Programmable Systems

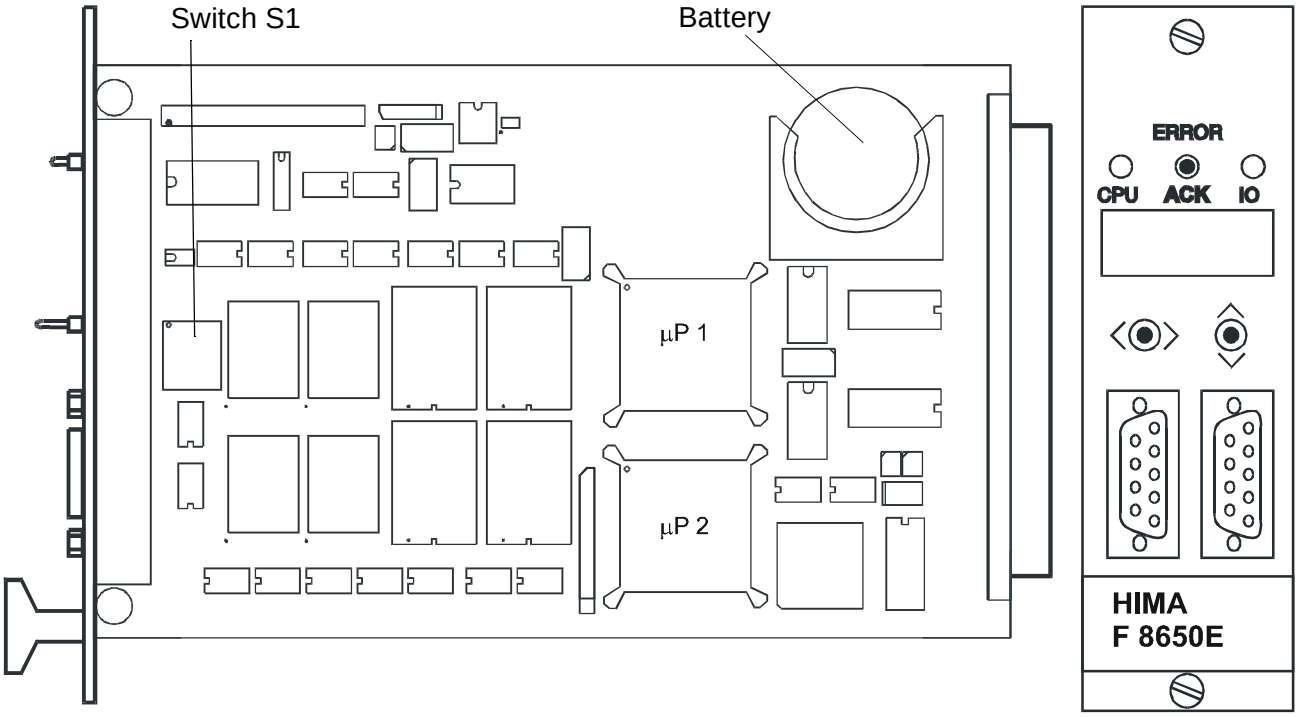
The H41q and H51q System Families

Data Sheet / Operating Instructions
for Module
F 8650E

HIMA

F 8650E

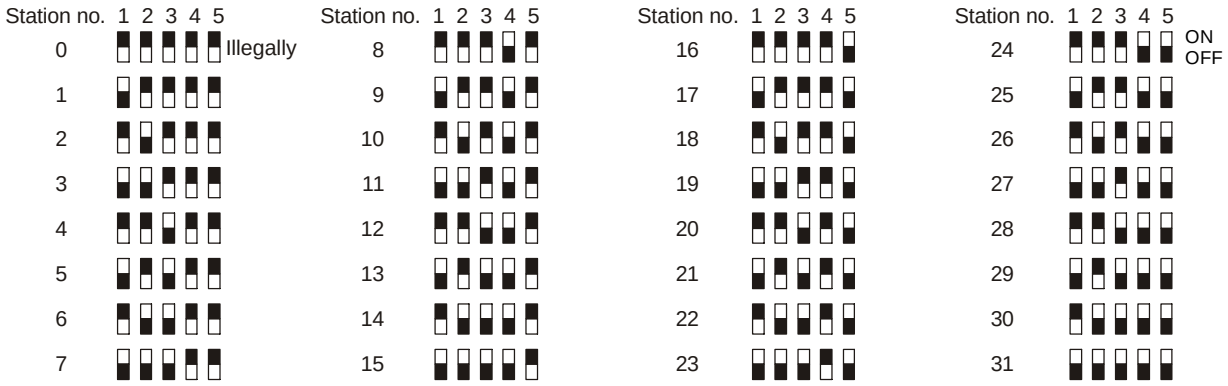
F 8650E Central Module
Use in the PES H51q-MS, HS, HRS,
For safety-related requirement classes SIL 1 - 3 and AK 1 - 6



Two clock-synchronised micro processors	Type:	INTEL 386EX, 32 bits
	Clock frequency:	25 MHz
Memory per microprocessor	Operating System:	Flash-EPROM 1 MB
	User program:	Flash-EPROM 1 MB*)
	Data:	SRAM 1 MB*)
	*)Efficiency dependent on operating system version.	
Interfaces	Two serial interfaces RS-485 with galvanic insulation.	
Diagnostic display	Four digit matrix display.	
Shutdown on fault	Safety-related watchdog with 24-VDC-output, max. 500 mA current drain, short circuit proof.	
Construction	Two European standard PCBs, one PCB for the the diagnostic display.	
Space requirement	8 TE	
Operating Voltage	5 V, 2 A	

Note:	When upgrading from an F 8650 to an F 8650E module, the cooling fan concept must be modified!

Setting of the bus station no. via switches S1-1/2/3/4/5:



Setting of the transmission rate with switch S1-8:

S1-8 ON = 9600 bps

S1-8 OFF = 57600 bps

Pin allocation of the interfaces Rs-485

Pin	RS-485	Signal	Meaning
1	-	-	not used
2	-	RP	5V, decoupled by diodes
3	A/A'	RxD/TxD-A	Receive/Transmit Data A
4	-	CNTR-A	Control signal A
5	C/C'	DGND	Data Ground
6	-	VP	5V, positive pole of power supply
7	-	-	not used
8	B/B'	RxD/TxD-B	Receive/Transmit Data B
9	-	CNTR-B	Control signal B

Diagnostic display of the central module:

–Four digit alphanumerical display.
–Two LEDs for the general display of errors (CPU for the central modules, IO for the testable IO-modules).
–Two toggle switches marked with <> and ⇕ to request detailed error information.
–Push-button ACK resets the error indication. In failure stop ACK behaves like switching on the system.

For further information on the diagnostic display, refer to the documentation "functions of the operational system BS 41q/51q".

Information on project planning:

–Up to 2048 Events can be defined.
–Up to 500 Events the Buffer can store.

Hints for start-up and maintenance:

–Lifetime of the backup battery with mains power off:
100 days at T_A = 60°C.

–It is recommended to change the backup battery every two years (lithium battery, e. g. type CR 2477N, HIMA part no. 44 0000018).

-Check the bus station no. and transmission rate at switch S1 for correct settings.

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