



# Multichannel Lock-in Measurement System

## Standard price list

### Hardware

#### Chassis MCL1-540-S-B

- » 19" rack-mount chassis 1U, embedded controller, 40 W power supply
- » Up to 5 modules and two embedded systems, USB 2.0 and 100BASE-T Ethernet interface
- » 10 RJ45 signal connectors
- » 2 frequencies, frequency range DC – 500 kHz, 15 lock-ins, 30 configurable demodulators in total
- » Synchronous X, Y, DC, R and  $\theta$  for each lock-in
- » Phase resolution 64 bit, integral resolution 96 bit
- » Sine, square-wave, triangle, sawtooth output
- » Frequency, amplitude, offset & duty cycle programmatically controllable
- » DAC / oscilloscope 10k points, FFT

5 950 EUR / 6 500 USD

#### Modules - all types

- » 1 analog output 1 MSPS 20 bit,  $\pm 10/1.0/0.1$  V full range, 50 mA current output, 100 kHz bandwidth
- » 2 differential analog inputs + current measurement of output current, 1 MSPS 18 bit
- »  $\pm 10$  V full range, preamplifier 1 – 5000 in 12 steps

#### Module MCLM-112-1.8

- » AC/DC coupling 0.5 Hz break frequency,  $<1.8$  nV/ $\sqrt{\text{Hz}}$  noise floor @ 1 kHz,  $<10$  nV/ $\sqrt{\text{Hz}}$  @ 1 Hz
- » 1 G $\Omega$  input impedance, typical 15/0.5 nA input bias/offset current, 100 kHz bandwidth @ 2 mV full range

3 950 EUR / 4 300 USD

#### Module MCLM-112-2.0

- » AC/DC coupling 0.5 Hz break frequency, 2.0 nV/ $\sqrt{\text{Hz}}$  noise floor @ 1 kHz,  $<10$  nV/ $\sqrt{\text{Hz}}$  @ 1 Hz
- » 1 G $\Omega$  input impedance, typical 5/0.5 nA input bias/offset current,  $> 100$  kHz bandwidth @ 2 mV full range

3 950 EUR / 4 300 USD

#### Module MCL1M-112-4

- » AC/DC coupling 0.2 Hz break frequency, 3.8 nV/ $\sqrt{\text{Hz}}$  noise floor,  $<15$  nV/ $\sqrt{\text{Hz}}$  @ 1 Hz
- » 30 G $\Omega$  input impedance,  $<1$  nA input bias current,  $> 100$  kHz analog bandwidth

3 950 EUR / 4 300 USD

#### Module MCLM-112-18

- » AC/DC coupling Hz break frequency, 18 nV/ $\sqrt{\text{Hz}}$  noise floor,  $<70$  nV/ $\sqrt{\text{Hz}}$  @ 1 Hz
- »  $> 1$  T $\Omega$  input impedance, typical 10 pA input bias current, 10 kHz bandwidth @ 2 mV full range

3 950 EUR / 4 300 USD

#### Extended warranty EW-3

- » Extended warranty three years, general warranty conditions apply

15% of hardware price



## Accessories

### Breakout box BB8-BNC32

- » Breakout 8 RJ45 to 32 BNC, 19" rack-mount 3U

990 EUR / 1090 USD

### Breakout box BB8-BNC64

- » Breakout 8 RJ45 to 64 BNC, 19" rack-mount 3U

1200 EUR / 1350 USD

### Breakout box BB-BAN

- » Breakout RJ45 to Banana, 19" rack-mount 5U

1650 EUR / 1850 USD

### Fischer connection box FSCHR

- » 3xRJ45 to Fischer SFPU105A093-80GF

310 EUR / 340 USD

### RJ45 signal cables

- » S/FTP Cat7 patchkabel LSZH with individually shielded twisted pairs
- » 0.3 / 0.5 / 1 / 2 / 3 / 5 / 7 / 10 / 15 / 30 m

9 / 14 / 16 / 21 / 28 / 33 / 40 / 50 / 68 / 82 EUR  
10 / 16 / 18 / 23 / 31 / 37 / 44 / 56 / 76 / 92 USD

All prices are according to Incoterms 2010 EXW Stockholm, Sweden. Prices based on payment terms prepayment/net 30. Reservation for misprints. Credit card payment fee: 4.5%. Volume discount: 5%/10% on chassis and modules for systems with 4/5 modules. Version 2.5, 2024-12-22, valid from 2025-01-01