

Operating and Monitoring Systems



Proicom
Terminals for Industrial Areas

Gicom Ex
Terminals for Hazardous Areas



SAE-STAHL GMBH is a joint subsidiary of R. STAHL AG and SAE Elektronik GmbH.

SAE-STAHL develops, produces and markets operating and monitoring systems for all industrial areas. Designed for the use in hazardous areas of Zones 1 and 2 and in non-hazardous areas.

Both product ranges include a complete series of products for various requirements:

- simple text-displays,
- flexible-use monochrome graphics displays and
- high performance color graphics displays.

STAHL

Safe area; Zone 1 and Zone 2

Terminals in various performance classes for differing requirements

Performance class TEXT



- 2-line or 4-line text displays, monochrome
- Active communications concept
- Text or image call up through PLC, function keys or cursor
- Integrated error bit processing (240 errors)
- Free variable display and editing (max. 15 per text)
- Dynamic menu branching
- Internal function keys and softkey configuration
- Engineering for 3 languages

Performance class GRAPHICS



in addition to TEXT:

- Graphics displays, monochrome
- 100 process pictures per language
- Integrated error bit processing (512*/240 errors)
- Acknowledgement field for error bit processing*
- Histogram memory for up to 1000 entries
- Symbolic variable processing
- 25*/15 variables per process picture
- Integrated scaling of variables
- 3 editable fonts
- Batch recipe management *

* ProVicom only

Performance class VISUALISATION



In addition to TEXT and GRAPHICS:

- Graphics displays, color
- Up to 4 independent communication channels
- User functions for variables
- Several thousand process points
- Integrated limit value processing
- Conditional entry of variables and graphics
- Configurable linking of process graphics, keys and procedures
- Access authorization in several levels
- 4 editable character sets

Selection of available couplings			
Company / manufacturer	System	Connection	Protocol
General	e.g. PC, VAX, DEC etc. other		VT-100 * Modbus RTU master or slave
Interbus Profibus	S2-lead remote bus various	Interbus PD channel Profibus interface	IBS-MMI Com Profibus DP
ABB	Procontic CS31 Procontic T200 Procontic T200 Master	RS-232-C with CTS to CPU RS-232-C with CTS to CPU RS-422 with KP-60	CS31 ** HI protocol HI protocol Modbus RTU
AEG	A120 A250 Modicon Micro AKF Quantum Modicon 984 Modicon Micro Modsoft	RS-232-C to PG RS-232-C to PG RS-232-C to PG RS-232-C to PG RS-232-C to PG RS-232-C to PG	KS functions KS functions KS functions Modbus RTU Modbus RTU Modbus RTU
Allen Bradley	SLC 500 SLC 500	RS-232-C RS-485 through link coupler	DH-485 DH-485
Cegelec	Alspa 8000 Alspa	RS-422 RS-422	SNP (GE Fanuc) Modbus RTU
Foxboro-Eckardt	DCS 80E	AS21	Modbus RTU
GE Fanuc	90-30 90-30 90-70	RS-422 CMM 311E CMM 711 or PCM 711	SNP Modbus RTU Modbus RTU
Hartmann&Braun	Freelance 2000 Freelance 2000	RS-485 to DCP01, DCP02 RS-232, RS-422, RS-485 to DCP10	Modbus RTU Modbus RTU
HIMA	H11 H41 H51	RS-232-C or RS-485 RS-232-C or RS-486 RS-232-C or RS-487	Modbus RTU Modbus RTU Modbus RTU
Honeywell	TDC3000		Modbus RTU
Klöckner-Moeller	PS 306 PS 316 PS 4-201; PS 416 IPC 620	RS-485 RS-485 RS-232-C	SUCOM A SUCOM A SUCOM A Modbus RTU
Siemens	Simatic S5 95U-115U Simatic S5 115U-155U Simatic S5 90U-135U Simatic S5 95U-155U Simatic S5 95U-100U Simatic S5 115U-155U Simatic S7-300 Simatic S7-300 Simatic S7-400 Simatic S7-400	TTY to PG TTY to CP530 TTY to PG TTY to CPU TTY to CP521/SI RS-232-C to CP524/525; CP544 RS-232-C to CP340 MPI RS-232-C to CP441-1 ; -2 MPI	L1-RK L1-RK PG/AS511 3964R/RK512 3964R/RK512 3964R/RK512 3964R/RK512 MPI 3964R/RK512 MPI
Yokogawa	Centum CS	RS-232-C to ACM11	Modbus RTU

Additional couplings available upon request

* only for ET-9752 and ET-6

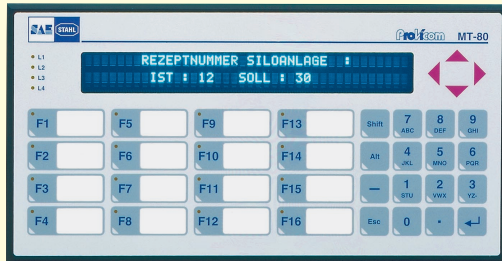
** not for product range Exicom



Terminals for industrial areas



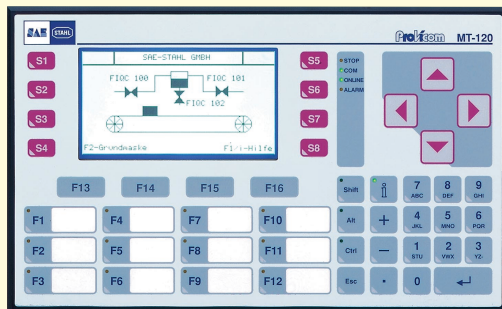
Performance class TEXT



MT-40	Display: Keyboard:	VFD Text; 2 x 20 characters; monochrome 8 function keys; 20 alphanumerical + cursor keys
	Dimensions:	144 x 144 x 65
MT-60	Display: Keyboard:	LCD Text; 4 x 40 characters; monochrome 8 function keys; 4 softkeys; 23 alphanumerical + cursor keys
	Dimensions:	294 x 152 x 70
MT-80	Display: Keyboard:	VFD Text; 2 x 40 characters; monochrome 16 function keys; 20 alphanumerical + cursor keys
	Dimensions:	294 x 152 x 70



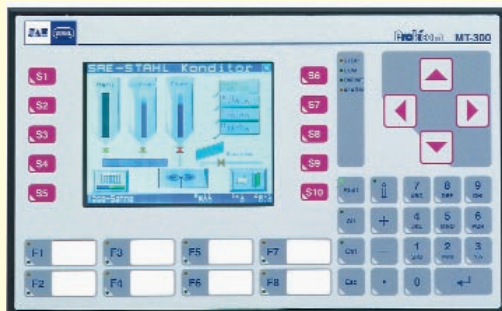
Performance class GRAPHICS



MT-50	Display: Keyboard:	LCD graphics; 128 x 64 pixel; monochrome 8 function keys; 23 alphanumerical + cursor keys
	Dimensions:	144 x 144 x 65
MT-120	Display: Keyboard:	LCD graphics; 240 x 128 pixel; monochrome 12 function keys; 8 softkeys; 23 alphanumerical + cursor keys
	Dimensions:	312 x 192 x 75



Performance class VISUALISATION



MT-300	Display:	LCD graphics; 320 x 240 pixel; monochrome or color;
	Keyboard:	Option: Touchscreen 8 function keys; 10 softkeys; 23 alphanumerical + cursor keys
	Dimensions:	312 x 192 x 80

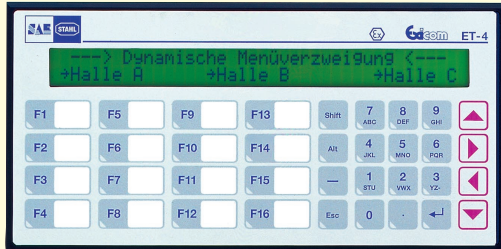
Additional information is available in the brochure "SAE-STAHl Operating and Monitoring Systems"

Safe area

Terminals for hazardous areas



Performance class TEXT

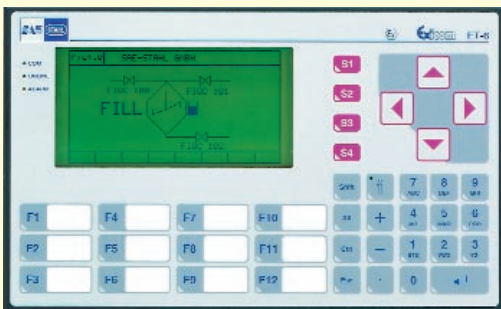


ET-4

Display: LCD Text; 2 x 40 characters; monochrome
 Keyboard: 16 function keys; 20 alphanumerical + cursor keys
 Dimensions: 288 x 144 x 90
 Explosion protection: EEx ib IIC T4



Performance class GRAPHICS



ET-9752

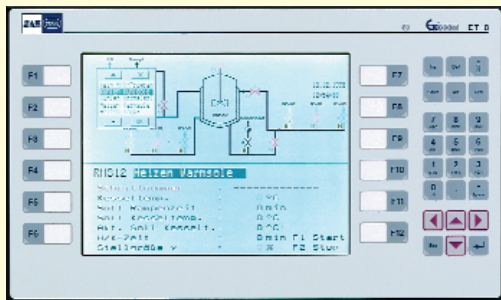
Display: LCD graphics; 240 x 128; monochrome
 Keyboard: 8 function keys; 16 numerical- + cursor keys
 Dimensions: 288 x 144 x 75
 Explosion protection: EEx ib IIC T4

ET-6

Display: LCD graphics; 240 x 128 pixel; monochrome
 Keyboard: 12 function keys; 4 softkeys; 20 alphanumerical + cursor keys
 Dimensions: 312 x 192 x 75
 Explosion protection: EEx ib IIC T4



Performance class VISUALISATION



ET-8

Display: LCD graphics; VGA 640 x 480; 16 colors
 Keyboard: 12 function keys; 24 alphanumerical + cursor keys
 Dimensions: 400 x 240 x 130
 Explosion protection: EEx me [ib] IIC T4

Additional information is available in the brochure "SAE-STAHL Operating and Monitoring Systems"

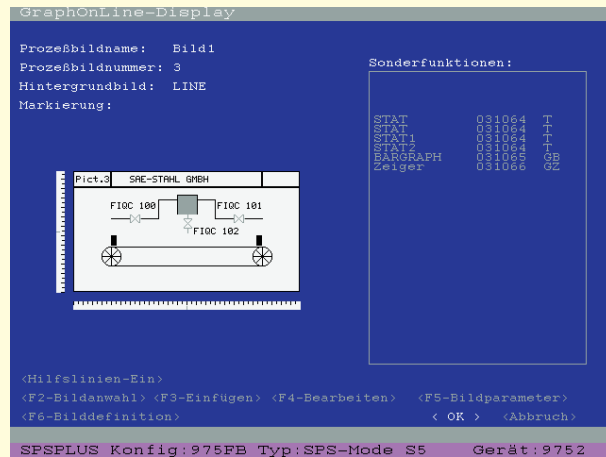
STAHL

Zone 1 and Zone 2

Engineering software SPSPPlus

SPSPPlus G

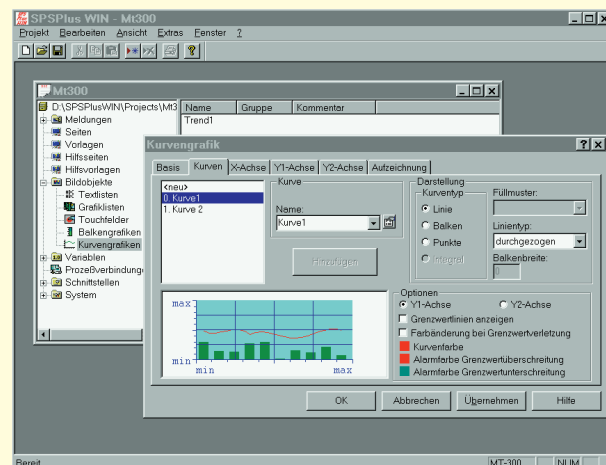
The software package SPSPPlus G is used for the application engineering of the terminals ProVicom and Exicom. Texts, process pictures and input/output variables, for example, are formulated in a simple way through the software. The context-sensitive help system supports the user in engineering and formulating of applications. With SPSPPlus G all terminals of the text and graphic performance classes can be engineered (for the performance class visualization SPSPPlus WIN is needed).



- Runs under MS DOS beginning with Version 3.1
- SAA interface with mouse operation and pulldown menus
- Detailed context-sensitive help files
- WYSIWYG (=What You See Is What You Get) display
- Integrated download function for protocol drivers
- Minimal hardware requirements (PC 80286 or better)

SPSPPlus WIN

SPSPPlus WIN is a program package based on MS Windows 95 for the terminals of the ProVicom and Exicom range. From simple texts, to animated graphics, to freely definable touch fields, the various objects are available in order to create a comfortable and user-friendly operation and process visualisation. With SPSPPlus WIN all terminals of the text, graphic and visualisation performance classes can be engineered.



- Runs under MS Windows 95 (NT in preparation)
- Standard user elements of Windows 95
- Multi-user-capable
- Multi-project processing
- Simple, intuitive easy-to-operate explorer interface
- Multilingual with online changeover
- High performance image editor

Accessories for ProViCom / Exicom

Connection cable for various PLCs (length 5 m)	VB-xx
Connection cable for PC (9-pin; length 5 m)	VB-30
Communication processor with 1 serial interface for S5 at 115U	SAS-525-1
Communication processor with 2 serial interfaces for S5 at 115U	SAS-525-2
Communication processor with 3 serial interfaces for S5 at 115U	SAS-525-3
DC/DC isolator module for S5 90U (PG)	PLC-TM-1
S5-PG interface doubler	PG-MUX-2*
Handling blocks for the field bus coupling	HB-... for IBS or L2DP
Handling blocks for Siemens Simatic S5	HB-... for S5
Handling blocks for Siemens Simatic S7	HB-... for S7
Handling blocks for SAS-units	HB-... for SAS

* also available for other PLCs

Accessories for ProViCom

Desktop/wall housings in various sizes for 24 VDC power supply	24 VDC desktop/wall housings
Desktop/wall housings in various sizes for 230 VAC power supply	230 VAC desktop/wall housings
Built-in paper printer	GDM+interference filter
Barcode wand	Barcode wand
Barcode scanner	Barcode scanner
Barcode card reader	Barcode card reader
Magnetic card reader	Magnetic card reader
Customer-specific front plate with a minimum purchase of 25 pieces	MT customer front plate

Accessories for Exicom

Field cable, blue (3 x 2 x 0,75 ²), shielded	Field cable
Eurocards:	
Supply and signal isolator card for ET-4A	ET-SV/2
Surface-mounting casing for ET-SV/2	ET-SV/2 housing
Supply and signal isolator card for ET-9752 / ET-6 / scanner	ET-SV/3
Surface-mounting casing for ET-SV/3	ET-SV/3 housing
Supply card for barcode scanner (only with ET-4A)	ET-BSG-3
Interface card for L1 multi-terminal operation	SK-BT-TTY
TTY interface converter ⇒ RS422	SK-BT-RS422
Profibus DP and Interbus S field bus bridge	SK-FB
19" racks in various sizes	9861
Surface-mounting casing (top hat rail mounting):	
I.S. power supply for ET-9752 and ET-6	9381
Ex d housing for 9381 for mounting in Zone 1	8510/122
I.S. signal isolator for ET-9752 and ET-6	9373/21
Optional V.24 interface for ET-8	ET-8 RS-232-C
Optional RS422/485 interface for ET-8	ET-8 RS-422/485
Optional I.S. V.24 interface for ET-8 (intrinsically safe)	ET-8 RS-232-C ex
I.S. barcode wand (stainless steel)	I.S. barcode wand
I.S. barcode scanner	I.S. barcode scanner
Extension keyboard with 28 keys for ET-9752	ET-9753
Field housing made of plastic for terminals in various sizes	8146
Field housing made out of stainless steel for terminals in various sizes	8125
Ex e heater and thermostat for temperature range < 0 °C	8442/1 + 8435

