



NFU Tiller

Type 105 - 107 NG010

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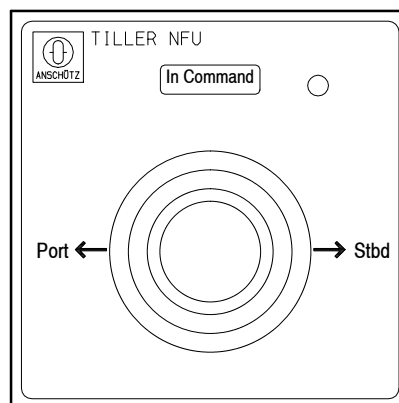
1 Description

The tiller – set into control desks or steering stands – serves as non-follow-up steering element on bridges (**NON FOLLOW UP**).

By setting the lever to PORT or STBD up to mechanical stop, two sets each of contacts are activated.

In steering controls with autopilot-override possibility in connection with an override signal unit, an additional set of contacts can be used as **VERRIDE** contact. When the tiller is activated, the autopilot is deactivated and the steering control is taken over directly with the tiller. In contrast to the normal NFU tiller, the override contact switches immediately at the smallest deflection of the lever.

When the non-follow-up steering (NFU) or 'autopilot' is selected via the steering mode selector switch, the field 'In Command' lights up as status indication. The brightness is regulated automatically.

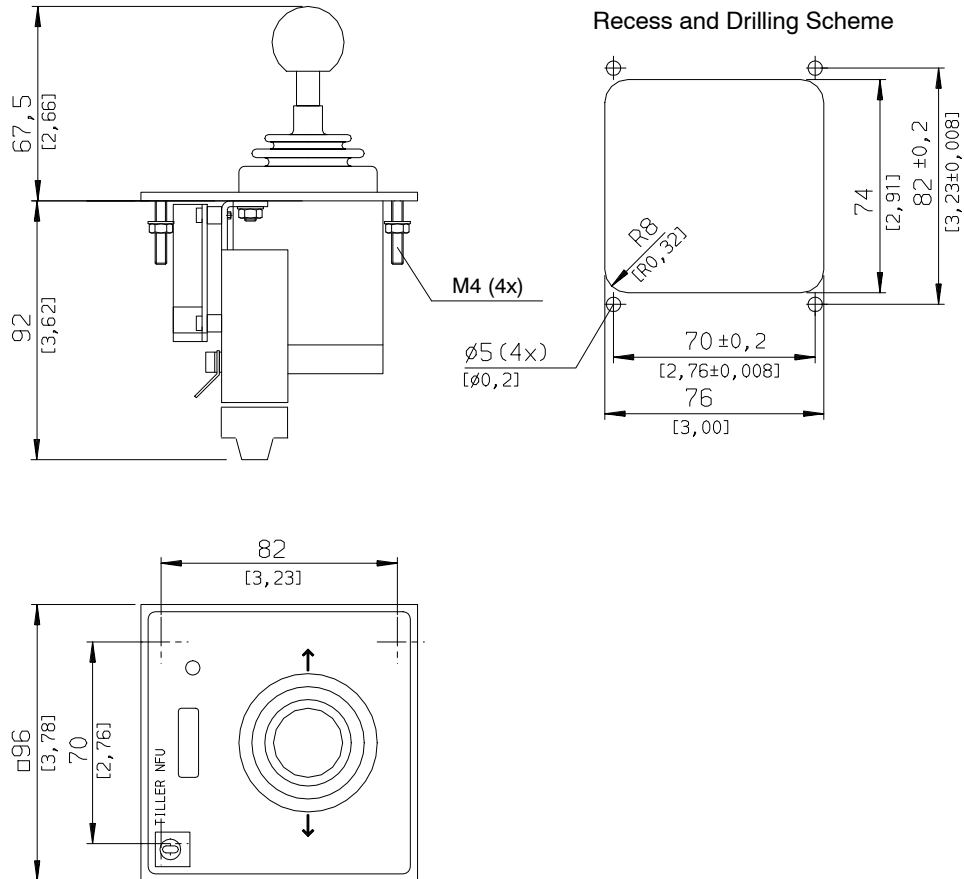


NFU TILLER

2

Technical Data

Dimensions:



Weight:

approx. 1 kg

Supply voltage:

24 V_{DC}

max. wire cross section:

1.5 mm²

Type of enclosure:

IP 23 EN 60529 after installation

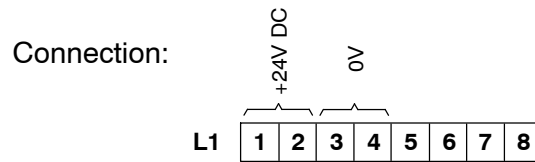
IP56 Front-Sided

Ambient temperature (operation):

-25 °C to +55 °C

See also appended Dimensional Drawing:105-107.HP015

3 First Putting into Operation

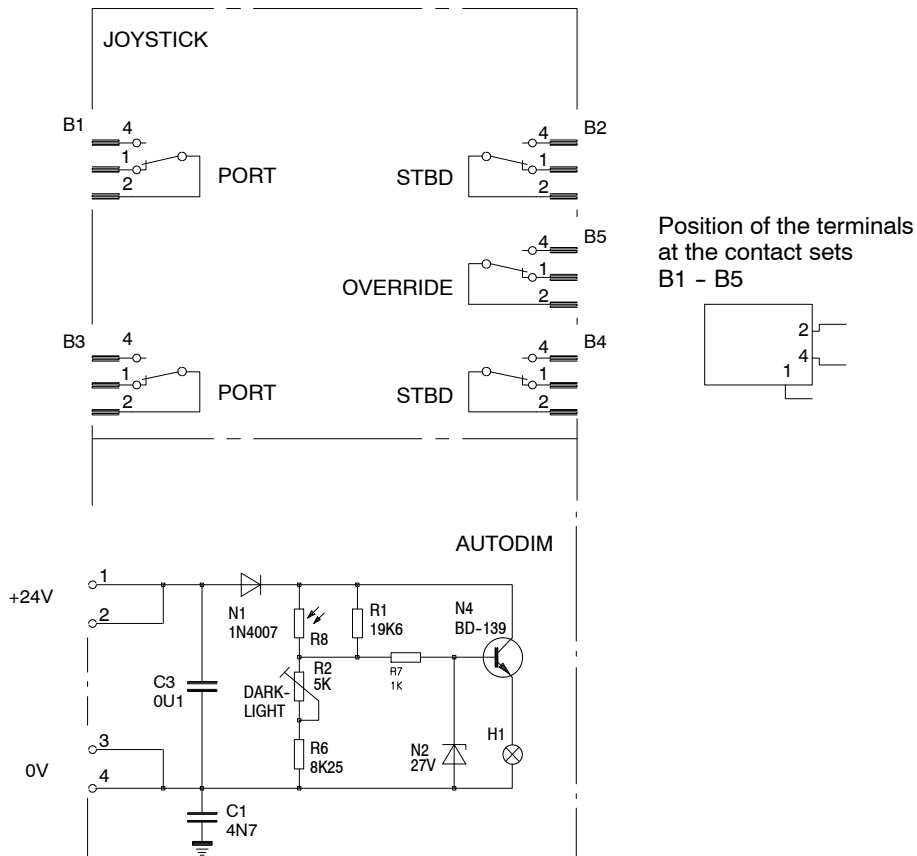


Adjustment:

Brightness of background:

Adjust brightness of background with potentiometer R2; be sure to adjust during night operation (when bridge is dark)!

Circuit Diagram:



For connection see also appended Connection Diagram 105-107.HP019

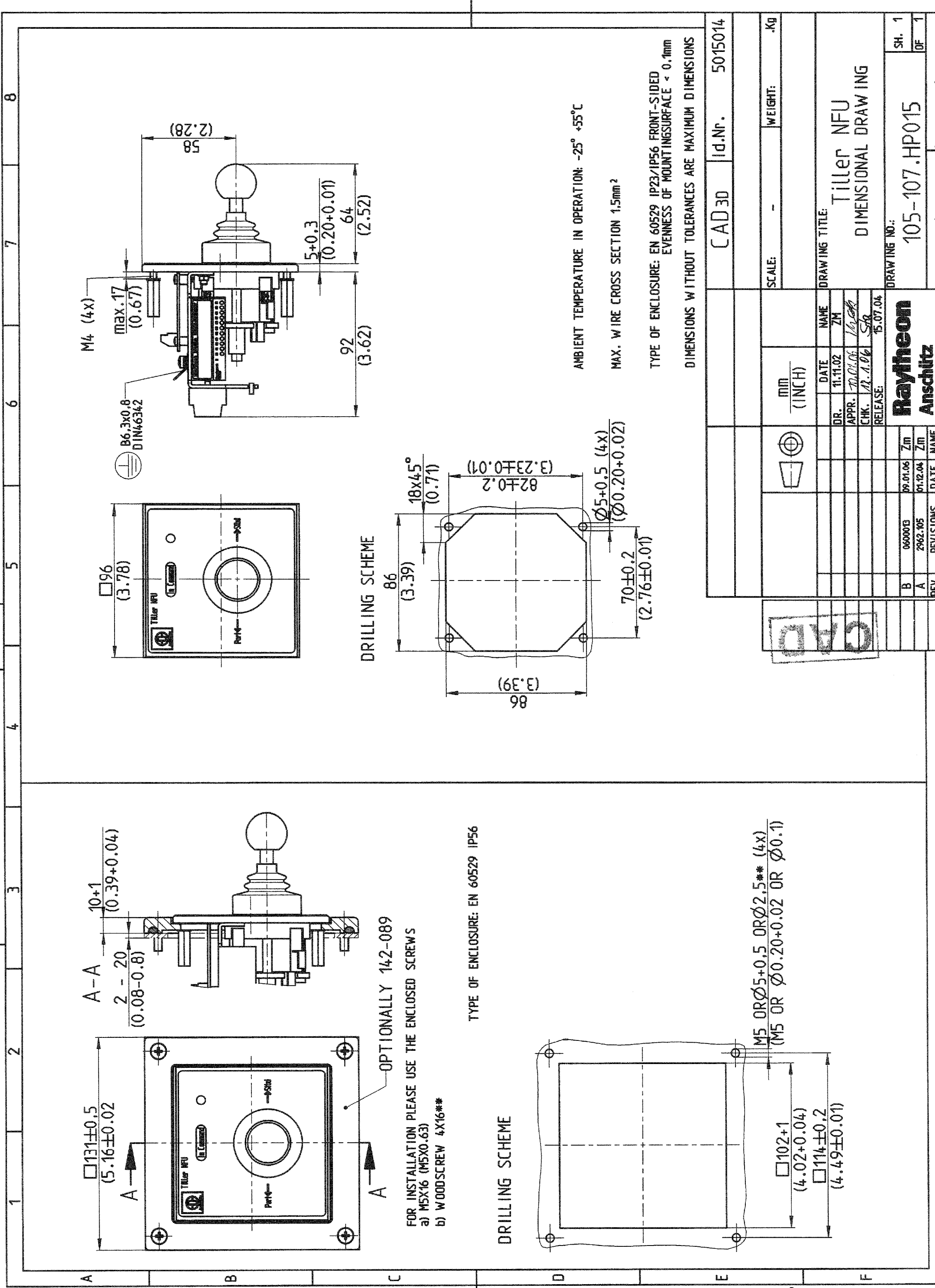
NFU TILLER



This equipment includes electromechanical devices such as relays, switches or potentiometers. Electromechanical devices are subject to wear and tear depending on operation cycles and environmental conditions.



A repair is performed as a replacement of the Tiller.



OPTIONALLY 142-089

FOR INSTALLATION PLEASE USE THE ENCLOSED SCREWS

a) MSX16 (MSX0.63)

b) WOODSCREW 4X16**

TYPE OF ENCLOSURE: EN 60529 IP56

DRILLING SCHEME

M5 OR $\varnothing 5 \pm 0.5$ OR $\varnothing 2.5$ ** (4X)
(M5 OR $\varnothing 0.20 \pm 0.02$ OR $\varnothing 0.1$)

DRILLING SCHEME

AMBIENT TEMPERATURE IN OPERATION: -25° $+55^\circ$ C

MAX. WIRE CROSS SECTION 1.5mm²

TYPE OF ENCLOSURE: EN 60529 IP23/IP56 FRONT-SIDED
EVENNESS OF MOUNTING SURFACE < 0.1mm

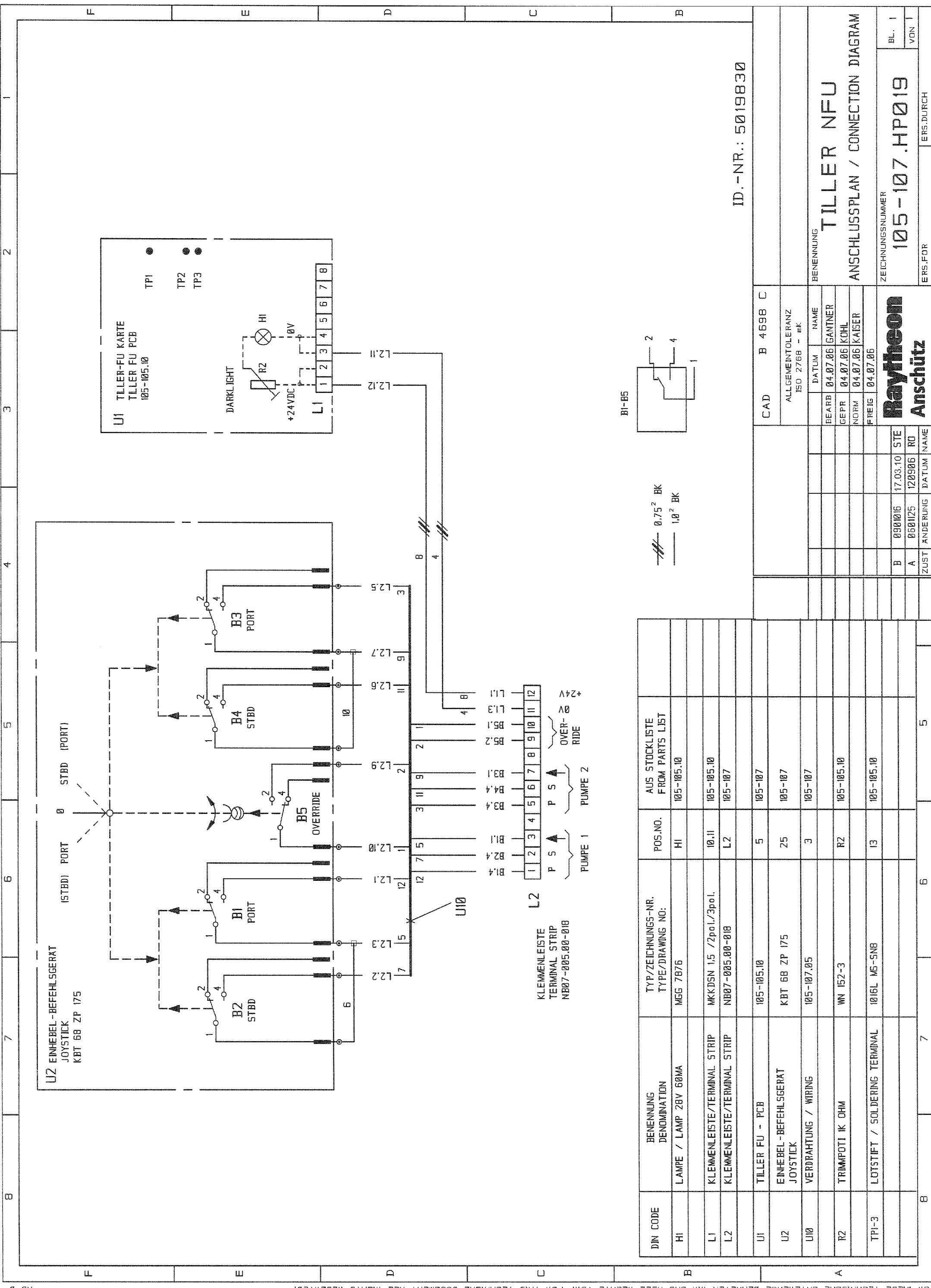
DIMENSIONS WITHOUT TOLERANCES ARE MAXIMUM DIMENSIONS

CAD3D		Id.Nr. 5015014	
SCALE: -		WEIGHT: .Kg	
DRAWING TITLE: Tiller NFU DIMENSIONAL DRAWING		DRAWING NO.: 105-107.HP015	
DR. DATE NAME 11.11.02 ZM		SH. 1	
APPR. 10.01.06 16.06		OF 1	
CHK. 12.1.06 SFR			
RELEASE: 15.07.04			
REV. REVISIONS DATE NAME			
B	060001B	09.01.06	Zm
A	2962.105	01.12.04	Zm



Raytheon
Anschutz

RAYTHEON	
060001B	09.01.06
2962.105	01.12.04



ID.-NR.: 5019830

DIN CODE	BENENNUNG DENOMINATION	TYP/ZEICHNUNGS-NR. TYPE/DRAWING NO:	POS.NO.	AUS STOCKLISTE FROM PARTS LIST
HI	LAMPE / LAMP 28V 60MA	MGG 7876	HI	105-105.10
L1	KLEMMENLEISTE/TERMINAL STRIP	MKKDSN 1.5 /2pol./3pol.	10,11	105-105.10
L2	KLEMMENLEISTE/TERMINAL STRIP	NB07-005.00-018	L2	105-107
U1	TILLER FU - PCB	105-105.10	5	105-107
U2	EINHEBEL-BEFEHLSGERAT JOYSTICK	KBT 68 ZP 175	25	105-107
U10	VERDRAHTUNG / WIRING	105-107.05	3	105-107
R2	TRIMPOTTI IK OHM	WN 152-3	R2	105-105.10
TP1-3	LOTSTIFT / SOLDERING TERMINAL	1016L M5-SNB	13	105-105.10

CAD B 4698 C	
ALLGEMEINTOLERANZ ISO 2768 - mK	
BEARB	04.07.06 GANTNER
GEPR	04.07.06 KOHL
NORM	04.07.06 KAISER
FRIG	04.07.06
BENENNUNG TILLER NFU ANSCHLUSSPLAN / CONNECTION DIAGRAM	
ZEICHNUNGSNUMMER 105-107.HP019	
ERS.FOR	ERS.DURCH
BL. 1	VON 1



ZUST	ANDERUNG	DATUM	NAME
B	090106	17.03.10	STE
A	050125	120906	R0