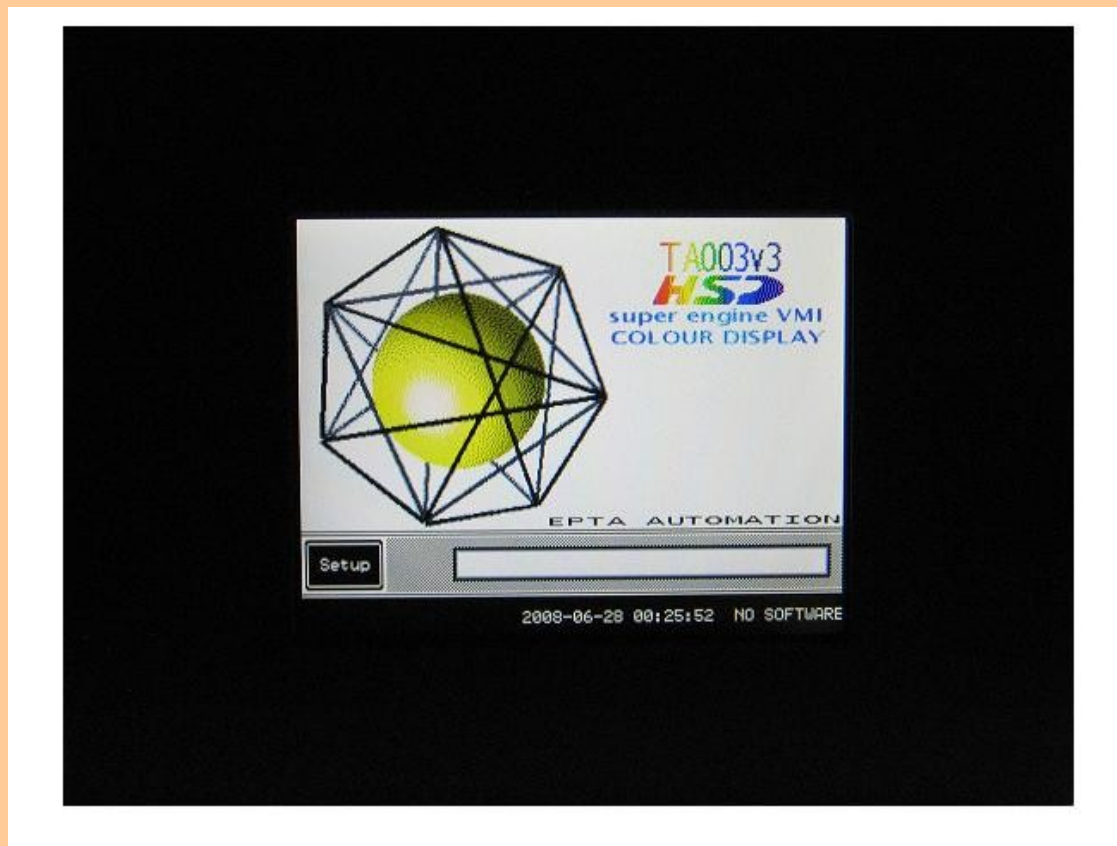


TA003v4-HSDC

SUPER ENGINE VMI

5,7" TFT Color Touch-Screen
with
integrated Programmable Logic Controller



<i>Device</i>	MEMORY SPACE [bytes]					
	Data memory		EEPROM	System data area	Program area	Graphics area
	retemptive	NOT retemptive				
TA003v3-HS	96K	-	8K	4K	256K	76800

Program tool : “EasyEst”
Debugger tool : “SoftDevice”
Document : “StructureText rev.xxxx.xx.xx”

ITEM	DESCRIPTION
GENERAL DESCRIPTION	EASY PROGRAMMABLE COLOR PANEL
CATEGORY	LOW COST, GENERAL USE
PERFORMANCE	32MHz / 32bit VMI PROCESSOR (32 Bit base CPU)
VOLTAGE SUPPLY	24 V AC / 26.2VDC
OUTPUT VOLTAGE CAPACITY	12 Vdc 500mA / 24 V dc 500mA
ANALOG INPUT	YES 4 x 0..10 V /0..20mA 10 BIT RESOLUTION
DIGITAL INPUT	YES 12 PNP
DIGITAL OUTPUT	YES 16 PNP STATIC
ANALOG OUTPUT	YES 2 x 0..10 V 8 BIT RESOLUTION
COMM.PORT	YES 3 x COMM. PORT RJ45 8/8 CONNECTORS
QUADRATURE ENCODER SUPPORT (Definition X4)	YES 3 x QUADRATURE ENCODERS (5 KHz)
PULSE DIRECTION SUPPORT	YES 4 x PULSE COUNTER (5 KHz)
CAPTURE	YES 4 x PULSE CAPTURE INTERVAL TIME (1mS time base)
COMMUNICATION FUNCTION	CAN / CAN open
SPECIAL FEATURE	DALLAS KEY SUPPORT
SPECIAL FEATURE	TA014 EXPANSION BOARD 8IO + E2P NON VOLATILE E2P
SPECIAL FEATURE	SD-card EFS file system support
KEYBOARD	NO
DISPLAY	YES 320 x 240 TFT GRAPHIC COLOR
BACKLIGHT	WHITE LED LIFE 70.000H - 50% OF ORIGINAL INTENSITY AT 25°C
WIRE CONNECTIONS	YES 4 x 10 POLE FLAT + 3 poles 5mm SUPPLY CONNECTOR
APPLICATION	INDUSTRIAL CONTROLS & AUTOMATIONS

Product code :

TA003v4	-HSDC	/EXP	/CAN	/SD	/E2P
MODEL	VERSION	TA014	NET	SD CARD	E2PROM



POWER SUPPLY CONNECTOR

connecto r	pin	function	other
JP6	1	AC/DC INPUT	24V
JP6	2	GROUND	
JP6	3	AC/DC INPUT	24V

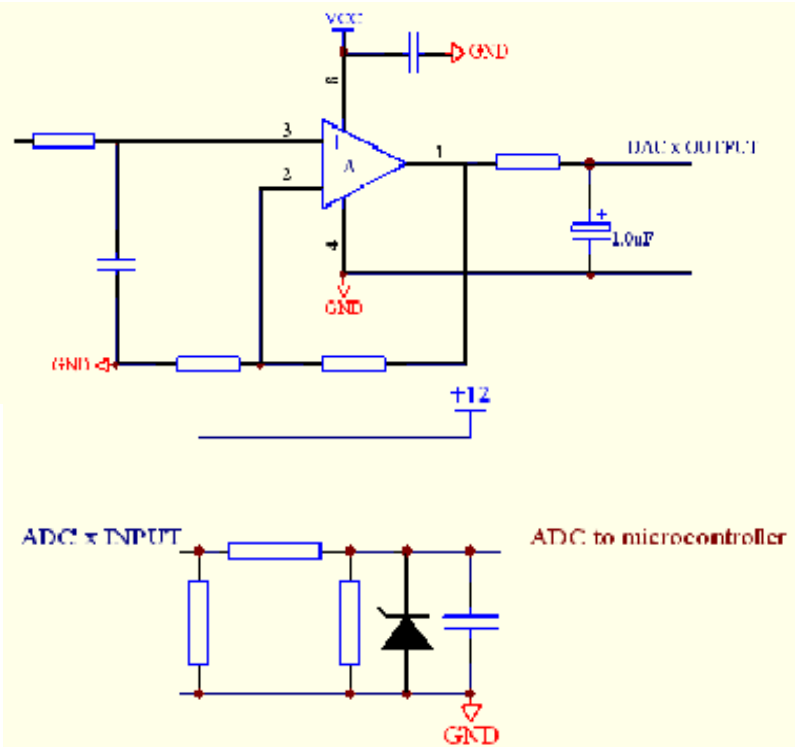
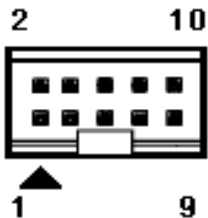
ITEM	DESCRIPTION
RATED VOLTAGE	24 V AC / 26.2V DC
CURRENT CONSUPTION	0,2 Amp NO INPUT & OUTPUT LOAD
RATED FREQUENCY	40 to 400 Hz / DC
LOGIC OPERATING VOLTAGE	12 ..28 V DC
OUTPUT CAPACITY	0,5 Amp

Electrical specification

Analog Input (one channel of 4)

Analog Output (one channel of 2)

connector	pin	function	other
JP91	1	SYS_IN:X0	SYS_ADC[0]
JP91	2	SYS_IN:X1	SYS_ADC[1]
JP91	3	SYS_IN:X2	SYS_ADC[2]
JP91	4	SYS_IN:X3	SYS_ADC[3]
JP91	5	SYS_DAC[0]	0..10V 10.000 point
JP91	6	GND	Return DAC 0
JP91	7	SYS_DAC[1]	0..10V 10.000 point
JP91	8	GND	Return DAC 1
JP91	9	+12 V	500 mA out
JP91	10	GND	return ADC



ANALOG INPUT:

ITEM	DESCRIPTION
Insulation method	No insulation
resolution / mode / range / absolute voltage input	1024 point / voltage , current / 0..10 Volt , 0..20mA / +/- 32 Volt
overall accuracy	+/- 0,5% F.S. -10 + 50 °C
impedance	10 K ohm / 220 OHM current mode
Conversion speed	50 uS for channel

ANALOG OUTPUT:

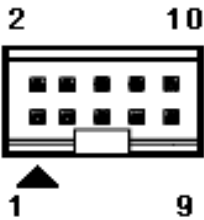
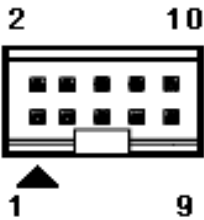
ITEM	DESCRIPTION
Insulation method / protection	No insulation / no protection
resolution / mode / range	255 point / voltage / 0..10 Volt
overall accuracy	+/- 1% F.S. -10 + 50 °C
impedance	600 ohm max
Conversion speed / ramp rate	50 uS for channel / 2,5 mS



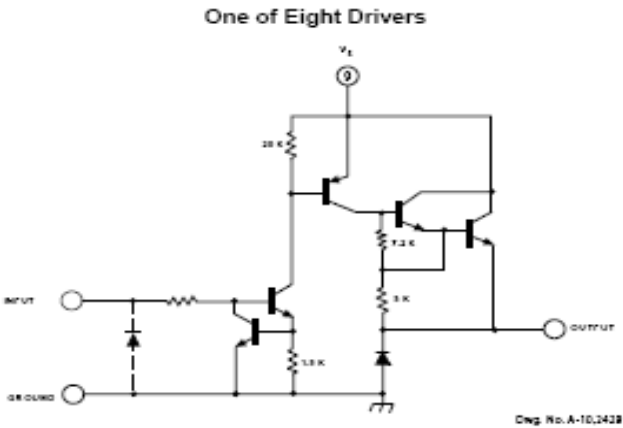
Analog input Dip-switch location

Electrical specification
Digital PNP Output

connector	pin	function	other
JP10A	1	SYS_OUT:X0	
JP10A	2	SYS_OUT:X1	
JP10A	3	SYS_OUT:X2	
JP10A	4	SYS_OUT:X3	
JP10A	5	SYS_OUT:X4	
JP10A	6	SYS_OUT:X5	
JP10A	7	SYS_OUT:X6	
JP10A	8	SYS_OUT:X7	
JP10A	9	+24P V	
JP10A	10	PGND	
connector	pin	function	other
JP11B	1	SYS_OUT:X8	
JP11B	2	SYS_OUT:X9	
JP11B	3	SYS_OUT:X10	
JP11B	4	SYS_OUT:X11	
JP11B	5	SYS_OUT:X12	
JP11B	6	SYS_OUT:X13	
JP11B	7	SYS_OUT:X14	
JP11B	8	SYS_OUT:X15	
JP11B	9	+24P V	
JP11B	10	PGND	



ONE CHANNEL SPECIFICATION



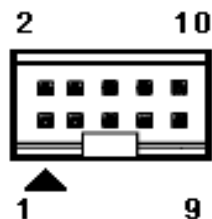
Digital Output

ITEM	DESCRIPTION
Insulation method	No insulation
Rated control capacity	100mA 32V resistive / 200mA 32V inductive
Short circuit protection	No protection available
Surge absorbed	Diode to comone ground
Response time	0,01mS OFF -> ON / 0,03 mS ON -> OFF

Electrical specification

Digital PNP Input

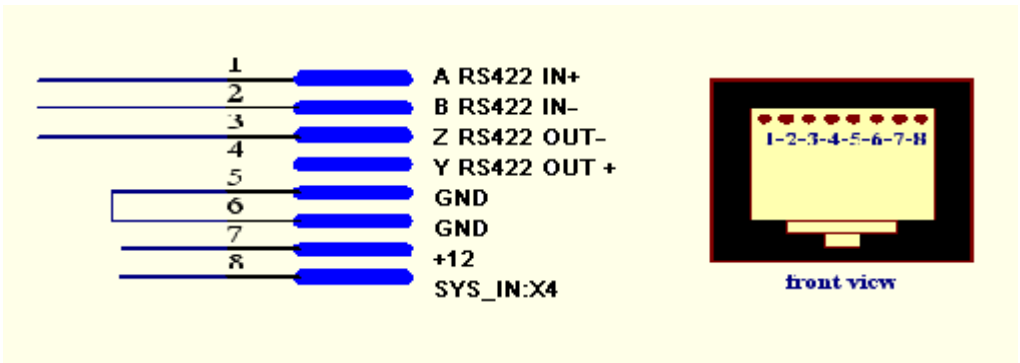
connector	pin	function	other
JP11A	1	SYS_IN:X4	sys_pencoder[0] Dilas Key
JP11A	2	SYS_IN:X5	sys_encoder[0] sys_pencoder[1]
JP11A	3	SYS_IN:X6	sys_encoder[0] sys_pencoder[2]
JP11A	4	SYS_IN:X7	sys_encoder[1] sys_pencoder[3]
JP11A	5	SYS_IN:X8	sys_encoder[1] sys_capture[0]
JP11A	6	SYS_IN:X9	sys_encoder[2] sys_capture[1]
JP11A	7	SYS_IN:X10	sys_encoder[2] sys_capture[2]
JP11A	8	SYS_IN:X11	sys_capture[3]
JP11A	9	+24 VP	500 mA out
JP11A	10	GND	common



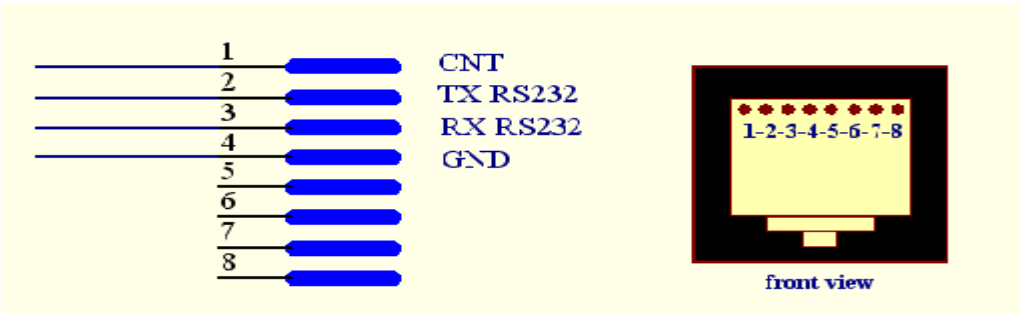
ITEM	DESCRIPTION
Insulation method	none
Rate input voltage / rate input current	10 - 32 Vdc / 2,5 mA at 24Vdc
Response time	0,05 mS OFF -> ON / 0,05 mS ON -> OFF
impedance	10 Kohm
Operating indicator	ON DISPLAY SETUP PAGE

Comm. Port specification

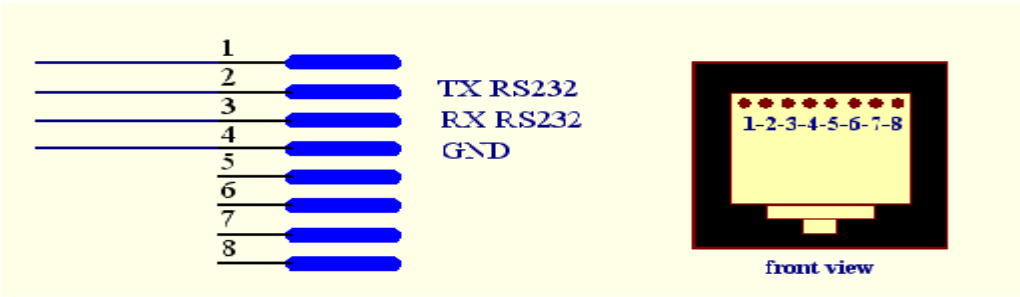
RS422-485 (P1)



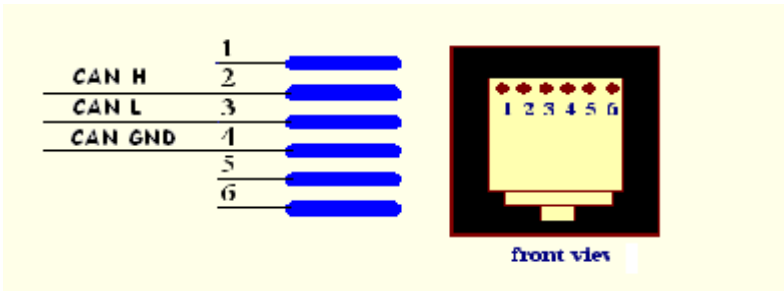
RS232 TOOL (P4)



RS232 USER (P5)



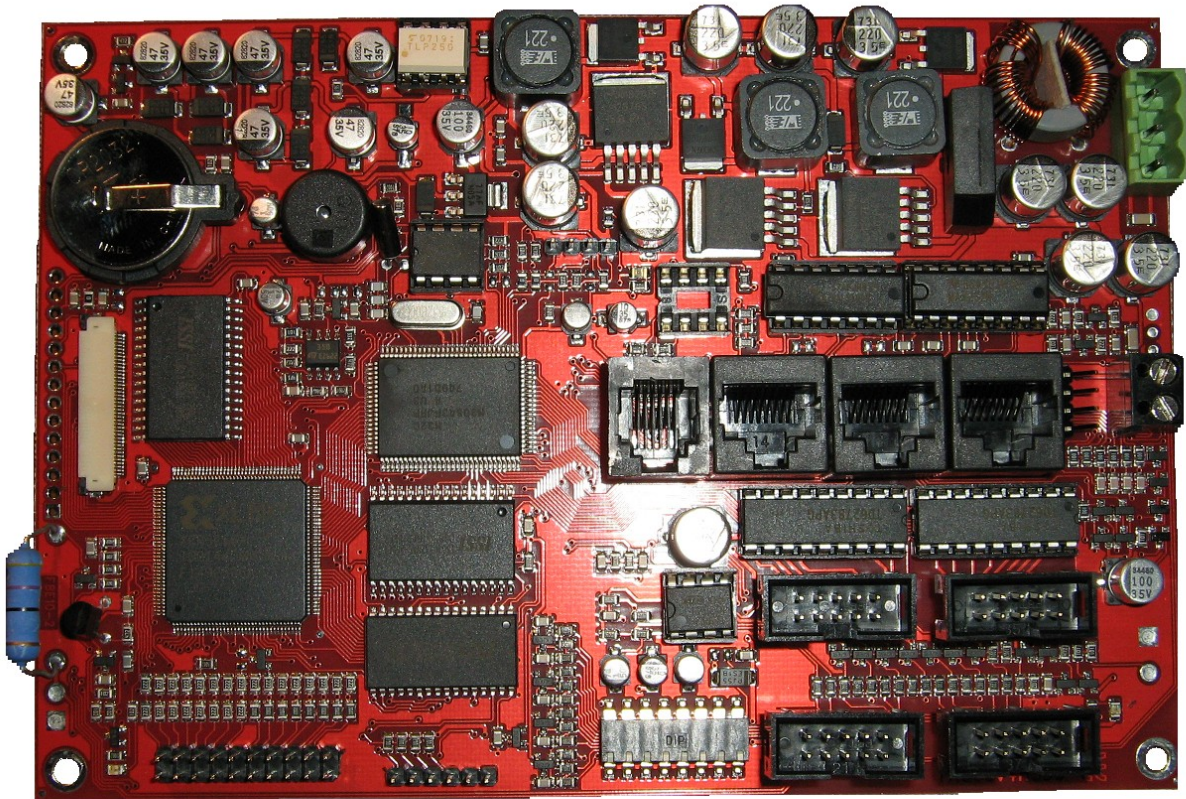
CAN (P2)



SD-card housing

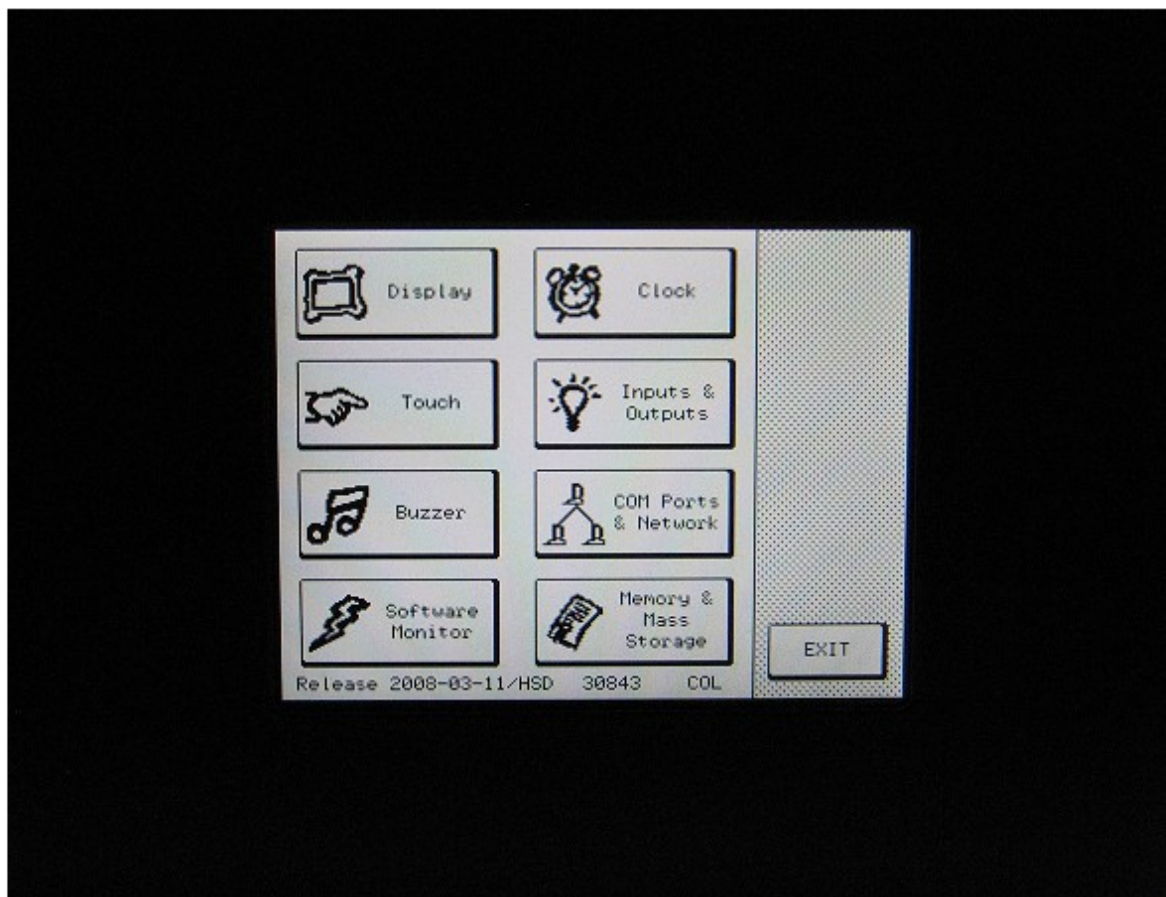


TA003v4-HSDC CONTROL BOARD



TOUCH SCREEN & DISPLAY SPECIFICATION

ITEM	DESCRIPTION
TOUCH SCREEN	GLASS FIBER RESTITIVE 4 WIRE
LUMINANCE	HIGH BRIGHTNESS WHITE LED
LCD	320 x 240 PIXEL 5,7" TFT COLOR



SELF TEST & BASE PARAMETERS

push “SETUP” and insert the password “0444”

Insert PASSWORD:			

7	8	9	del
4	5	6	CLEAR
1	2	3	ESC
0			ENTER

Technical note device TA003v4HSDC:

GENERAL SPECIFICATION:

ITEM	DESCRIPTION
TEMPERATURE	-10°C TO +50°C TEST PERFORMED AT – 25°C TO 65°C FOR 24 HOURS TEST CYCLE 120 MINUTS AT TEST TEMPERATURE
HUMIDITY	90 % RH (NON CONDENSING)
STORAGE TEMPERATURE	-20°C to +70°C
STORAGE HUMIDITY	85 % RH (NON CONDENSING)
OPERATING CONDITION	FREE FROM CORROSIVE GASES AND EXCESSIVE DUST

MECHANICAL SPECIFICATION:

ITEM	DESCRIPTION
BOARD DIMENSION	220 X 170 X 55 mm
FRONT PANEL DIMENSION	220 X 170 mm
WEIGHT	930 grams
PROTECTION GRADE	IP20 INTERNAL
KEY BOARD PROTECTION GRADE	IP65 FRONT PANEL

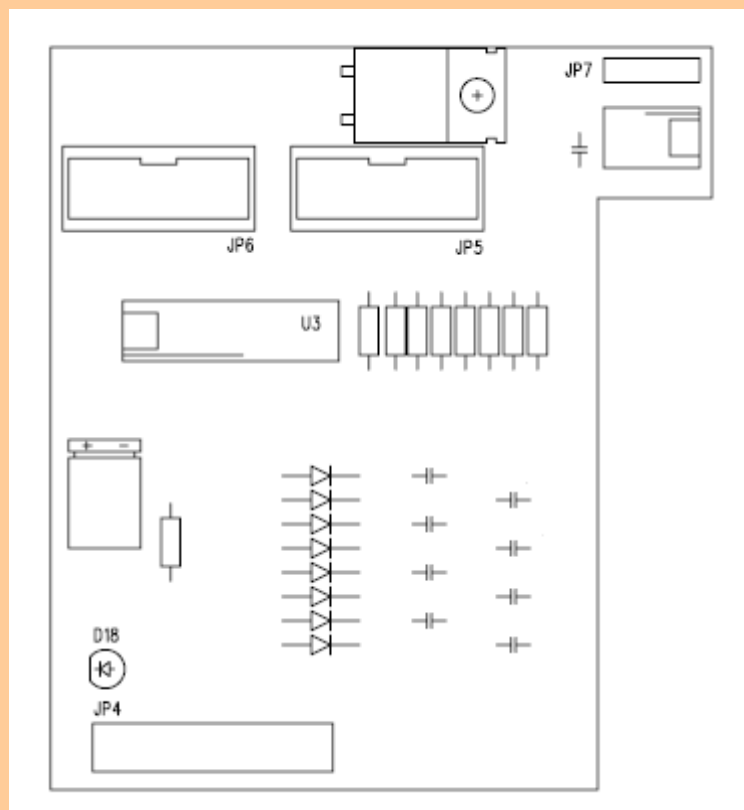
IMMUNITY:

ITEM	DESCRIPTION
VIBRATION RESISTANCE	10 to 55 Hz 1cycle/min double amplitude 0,75mm X,Y,Z direction
SHOCK RESISTANCE	98 m/S2 4 TIMES on X,Y and Z directions
NOISE IMMUNITY EN50082-1	EN 61000-4-2 ELECTROSTATIC DISCHARGE EN 61000-4-3 ELECTROMAGNETIC RADIO EN 61000-4-4 COMMON MODE BURST
NOISE EMISSION EN50081-2	EN 55022 ELECTROMAGNETIC RADIO EN 55022 ELECTROMAGNETIC CONDUCT

TA014

I/O EXPANSION BOARD
for

TA003v3/4



8 Input / 8 Output

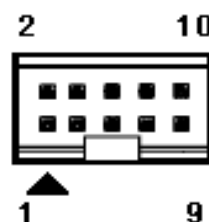
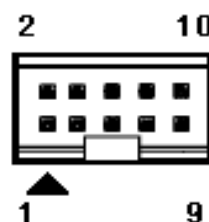
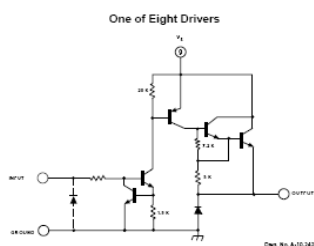
8Kbytes E2Prom

DC 24V SUPPLY

Electrical specification

Digital Output & Input

connector	pin	function	other
JP6	1	SYS_OUT:X16	PNP
JP6	2	SYS_OUT:X17	PNP
JP6	3	SYS_OUT:X18	PNP
JP6	4	SYS_OUT:X19	PNP
JP6	5	SYS_OUT:X20	PNP
JP6	6	SYS_OUT:X21	PNP
JP6	7	SYS_OUT:X22	PNP
JP6	8	SYS_OUT:X23	PNP
JP6	9	+24P	External supply
JP6	10	PGND	External supply
connector	pin	function	other
JP5	1	SYS_IN:X16	PNP
JP5	2	SYS_IN:X17	PNP
JP5	3	SYS_IN:X18	PNP
JP5	4	SYS_IN:X19	PNP
JP5	5	SYS_IN:X20	PNP
JP5	6	SYS_IN:X21	PNP
JP5	7	SYS_IN:X22	PNP
JP5	8	SYS_IN:X23	PNP
JP5	9	+24P	External supply
JP5	10	PGND	External supply



Digital Output:

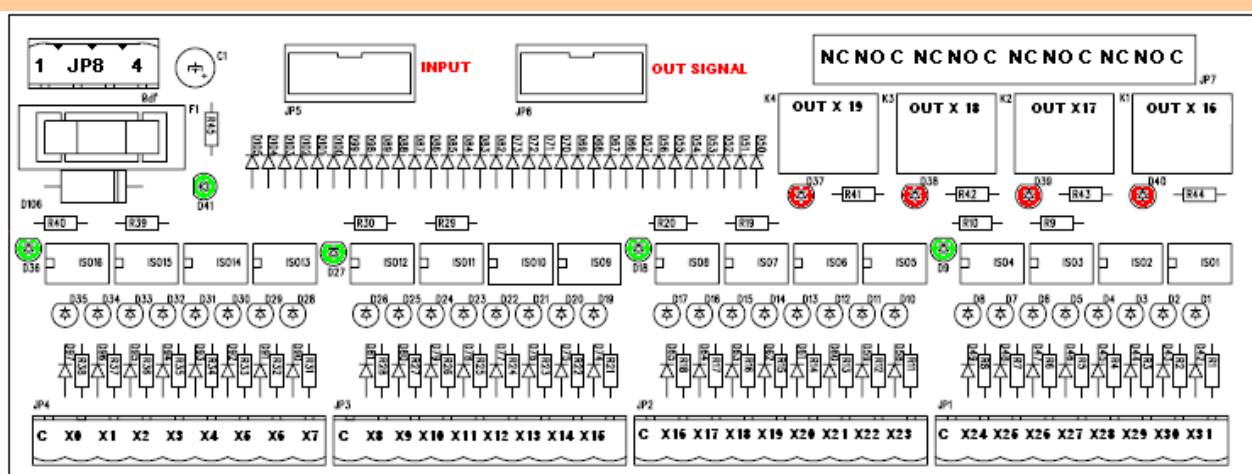
ITEM	DESCRIPTION
Insulation method	No insulation
Rated control capacity	100mA 32V resistive / 200mA 32V inductive
Short circuit protection	No protection available
Surge absorbed	Diode to comone ground
Response time	0,01mS OFF -> ON / 0,03 mS ON -> OFF

Digital Input:

ITEM	DESCRIPTION
Insulation method	none
Rate input voltage / rate input current	10 - 32 Vdc / 2,5 mA at 24Vdc
Response time	0,05 mS OFF -> ON / 0,05 mS ON -> OFF
impedance	10 Kohm
Operating indicator	ON DISPLAY SETUP PAGE

TA018

I/O EXPANSION BOARD for TA003v3/4



PNP 32 Input / 4 Relays Output

multiplexed mode

DC 24V SUPPLY

Electrical specification

Digital Output & Input

Relays Output:

ITEM	DESCRIPTION
Insulation method	No insulation
Rated control capacity	15 Amp 30Vdc / 3 Amp 110 Vac
Short circuit protection	No protection available
Surge absorbed	none
Response time	3,00mS OFF -> ON / 3,5 mS ON -> OFF

Digital Input:

ITEM	DESCRIPTION
Insulation method	Optical coupler
Rate input voltage / rate input current	10 - 32 Vdc / 2,5 mA at 24Vdc
Response time	10 mS OFF -> ON / 10 mS ON -> OFF
impedance	4,7 Kohm
Operating indicator	ON BOARD LED

POWER SUPPLY CONNECTOR

JP8	1	+24V SUPPLY	JP7	OUT X16	1 C	2 NO	3 NC
JP8	2	+24V SUPPLY	JP7	OUT X16	4 C	5 NO	6 NC
JP8	3	0 VOLT GND	JP7	OUT X16	7 C	8 NO	9 NC
JP8	4	0 VOLT GND	JP7	OUT X16	10 C	11 NO	12 NC

RELAYS OUTPUT CONNECTOR

DIGITAL INPUT CONNECTOR

JP4	1	X0	JP3	1	X8	JP2	1	X16	JP1	1	X24
JP4	2	X1	JP3	2	X9	JP2	2	X17	JP1	2	X25
JP4	3	X2	JP3	3	X10	JP2	3	X18	JP1	3	X26
JP4	4	X3	JP3	4	X11	JP2	4	X19	JP1	4	X27
JP4	5	X4	JP3	5	X12	JP2	5	X20	JP1	5	X28
JP4	6	X5	JP3	6	X13	JP2	6	X21	JP1	6	X29
JP4	7	X6	JP3	7	X14	JP2	7	X22	JP1	7	X30
JP4	8	X7	JP3	8	X15	JP2	8	X23	JP1	8	X31
JP4	9	GND	JP3	9	GND	JP2	9	GND	JP1	9	GND

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