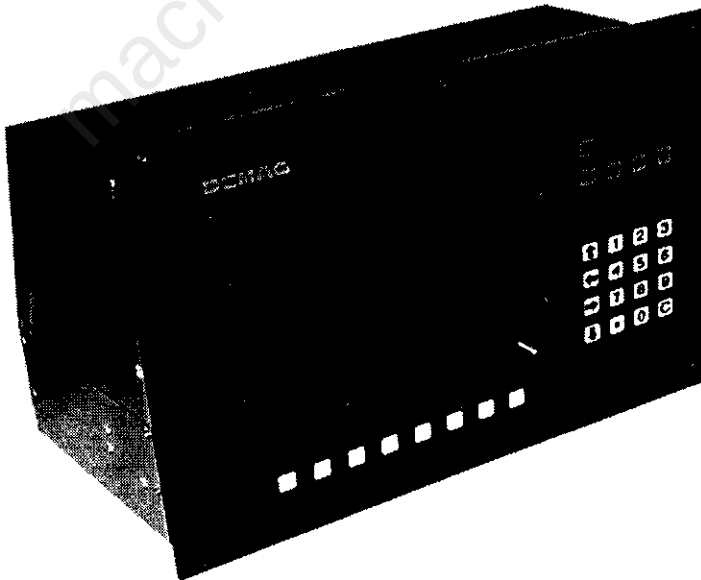


Technical Manual

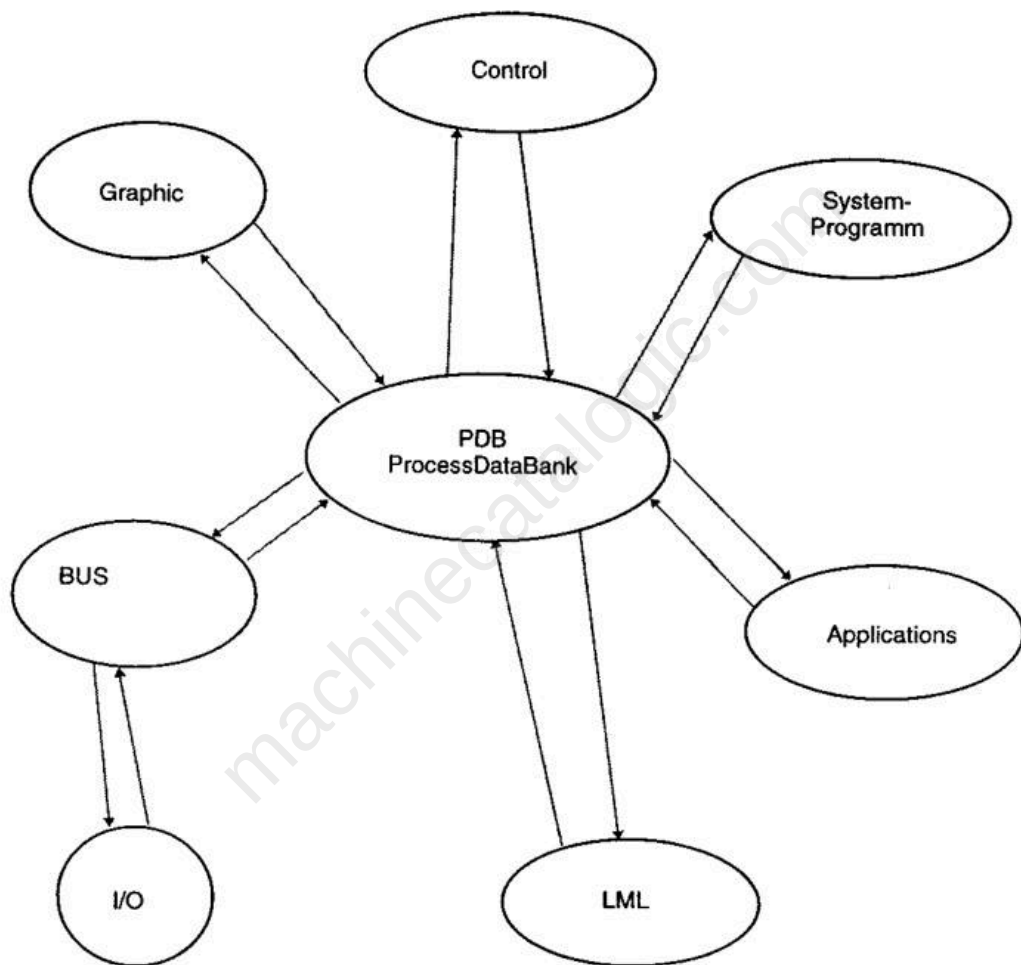
ECIS

1/1998



Software

The Software is according the hardware departed in modules, which are taking care of the according hardware components; the EPROM's contenting the software are located on the different printed circuit boards.



All this modules are independent units who communicate with each other through a central data bank.

Digital-Inputs

Terminal-block X1	Function	
	towards +24V	towards -24V
X1.39	DE00	
X1.40	DE01	
X1.41	DE02	
X1.42	DE03	
X1.43	DE04	
X1.44	DE05	
X1.45	DE06	
X1.46	DE07	
X1.47	DE08	
X1.48	DE09	
X1.49	DE10	
X1.50	DE11	
X1.51	DE12	
X1.52	DE13	
X1.53	DE14	
X1.54	DE15	
X1.55	DE16	
X1.56	DE17	
X1.57	DE18	
X1.58	DE19	
X1.59	DE20	
X1.60	DE21	
X1.61	DE22	
X1.62	DE23	
X1.69		DE16
X1.70		DE17
X1.71		DE18
X1.72		DE19
X1.73		DE20
X1.74		DE21
X1.75		DE22
X1.76		DE23

Digital-Outputs

Terminal-block X1	Function		Relay
X1.01	DA00 - center contact - 24V		K1
X1.02	DA00 - normally open		K1
X1.03	DA00 - normally closed		K1
X1.04	DA01 - center contact - 24V		K2
X1.05	DA01 - normally open		K2
X1.06	DA01 - normally closed		K2
X1.07	DA02 - center contact - 24V		K3
X1.08	DA02 - normally open		K3
X1.09	DA02 - normally closed		K3
X1.10	DA03 - center contact - 24V		K4
X1.11	DA03 - normally open		K4
X1.12	DA03 - normally closed		K4
X1.13	DA04 - center contact - 24V		K5
X1.14	DA04 - normally open		K5
X1.15	DA04 - normally closed		K5
X1.16	DA05 - center contact - 24V		K6
X1.17	DA05 - normally open		K6
X1.18	DA05 - normally closed		K6
X1.19	DA06 - center contact - 24V		K7
X1.20	DA06 - normally open		K7
X1.21	DA06 - normally closed		K7
X1.22	DA07 - center contact - 24V		K8
X1.23	DA07 - normally open		K8
X1.24	DA07 - normally closed		K8

Fuses		Measuring points on CPU-Module	
F1 - F8 2 amp medium blow	Relay switching contact	MP 0	
F9	Operating voltage	MP 1	
		MP 2	
		MP 3	
		MP 4	
LED			
H1 - H8	Relay operated		
		LED	
		H1 flickers with correct busfunction	
CP	Configuration data, type of crane & bus-adress		
EPROM	System data		

Code	Error	Cause	Remedy
E92	Error in data transmission from console to LMI board	• LMI board defective • Console defective • Backplane board defective	• Replace LMI board • Replace CPU board • Change backplane board
E93	Error in data transmission from LMI board to console	• as E92	• as E92
E94	No data transmission from LMI board to console	• as E91	• as E91
E97	No data transmission	• Marked adress in dual port RAM cannot be read. After several reading procedures the content is not identical at least twice	• as E91
E98	No data transmission	• Marked adress in dual port RAM cannot be written. The content is not identical after several write and read procedures	• as E92

Error Code Table

Troubleshooting CC1400

Code	Error	• Cause	• Remedy
E07	'Fault' indication from overload relay on connecting board: if relay is energized but 2nd contact is indicating open circuit, or relay is deenergized but 2nd contact is indicating closed circuit	• Overload relay defective • SLI board defective	• Replace SLI board
E21	Signal exceeded upper limiting value in measuring channel 'pressure in boom back stops'	• Bus error • Bus coupler defective • Pressure transducer wrong connected • Pressure transducer defective	• Check bus cable and plug • Replace bus coupler • Connect pressure transducer correctly • Replace pressure transducer
E22	Signal exceeded upper limiting value in measuring channel 'force 2'	• Bus-error • Load cell not correctly connected • Bus coupler defective • Load cell defective	• Check bus cable as well as plug • Connect load cell correctly • Replace bus coupler • Replace load cell
E23	Signal exceeded upper limiting value in measuring channel 'force 3'	• as E22	• as E22
E24	Signal exceeded upper limiting value in measuring channel 'force derricking hoist'	• as E22	• as E22
E25	Signal exceeded upper limiting value in measuring channel 'angle of main boom'	• Bus-error • Angle transducer not correctly connected • Bus coupler defective • Angle transducer defective	• Check bus cable and plug • Correctly connect transducer • Replace bus coupler • Replace angle transducer

Technical data**General**

Operating temperature	-25°C to +75°C
Protection	IP 65
Pull-off direction	anti clockwise looking on the cover

Housing LWG 221/0019

Material	Cast aluminic
Dimensions	494 x 400 x 302 mm
Weight	30 kilo approx.
Initial tension	5 turns approx.
Cable installation	PG 13.5 union
Cable connection	24-pin terminal
Drum-Ø	356 mm

Length transducer cable

Length	60 m
Telescoping length	43.22 m
Cable type	10 x .14 mm ² , radio shielded

Length transducer LGE 221/12

Gear ratio	4 : 1
Tandem potentiometer	2 x 10 kΩ, 10 turns
Linearity	.5%
maximal current (poti)	50 mAmp
Lifetime	1 x 10 ⁶ turns

Angle transducer WG 103/2

Tolerance	.5%
Hysteresys	.5°
maximal current	50 mAmp
Damping	Silicone
Weight	2 kilo
Dimensions	122 x 120 x 80 mm
Housing	Cast aluminic
Protection	IP 67

Slipring unit

Number of sliprings	9
max. current	1 Amp
Resistance	20 mΩ

HF-filter**Current output LWG 0020**

Voltage	24 V DC
Current signal	4 - 20 mAmp

9881

15:43

Digitalausgänge

Drehgeschwindigkeit reduziert	
Betrieb Wippt. Hilfsausleger	
Winkel Wippe < 0°	
Drehwerksfreigabe	

DIGIN

ANAIN



9881

15:43

Analogeingänge

Stützen

Stützlänge HR m

mA	0	10	15	20
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Stützlänge HL m

mA	0	10	15	20
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Stützlänge VR m

mA	0	10	15	20
----	---	----	----	----

Stützlänge VL m

mA	0	10	15	20
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DIGOUT

DIGIN

LMB



Full Version Available

PAT ECIS AC535, ECIS AC665 and ECIS CC1400 Load Moment Indicator Service Manual

PAT ECIS AC535, ECIS AC665, CC1400 load moment indicator service manual.
Setup, error codes and board repair in a 75-page PDF. Instant PDF download.

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