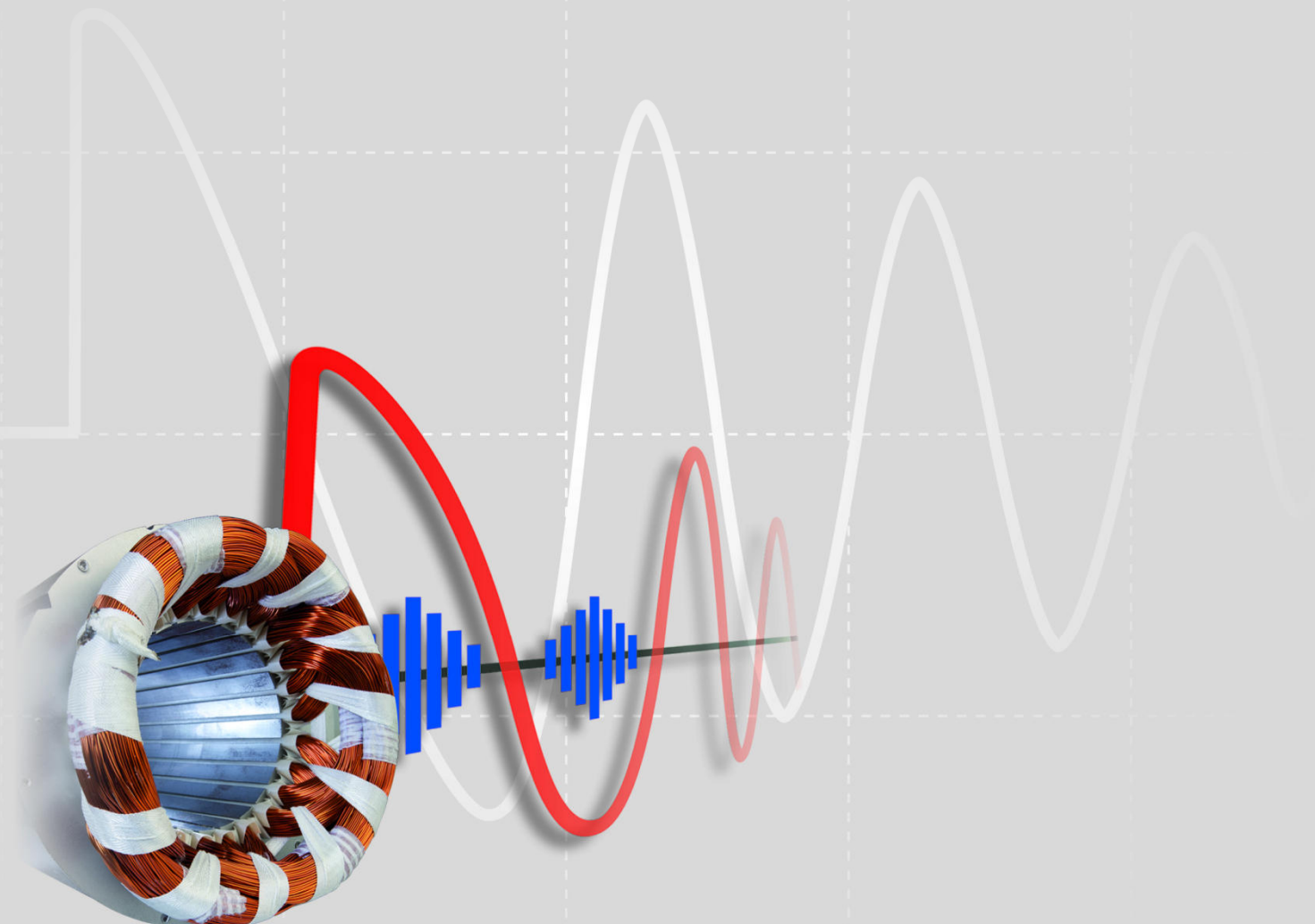


# EncoderAnalyzer

Technical data sheet



Revision 1.2



# EncoderAnalyzer

## Basic model with 6 channels

### 6-channel EncoderAnalyzer (item no. desktop device: 403200 and measuring case: 403220)

Measuring channels	: 6
Measuring range	: +-30V
Encoder supply	: yes
Supply voltage	: 3...30V DC
Voltage levels	: 1V
Supply current	: max. 350mA
With current limiting	: yes – The encoder current supply will be switched off when overcurrent is detected
Voltage metering	: yes – is integrated and also indicated
Current metering	: yes – is integrated and also indicated – is used for disconnecting the power when overcurrent is detected
PC-requirements	: min. WIN-XP ideally WIN7 min. RAM-memory 4GByte Without networking: 1x Ethernet-connection on your PC– this connection is required for connecting the EncoderAnalyzer. With networking: 2x Ethernet-connections on your PC – one of the 2 connections is required for connecting the EncoderAnalyzer CD-drive to install the software

## Basic model with 12 channels

### 12-channel EncoderAnalyzer (item no. desktop device or measuring case PLUS extension to 12 channels:403210)

Measuring channels	: 12
Measuring range	: +-30V
Encoder supply	: yes
Supply voltage	: 3...30V DC
Voltage levels	: 1V
Supply current	: max. 350mA
With current limiting	: yes – The encoder current supply will be switched off when overcurrent is detected
Voltage metering	: yes – is integrated and also indicated
Current metering	: yes – is integrated and also indicated – is used for disconnecting the power when overcurrent is detected
PC-requirements	: min. WIN-XP ideally WIN7 min. RAM-memory 4GByte min. RAM-memory 4GByte Without networking: 1x Ethernet-connection on your PC– this connection is required for connecting the EncoderAnalyzer. With networking: 2x Ethernet-connections on your PC – one of the 2 connections is required for connecting the EncoderAnalyzer CD-drive to install the software

# EncoderAnalyzer – test sockets

## Pinout test socket ME | 28-pole

This test socket belongs to the basic model of the 6-channel EncoderAnalyzer.

Pin	colour	signal
A	white	encoder signal A
B	brown	encoder signal / A
C	green	encoder signal B
D	yellow	encoder signal / B
E	grey	encoder signal Z
F	pink	encoder signal/ Z
G	blue	encoder signal commutation U
H	red	encoder signal commutation/ G
J	black	encoder signal commutation V
K	purple	encoder signal commutation/ V
L	grey-pink	encoder signal commutation W
M	red-blue	encoder signal commutation/ W
N	white-green	GND
P	brown-green	sensor supply (+3..30V-max. 350mA)
R	white-yellow	GND
S		nc
T	yellow-brown	RS485-CLK A
U	white-grey	RS485-CLK B
V	grey-brown	RS485-Data A
W	white-pink	RS485-Data B
X	pink-brown	input 1 (interference)
Y	white-blue	input 2
Z	brown-blue	output 1 (invert direction of rotation)
a	white-red	output 2 (nulling/ reset)
b		nc
c	brown-red	analog output 0..10V
d	white-black	GND analog output
e		nc

## Pinout test socket MP | 19-pole

This test socket belongs to the 12-channel extension of the basic model. It belongs to item no. 403210.

PIN	colour	signal
A	white	phase L1 30V
B	brown	phase L1 30V
C	green	phase L2 30V
D	yellow	phase L2 30V
E	grey	phase L3 30V
F	pink	phase L3 30V
G	blue	resolver signal sin
H	red	resolver signal/ sin
J	black	resolver signal cosin
K	purple	resolver signal/ cosin
L	grey-pink	back measurement resolver 20kHz-reference voltage signal from Pin P
M	red-blue	back measurement resolver 20kHz-reference voltage GND from Pin RP
N	white-green	Common 0V for channel 7...12
P	brown-green	resolver 20kHz-reference voltage signal (output)
R	white-yellow	resolver 20kHz-reference voltage GND (output)
S	yellow-brown	external comparator +
T	white-grey	external comparator -
U		nc
V		nc

## Pinout test socket MU | 4-pole

This test socket is used to connect the voltage test leads. It belongs to item no. 403212.

PIN	colour	signal
1	red	phase L1
2	green	phase L2
3	blue	phase L3
PE		

## Pinout test socket MI | 7-pole

This test socket is used to connect the current test leads. It belongs to item no. 4032100.

PIN	colour	signal
1		phase L1
2		phase L1
3		phase L2
4		phase L2
5		phase L3
6		phase L3
PE		

# EncoderAnalyzer – Glossary

A	= track A of the encoder
/A	= inverted track A of the encoder
B	= track B of the encoder   track B is 90 degree phase shift to track A
/B	= inverted track B of the encoder   track /B is 90 degree phase shift to track/A
Z	= zero pulse of the encoder
/Z	= inverted zero pulse of the encoder
Ref	= reference pulse (zero pulse) of the encoder
/Ref	= inverted reference pulse (zero pulse) of the encoder
Sinus	= sinus output of the encoder
/Sinus	= inverted sinus output of the encode
Cosinus	= cosinus output of the encoder  the cosinus output is 90 degree phase shift to the sinus output
/Cosinus	= inverted cosinus output of the encoder  the cosinus output is 90 degree phase shift to the sinus output
U	= commutation signal U at block commutation
/U	= inverted commutation signal U at block commutation
V	= commutation signal V at block commutation
/V	= inverted commutation signal V at block commutation
W	= commutation signal W at block commutation
/W	= inverted commutation signal W at block commutation
Clock	= clock pulse at encoders with data interface
/Clock	= inverted clock pulse at encoders with data interface
Data	= data pulse at encoders with data interface
/Data	= inverted data pulse at encoders with data interface
phase U	= voltage in phase U (L1)
phase V	= voltage in phase V (L2)
phase W	= voltage in phase W (L3)
current U	= current in phase U (L1)
current V	= current in phase V (L2)
current W	= current in phase W (L3)
nc	= not connected