

POB-D

Display unit.

The display unit has 2 lines of 16 characters. The application program can put text and measured and calculated values on the display. There are several instructions to format numbers, send control codes, etc. to program the display.

The display unit is connected to the PRO-NET network and may be installed anywhere on the network.

A PRO-NET network can have more than one display. The displays will all show the same information.

The LCD interface accepts the following control codes:

Code	function	remarks
1	cursor home	home is at the top left position
8	backspace	no effect is the cursor is already at the left side
10	line feed	if the cursor was on the bottom line, the display scrolls
13	carriage return	the cursor moves to the left side of the line
24	start flashing	the display blinks at 0.5 sec on, 0.5 sec off
25	stop flashing	the display does not blink
12	reset	display cleared, cursor home, cursor off, display not flashing

Besides these 1-byte codes, there are byte sequences that can be used to control the display. These sequences are preceded by an escape code (27), followed by control characters. For example, the cursor can be made visible with the ESC-E sequence. This is an escape character (27) followed by an E, like in

```
PLINE 27,'E'
```

Code	function	remarks
27 A	cursor up	has no effect if the cursor is on the top line
27 B	cursor down	has no effect if the cursor is on the bottom line
27 C	cursor right	has no effect if the cursor is on the right side of a line
27 D	cursor left	has no effect if the cursor is on the left side of a line
27 E	cursor on	cursor is made visible
27 F	cursor off	cursor is made invisible
27 H	cursor home	home is at line 1, position 1
27 J	clear rest-of lcd	the display is cleared from the current cursor position to the end
27 K	clear rest-of line	the line is cleared from the current cursor position to the end

The LCD also accepts an escape sequence to position the cursor directly at any position on the display. After the escape and an Y, the LCD expects two additional characters. These two characters determine the position of the cursor. Calculate the value these characters should have from the line number (1 or 2) plus 31, and the character position on that line (1 to 16) plus 31. For example, to move the cursor to position 5 on the top line, issue the command

```
PLINE 27,'Y',31+1,31+5
```

The technical specifications are:

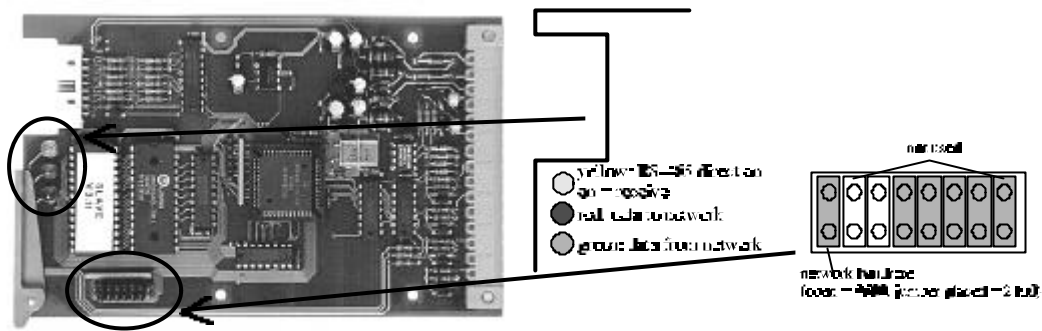
Width in TE's (see PRW)	4
Power requirements:	+15VDC, 40 mA
Display type:	LCD, no backlight
Jumpers:	network speed
Operating temperature *:	-10...+50°C
Storage temperature *:	-20...+70°C

* The operating range of the display is limited, approximately -5...+35°C. At lower or higher temperatures the display will not be readable, however, there is no damage done and normal operation resumes if the temperature is back in the operating range. The contrast of the display can be set with a small potentiometer on the LCD printed circuit board. This can be used to optimize the readability if the operating temperature is constantly at a high or low level.

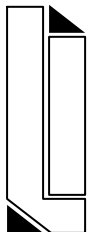
The signal connections are:

Connector pin number	Signal
1	0 V system
2	- 15 V DC
3	+ 15 VDC
4	Network loop +
5	Network ground
6	Network loop -
7	5 VDC (auxiliary output)
8	
9	0 V system
10	
11	0 V system
12	5 VDC (auxiliary output)
13	
14	0 V system
15	
16	0 V system

The jumpers are set as follows:



The LCD unit is connected to the 16-pin header on the printed circuit board. The display is mounted on the front of the enclosure or on the 19" rack in the enclosure.



Splinterlaan 152
2352 SM Leiderdorp
The Netherlands

Leidororp Instruments

Phone: (--31) (0)71 - 541 55 14
Fax: (--31) (0)71 - 541 89 80
E-mail: Info@Leidororpinstruments.nl
www.Leidororpinstruments.nl

P.O.Box 319
2350 AH Leiderdorp
The Netherlands