User Manual
Hilti GX 120

Technical description
RFID-Reader GX120

Von / From: RHE
Datum / Date: 03.08.07
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Dokumenten-Nr.	2.0	

Projekt	Hilti GX 120	

Dokumentenversion	1.0	Erstelldatum : 03.08.2007

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Dokumentenstatus	released

Vertraulichkeit	Strictly confidential

Verteiler	Organisation	Name	

Querverweise			

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1. Technical Description

The reader is used in a gas can driven direct fastener tool for metal nails.
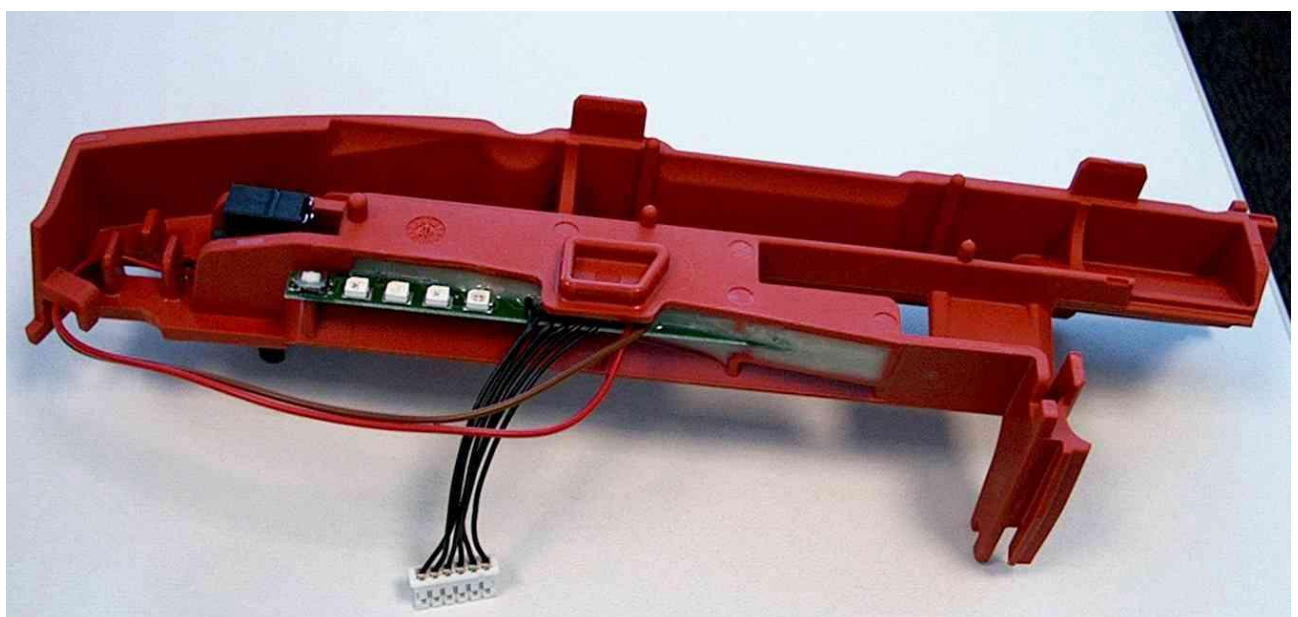It is mounted inside of the tool and communicate with special transponders which are fitted at the gas cans.
It controls the use of the correct gas can for the tool and also it show the user the remaining gas level inside the can by 5 LED's. This is possible, by writing the actual needed gas consumption into the transponder during working after each shot.
The reader is working together with a second electronic which controls the gas growd and generate the ignition puls for the spark plug.

The communication to the transponder is working with a 125kHz field.

Here you can see the the RFID reader fitted in it's housing:
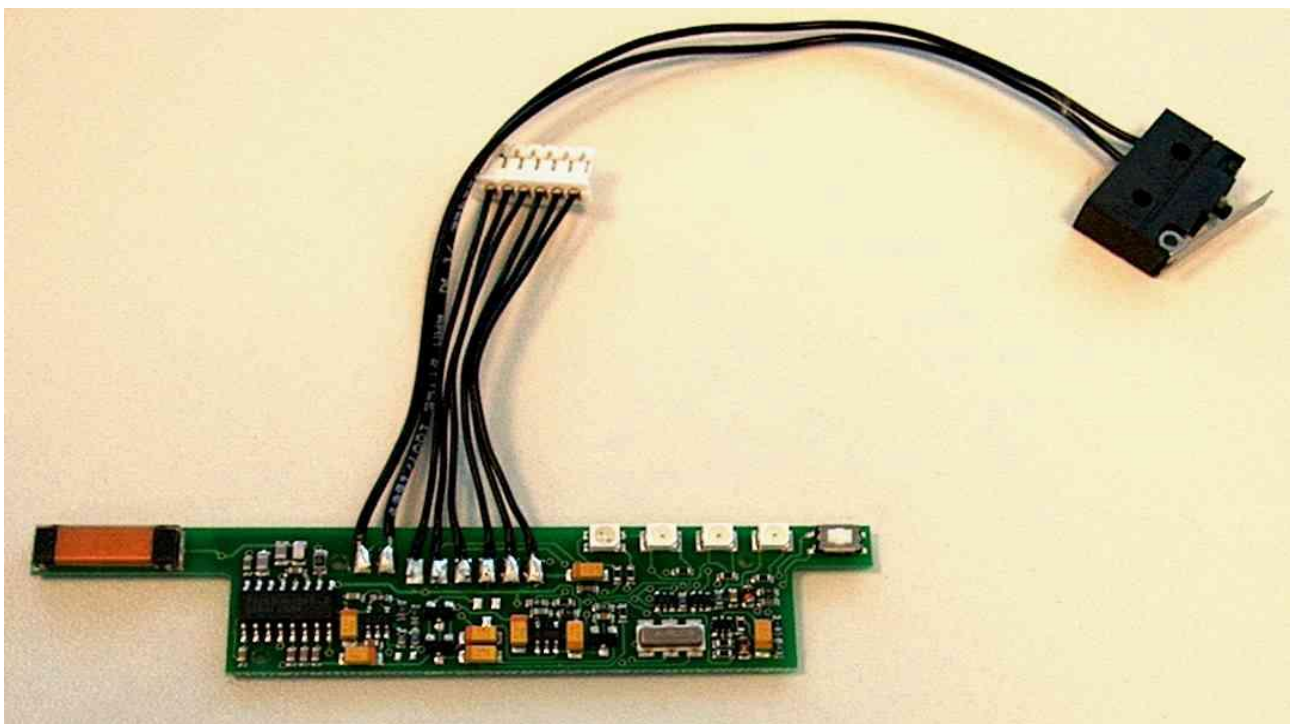
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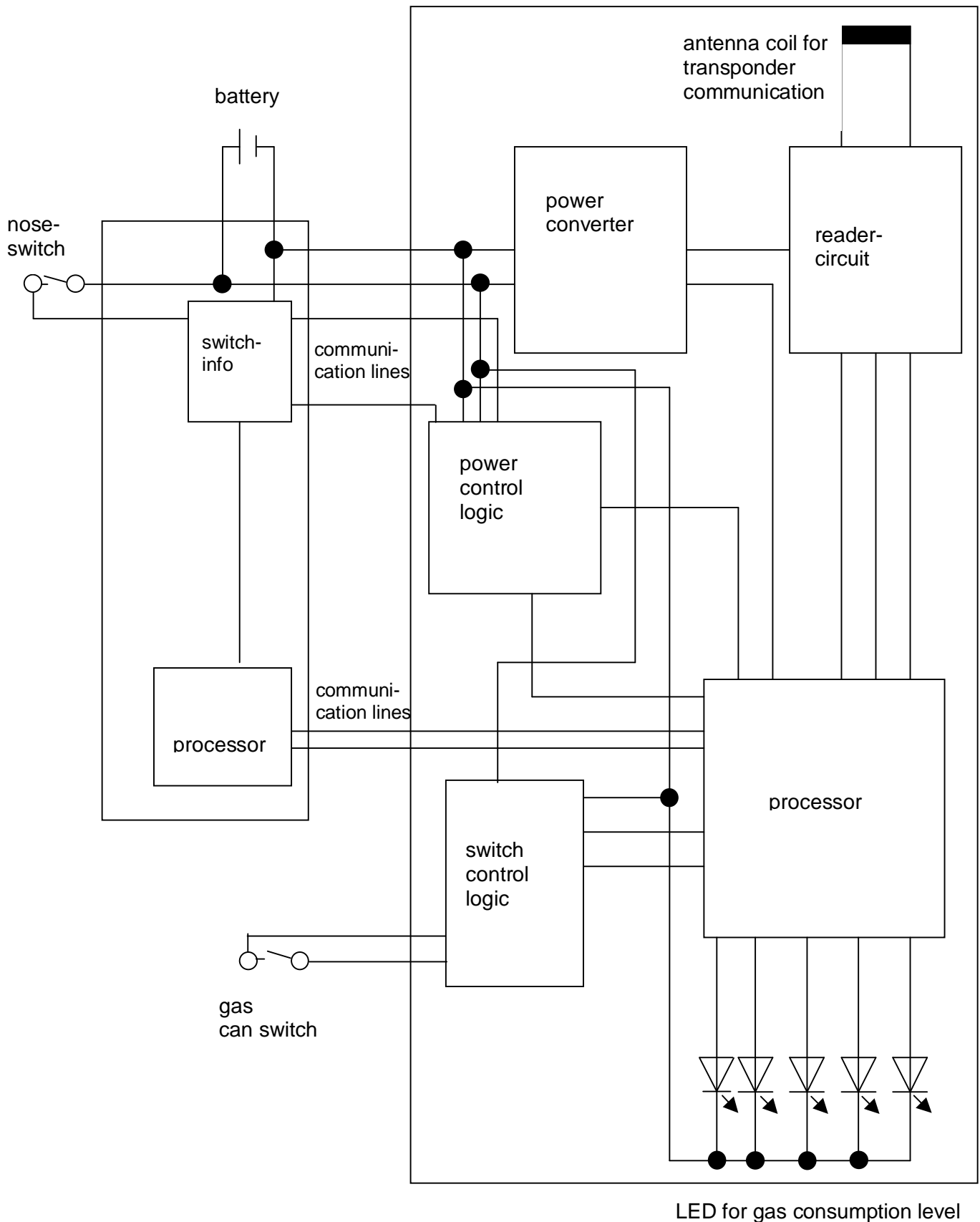Seite / Page: 3 / 6

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The following picture shows the opened tool with the electronics and the battery:

This picture shows the RFID reader PCB alone. In the left you will see the coil for the 125 kHz communication with the transponder:

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2. Block diagram

antenna coil for transponder communication

battery

nose-switch

switch-info

communication lines

power converter

reader-circuit

power control logic

processor

communication lines

switch control logic

processor

gas can switch

LED for gas consumption level

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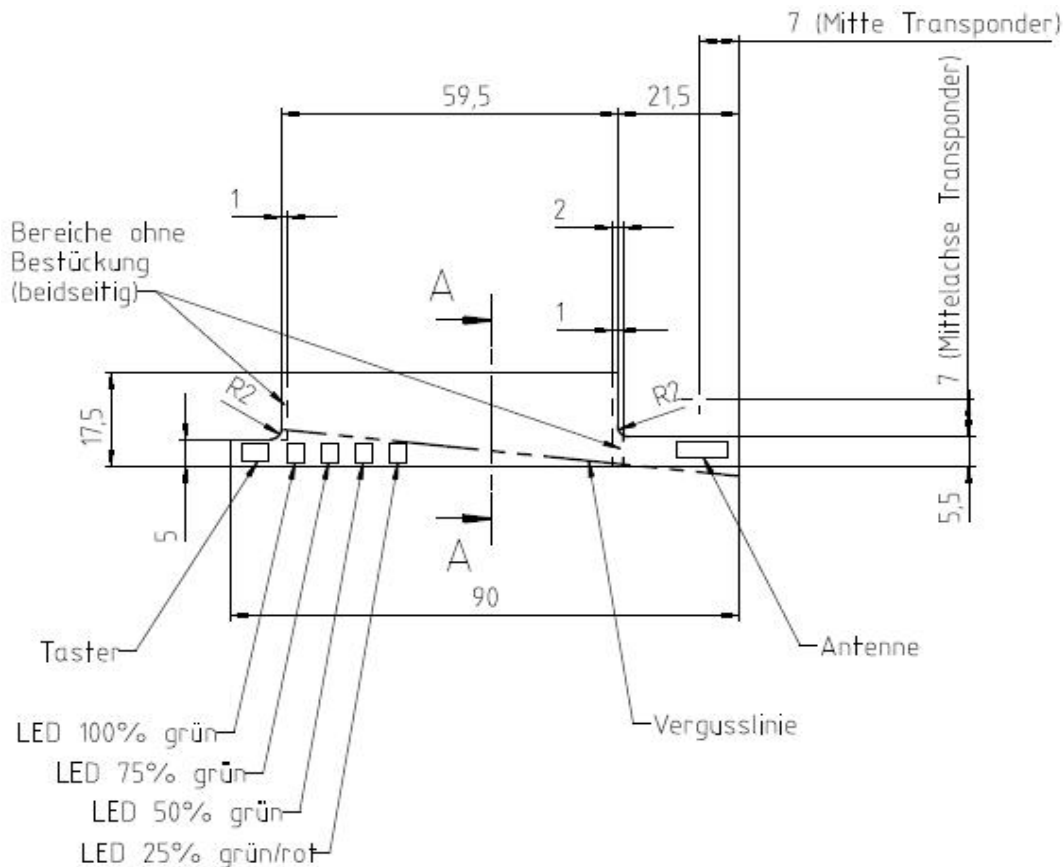Datum / Date: 03.08.07
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3. Geometry of PCB

The picture shows the size of the PCB:

4. Important request:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation of the device."

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment"

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5. Label:

The following label will be fixed on each module:

Tested to comply with
FCC Standards

Model: GX120 – Reader

FCC ID: QLXGX120

IC: 4430A-GX120