

Unglaube Identech GmbH

An der Moosach 3a
85376 Massenhausen
Tel.: 0049 (0) 8165 / 9558 0
Fax: 0049 (0) 8165 / 9558 22
info@unglaube.de
www.unglaube.de

**Documentation on Reading Head
DMR-e2u
for DataMatrix
Rev.2 Feb. 2006**



Documentation DMR-e2u for DataMatrix

Reading Head 80x80x125 & 110x110x125 incl. Block Wiring Diagrams

Rev. 2

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1.0. Object List

Your DMR-e2u Stationary Reading System consists of the following components:

1.1. Decoder Model:

Piece	Description
1	Reading head DMR-e2u
1	Videocabel to connect reading head to framegrabber
1	24 V Connector for power supply of reading head
1	Decoder with Software and all required licences
1	In Decoder integrated Profibuscard (optional)
1	Communicator (optional)

1.2. PC Model:

Piece	Description
2	Reading head DMR-e2u
2	Videocabel to connect reading head to framegrabber
2	24 V Connector for power supply of reading head
1	Framegrabber Falcon plus
1	CD with DMR-e2u Software and licences
2	Profibuscard (optional)
1	CD TwinCat IO (optional)
1	Communicator (optional)
1	RS232 Cabel (optional)

All the above mentioned components can be obtained exclusively from the Unglaube Firm.
If you have questions or requests please contact us directly.

2.0. Reading Head

2.1. Description

The Reading Head was developed for your needs. It consists of lighting, camera and lens. All these components are absolutely maintainance free.

The reading head should be installed parallelly to the object surface and should be free from vibration, because a shaking picture can create a bad result.

There shouldn't be any obstacles between reading head and object, because it can create a shadow which is negativ for the reading.

All the necessary settings will be arranged from us in order that the client doesn't need to open the reading head.

If an additional adjustment will be required, it can be made directly by Unglaube Firm.

The reading head runs with voltage of 24 Volt.

The camera and the lighting are ready when conncted with the supplied powerplug.

Attention:

The lighting is not set for non-stop duty.

Connection between reading head and decoder can be effected with the supplied BNC cabel (max. 50m Length).

If you have questions or requests concerning the reading head please contact us directly.

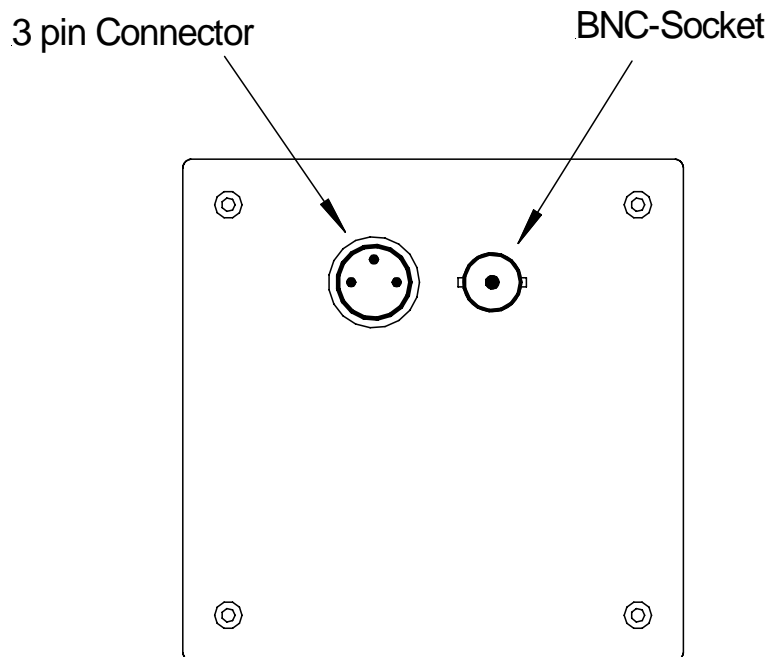
2.2. Terminal Lay-out

There are two plugs on the rear side of your camera.

BNC- Socket for videosignal and 3 pin connector for powersupply.

In order to avoid overheating it is absolutely recommended to switch on the lighting only for the duration of the reading.

Attention: Failure to comply with customs regulations can lead to malfunction of reading head!



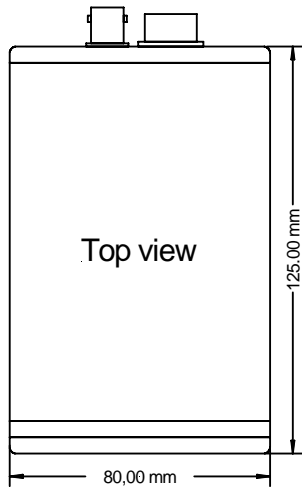
Standard accessory 3 pin Connector
for power supply (soldering side)



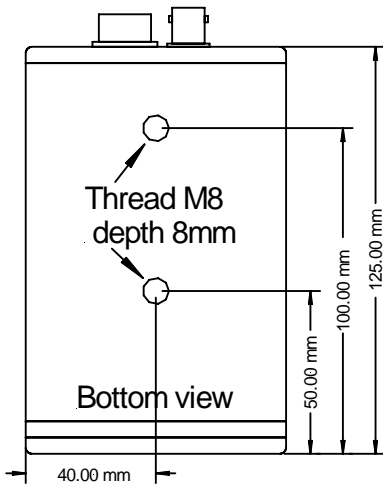
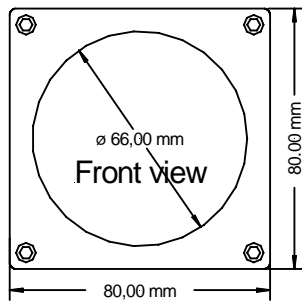
Pin 1 --> 24 VDC
Pin 2 --> 24VDC LED Light
Pin 3 --> GND

Power input: 24V / 2 A ---

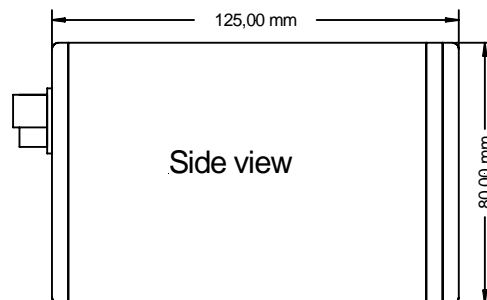
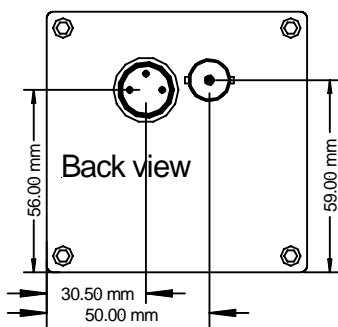
2.3. Casing 80x80x125



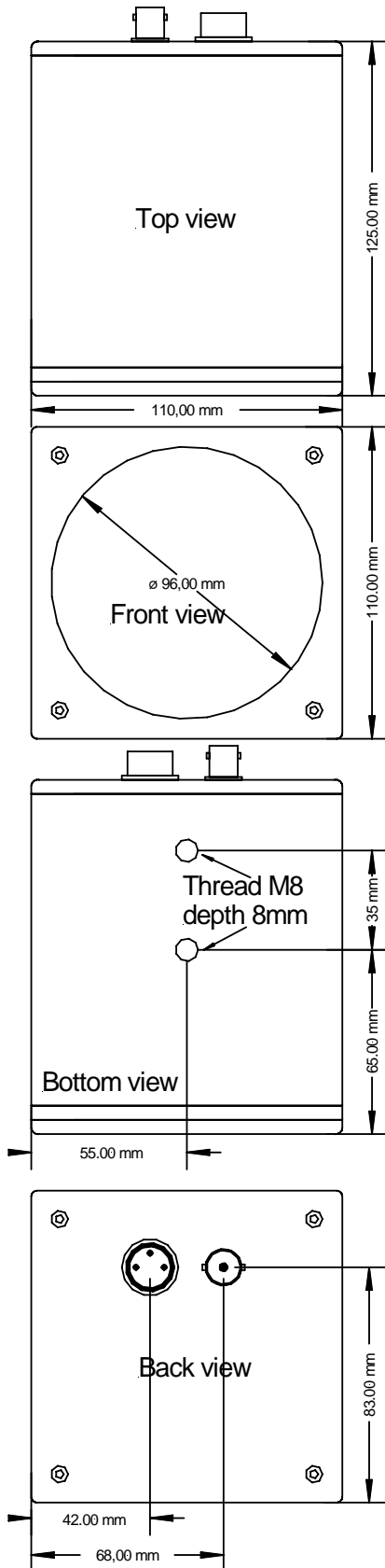
Technical drawing
Casing :
80x80x125 mm



If not differently discussed,
the read distance
amounts to 150 mm.
Read angle 90°

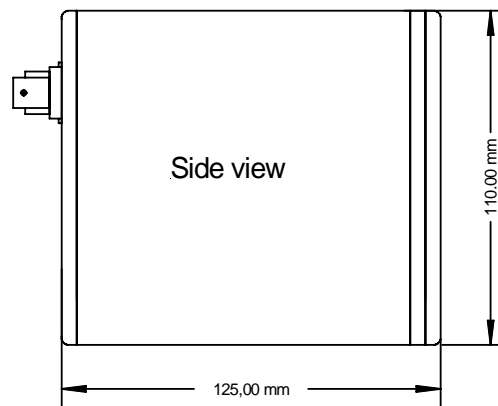


2.4. Casing 110x110x125



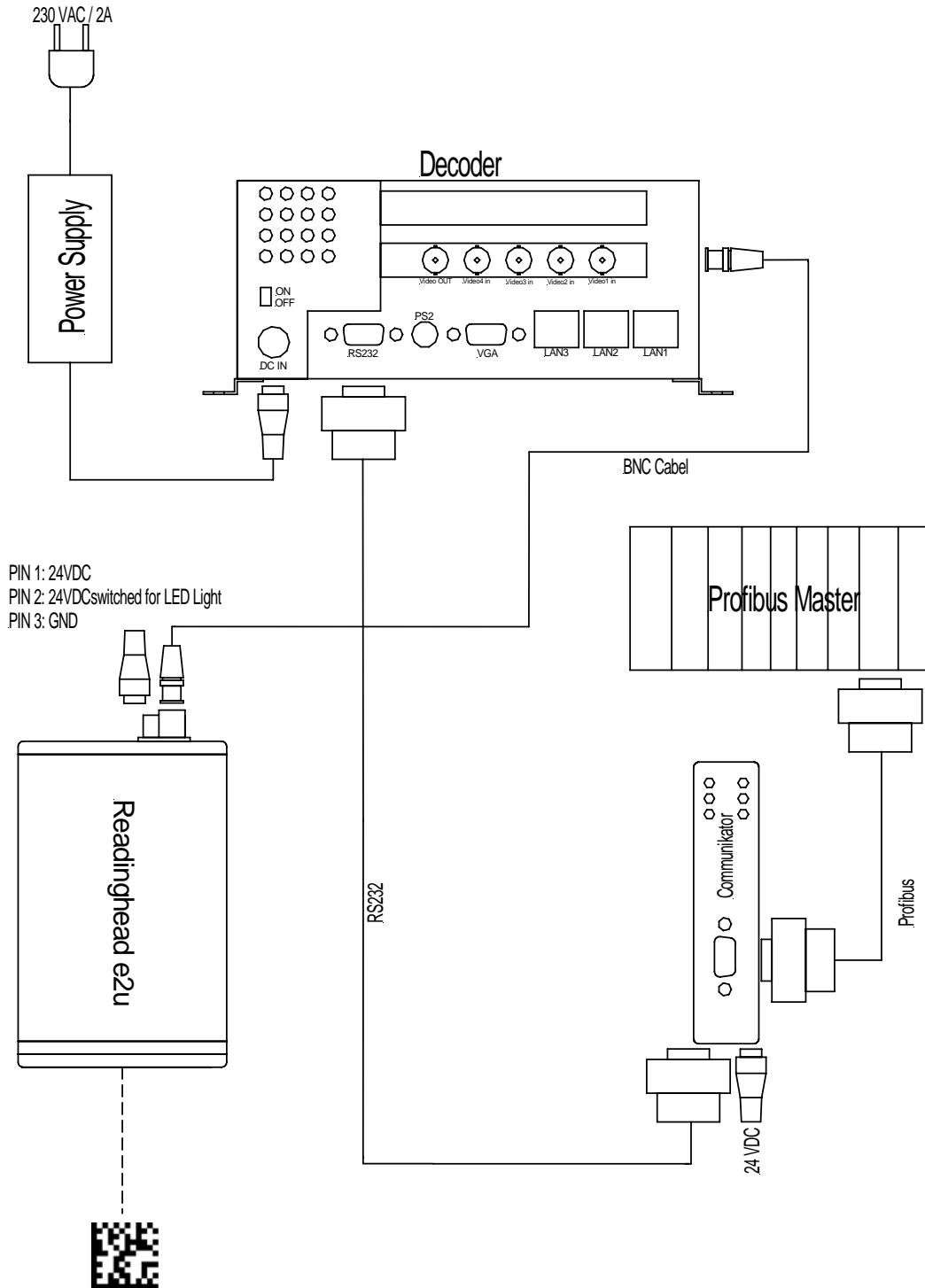
Technical drawing
Casing :
110x110x125mm

If not differently discussed,
the read distance
amounts to 150 mm.
Read angle 90°



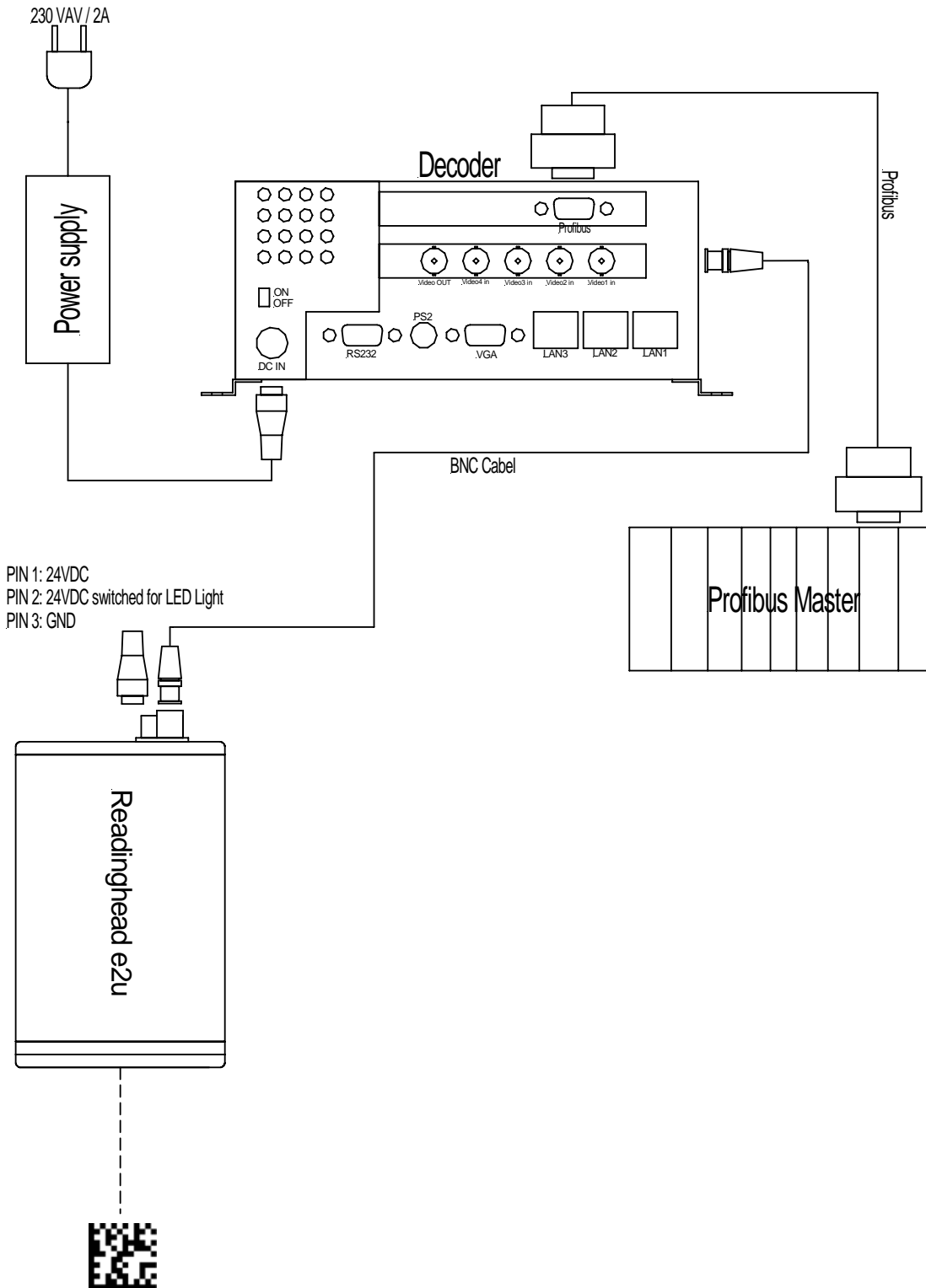
3.0. Connection Diagram

Block diagram for Decoder with communicator interface



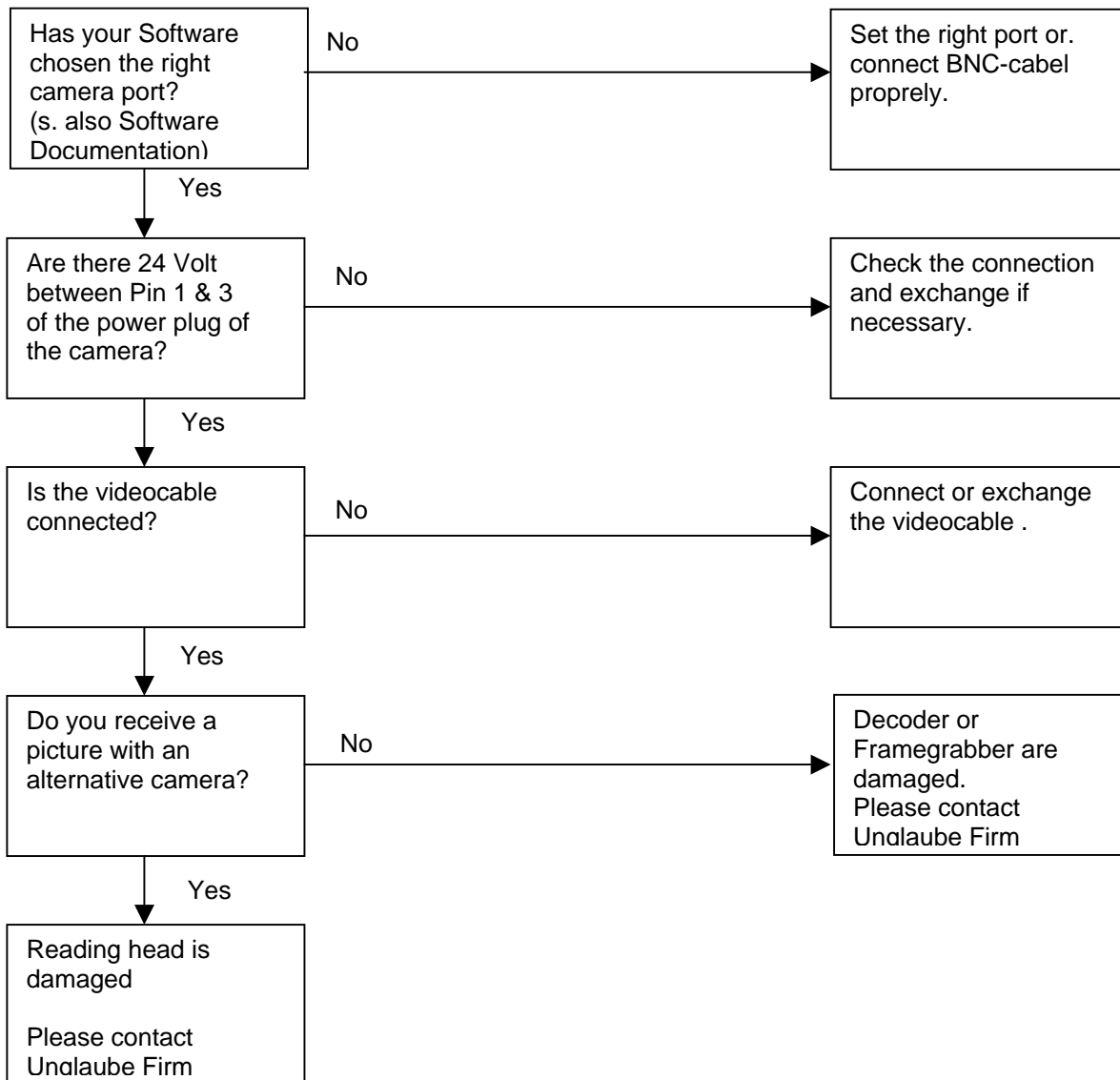
In the PC-Model the process card is situated not in the decoder, but in your PC. The connection pattern is not being changed.

Block diagram for Decoder with integrated Profibus



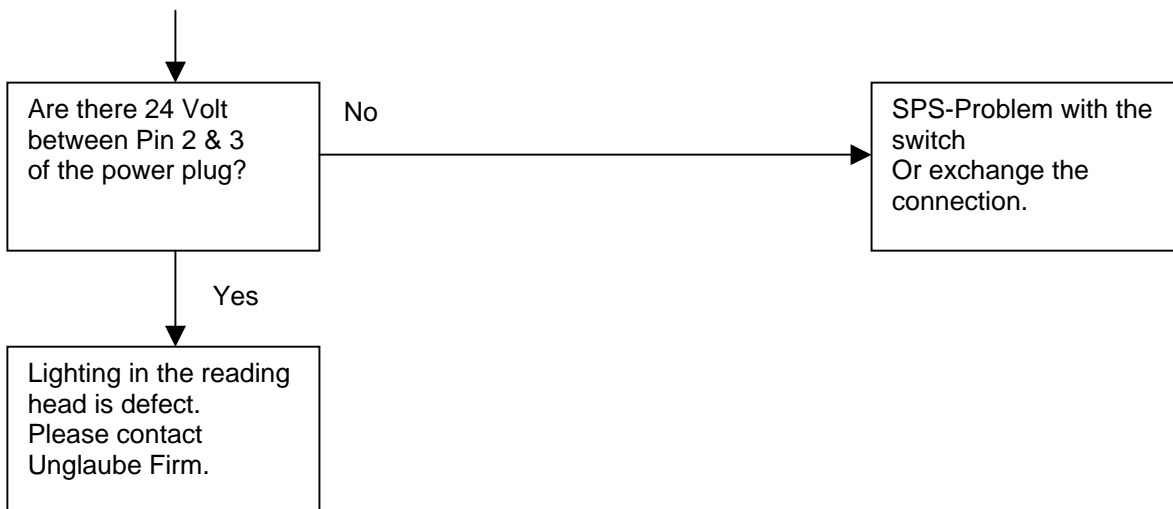
4.0. Error Search

4.1. No Picture



4.2. Defective Lighting

The light is not on

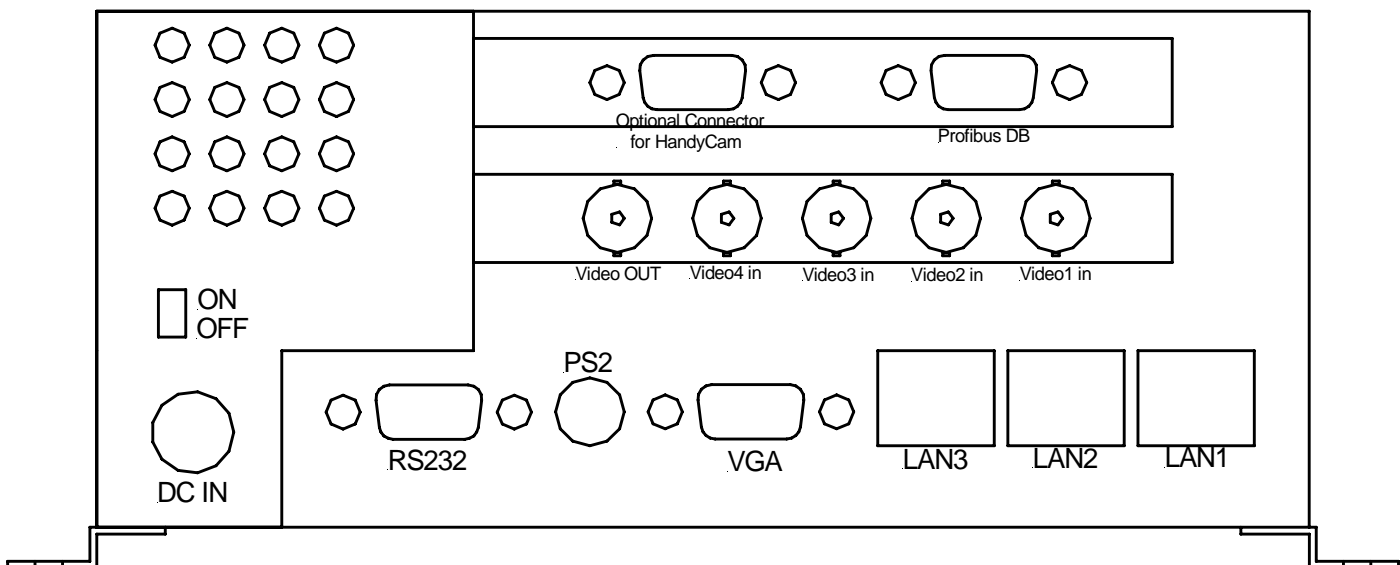


5.0. Brief Instructions for the Decoder DMRe2u

Decoder DMRe2u is an embedded solution for industrial use of DataMatrix. It combines the most modern picture processing technology and the KnowHow of 10 years of the experience of DataMatrix reading.

Upto 4 cameras can be triggered asynchronously with the decoder.

5.1. Connection Possibilities

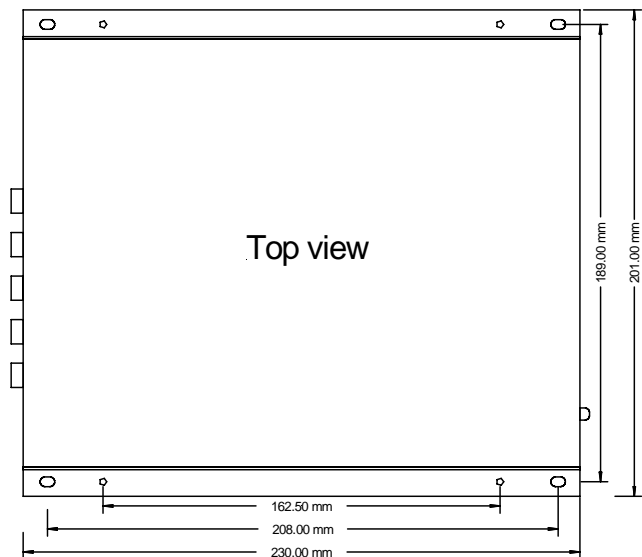
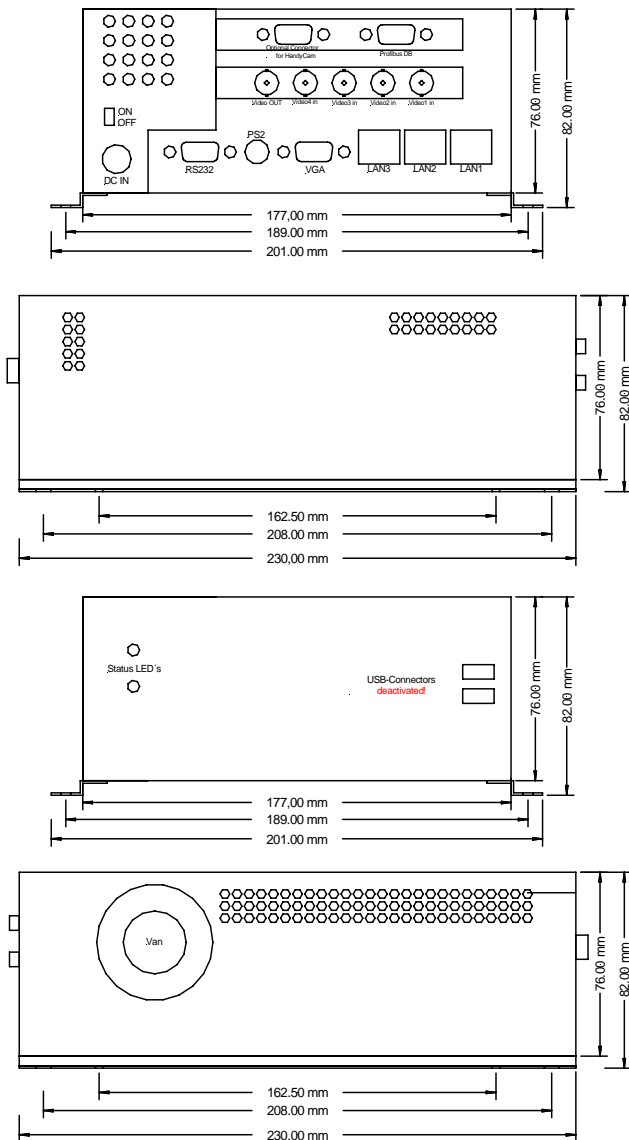


DC IN	→ 24V Input via the supplied power pack
ON/OFF Switch	→ switches on the voltage supply
Video Out	→ for connection of external displays
Video1 to Video4	→ for connection of DMRe2u reading heads
LAN1	→ configuration port via remote desktop (e.g.: via Notebook) IP address 192.168.000.001 User: DMRe2u PW:dmre2u
LAN2	→ can be used by clients for Ethernet access
LAN3	→ another Ethernet port; deactivated with integrated Profibus
VGA	→ for connection of VGA-displays
PS2	→ for connection of keyboard and mouse via PS2 Y-cabel
RS232	→ for communication via serial interface
Profibus	→ for communication via Profibus Baudrate (Default 1,5MB) and address (Default 2) can be choosen via TwinCat
HandyCam	→ optional connection for HandyCam

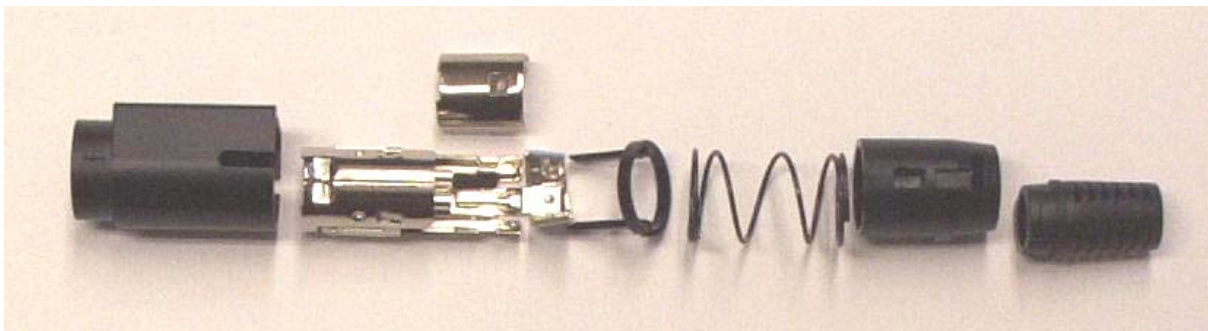
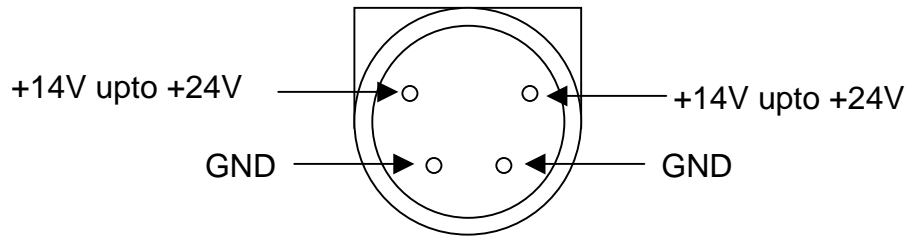
For detailed specification of the configuration of the Software see the corresponding dokumentation.

Any change in the software configuration can create guarantee claim.
If you need an additional software for your decoder please contact us and we will find the best solution.

5.2. Decoder Casing



5.3. Connection Plug Arrangement for the Power Supply [Blue Box](#)



The Unglaube-Team is always happy
to answer your questions and to give necessary support
Tel.: +49 (0)8165/9558-0