

To-Till	From-Från	Date-Datum	Reg.	Page-Sidan
	2005-02-22			
	Dealt with by-Utfärdare	Telephone-Telefon-nr		1
	Sven-Erik Karlsson	187050		

AnyBus-DDCS communication unit PE1359

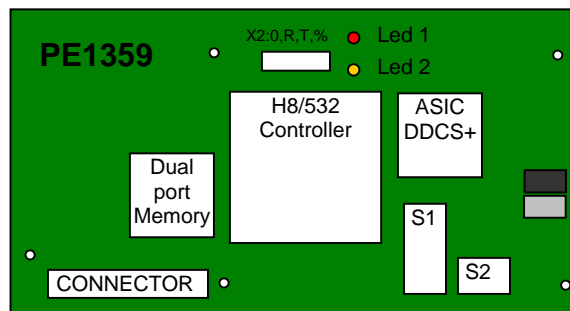
1. General

Two versions of PE1359 are available.
 PE1359 for 1.0 Plastic POF or HCS fiber
 PE1359G for Glass fibre 62.5/125µm ST.

PE1359 AnyBus to DDCS is a module designed to connect a Application to ABB ModuleBus or DriveBus (DDCS+). The module is accessed by the 34 pin application connector.

The connector include Power supply, addressbus(A0-A9), databus (D0-D7), control signals.

The fielbus has optical fibre for transmit and received data.



2. Technical description

2.1 Dimension and mounting

PE1359 module is mounted on the Application Unit Parallell connector.

Size: 161 x 67 mm (w x h)

Required mounting deep: 15mm

Mounting screws: 7 x M3

2.2 Technical data

Power supply 5V DC, max 100mA

Operation 5..+40 °C., Storage -40..+70 °C.

Communication to Application

Protocol: Part of AnyBys parallell interface, 34 pole 2mm connector.

Communication to ABB AC80/AC4xx

PE1359 for Plastic fibre

PE1359 is connected in a ring with 1.0mm plastic fibre POF or 200µm Hard Clad Silica HCS fibre.

Opto fiber: Transmission speed 4Mbit

Max length : 200m of 200µmHCS (Use TB810) or 15m 1.0mm plastic (Use TB810 or TB811)

PE1359G for Glass fibre

PE1359G is connected direct to a PE1361 Glass to Plast fiber converter.

Max length Glass fiber 2000m.

PE1361 plastic side is connected in a ring with 1.0mm plastic fibre POF or 200µm Hard Clad Silica HCS fibre.

Opto fiber: Transmission speed 4Mbit

Max length : 200m of 200µmHCS (Use TB810) or 15m 1.0mm plastic (Use TB810 or TB811)

To-Till	From-Från	Date-Datum	Reg.	Page-Sidan
	2005-02-22			
Dealt with by-Utfärdare		Telephone-Telefon-nr		2
Sven-Erik Karlsson		187050		
AnyBus-DDCS communication unit PE1359				

2.3 Status indications

The module has 2 Leds one red and one yellow for module status.

Module status Led

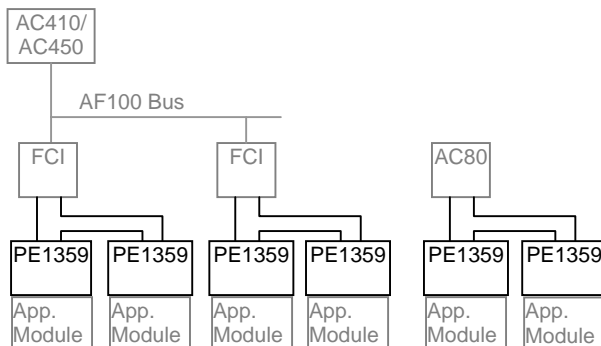
Watchdog function	Colour	Frequency
Module not initialised	Yellow	4Hz
Module initialised and running OK	Yellow	2Hz
FieldBus is ON line	Yellow	1Hz
DPRAM check fault	Red	4Hz
ASIC and Eprom check fault	Red	2Hz
RAM check fault	Red	1Hz

Status word

Status function	Bit
AnyBus IN memory area 1 is accessed	0
AnyBus OUT memory area 2 is accessed	1
FieldBus is on line	2
RWM error detected	3
DualPort memory error detected	4
ASIC error detected	5
Start Init is done	6
Fieldbus is started	7

To-Till	From-Från	Date-Datum	Reg.	Page-Sidan
	2005-02-22			
	Dealt with by-Utfärdare	Telephone-Telefon-nr		3
	Sven-Erik Karlsson	187050		

AnyBus-DDCS communication unit PE1359



Connections

Communication to ABB AC80/AC4xx

PE1359G is connected direct to a PE1361 Glass to Plast fiber converter.
Max length Glass fiber 2000m.

PE1359 is connected in a ring with 1.0mm plastic fibre POF or 200µm Hard Clad Silica HCS fibre.

Max length : 200m of 200µmHCS (Use TB810) or 15m 1.0mm plastic (Use TB810 or TB811)

Communication to Application

Parallell Bus connector 34 pin Female on application board and Male on PE1359 module..

ModBus Serial port for service 19200Baud, 8 data,1 stop,no parity.

X2:0	0V
X2:R	Receive
X2:RQ	Request to send
X2:T	Transmit
X2:+5V	5V power supply

To use the service port a TTL to RS232 adapter must be used.

2.4 Strappings

Node Address 1-12 is set by SW1.1-4, Cluster number 0-7 is set by SW1.5-7.

PE1359 answer on selected node and cluster. Allowed Cluster number is 0-7 and allowed node is 1-12.

SW1.1	Node addr 1
SW1.2	Node addr 2
SW1.3	Node addr 4
SW1.4	Node addr 8
SW1.5	Cluster 1
SW1.6	Cluster 2
SW1.7	Cluster 4
SW1.8	Not used

Transmitter intensity is set by SW2.1-2

SW1.1	Intensity 1	0=low,3=high
SW1.2	Intensity 2	0=low,3=high
SW1.3	Not used	
SW1.4	Not used	

DESCRIPTION

To-Till	From-Från	Date-Datum	Reg.	Page-Sidan
	2005-02-22			
Dealt with by-Utfärdare		Telephone-Telefon-nr		4
Sven-Erik Karlsson		187050		
AnyBus-DDCS communication unit PE1359				

2.5 Signals AC80/AC4xx to Bromma Dualport INPUT area

AC80 Reference	Application Unit, Bromma Reference
DS10.I1	INPUT word 0
DS10.I2	INPUT word 2
DS10.I3	INPUT word 4
DS12.I1	INPUT word 6
DS12.I2	INPUT word 8
DS12.I3	INPUT word 10
DS14.I1	INPUT word 12
DS14.I2	INPUT word 14
DS14.I3	INPUT word 16
DS16.I1	INPUT word 18
DS16.I2	INPUT word 20
DS16.I3	INPUT word 22
DS18.I1	INPUT word 24
DS18.I2	INPUT word 26
DS18.I3	INPUT word 28
DS20.I1	INPUT word 30
DS20.I2	INPUT word 32
DS20.I3	INPUT word 34
DS22.I1	INPUT word 36
DS22.I2	INPUT word 38
DS22.I3	INPUT word 40
DS24.I1	INPUT word 42
DS24.I2	INPUT word 44
DS24.I3	INPUT word 46
DS26.I1	INPUT word 48
DS26.I2	INPUT word 50
DS26.I3	INPUT word 52
DS28.I1	INPUT word 54
DS28.I2	INPUT word 56
DS28.I3	INPUT word 58
DS30.I1	INPUT word 60
DS30.I2	INPUT word 62

To-Till		DESCRIPTION		Page-Sidan
		From-Från	Date-Datum	5
		2005-02-22		
		Dealt with by-Utfärdare	Telephone-Telefon-nr	
		Sven-Erik Karlsson	187050	
AnyBus-DDCS communication unit PE1359				

2.6 Signals AC80/AC4xx from Bromma Dualport OUT area

AC80 Reference	Application Unit, Bromma Reference
DS10.O1	OUTPUT word 0
DS10.O2	OUTPUT word 2
DS10.O3	OUTPUT word 4
DS12.O1	OUTPUT word 6
DS12.O2	OUTPUT word 8
DS12.O3	OUTPUT word 10
DS14.O1	OUTPUT word 12
DS14.O2	OUTPUT word 14
DS14.O3	OUTPUT word 16
DS16.O1	OUTPUT word 18
DS16.O2	OUTPUT word 20
DS16.O3	OUTPUT word 22
DS18.O1	OUTPUT word 24
DS18.O2	OUTPUT word 26
DS18.O3	OUTPUT word 28
DS20.O1	OUTPUT word 30
DS20.O2	OUTPUT word 32
DS20.O3	OUTPUT word 34
DS22.O1	OUTPUT word 36
DS22.O2	OUTPUT word 38
DS22.O3	OUTPUT word 40
DS24.O1	OUTPUT word 42
DS24.O2	OUTPUT word 44
DS24.O3	OUTPUT word 46
DS26.O1	OUTPUT word 48
DS26.O2	OUTPUT word 50
DS26.O3	OUTPUT word 52
DS28.O1	OUTPUT word 54
DS28.O2	OUTPUT word 56
DS28.O3	OUTPUT word 58
DS30.O1	OUTPUT word 60
DS30.O2	OUTPUT word 62
DS30.O3	STATUSIND

2.7 Interesting internal Memory locations, can be read from Modbus port

Name	Adress Hex	Description
STATUSIND	FC24	Status word
CNTMESS	FC08	Number of MailBox IN messages
CNTSTARTIN	FC00	Number of StartInit messages
CNTANYIN	FC02	Number of AnyBus Init messages
CNTENDIN	FC04	Number of End Init messages
CNTHWCK	FC06	Number of HW check messages
CNTWMESS	FC08	Number of Messages with error
WROMESS	FC0A	Command numer in message with error
CNTANYINT	FC0C	Number of interrupt from DualPort
CNTINREQ	FC0E	Number of IN request
CNTOUTREQ	FC10	Number of out request
CNTFBREQ	FC12	Number of FB request
CNTINREL	FC14	Number of IN release
CNTOUTREL	FC16	Number of out release
CNTFBREL	FC18	Number of FB release
CNTFIELDTO	FC1A	Number of fieldbus timeouts
CNTANYINTO	FC1C	Number of anybus IN timeouts
CNTANYOUTTO	FC1E	Number of anybus OUT timeouts