



The MNHCON converter operates eddy-current proximity sensors. Together with the inductive coil of the MNH sensors it builds a resonant circuit of approx. ~1 Mhz. The influence of a metal object on the sensor's field is converted into a linearised, distance proportional output signal.

The converter can be used in 3- or 4-wire configuration and delivers a DC-current or voltage output. Adjustable trip points with LED indication and outputs facilitate sensor mounting and can directly be used for control purposes.

## Specification

### General

Supply:	+21 ... +30 VDC, max. 30 mA (MNHCON-A: 50 mA), reverse polarity protected
Sensor frequency:	~ 1 MHz (with Messotron MNH sensors)
Linearity:	typ. +/-5% (with compatible sensor) full stroke output
Dynamic range:	0 ... 5 kHz (-3dB)
Output:	MNHCON-A: 4 ... 20 mA, load < 500 Ohm MNHCON-V: 2 ... 18 VDC, load >10 kOhm MNHCON-E: Special version: custom output adjustment (within specification: 1 ... 20V or 2 ... 20mA) MNHCON-ERW: Special version: factory custom adjustment for extended sensor range; custom output adjustment (within specification: 1 ... 20V or 2 ... 20mA)
Tolerance:	typ. < 5% (ref. to nominal sensor head)

### Adjustment

Zero balance:	internal trimmer (factory pre-adjusted)
Gain:	internal trimmer (factory pre-adjusted)

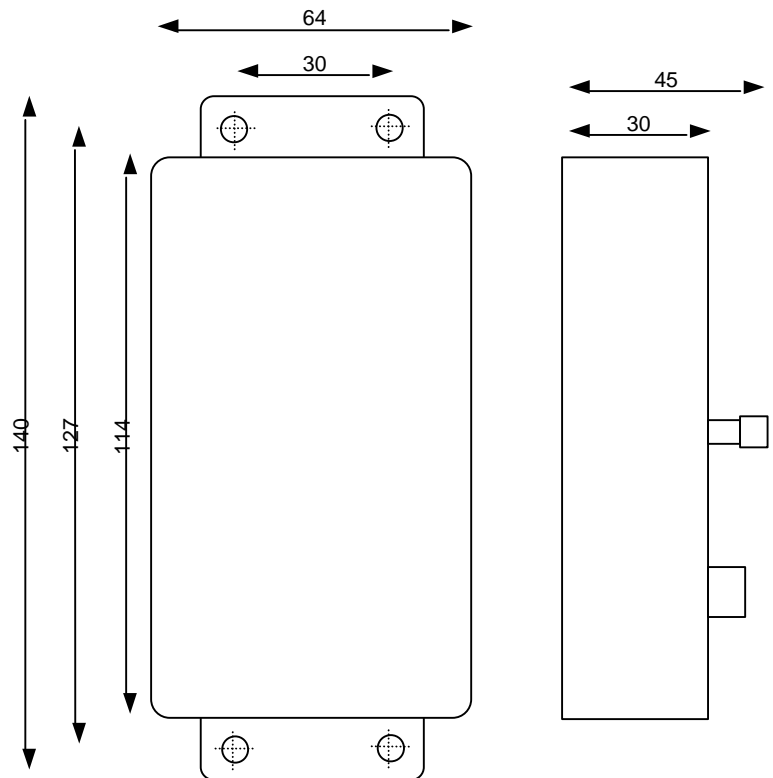
### Trip points

Settings:	two trip points (trimmer), with LED indication
Upper point:	Adjustment range ~50 ... ~80% FSO
Lower point:	Adjustment range ~10 ... ~50% FSO
Hysteresis:	ca. 2% FSO
Outputs:	Hi-Level (ref. to +24 VDC), max. 10 mA

### Mechanical

Housing:	Aluminium, for screw mounting
Dimensions:	L 114 (140) mm x W 64 mm x H 30 (45) mm
Hole pattern:	4 x 4,5 mm, distance 127 x 30 mm
Mass:	0,1 kg
Ops temperature:	-20°C bis +80°C
Protection:	IP 40 (20)

**Drawing**



**Connection**

Sensor: Lemo series "00",  
built-in coax socket  
(90° plug-in adapter optional)

Others: Terminal board, 6-polig

Terminal	Signal
1	COM
2	Output (DC voltage/current)
3	Lower trip point out
4	Upper trip point out
5	COM
6	Us (supply)

**Operation**

1. Ensure proper supply voltage.
2. Check output loading.
3. Check proper connection of trip point outs; do not connect to external supply lines.
4. Adjust trip point by means of (accessible) trimmers.
5. Zero and gain adjustment – if required – by means of internal trimmers; use sensor calibration bench

