

Demonstration driver

English

Svenska

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Demo driver

This manual presents installation and handling of the Demo driver to the terminals in the E-series. The functionality in the E-terminals and in MAC Programmer+ are described in the E-manual.

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1 Introduction

This manual describes how you with the Demo driver can test and demonstrate some of the functionality in the E-series operator terminals without any controller system connected.

2 Install and update driver

When installing MAC Programmer+ the drivers available at the time of release are installed too. A new driver can be added into MAC Programmer+ either with MAC Programmer+ using an Internet connection or from diskette. A driver can be updated to a newer version in the same ways.

2.1 Installation of driver using Internet

To update available drivers to the latest version or to install new drivers you can use the function Update terminal drivers, from Internet in the File menu in MAC Programmer+. All projects must be closed before this function is used and the computer must be able to make an Internet connection. You don't need a browser. When the connection is established a list is shown with all drivers that can be downloaded from Internet to the computer. The list shows the version number of available drivers and the version number of installed drivers. Mark the driver/ drivers you want to install in the MAC Programmer+. The function Mark Newer will mark all drivers that are available in a newer version then the one installed and the drivers not installed. Then you select Download. Each drivers is approximately 500 kb and it is ready to use when the download is ready.

2.2 Installation of driver from disk

To update available drivers to the latest version or to install new drivers you can use the function Update terminal drivers, from Disk in the File menu in MAC Programmer+. All projects must be closed before this function is used. Select the folder with the new driver and choose to open the mpd-file. A list is shown with all drivers that can be installed showing the version number of available drivers and the version number of installed drivers. Mark the driver/ drivers you want to install in the MAC Programmer+. The function Mark Newer will mark all drivers that are available in a newer version then the one installed and the drivers not installed. Then you select Install.

How to select the Demo driver in the project and how to transfer it to the terminal are described in *chapter 3*.

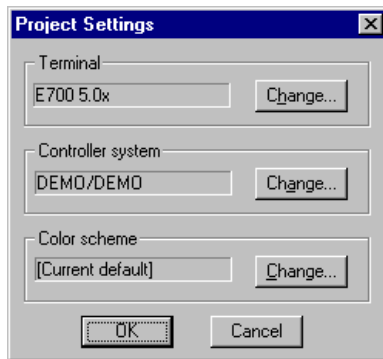
3 Connecting the terminal

3.1 Settings in the MAC Programmer+

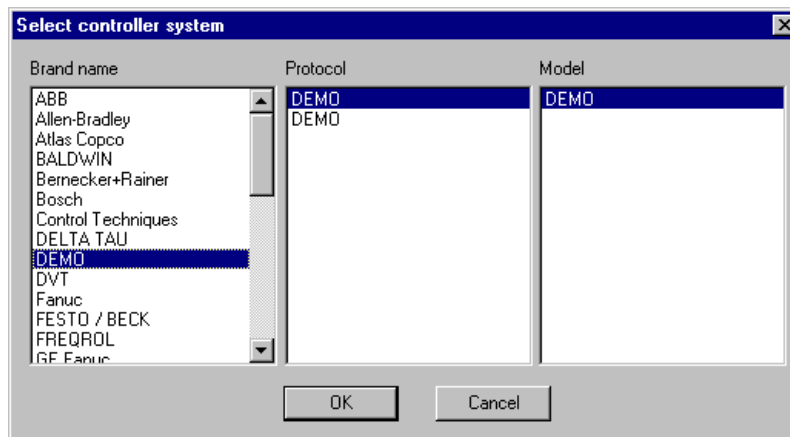
For communication with the Demo driver the following settings must be made in the programming tool MAC Programmer+.

Driver selection

Choosing **New** in the **File** menu creates a new project and the dialog **Project Settings** is shown. In an existing project, the dialog is shown by selecting **Project Settings** in the **File** menu.

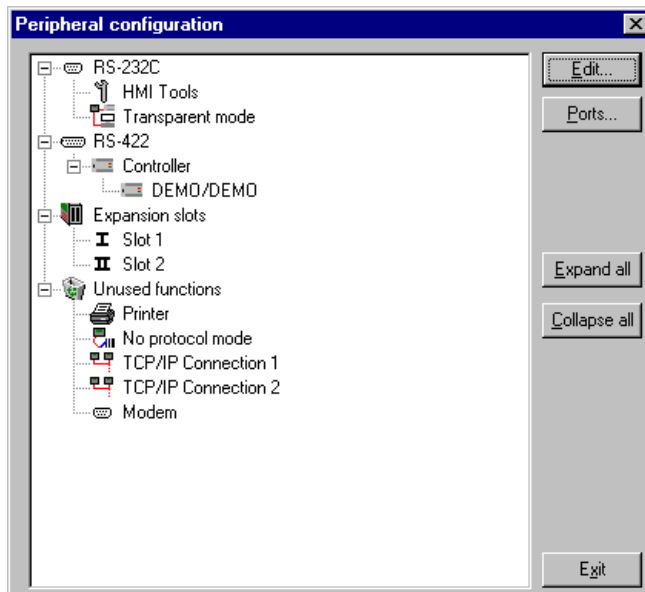


Press **Change...** under Controller system to get the choice list of available drivers. Choose Brand name, Protocol and then press OK. Press OK again to confirm the project settings.



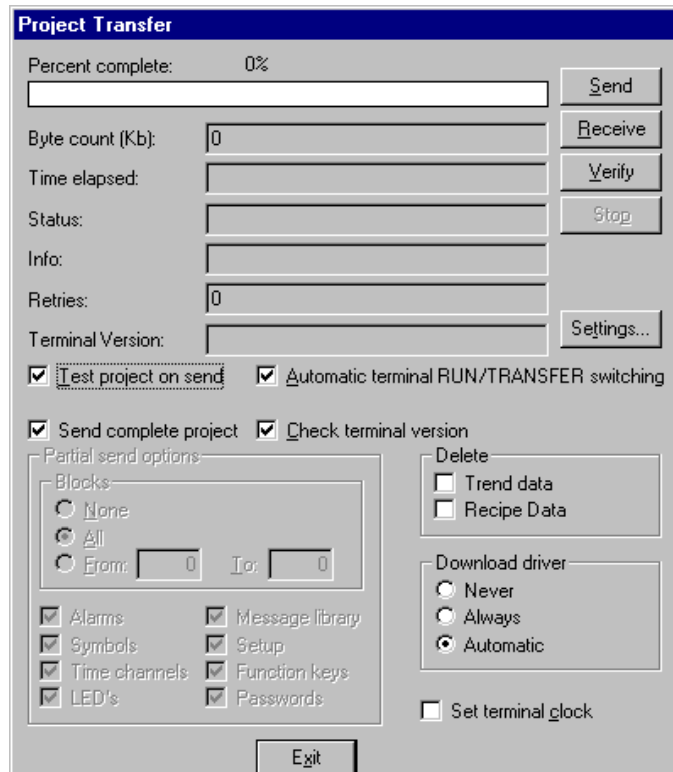
Communication setup

The settings for the communication between the terminal and the Demo driver are done under **Peripherals** in the **Setup** menu..



Transfer the driver to the terminal

The selected driver is downloaded into the terminal when the project is transferred to the terminal. Choose Project in the Transfer menu.



There are three alternatives when the driver is downloaded into the terminal:

Function	Description
Never	The driver is not down-loaded and the existing driver in the terminal is used.
Always	The driver is down-loaded every time the project is transferred.
Automatic	The driver is down-loaded if the driver in the terminal is not the same as the selected driver in the project. If it is the same the driver is not down-loaded.

4 Addressing

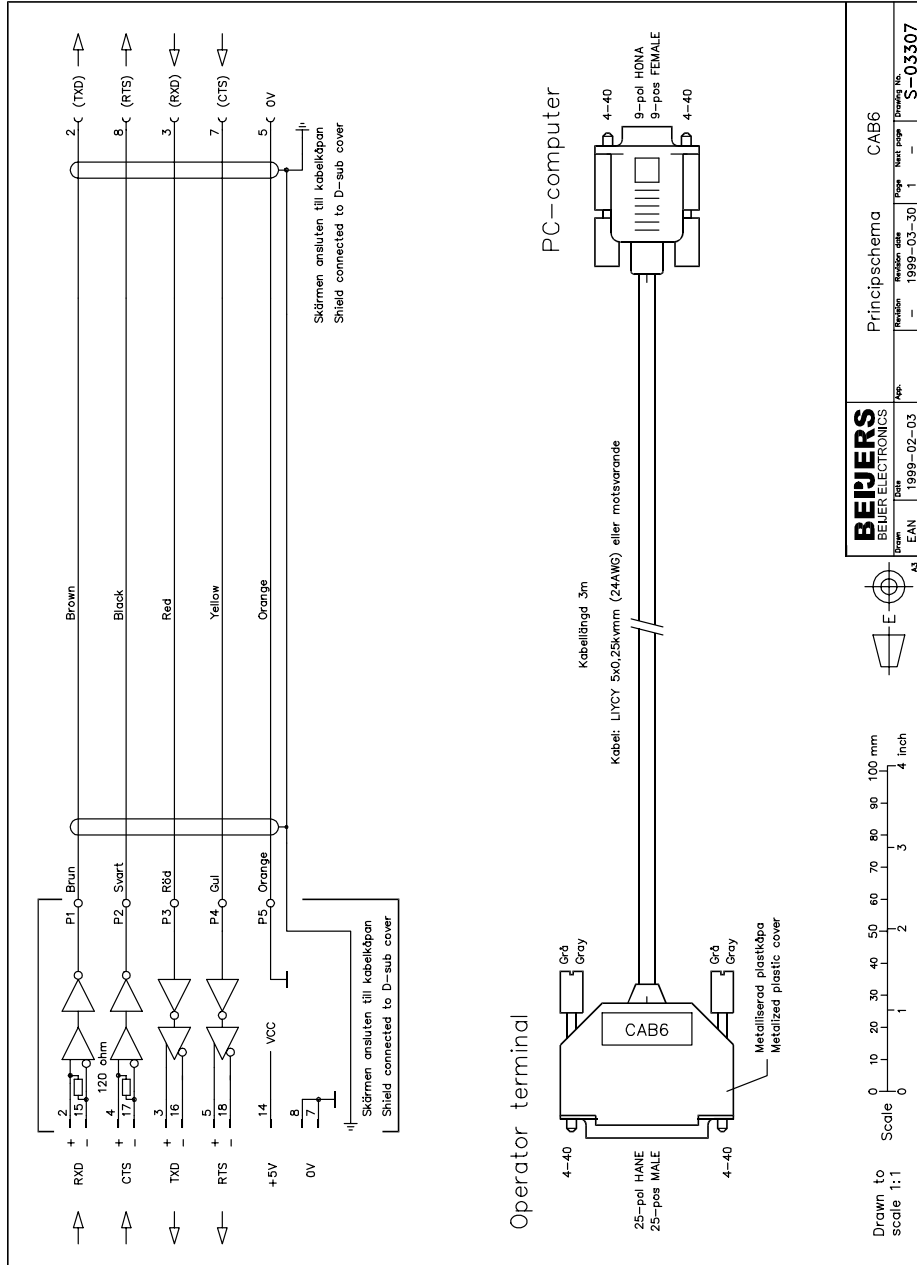
The terminal can handle the following data types:

Digital devices

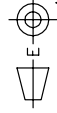
Type	Address	Comment
Mxx	M0-M99	Memory cell

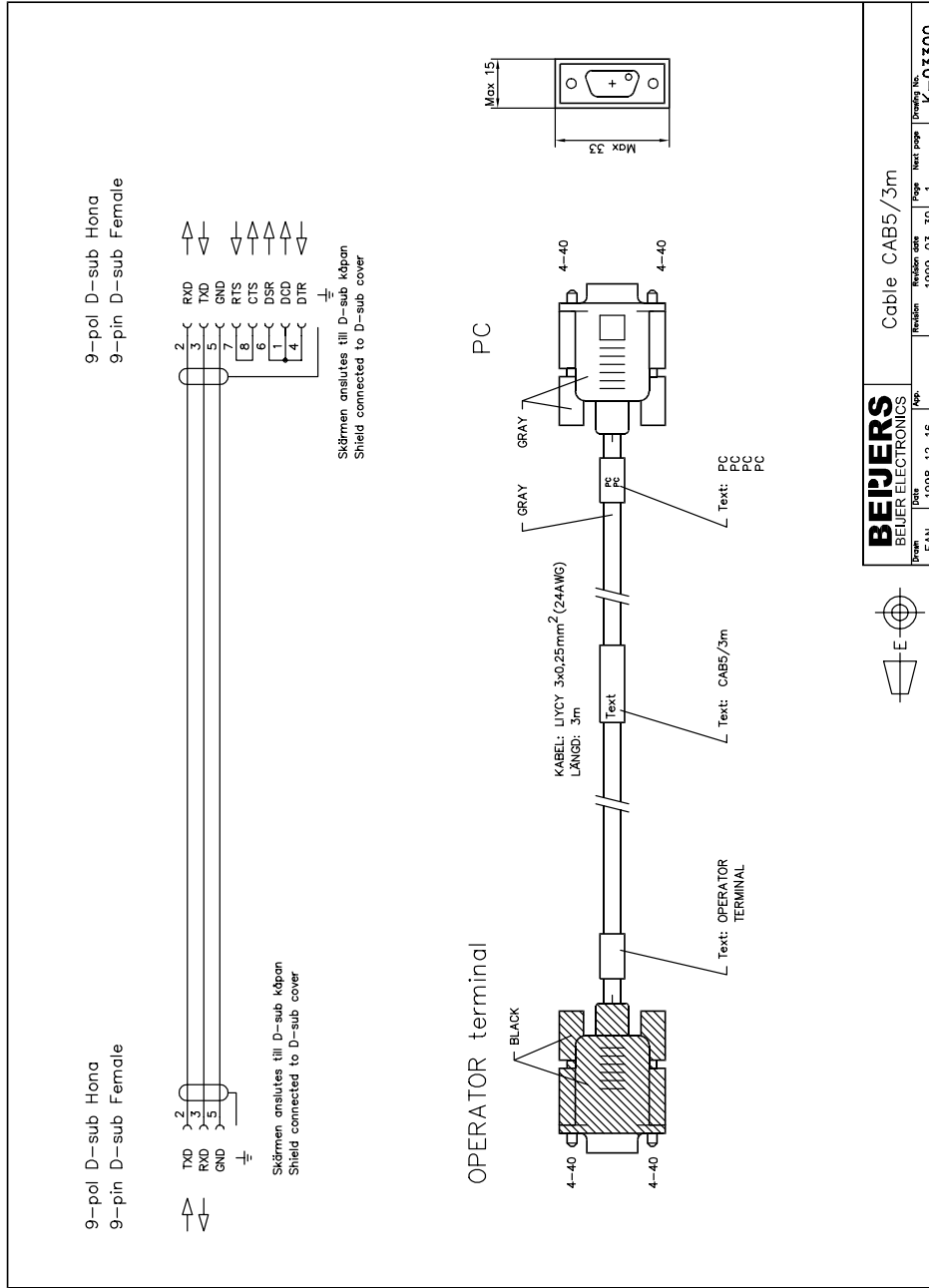
Analog devices

Type	Address	Comment
Dxx	D0-D99	Data register, analog 16-bit

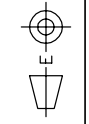


BEIJERS BEIJER ELECTRONICS		Principschema		CAB6	
Proj. No.	1999-02-03	Revision	1999-03-30	Page	1
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				Proj. No.	S-03307





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EAN		Page	1
		Sheet	1
		Page	1
		Rev. no.	K-03300



Demo drivrutin

Denna manual är en installations- och hanteringsmanual till Demo drivrutinen för operatörsterminalerna i E-serien. Funktionaliteten i terminalerna och i MAC Programmer+ är beskriven i E-serie manualen.

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Beijer Electronics AB reserverar sig mot att informationen i denna manual kan komma att ändra sig utan föregående varning. Alla exempel i denna i denna manual används endast för att öka förståelsen om hur programmen arbetar. Beijer Electronics AB tar inget ansvar för att dessa fungerar i verkliga applikationer.

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1 Introduktion

Manualen beskriver hur man kan testa, visa och demonstrera en del av funktionaliteten i E-seriens operatörsterminaler utan att ha något PLC-system anslutet.

2 Installation och uppdatering av drivrutin

Tillgängliga drivrutiner installeras samtidigt som MAC Programmer+ installeras. En ny drivrutin kan läggas till i MAC Programmer+ antingen med hjälp av MAC Programmer+ och en Internet anslutning eller från diskett. En drivrutin uppdateras till nyare version på samma sätt.

2.1 Installation av drivrutin med Internet

För att uppdatera tillgängliga drivrutiner till senaste version eller för att installera nya drivrutiner används funktionen Update terminal drivers, from Internet i menyn File i MAC Programmer+. Alla projekt måste stängas innan funktionen används och datorn måste kunna göra en Internet anslutning. Någon browser behövs inte. När anslutningen är etablerad visas en lista med alla drivrutiner som kan laddas ner via Internet till datorn. I listan visas versionsnummer på tillgängliga drivrutiner och versionsnumret på installerade drivrutiner i MAC Programmer+. Markera de drivrutiner som skall installeras i MAC Programmer+. Funktionen Mark Newer markerar alla drivrutiner som finns tillgängliga i en senare version och de som inte är installerade. Välj därefter Download. Varje drivrutin är ungefär 500 kb stor och de är färdiga att använda när nedladdningen är klar.

2.2 Installation av drivrutin från disk

För att uppdatera tillgängliga drivrutiner till senaste version eller för att installera nya drivrutiner används funktionen Update terminal drivers, from Disk i menyn File i MAC Programmer+. Alla projekt måste stängas innan funktionen används. Välj den katalog som innehåller den nya drivrutinen och öppna mpd-filen. En lista visas med alla drivrutiner som kan installeras. I listan visas versionsnummer på tillgängliga drivrutiner och versionsnumret på installerade drivrutiner i MAC Programmer+. Markera de drivrutiner som skall installeras i MAC Programmer+. Funktionen Mark Newer markerar alla drivrutiner som finns tillgängliga i en senare version och de som inte är installerade. Välj därefter Install.

Hur man väljer Demo drivrutinen i projektet och hur man överför den till terminalen beskrivs i *kapitel 3*.

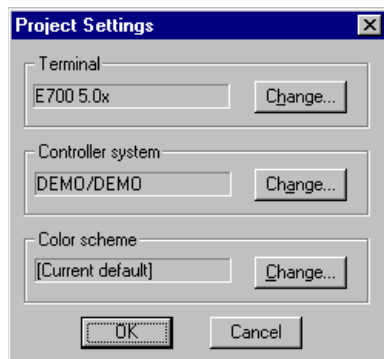
3 Anslutning av terminalen

3.1 Inställningar i MAC Programmer+

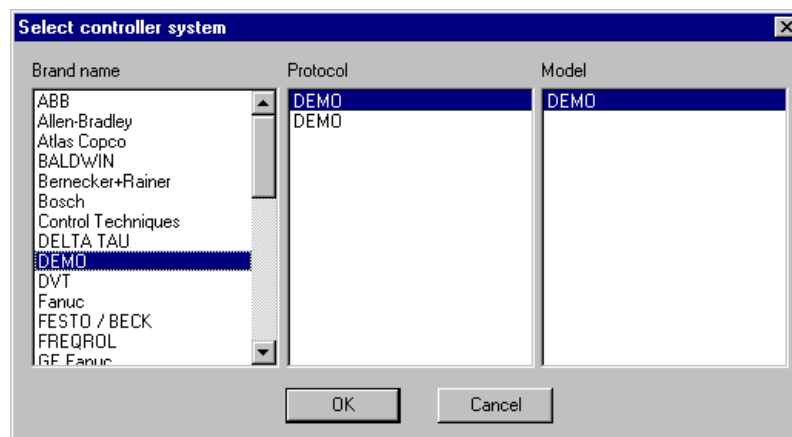
För kommunikation med Demo drivrutinen måste följande inställningar göras i programmeringsverktyget MAC Programmer+.

Val av drivrutin

Välj **New** i **File** menyn, då skapas ett nytt projekt och dialogen **Project Settings** visas. I ett befintligt projekt, visas dialogen genom då man väljer **Project Settings** i **File** menyn.

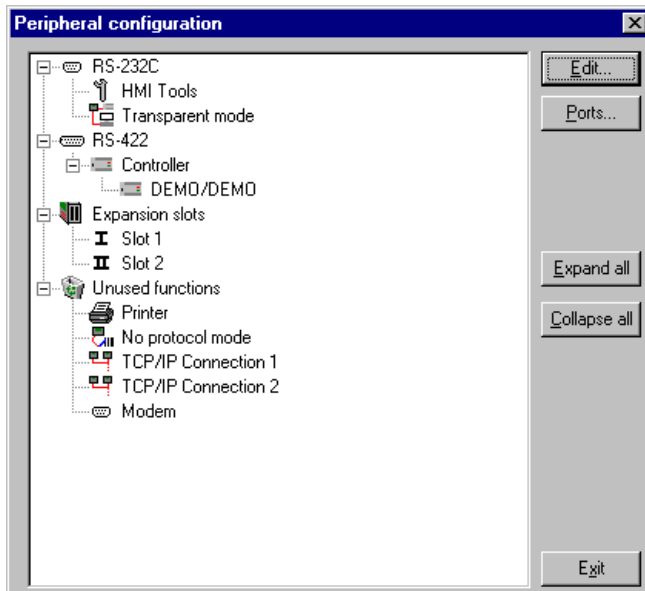


Tryck på **Change...** under Controller system och välj i listan över tillgängliga system. Välj fabrikat, protokoll och modell och tryck för OK. Tryck på OK igen och bekräfta projektinställningarna.



Kommunikationsinställning

Inställningarna för kommunikationen mellan terminalen och drivrutinen behöver normalt inte ändras. Eventuella ändringar utföres under **Peripherals** i **Setup** menyn.



Överföra drivrutinen till terminalen

Drivrutinen laddas ner till terminalen när hela projektet överförs till terminalen. Välj **Project** i **Transfer** meny.

The screenshot shows the 'Project Transfer' dialog box. At the top, it displays 'Percent complete: 0%' and a progress bar. Below this are several input fields: 'Byte count (Kb): 0', 'Time elapsed:', 'Status:', 'Info:', 'Retries: 0', and 'Terminal Version:'. To the right of these fields are buttons for 'Send', 'Receive', 'Verify', 'Stop', and 'Settings...'. Below the input fields are several checked checkboxes: 'Test project on send', 'Automatic terminal RUN/TRANSFER switching', 'Send complete project', and 'Check terminal version'. There is a section for 'Partial send options' with radio buttons for 'None', 'All', and 'From: 0 To: 0'. Below this are two columns of checked checkboxes: 'Alarms', 'Symbols', 'Time channels', 'LED's', 'Message library', 'Setup', 'Function keys', and 'Passwords'. To the right of these are two sections: 'Delete' with checkboxes for 'Trend data' and 'Recipe Data', and 'Download driver' with radio buttons for 'Never', 'Always', and 'Automatic'. At the bottom right is a checkbox for 'Set terminal clock'. An 'Exit' button is located at the bottom center.

4 Adressering

Terminalen kan hantera följande datatyper i drivrutinen.

Digitala signaler

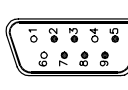
Typ	Adress	Kommentar
Mxx	M0-M99	Minnescell

Analoga signaler

Typ	Adress	Kommentar
Dxx	D0-D99	Dataregister, analog 16 bitar

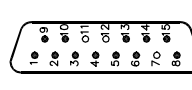
5 Ritningar

RS-232 MAC 50/90/Exxx, MTA-250/G1/Exxx MAC 10/CM, CM10		
Pin no	Name	Signal direction MAC ←→ XXX
2	TxD	↑
3	RxD	↓
5	0V	
7	CTS	↓
8	RTS	↑
9*	+5V <5mA	↑



D-sub
9-pol Hona
9-pin Male

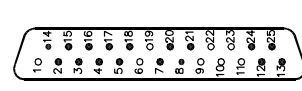
RS-422 MAC 60/90, MTA-250/G1		
Pin no	Name	Signal direction MAC ←→ XXX
2	+TxD	↑
1	-TxD	
4	+RxD	↓
3	-RxD	
6	+RTS	↑
5	-RTS	
10	+CTS	↓
9	-CTS	
8,15	0V	
13,14	+5V <20mA	↑



D-sub
15-pol Hona
15-pin Female

* E1 i E-serien
Not in E-series

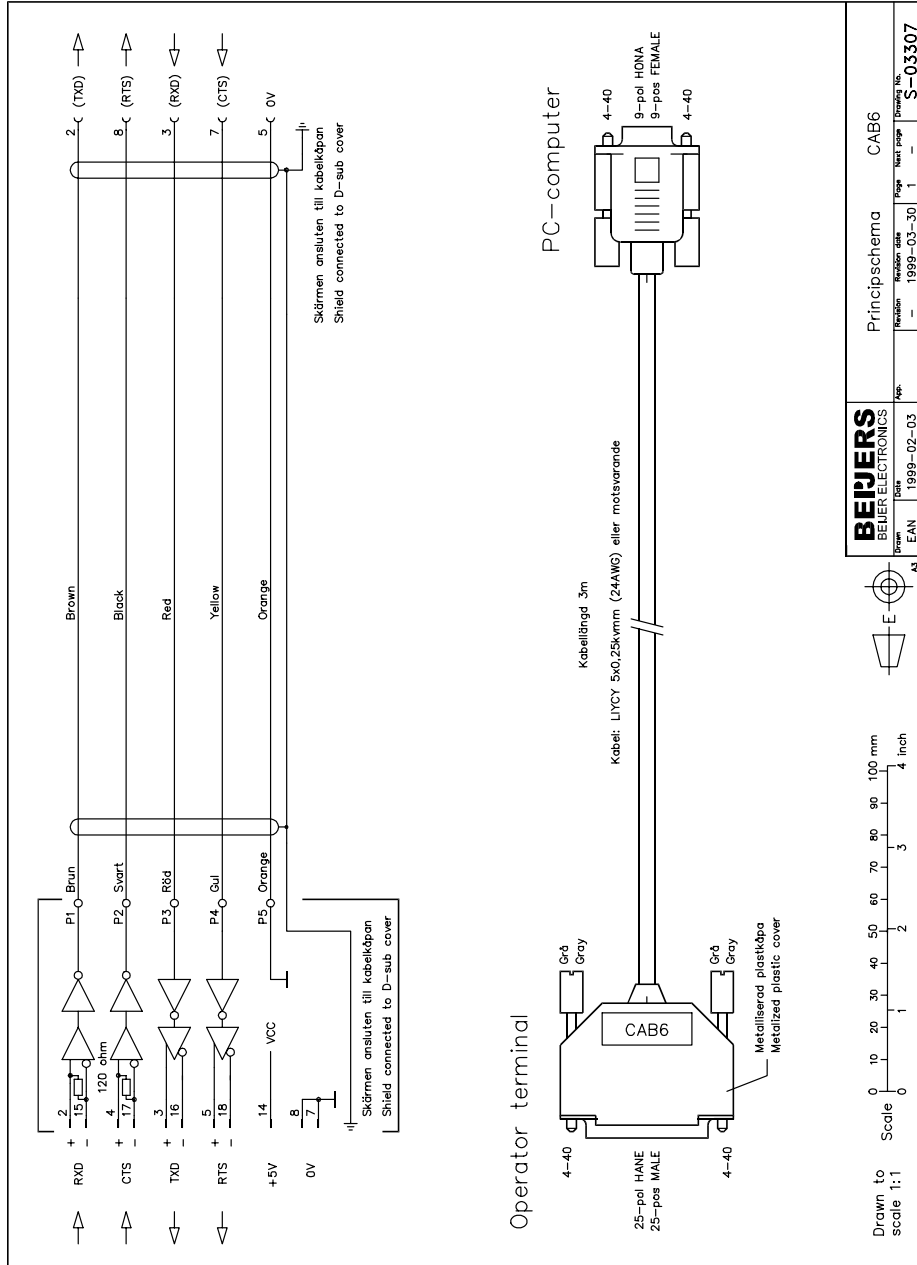
RS-422 MAC 40+/Exxx, MTA-100/Exxx MAC 10/CM, CM10		
Pin no	Name	Signal direction MAC ←→ XXX
2	+TxD	↑
15	-TxD	
3	+RxD	↓
16	-RxD	
4	+RTS	↑
17	-RTS	
5	+CTS	↓
18	-CTS	
20 1)		
21 1)		
7,8	0V	
14	2) +5V <50mA	↑
12,13 3) +5V 24,25 >200mA		↓



D-sub
25-pol Hona
25-pin Female

1) Stift 20 är anslutet till stift 21 internt i MAC'en.
Pin no 20 connected to pin no 21 internal in MAC/MTA.
2) Endast i E-serien och med serie nr 9901 eller senare
Only for E-series and with serial no 9901 or later
3) Endast E100/MAC40+/MTA-100
Only for E100/MAC40+/MTA-100

BEIJERS BEIJER ELECTRONICS	MAC/MTA RS-232/RS-422	
Titel: B.L.E.	Revision: —	Page: 1
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