

ANEMOMETER MAX40+

also available with 2 wire integrated 4..20 mA output

The standard MAX 40 anemometer has proven to be a rugged, reliable and highly accurate anemometer.

Professional quality at a minimum price.



Its low moment of inertia and unique bearings permit very rapid response to gusts and lulls. The unique bearing system is self-lubricating and moisture or dirt will not destroy the bearings or degrade the performance (self cleaning). Moreover the anemometer is highly resistant to icing, even without optional heating. Many thousands of units are operating world-wide. This anemometer meets the requirements of the WMO, IEC and IEA 1).

The upgraded anemometers types **MAX40+** has been designed using MAX40 components, with improved reliability (internal soldered wires, stainless steel mounting) and is intended for wind research & monitoring applications, especially for use with Dataloggers EKO21B and iBOX.

Also available without stainless steel bracket: type MAX40

www.ekopower.nl

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An optional **individual** calibration certificate is available, using:

- * the standard calibration procedure (low cost)
- * following the European MEASNET procedure, with 0.1 m/s calibration accuracy

Specifications:

- * **material**: cups and housing black lexan (**polycarbonate**), which is non-corrosive, u.v.-resistant and virtually shatterproof
- * **bearings** : modified teflon, self lubricating (no freezing or sticking), drum proof: O-ring mounted.
Easy to replace (within 5 years of operation)
- * **shaft** : fully hardened beryllium copper
- * **dimensions** : 3 conical cups cross section 5 cm, 19cm diameter of the rotor
- * **endurance test** : at Washington Observatory (testreport available)
- * **maintenance** : clean inside once a year in environments with a lot of dust or sand
- * **heating**: optional KAPTON isolated heating
- * **maximum windspeed**: recorded up to 97 m/s, without damage of the anemometer
- * **temperature range**: - 50 to + 65 C (even without heating)
- * **humidity** : 0 to 100 % R.H. (tropical resistant)
- * **electrical puls system**: standard electromagnetic pulsgenerator, optional: Hall generator, reed contact
- * **power consumption** : standard zero
- * **calibration** : according to measurements at the Eindhoven University of Technology, The Dutch Meteorological Institute (KNMI) and the National Aerospace Laboratory (NLR), The Netherlands and MEASNET procedure and NIST calibrations
- * **calibration certificate**: optional **individual calibration certificate available 0.1 m/s accuracy (MEASNET)**
- * **distance constant**: standard 2.9 meter
- * **effective dynamic start speed**: appr 0.35 m/s (**compensated** in windlogger EKO21B and iBOX and 4-20 mA version (MAX40+/4-20mA)
- * **stub mounting mast** : stainless steel with vertical stainless steel M5 bold
- * **cable length**: MAX40+ versions 2 meter **inside soldered cable**
specify required cable length at order , standard MAX40 version no cable
- * **cable type** : standard cable:2 wire shielded twisted pair cable BELDEN
- * **waterproof cable connector** : optional connection box for easy and reliable cable extension using waterproof crimp wire connections
- * **optional sensor mounting sensor arm for any mast size**
- * **read-out units**: on request , also possible Vantage Vue Console, see website

Standard Factory Calibration Transfer Function: (lineair function)

$v=0.77f+0.4$ (m/s) if $f>0$ in Hz of small AC signal (not valid for Reed type!)

Refer to individual calibration certificates (MEASNET, NIST)

Standard accuracy when used with iBOX or EKO21N datalogger: typ 0.2 m/s

with optional individual calibration certificate (MEASNET/NIST) typ 0.1 m/s

Resolution with iBOX or EKO21N datalogger: 0.01 m/s

Example standard calibration values:

frequency (Hz)	wind speed (m/s)
5.97	5.00
12.47	10.00
31.95	25.00

Special anemometers :

- Professional models (eg from Thies, Vaisala, Vector)
First Class with Measnet calibration certificate
- Acoustic anemometer (Gill)

- 1) World Meteorological Organisation (WMO)
International Energy Agency (IEA).
International Electrotechnical Commission IEC 61400-12
- *) Refer to separate data sheet