Cables and Connectors

Technical Reference

Version 2.0, November 1991

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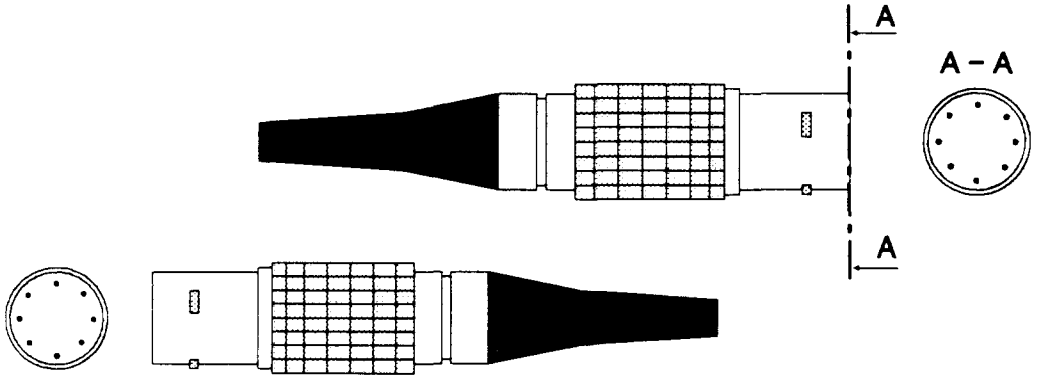
Contents

1. Link Connector Cable LNK-1/LNK-10/LNK-30

The LNK-(x) cables are link connector cables according to UniLink standard with a Lemosa male plug on each side.



All connectors in this manual are shown in a front view and a cross-section view!

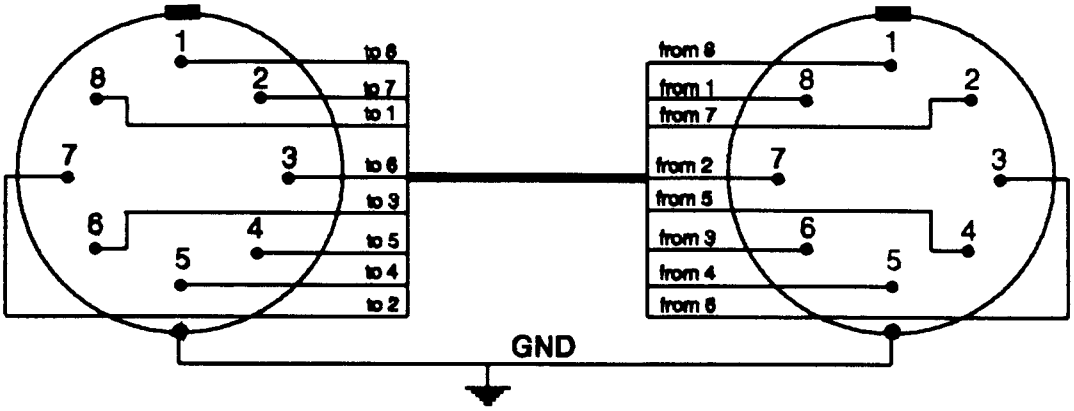
Usability:

These cables are used whenever links shall be connected via the front panels of the applied boards, for the Lemosa technology is designed especially for front plate assembly. They are available in three different designs whereby in each case a different transfer rate is allowed.

Technical Data:

	LNK-1	LNK-10	LNK-30
Line length	**1.5m**	**10m**	**30m**
Type	**plast sheathed round cable with 8 wires**		
Plug connector	**Lemosa male plug connector on each side**		
Data transfer rate	**up to 20Mbit/s**	**up to 20Mbit/s**	**up to 10Mbit/s**

The terminal assignment of the cable is outlined below, whereby the UniLink standard is briefly shown for easier understanding:



UniLink standard:

1 RESETOUT +
2 RESETOUT -
3 LINKOUT +
4 LINKOUT -
5 LINKIN -
6 LINKIN +
7 RESETIN -
8 RESETIN +

2. Link Expansion Cable LNK-10-VER

The LNK-10-VER is a link expansion cable for UniLink standard with a Lemosa male connector plug on the one end and a female plug on the other end.

Usability:

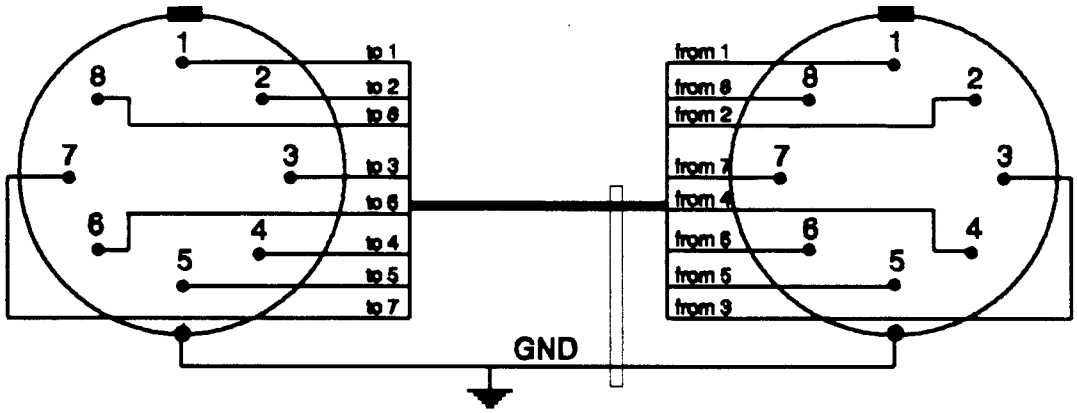
This cable is used whenever links shall be connected via the front panels of the applied boards and the length of the existing LNK-(x) is no longer sufficient.

✎ **Note: The cable alone may not be used as link connection, for it connects the Lemosa plugs 1:1 and therefore not according to UniLink standard. Furthermore the former transfer rate may be reduced by using this cable.**

Technical Data:

Line length	**10m**
Type	**Plast sheathed round cable with 8 wires**
Connector plug	**Lemosa male / Lemosa female**
Data transfer rate	**depending on total line length**

The terminal assignment of the cable is outlined below, whereby the UniLink standard is briefly shown for easier understanding:



UniLink standard:

1 RESETOUT +
2 RESETOUT -
3 LINKOUT +
4 LINKOUT -
5 LINKIN -
6 LINKIN +
7 RESETIN -
8 RESETIN +

3. Link Connector Cable LNK-Lemo-Berg

The link connector cable LNK-Lemo-Berg is designed for connecting links according to UniLink standard by a Lemosa male on the one end and a Berg female plug on the other end.

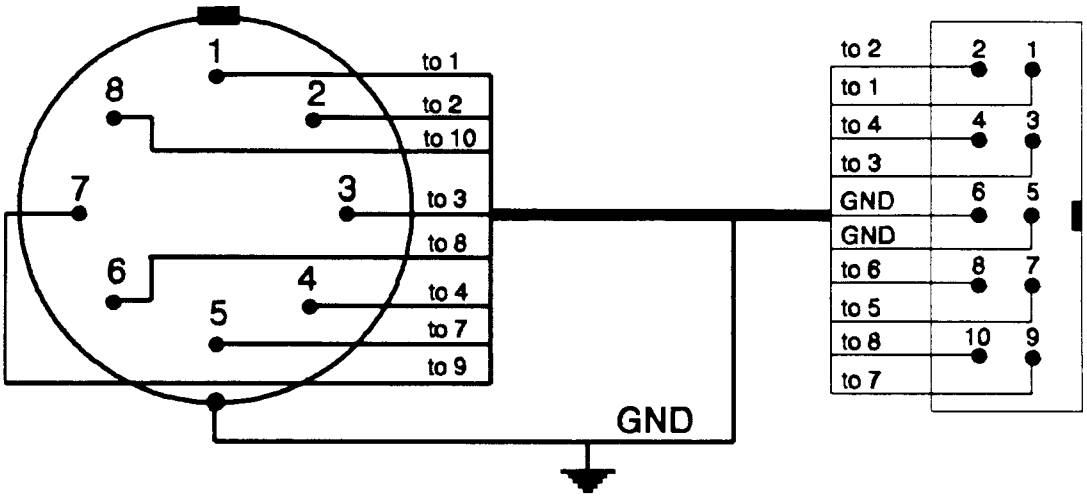
Usability:

It is used whenever links with different layout shall be connected, whereby the Lemosa standard is especially found on front panels of boards or systems, Berg connector plugs however, are applicable for circuit board assembly and therefore used on backplanes or directly on the boards.

Technical Data:

Line length	**2m**
Type	**10 polar flat cable**
Connector plug	**Lemosa male / Berg female**
Data transfer rate	**up to 20Mbit/s**

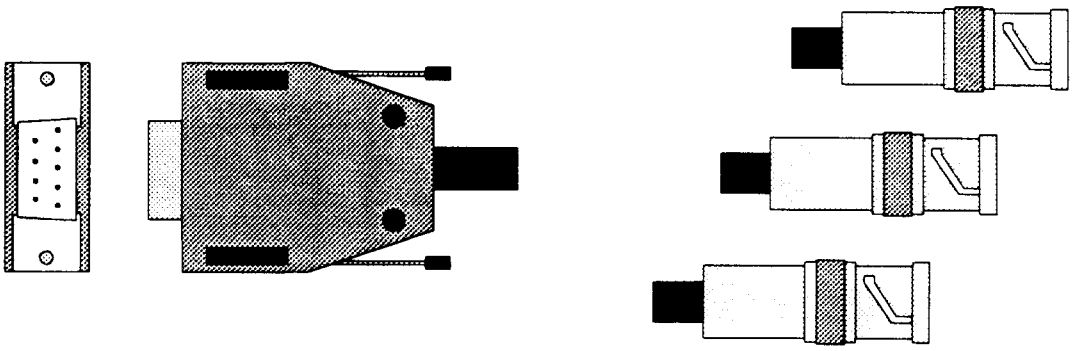
The terminal assignment of the cable is outlined below, whereby the UniLink standard is briefly shown for easier understanding:



UniLink standard:	LEMO	BERG	terminal
	1	10	RESETOUT +
	2	9	RESETOUT -
	3	8	LINKOUT +
	4	7	LINKOUT -
	5	4	LINKIN -
	6	3	LINKIN +
	7	2	RESETIN -
	8	1	RESETIN +
	shield	5,6	GND

4. Video Cable RGB-BNC-Sub-9D

The RGB-BNC-Sub-9D cable is a video signal transfer cable (RGB signals) that connects the mentioned signals from three BNC plugs to one Sub-9D plug.



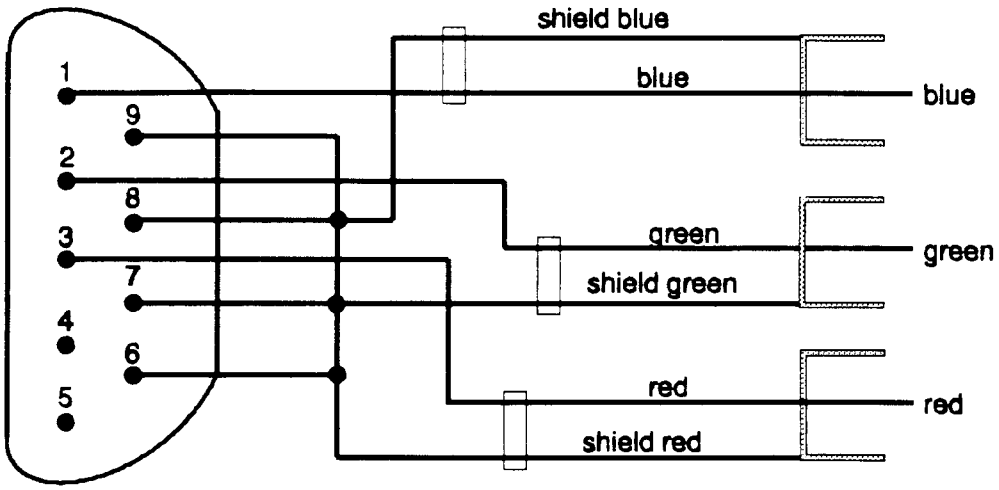
Usability:

It is designed especially for the use in coherence with Parsytec's GDS or TFG boards.

Technical Data:

Line length	**2m**
Type	**3 coaxial cable (75 Ohm) grouped**
Connector plug	**Sub-9D / 3 BNC plugs**

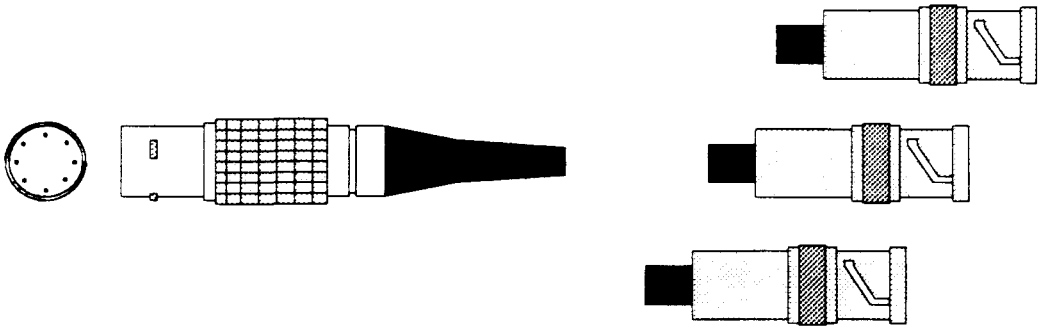
The terminal assignment of the cable is outlined below:



The ground attachments are jumpered inside the Sub-D case.

5. Video Cable RGB-Lemo-BNC

The RGB-Lemo-BNC cable is a video signal transfer cable (RGB signals) that converts the mentioned colour signals from a Lemosa male connector plug to three BNC plugs.



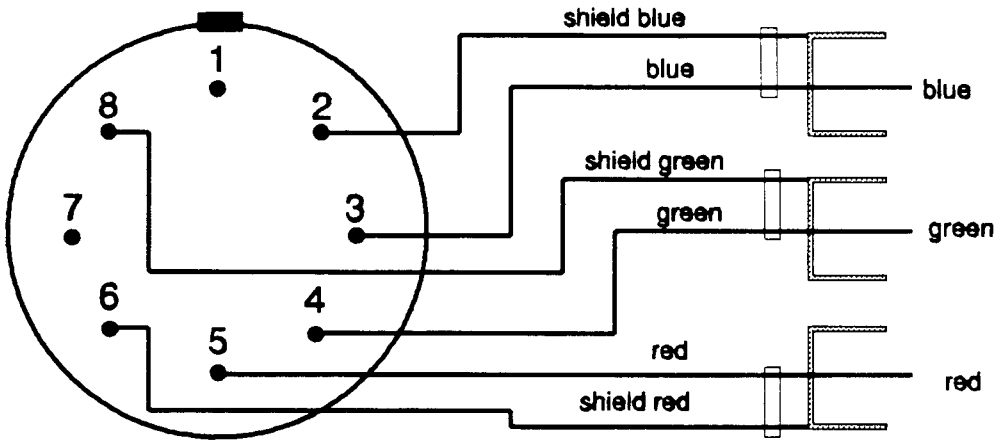
Usability:

It is designed especially for the use in coherence with Parsytec's GDS or TFG boards.

Technical Data:

Line length	**2m**
Type	**3 coaxial cable (75 Ohm) grouped**
Connector plug	**Lemosa male / 3 BNC plugs**

The terminal assignment of the cable is outlined below:



6. Video Cable RGB-Lemo-Sub-9D

The RGB-Lemo-Sub-9D cable is a video signal transfer cable (RGB signals) that converts the mentioned colour signals from a Lemosa male connector plug to a Sub-9D plug.

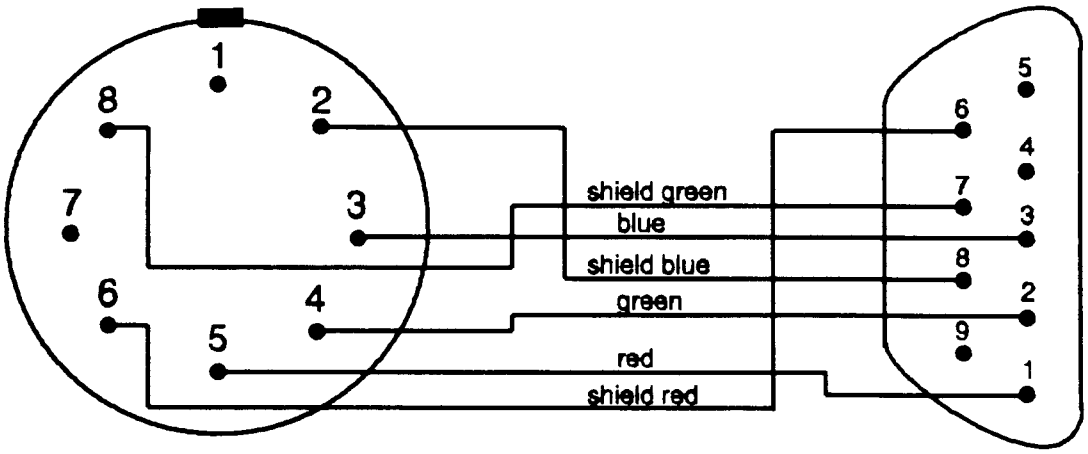
Usability:

It is designed especially for the use in coherence with Parsytec's GDS or TFG boards.

Technical Data:

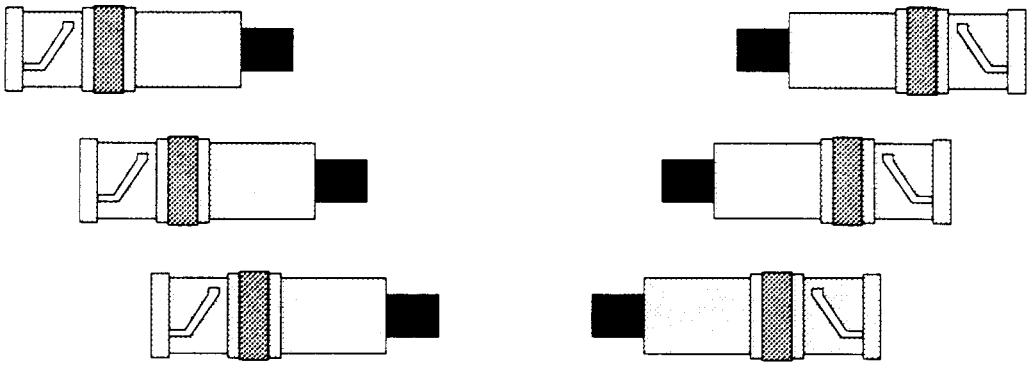
Line length	**2m**
Type	**3 coaxial cable (75 Ohm) grouped**
Connector plug	**Lemosa male / Sub-9D plug**

The terminal assignment of the cable is outlined below:



7. Camera Cable RGB-BNC-BNC

The camera cable RGB-BNC-BNC consists of three usual coaxial cables with BNC male connectors on each end.



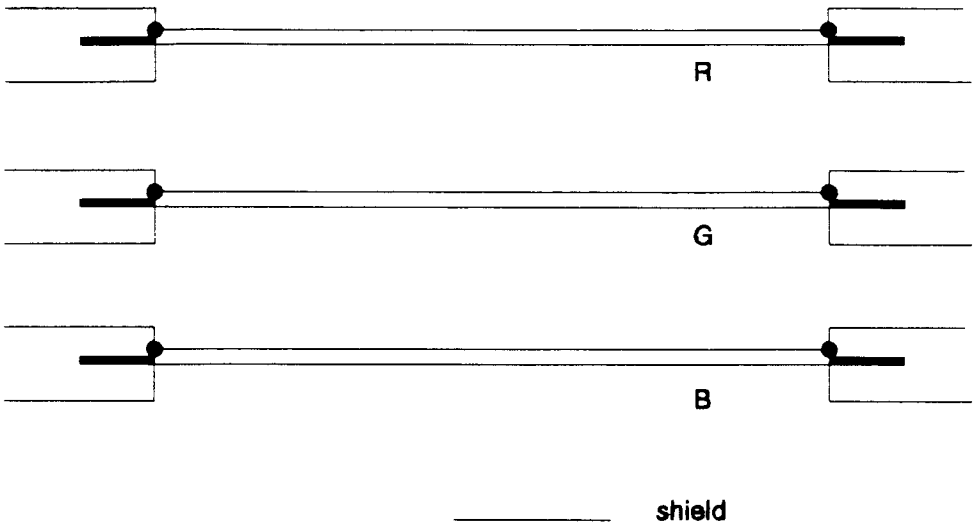
Usability:

It is used to transfer the three colour signals. It is not manufactured by Parsytec.

Technical Data:

Line length	**2m**
Type	**3 coaxial cables (75 Ohm) not grouped**
Plug connector	**BNC male connector on each end**

The terminal assignment of the cable is outlined below:



8. Link Connector Cable LNK-Berg-Lemo/clutch

The link connector cable LNK-Berg-Lemo/clutch is used for the adapting of links according to UniLink standard with a Lemosa female connector plug at one end and a Berg female connector plug at the other end.

Usability:

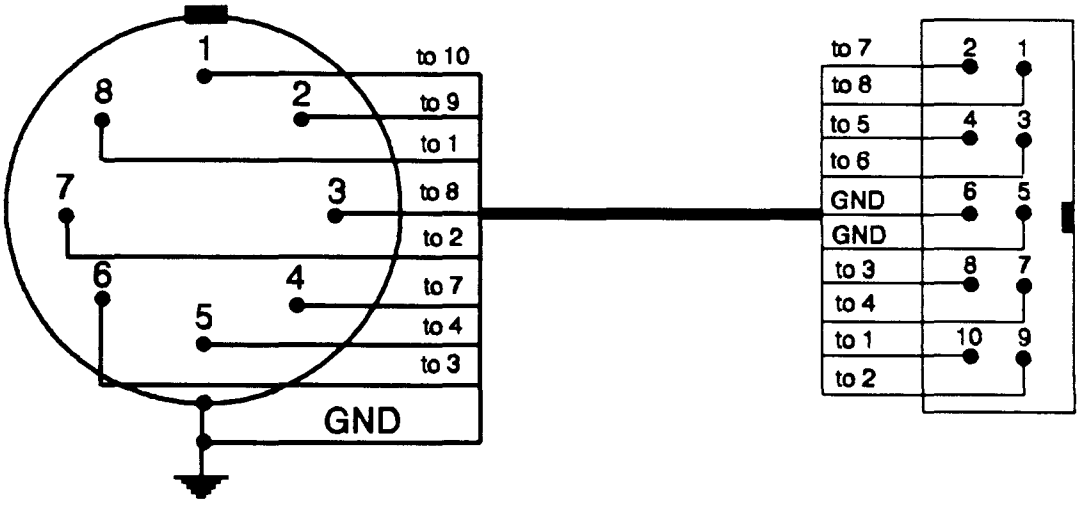
It is used whenever links with different layout shall be connected, whereby the Lemosa standard is especially found on front plates of boards or systems, Berg connector plugs however, are applicable for circuit board assembly and therefore used on backplanes or directly on the boards.

✎ **Note: The cable can not be used for direct link connection, but is used for adaptation and extension of LNK(x) cables to the Berg standard.**

Technical Data:

Line length	**2m**
Type	**flat cable 10 polar**
Connector plug	**Lemosa female / Berg female**
Data transfer rate	**up to 20Mbit/s** **(is reduced in connection with a LNK-30 cable)**

The terminal assignment of the cable is outlined below, whereby the UniLink standard is briefly shown for easier understanding:

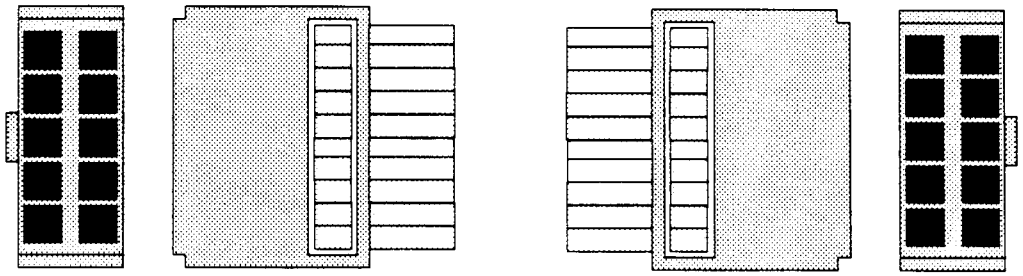


UniLink standard:	LEMO	BERG	terminal
	1	10	RESETOUT +
	2	9	RESETOUT -
	3	8	LINKOUT +
	4	7	LINKOUT -
	5	4	LINKIN -
	6	3	LINKIN +
	7	2	RESETIN -
	8	1	RESETIN +
	shield	5,6	GND

The connection between Lemosa and Berg connector plug follows directly the UniLink standard (no cross connection, therefore only an extension).

9. Link Connection Cable Set BP/LNK

The link connection cable set BP/LNK consists of 10 flat cables with Berg female connector plugs at each end. The set contains cables of different length.



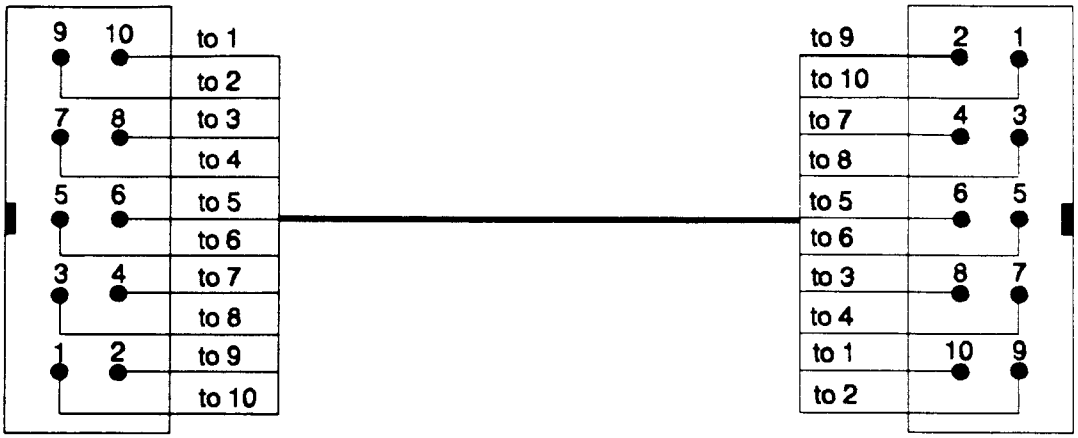
Usability:

This cable set is especially used for system internal link connections via the backplanes.

Technical Data:

Line length	**3x 10cm, 4x 20cm, 2x 30cm, 1x 150cm**
Type	**flat cable 10 polar**
Connector plug	**Berg female connector plugs at each end**
Data transfer rate	**20Mbit/s**

The terminal assignment of the cable is outlined next page, whereby the UniLink standard is briefly shown for easier understanding:



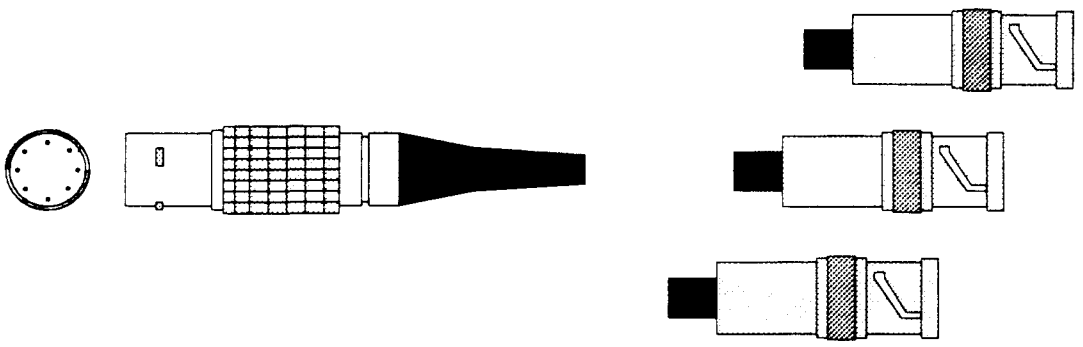
UniLink standard:	BERG	terminal
	10	RESETOUT +
	9	RESETOUT -
	8	LINKOUT +
	7	LINKOUT -
	4	LINKIN -
	3	LINKIN +
	2	RESETIN -
	1	RESETIN +
	5,6	GND

To get a correct Link respectively Reset input/output connection, the following terminals have to be connected:

1 -- 10
2 -- 9
3 -- 8
4 -- 7
5 -- 6

10. Camera Cable TFG-Lemo-BNC

The camera cable TFG-Lemo-BNC is a video signal transfer cable, that converts the video signal as well as the vertical and horizontal synchronous impulses from a Lemosa male plug to three BNC plugs.



Usability:

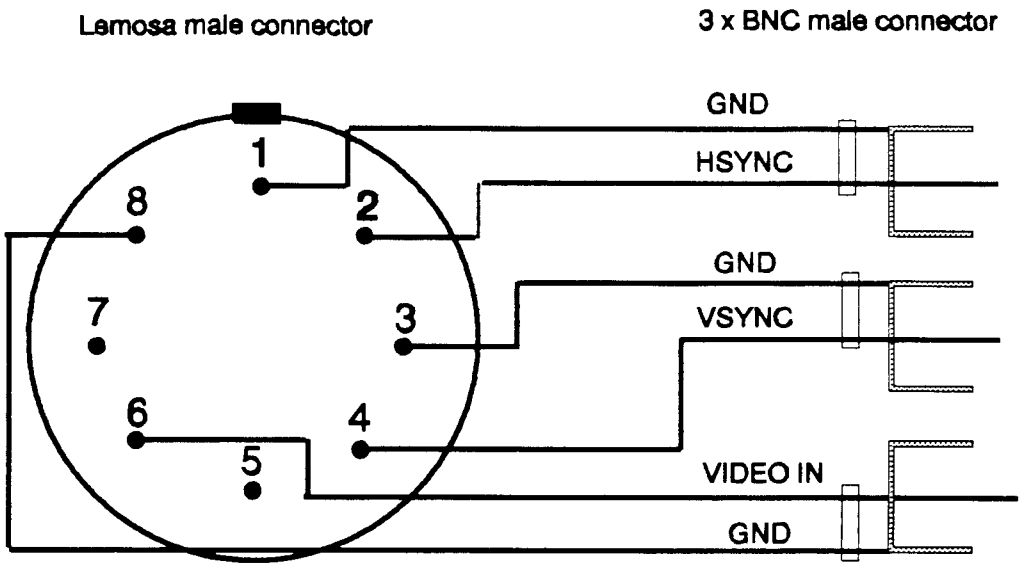
It is especially designed for the use of Parsytec's TFG boards with a camera.

Technical Data:

Line length	**2m**
Type	**3 coaxial cables (75 Ohm) grouped**
Connector plugs	**Lemosa male / 3 BNC plugs**

The terminal assignment of the cable is outlined next page:

terminal assignment of the Camera Cable TFG-Lemo-BNC:



11. Link Adapter Cable LNK-INMOS

The link adapter cable LNK-INMOS is an interface between TTL links and the special INMOS link standard, whereby a Lemosa male connector plug is converted to five Inmos B004 style connector plugs.

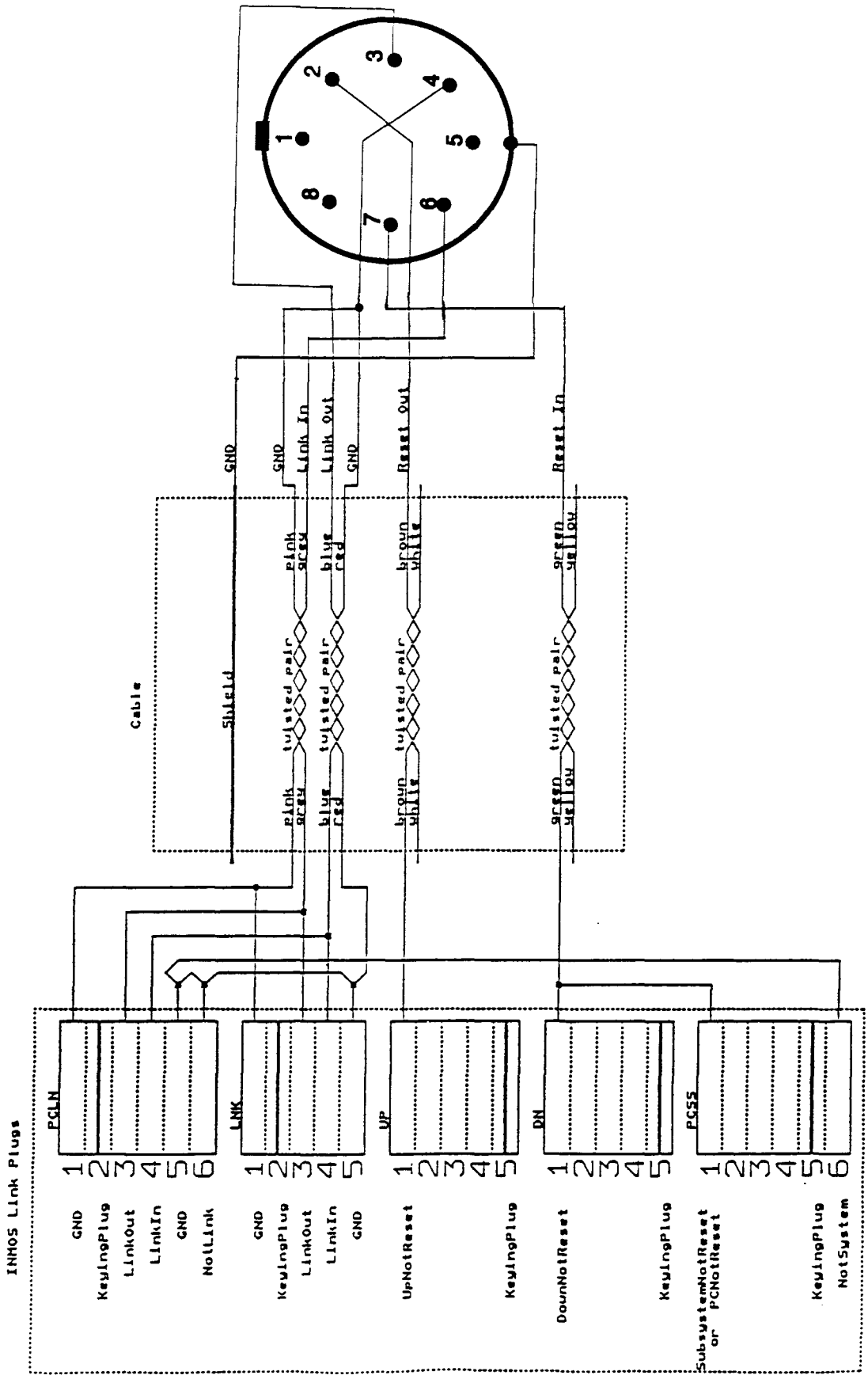
✎ **Note: Obviously no level adapting takes place. Therefore it is to be noted, that this cable can not be connected to UniLink standard Lemosa plugs (a level adapting would be necessary here e.g. via a LNK-CONV-4 box).**

Technical Data:

Line length	**1m**
Type	**shielded plastic cable eight polar twisted**
Connector plugs	**Lemosa male / 5 Inmos B004 flat plugs**
Data transfer rate	**20Mbit/s**

The terminal assignment of the cable is outlined next page:

terminal assignment of the link adapter cable LNK-INMOS:



12. Converter Box LNK-CONV-4

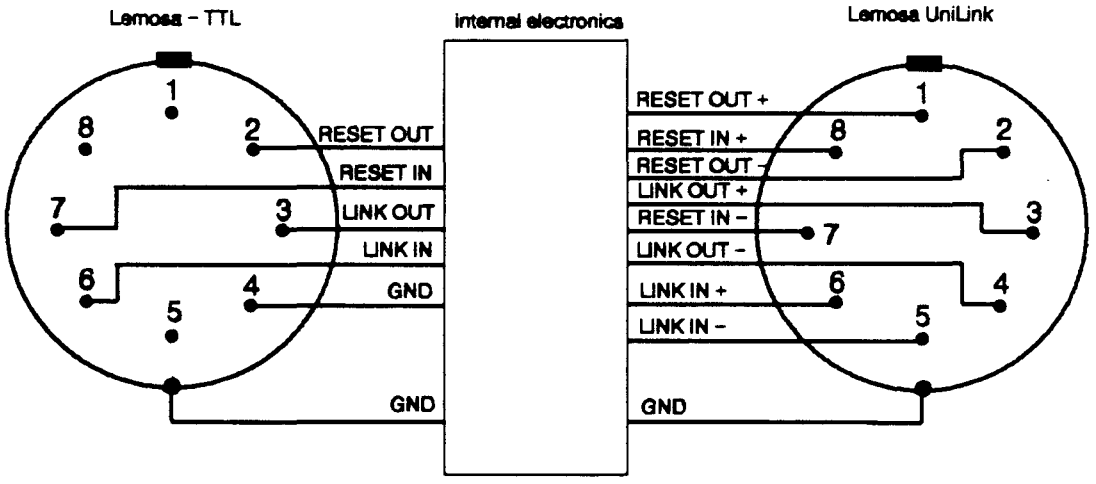
Usability:

The converter box LNK-CONV-4 is a portable possibility of adapting each four TTL links (e.g. Inmos modules) to the UniLink standard. The casket has its own power supply and is fed externally by 220V / 50 Hz. Four Lemosa female sockets are installed on two opposite panels and, in addition to that, a power switch on one panel.

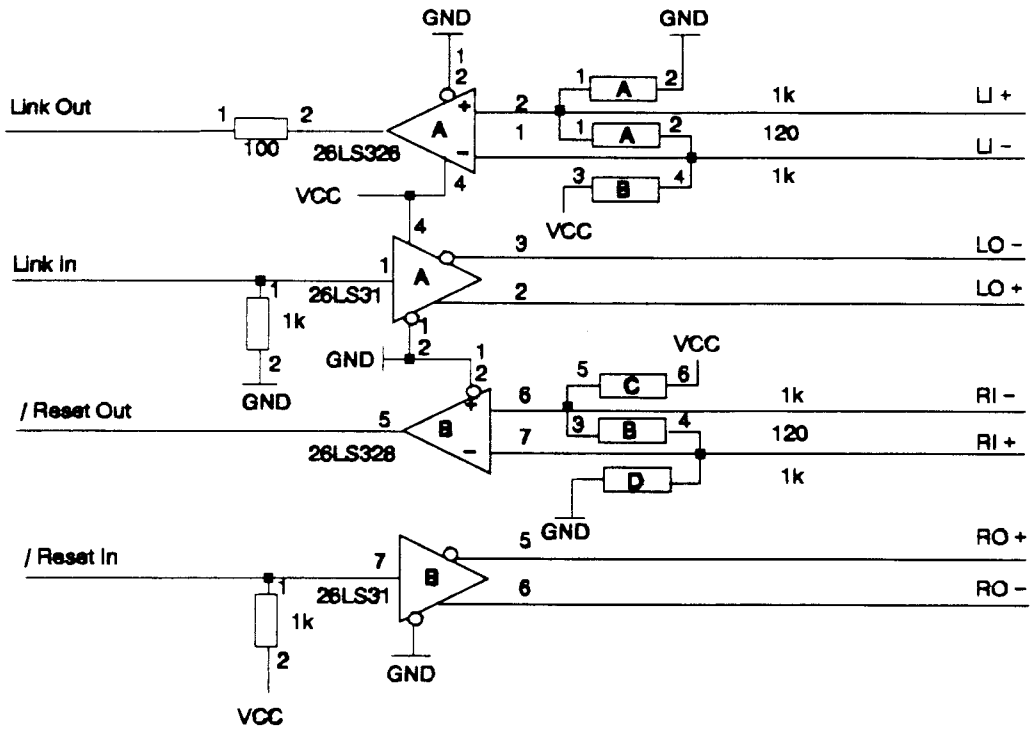
To convert the levels the operational amplifiers

26LS31 TTL	→	UniLink and
26LS32 UniLink	→	TTL are used.

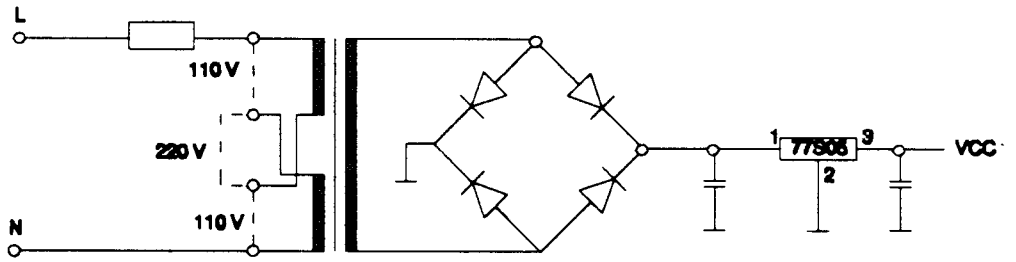
The terminal assignment of the cable is outlined below:



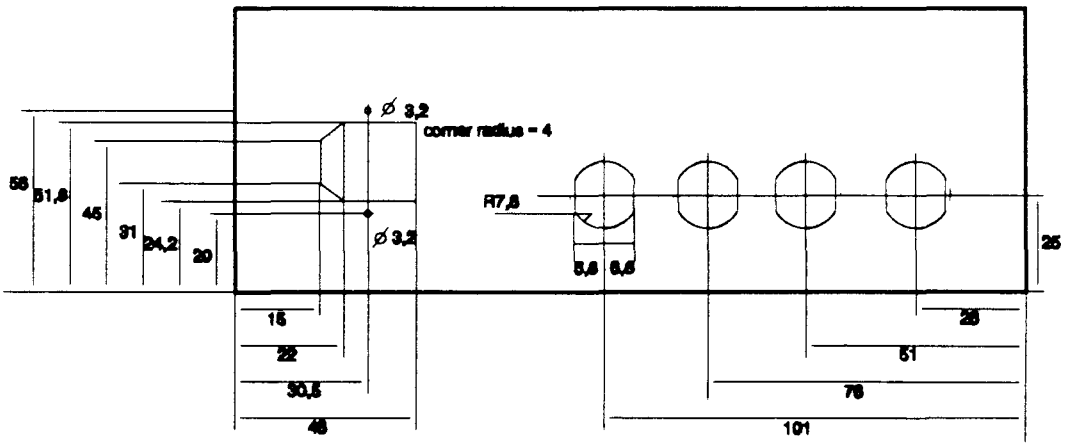
internal electronics:

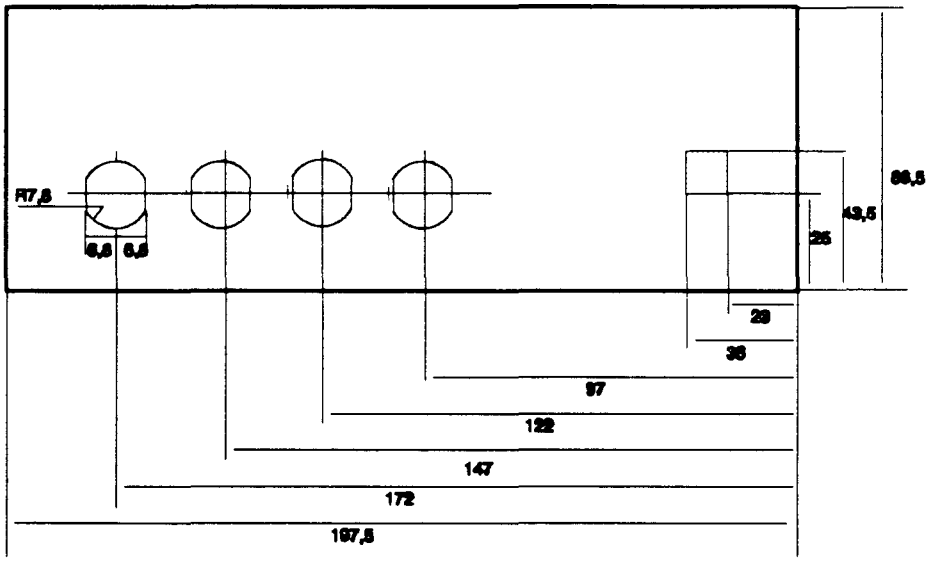


power supply for the internal electronics:



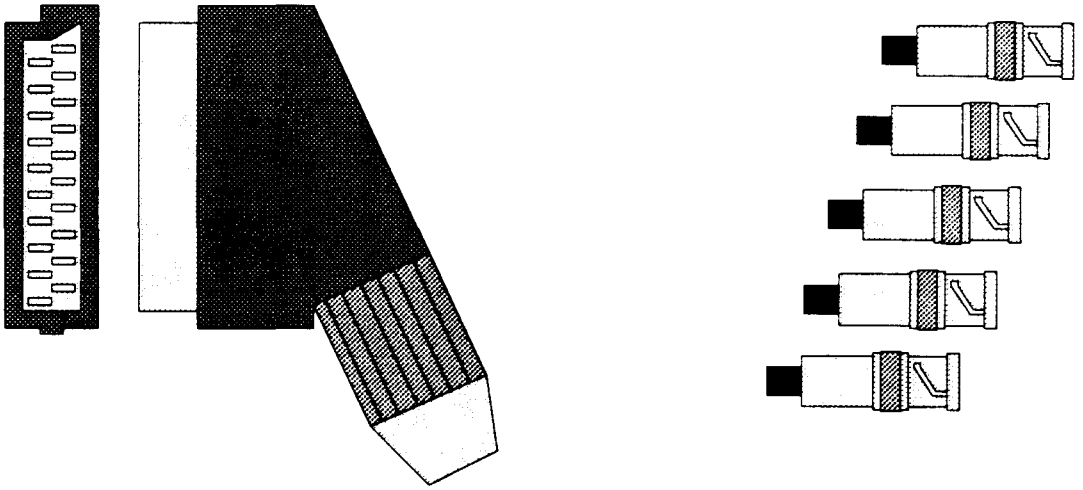
The two front panels of the LNK-CONV-4-box:
In each case 4 holes for Lemosa-sockets.
Power connection in the top figure and
power switch in the bottom figure (marked in grey).





13. Camera Cable TFG-BNC-SCART

The camera cable TFG-BNC-SCART is a video transfer cable, that converts the three video signals (RGB), a status signal and the FBAS signal from a SCART plug to five BNC plugs.



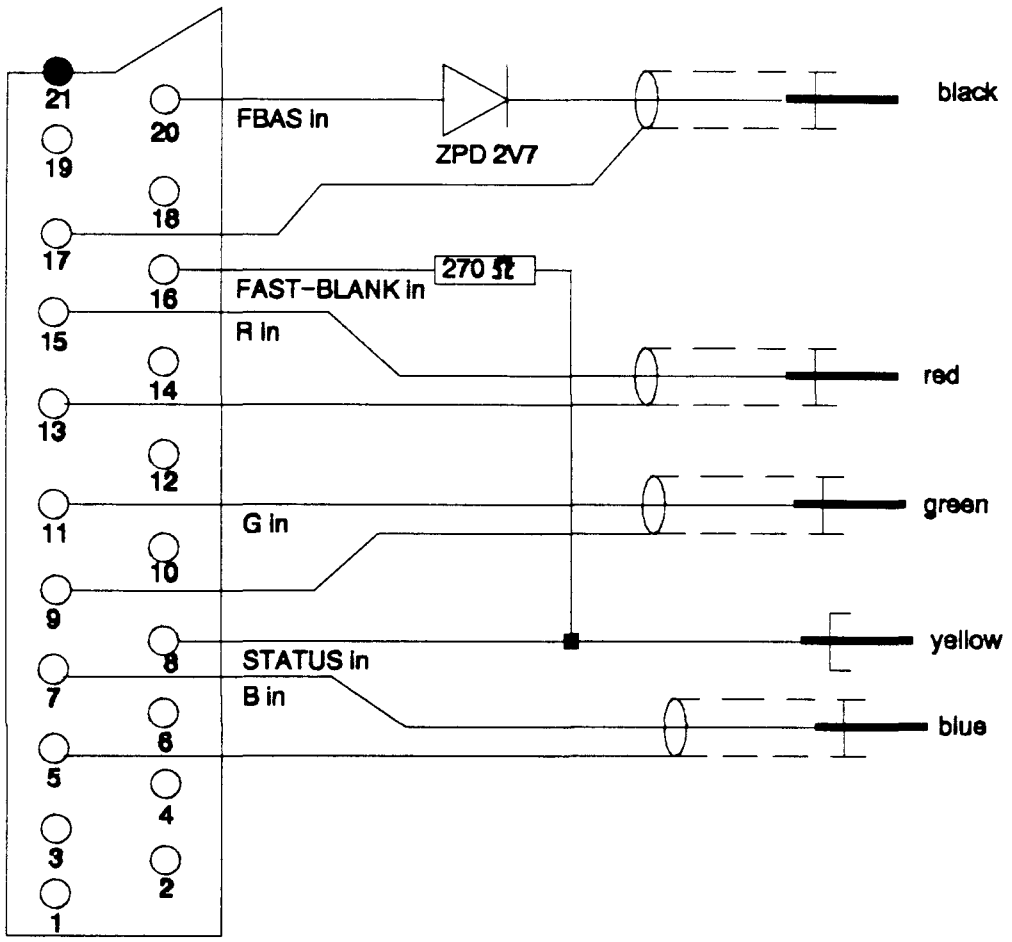
Usability:

This cable is manufactured especially for the use of Parsytec's TFG boards with a camera.

Technical Data:

Line length	**2m**
Type	**5 coaxial cables (75 Ohm) grouped**
Connector plugs	**SCART / 5 BNC plugs**

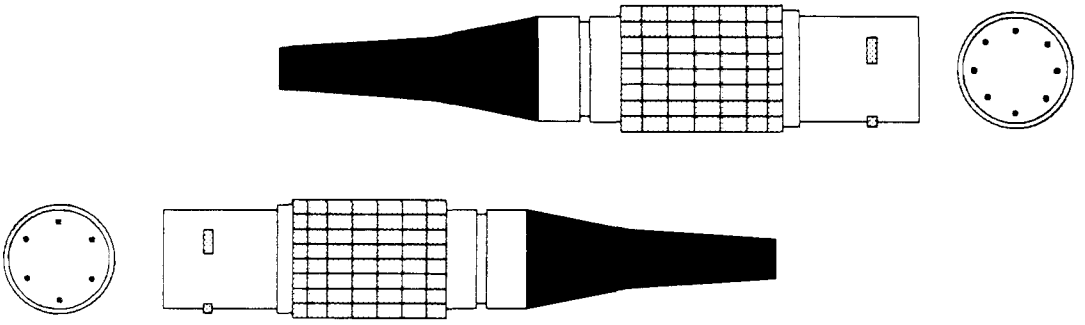
The terminal assignment of the cable is outlined below:



The diode ZPD 2V7 and the resistor 270 Ohm are placed in the SCART case.

14. Link Connector Cable LNK-S

The LNK-S cable is a link connector cable according to UniLink standard with a 6-pin Lemosa male plug on the BBK-S4 side and a 8-pin Lemosa male plug on the other side.



Usability:

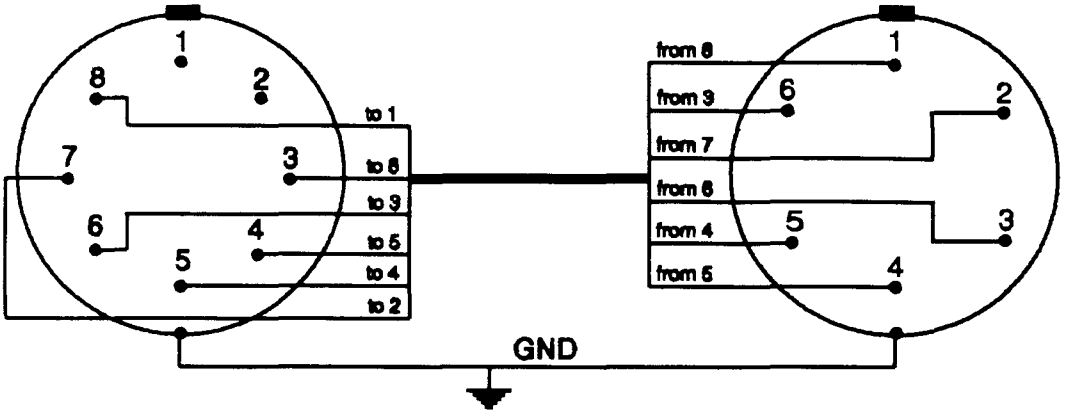
This cable is used whenever links shall be connected via the front panels of the BBK-S4 Module to a Parsytec system, for the Lemosa technology is designed especially for front plate assembly.

Technical Data:

Line length	**10m**
Type	**plast sheathed round cable with 6 wires**
Plug connector	**Lemosa male plug connector on each side**
Data transfer rate	**up to 20MBit/s**

The terminal assignment of the cable is outlined below, whereby the UniLink standard is briefly shown for easier understanding:

Transputer System Side BBK-S4 Side



UniLink standard:

1 RESETOUT +
2 RESETOUT -
3 LINKOUT +
4 LINKOUT -
5 LINKIN -
6 LINKIN +
7 RESETIN -
8 RESETIN +