 Vdc / 10 W		18 ... 32 Vdc / 10 W	
Protection level (front)	IP 65		IP 65	
Operating / storage temperature [°C]	0 ... +50 / -20 ... +60		0 ... +50 / -20 ... +60	
Humidity (non-condensing)	< 85 %		< 85 %	
Certifications and approvals	CE, cULus		CE, cULus	

Technical data

Type	PCD7.D763	PCD7.D763ET	PCD7.D776	PCD7.D776ET
Display				
Touch screen matrix	20 x 16 (cell dimensions: 16 x 15 pixels)		40 x 30 (cell dimensions: 16 x 16 pixels)	
Resolution [pixels]	320 x 240 (¼ VGA)		640 x 480 (VGA)	
Rows per character	40 x 16 / 20 x 8 / 10 x 4		30 x 80 / 15 x 40 / 7 x 20	
Display area size [mm]	115.2 x 86.4		158 x 118	
Character dimensions [mm]	2.9 x 5.4 (x1)		1.89 x 3.79 (x1)	
Text character matrix [pixels]	8 x 15 / 16 x 30 / 32 x 60		8 x 16 / 16 x 32 / 32 x 64	
Contrast adjustment	Software		Software	
Character sets	Programmable fonts / TTF Windows®		Programmable fonts / TTF Windows®	
Backlighting	CCFL		CCFL	
Min. lamp life at 25°C [hours]	25'000		15'000	
User memory				
Project (text+graphic) [bytes]	960 K		960 K + 6 M	
Recipes / alarm buffer [bytes]	32 K / 8 K Flash		128 K / 8 K Flash	
Memory card for backup [bytes]	—		8 M	
Interfaces				
Ethernet	—	Ethernet (RJ45 8 pins)	—	Ethernet (RJ45 8 pins)
MSP (Multi-serial port)	RS 232 / RS 422 / RS 485 / TTY-20mA	—	RS 232 / RS 422 / RS 485 / TTY-20mA	
ASP (Auxiliary serial port)	RS 232 (8 pins)		RS 232 / RS 485 (15 pins)	—
LPT (parallel port port)			Centronics	
Networks				
Saia®S-Bus	as master	—	as master	
MPI	multi master	—	multi master	
Ether-S-Bus	—	as master	—	as master
Profi-S-Bus	as master	—	as master	—
Objects / Functions				
Alarm history buffer	220		256 in Flash memory	
Max. bargraphs per page	48		256	
Dynamic texts / list of images	depending on dimensions of project memory		depending on dimensions of project memory	
ISA alarms / info messages	256 / 256		1024 / 1024	
Help messages (pages / info / alarms)	150 / 256 / 256		1024 / 1024 / 1024	
Format of variables	DEC, HEX, BIN, BCD, ASCII, Floating point		DEC, HEX, BIN, BCD, ASCII, Floating point	
Project languages	6		8	
Pages / variables per page	150 / 48		1024 / 256	
Password levels / bits per password	10 / 8		10 / 8	
Pipeline	—		64 / 512	
Macro (number / commands per macro)	1024 / 16		1024 / 16	
Print pages (total / number of fields per page)	64 / 128		1024 / 128	
Recipes (nbre / variables per recipe)	128 / 256		1024 / 512	
Automatic operations / timers / equations	32 / 32 / 32		32 / 32 / 32	
Trends (memory / number of samples)	—		6144 / 480	
Buttons per page	No. corresponding to touch-screen cells no.		No. corresponding to touch-screen cells no.	
Indicators, potentiometers, selectors	—		128	
Hardware clock	Supercap 72 h		Supercap 72 h	
Dimensions				
External (W x H x D) [mm]	210 x 158 x 54		245 x 188.6 x 37.6	
Cut out (W x H) [mm]	198 x 148		233 x 176	
Technical data				
Power supply	18 ... 32 Vdc / 10 W		18 ... 32 Vdc / 10 W	
Protection level (front)	IP 65		IP 65	
Operating / storage temperature [°C]	0 ... +50 / -20 ... +60		0 ... +50 / -20 ... +60	
Humidity (non-condensing)	< 85 %		< 85 %	
Certificat / approval	CE / cULus		CE / cULus	

Technical data

Type	PCD7.D786	PCD7.D786ET	PCD7.D787	PCD7.D787ET
Display				
Touch screen matrix	40 x 30 (cell dimensions: 16 × 16 pixels)		50 x 40 (cell dimensions: 16 × 15 pixels)	
Resolution [pixels]	640 x 480 (VGA)		800 x 600 (SVGA)	
Rows per character	30 × 80 / 15 × 40 / 7 × 20		40 × 100 / 20 × 50 / 10 × 25	
Display area size [mm]	211.2 × 158		246 × 185	
Character dimensions [mm]	2.7 × 5.4 (×1)		2.5 × 4.6 (x1)	
Text character matrix [pixels]	8 ×16 / 16 × 32 / 32 × 64		8 ×15 / 16 × 30 / 32 × 60	
Contrast adjustment	Software		Software	
Character sets	Programmable fonts / TTF Windows®		Programmable fonts / TTF Windows®	
Backlighting	CCFL		CCFL	
Min. lamp life at 25°C [hours]	30'000		50'000	
User memory				
Project (text+graphic) [bytes]	960 K + 6 M		960 K + 6 M	
Recipes / alarm buffer [bytes]	32 K / 8 K Flash		128 K / 8 K Flash	
Memory card for backup [bytes]	8 M		8 M	
Interfaces				
Ethernet	—	Ethernet (RJ45 8 pins)	—	Ethernet (RJ45 8 pins)
MSP (Multi-serial port)	RS 232 / RS 422 / RS 485 / TTY-20mA		RS 232 / RS 422 / RS 485 / TTY-20mA	
ASP (Auxiliary serial port)	RS 232 / RS 485 (15 pins)	—	RS 232 / RS 485 (15 pins)	—
LPT (parallel port port)	Centronics		Centronics	
Networks				
Saia® S-Bus	as master		as master	
MPI	multi master		multi master	
Profi-S-Bus	—	as master	—	as master
Ether-S-Bus	multi master		multi master	
Objects / Functions				
Alarm history buffer	256		256	
Max. bargraphs per page	320		400	
Dynamic texts / list of images	depending on dimensions of project memory		depending on dimensions of project memory	
ISA alarms / info messages	1024 / 1024		1024 / 1024	
Help messages (pages / info / alarms)	1024 / 1024 / 1024		1024 / 1024 / 1024	
Format of variables	DEC, HEX, BIN, BCD, ASCII, Floating point		DEC, HEX, BIN, BCD, ASCII, Floating point	
Project languages	8		8	
Pages / variables per page	1024 / 320		1024 / 400	
Password levels / bits per password	10 / 8		10 / 8	
Pipeline	64 / 512		64 / 512	
Macro (number / commands per macro)	1024 / 16		1024 / 16	
Print pages (total, number of fields per page)	1024 / 128		1024 / 128	
Recipes (no. / variables per recipe)	1024 / 512		1024 / 512	
Automatic operations / timers / equations	32 / 32 / 32		32 / 32 / 32	
Trends (memory / number of samples)	8192 / 640		8192 / 640	
Buttons per page	No. corresponding to touch-screen cells no.		No. corresponding to touch-screen cells no.	
Indicators, potentiometers, selectors	256		256	
Hardware clock	Supercap 72 h		Supercap 72 h	
Dimensions				
External (W x H x D) [mm]	336.3 × 256 × 44		336.3 × 256 × 44	
Cut out (W x H) [mm]	314 × 240		314 × 240	
Technical data				
Power supply	18 ... 32 Vdc / 15 W		18 ... 32 Vdc / 15 W	
Protection level (front)	IP 65		IP 65	
Operating / storage temperature [°C]	0 ... +50 / -20 ... +60		0 ... +50 / -20 ... +60	
Humidity (non-condensing)	< 85 %		< 85 %	
Certificat / approval	CE / cULus		CE / cULus	

Ordering information

Type	Description	Weight
	Panels	
PCD7.D761	Touch screen panel 4" with 4 tones of grey STN	0.5 kg
PCD7.D761ET	Touch screen panel 4" with 4 tones of grey STN and integrated Ethernet port	0.5 kg
PCD7.D771	Touch screen panel 5.7" with 4 tones of blue STN	1.4 kg
PCD7.D771ET	Touch screen panel 5.7" with 4 tones of blue STN and integrated Ethernet port	1.4 kg
PCD7.D763	Touch screen panel 5.7" with 16 colors STN	1.4 kg
PCD7.D763ET	Touch screen panel 5.7" with 16 colors STN and integrated Ethernet port	1.4 kg
PCD7.D776	Touch screen panel 7.5" with 256 colors STN	1.5 kg
PCD7.D776ET	Touch screen panel 7.5" with 256 colors STN and integrated Ethernet port	1.5 kg
PCD7.D786	Touch screen panel 10.4" with 256 colors TFT	1.9 kg
PCD7.D786ET	Touch screen panel 10.4" with 256 colors TFT and integrated Ethernet port	1.9 kg
PCD7.D787	Touch screen panel 12.1" with 256 colors TFT	1.9 kg
PCD7.D787ET	Touch screen panel 12.1" with 256 colors TFT and integrated Ethernet port	1.9 kg
	Accessories	
CVCOM11102	Programmation cable PC D-Sub 9 → Panels MSP D-Sub 25 (length 2 m)	
CVCOM25F8M	Adaptor D-Sub 25 → panels 8 pins DIN	
CVCOM25F9M	Adaptor PC D-Sub 25 → PC D-Sub 9	
CVAD25M9M	Cable : PC D-Sub 25 → modem D-Sub 9	
CVPLC04202	Cable : Panels MSP D-Sub 25 → S-Bus PGU / PCD D-Sub 9	
CVPLC01402	Cable : Panels MSP D-Sub 25 → MPI D-Sub 9	
	Software	
PCD8.D81WLT	Programming set in 5 languages contains: Software on CD, programmation cable CVCOM11102, 1 adaptor CVCOM25F8M and registration card	

saia-burgess
Control Systems and Components

Contact

Switzerland and international

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