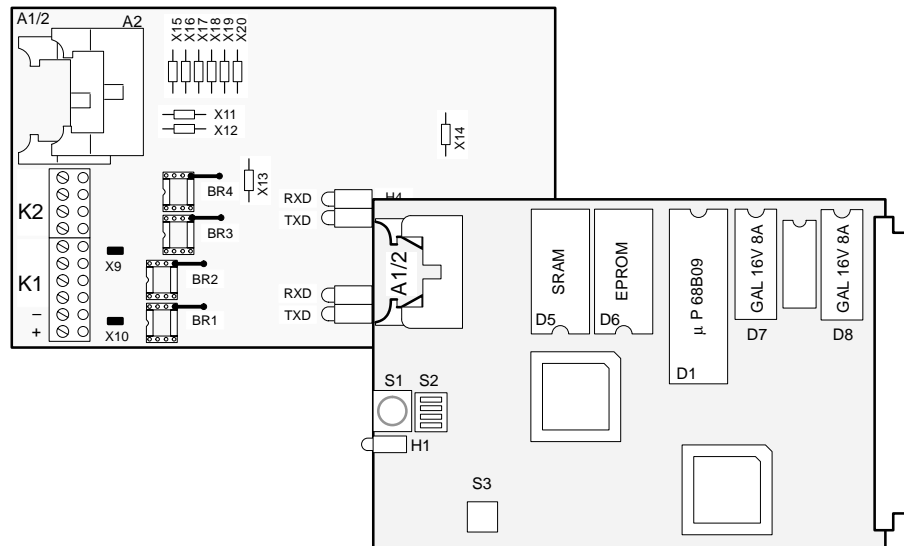


MM7000 MF7000

MUX/DMX System

Hardware- / Firmware-Installation Modules



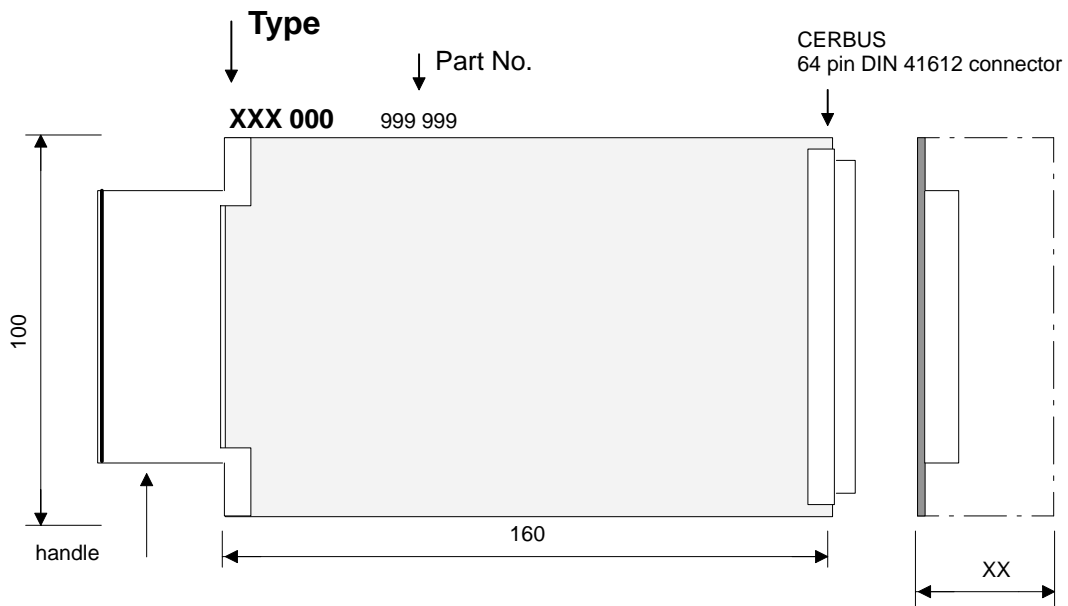
Document no. **e1061a**
Edition 03.95
Supersedes e1061
Manual **MM/MF700**
Section 4

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1. Module

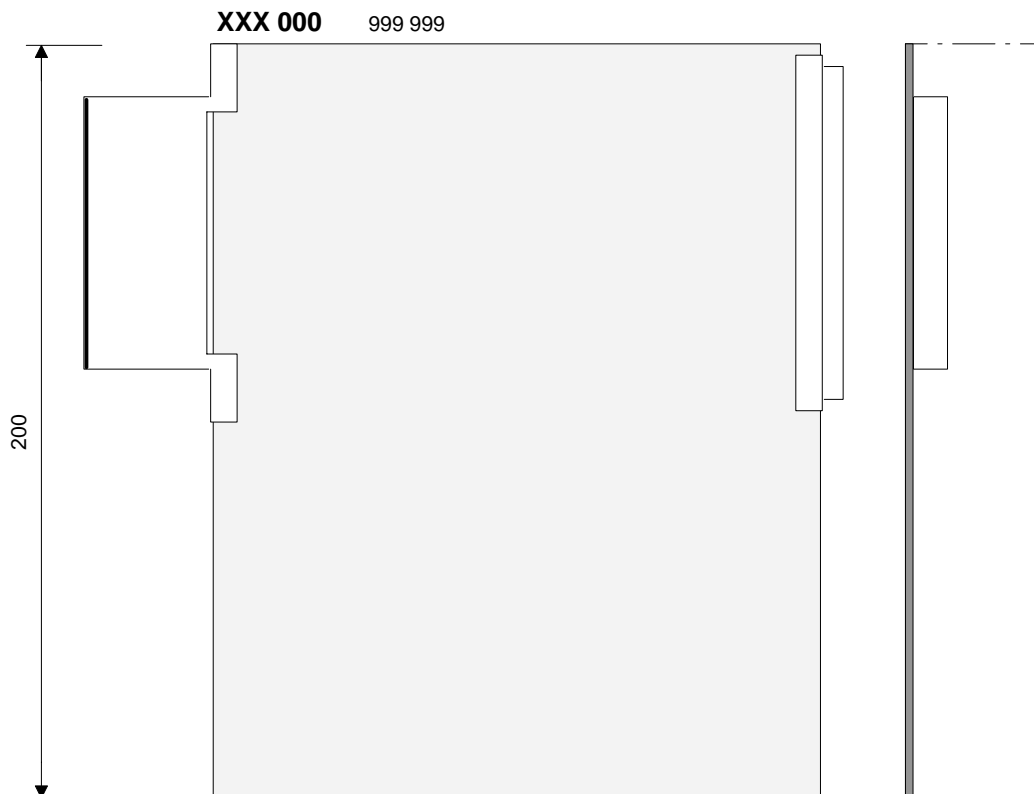
- Each module is documented once only (even if used in several applications). Application specific features and adjustments are indicated on the corresponding pages.

European format

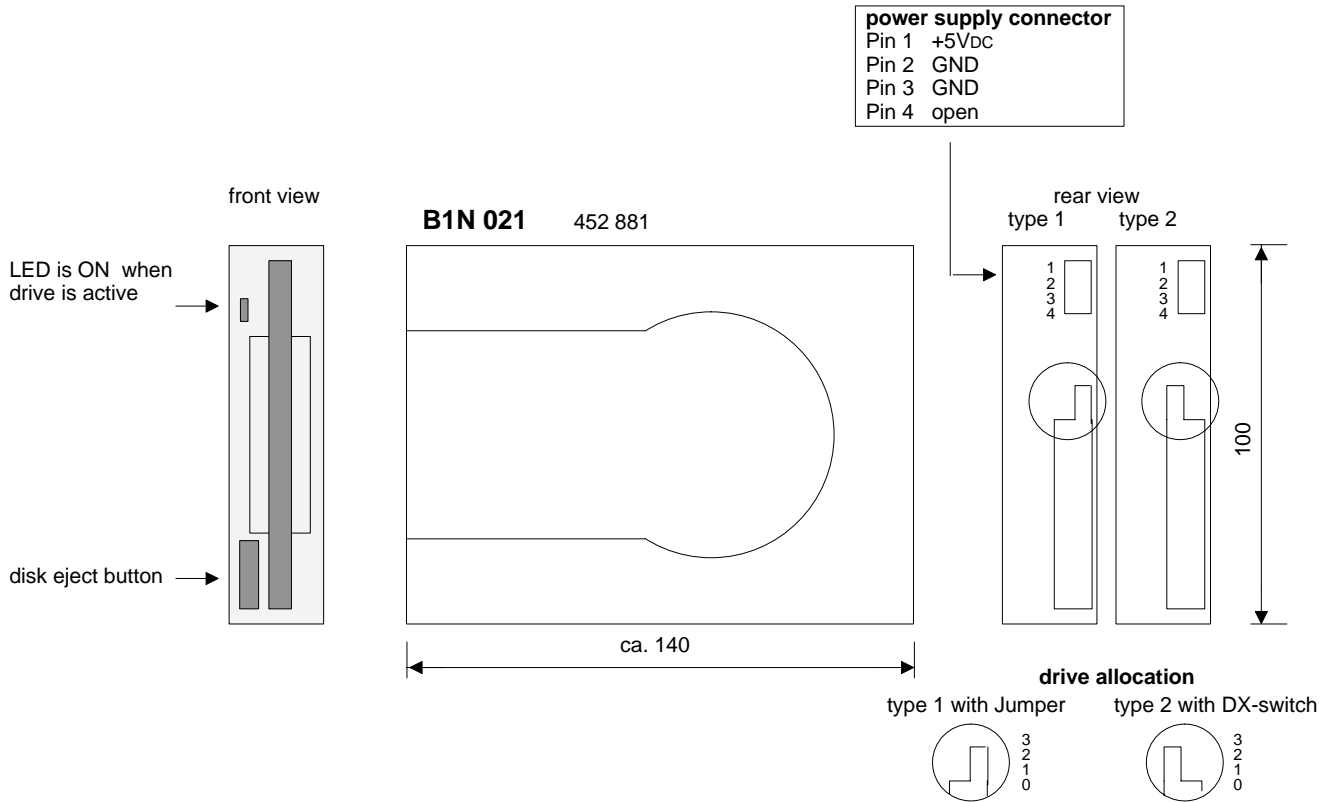


XX overall height depends on module type

Double European format



1.1. B1N 021 Microdisk Drive 3,5"

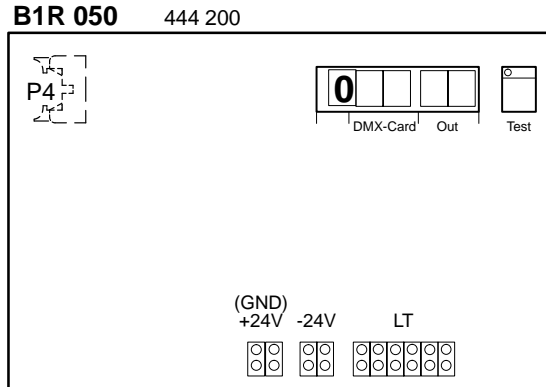


Drive Allocation	Drive No.
equipment program, System Data	0
MF-data file (.Q00)	0 or 1 1)

1) selectable in System Data (SYSEEDIT)

	System	Drawn	
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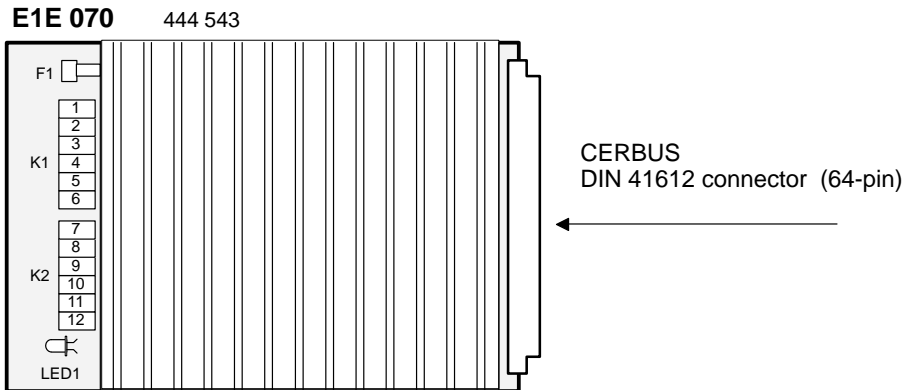
1.2. B1R 050 Display Test Panel





Pos.	Function	Note
HEADER P4	control signals : lamp test	
Terminals +24V	GND	
-24V	-24VDC	
LT	LED with lamp test	GND via 2k2 Ohm / 0,5 Watt per LED

	System	Drawn	
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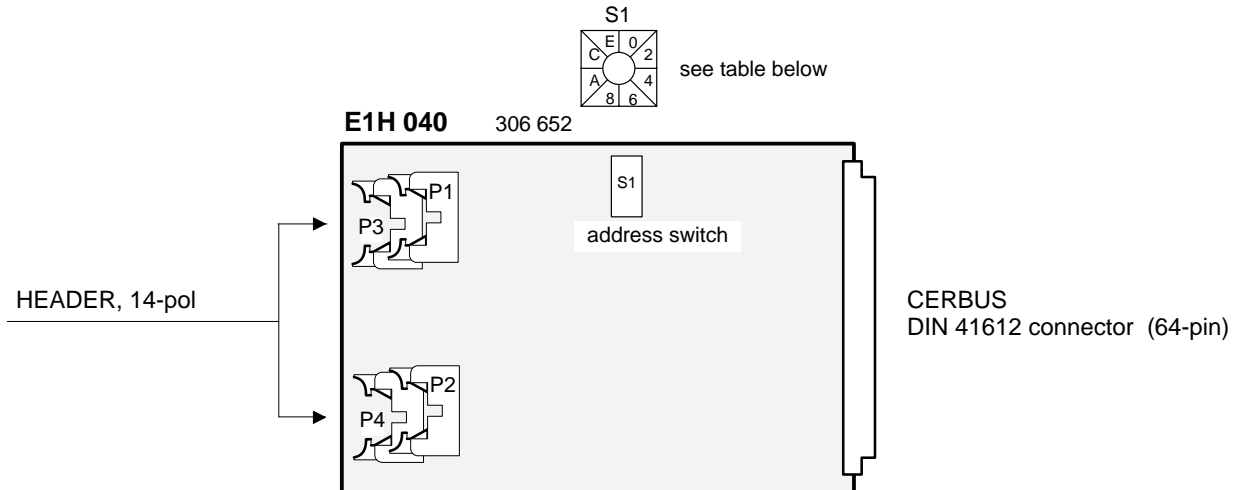
1.3. E1E 070 DC/DC-Converter 24V/5V ;10A for CERBUS



Pos.	Function		
terminal K1	1	-24VDC	
	2	GND	
	3	5V ON/OFF	disable 5VDC output (active = -24VDC)
	4	 contact closed normal operation (5VDC available) contact open converter fault condition	
	5		
	6	 cabinet ground	
terminal K2	7, 8, 9	0V	
	10,11,12	5VDC	
LED1	ON	converter in operation	
	OFF:	converter out of service	
		a) no input voltage b) fuse blown c) converter switched OFF via pin 3	
F1	Fuse 5AT (part no. 338 879)		

	System	Drawn	
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1.4. E1H 040 PIA Module



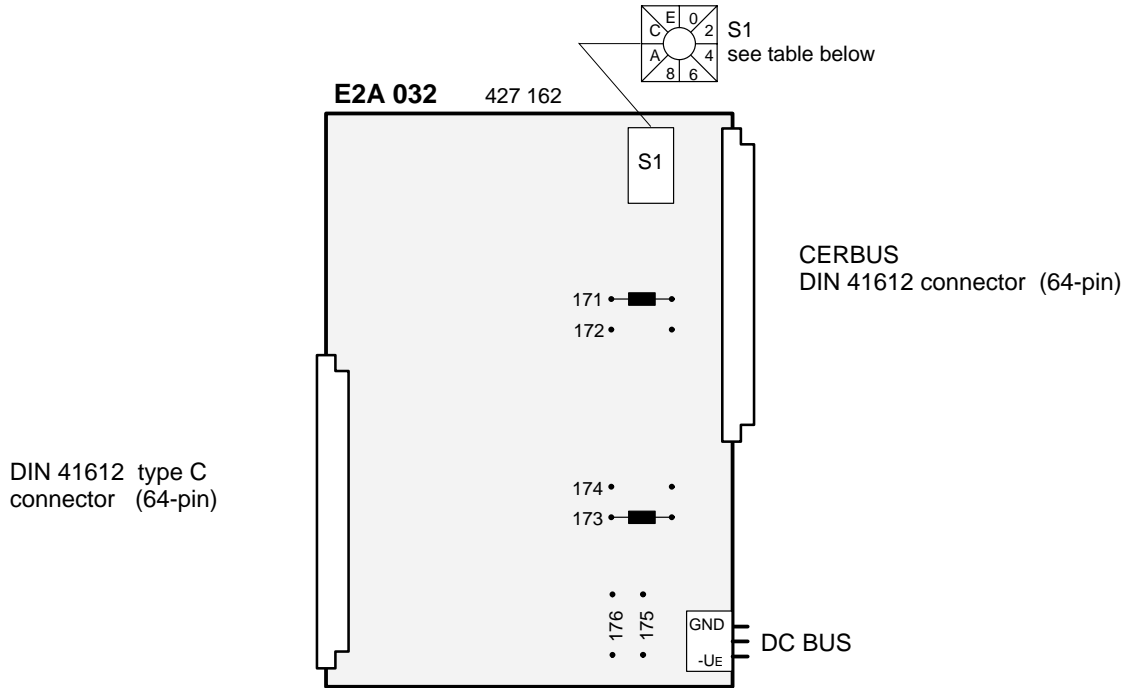
Pos.	Function	Comment
HEADER P1	control signals for Relay Module	see block diagram for ribbon cable connections to P1 ... P4
P2	control signals for Relay Module	
P3	control signals for Relay Module	
P4	control signals for Relay Module or control signals for Lamp Test (option)	

Pos.	Programming
switch S1	address switch in position 0



OverFuss e	System	Drawn	
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1.5. MUX/DMX Modules

1.5.1. E2A 032 Demultiplex Module



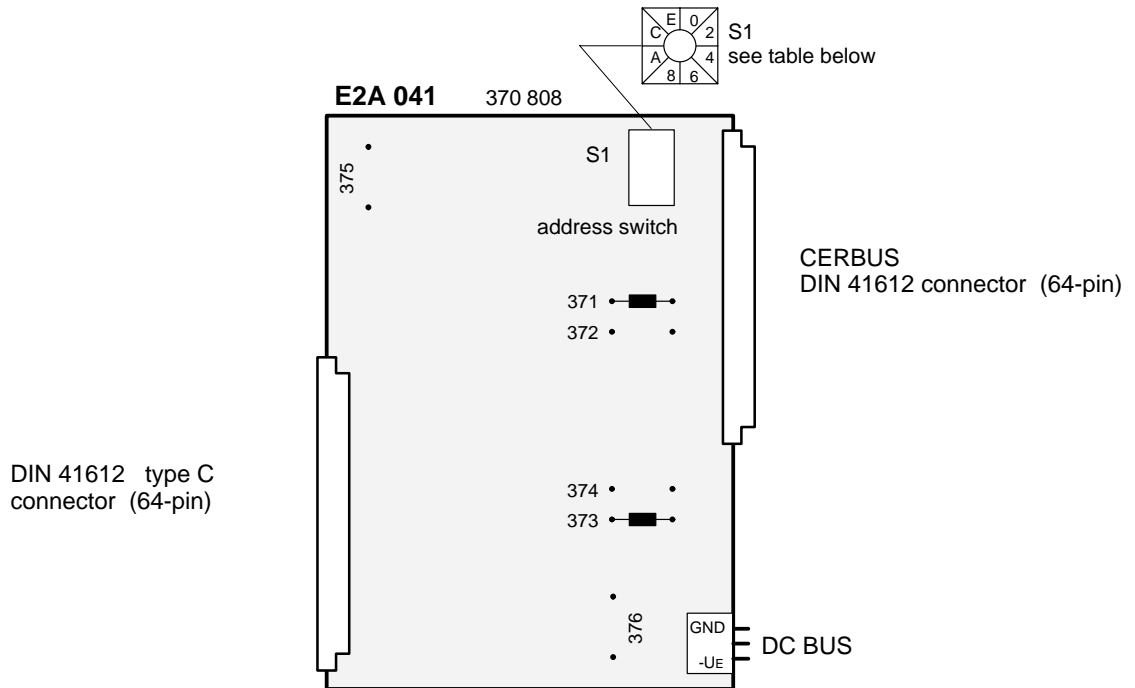
Programming	
address switch S1	module no. (in Editor)
0	01
1	02
2	03
3	04
4	05
5	06
6	07
7	08
8	09
9	10
A	11
B	12

Programming (factory settings)	
jumpers 171 / 173	
172 / 174 / 175 / 176	



"DMX" output characteristics -UA = -UE = 5..29VDC, -IA = max.40mA

	System	Drawn	
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1.5.2. E2A 041 Multiplex Module



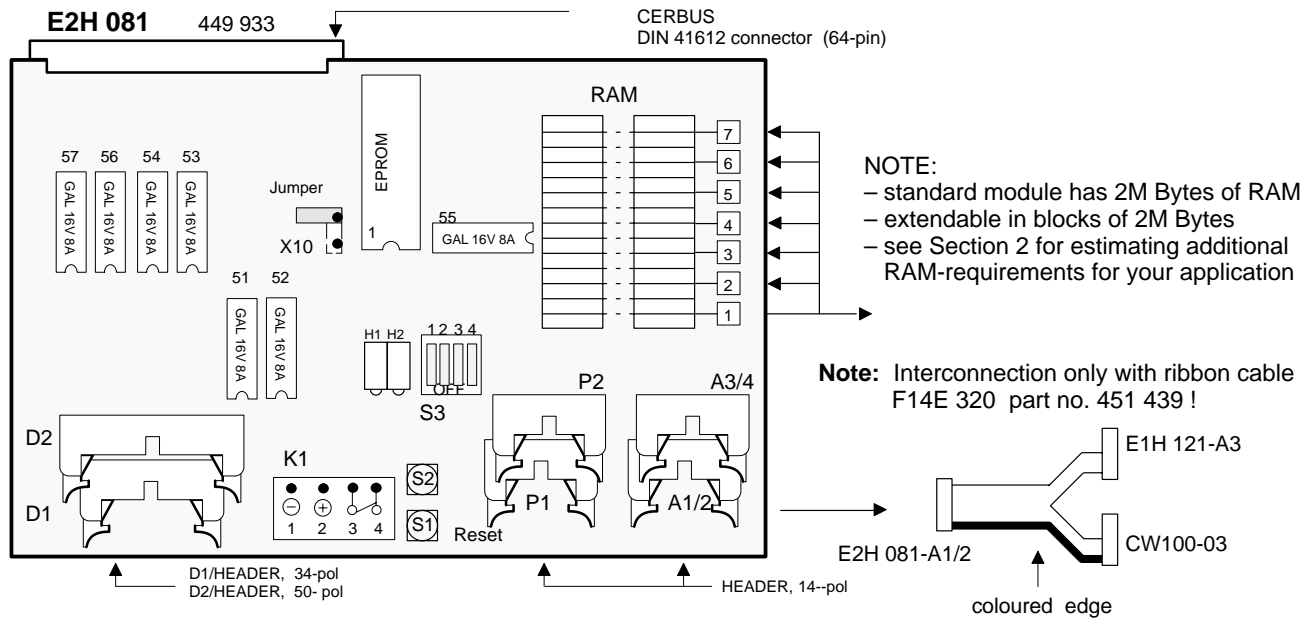
Programming	
address switch S1	module no. (in Editor)
0	01
1	02
2	03
3	04
4	05
5	06
6	07
7	08
8	09
9	10
A	11
B	12

Programming (factory settings)	
jumpers 371 / 373	
372 / 374 / 375	

"MUX" output characteristics: $-U_E = 17..29V_{DC}$, $-I_E = 1mA$

	System	Drawn	
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1.6. E2H 081 Microprocessor Module



Pos.	Commissioning Function	Comments						
D1	FD-Bus	FD-drives 0 . . . 3						
D2	SCSI-Bus	HD/DC-Bus [D2]						
P1	power supply surveillance							
P2	control of DMX-Module	K1G 010 [P1]						
A1/2	service interface	to service-PC CW100-03						
	local serial interface	see block diagram						
A3/4								
S1	reset button	restart MPU						
K1	1 ⊖ 0V	power supply for floppy disk drives						
	2 ⊕ 5VDC							
	3	see block diagram						
	4							
H1	L1 Monitor in operation	<div style="text-align: center;"> <p>LED</p> <table border="1"> <tr> <td>1</td> <td>○</td> <td>2</td> </tr> <tr> <td>3</td> <td>○</td> <td>4</td> </tr> </table> <p>1)</p> </div>	1	○	2	3	○	4
	1		○	2				
3	○		4					
L2 CERTOS + application in operation								
H2	L3 not used							
	L4 not used							
X10 Jumper	EPROM size selection (via address lines)	OFF = 64k x 16Bit / 128k x 16Bit ON = 256k x 16Bit						

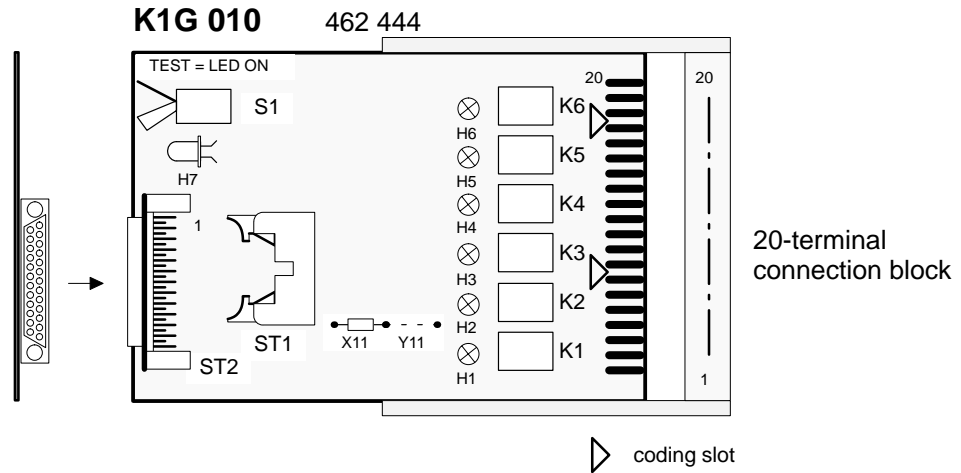
Pos.	Service Function
S2	abort button : processor service-mode
S3	operating mode: default = OFF
	1 OFF = boot CERTOS and application ON = boot Monitor
	2 OFF = not used ON = not used
	2 OFF = not used ON = not used

Pos.	Function	Comments
1	EPROM : 64k x 16Bit file name: BS7010 __	CERTOS + Monitor
	file name:	
51	PS 3001.xx	Decoder + Logic
52	PS 3002.xx	
53	PS 3003.xx	
54	PS 3004.xx	
55	PS 3005.xx	
56	PS 3006.xx	
57	PS 3007.xx	

1) during normal operation LED 2 is ON

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1.7. K1G 010 Relay Card (replacement for E3G 020)

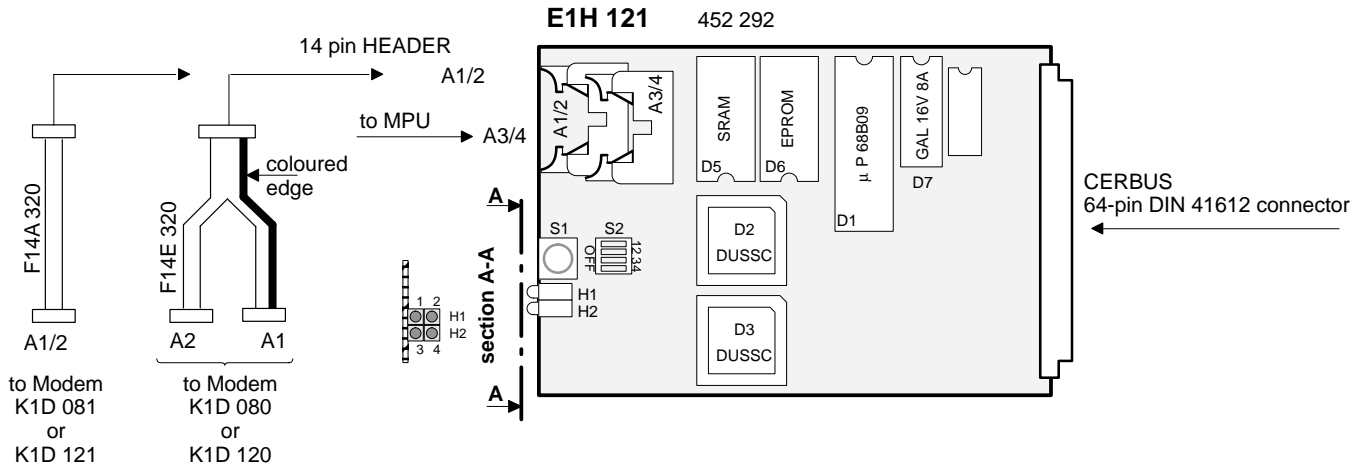


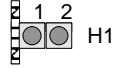
Pos	Function	Note
HEADER ST1	control lines	
Connector ST2	25-pin D-SUB connector (male)	to connection box B3X 010
Connector S1	test switch	
LED H7	ON in test mode (relays remain inactive)	
H1 ... H6	ON when output is activated (in test mode LED's function normally)	
Relay K1 ... K6	relays with electrically isolated switch-over contact	contact loading: (ohmic load) 30V/ 100mA

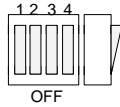
	System	Drawn	
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1.8. E1H ... Kommunikation Module (show Doc.No e1062 too)

1.8.1. Communication Module E1H 121



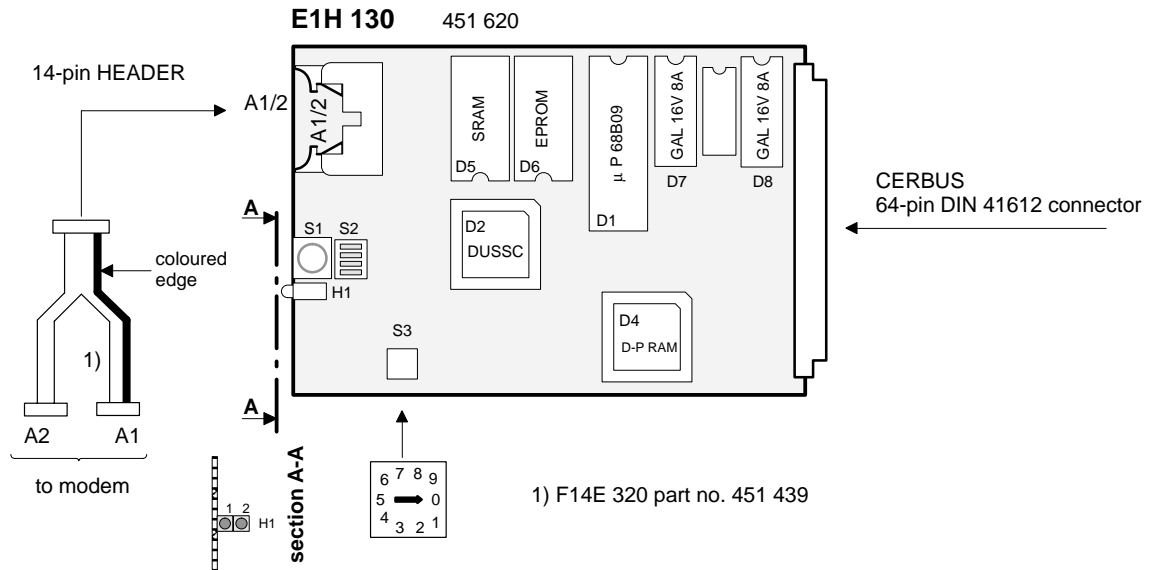
Application	MK7011 CERLOOP Node	Note
Pos.	Function connector, LED's	
A1/2	CERLOOP	network
A3/4	A3: local interface A4: not used	data transfer
H1	1 fault LOOP K1 [A1]	 H1
	2 fault LOOP K2 [A2]	
H2	3 fault local interface [A3]	
	4 not used	

Application	MK7011 CERLOOP Node	Note																				
Pos.	Function switches																					
Switch S1	Reset																					
Switch S2	<table border="1"> <thead> <tr> <th>ON</th> <th>OFF</th> <th>Default</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>S2 - 1</td> <td>2400</td> <td>1200</td> <td>1200 CERLOOP [A1/2]</td> </tr> <tr> <td>S2 - 2</td> <td>NO</td> <td>NO</td> <td>no function</td> </tr> <tr> <td>S2 - 3</td> <td>600</td> <td>300</td> <td>300 local interface [A3]</td> </tr> <tr> <td>S2 - 4</td> <td>Test</td> <td>Normal</td> <td>Normal factory test</td> </tr> </tbody> </table>	ON	OFF	Default	Function	S2 - 1	2400	1200	1200 CERLOOP [A1/2]	S2 - 2	NO	NO	no function	S2 - 3	600	300	300 local interface [A3]	S2 - 4	Test	Normal	Normal factory test	 OFF
ON	OFF	Default	Function																			
S2 - 1	2400	1200	1200 CERLOOP [A1/2]																			
S2 - 2	NO	NO	no function																			
S2 - 3	600	300	300 local interface [A3]																			
S2 - 4	Test	Normal	Normal factory test																			

Application	MK7011 CERLOOP Node	Note
Pos.	Function RAM, EPROM	
D5	SRAM 32k x 8Bit	working memory
D6	file name: CK7001 ._. EPROM 32k x 8Bit	program memory
D7	file name: PK7001 ._. GAL16V8A	decoder

System	Drawn			
	Location	Appr.		
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1.8.2. E1H 130 Communication Module



Application	MK7011 CERLOOP Node		Note
Pos.	Function connector, LED's		
A1/2	CERLOOP		network
H1	1	fault LOOP K1 [A1]	
	2	fault LOOP K2 [A2]	

Application	MK7011 CERLOOP Node				Note
Pos.	Funktion switches				
Switch S1	Reset				
Switch S2	ON	OFF	Default	Function	
S2 - 1	2400	1200	1200	CERLOOP [A1/2]	
S2 - 2	NO	NO	NO	no function	
S2 - 3	600	300	300	local interface [A3]	
S2 - 4	Test	Normal	Normal	factory test	
S3	address switch: address 0				

Application	MK7011 CERLOOP Node		Note
Pos.	Function RAM, EPROM		
D5	SRAM 32k x 8Bit		working memory
D6	file name: CK7001 ._	EPROM 32k x 8Bit	program memory
D7	file name: PK7001 ._	GAL16V8A	decoder
D8	file name: PK7002 ._	GAL16V8A	decoder

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1.9. K1D ... Modem Module (show Doc.No e1062)

Modems' in used show Document-No. e1062