GHA Coating

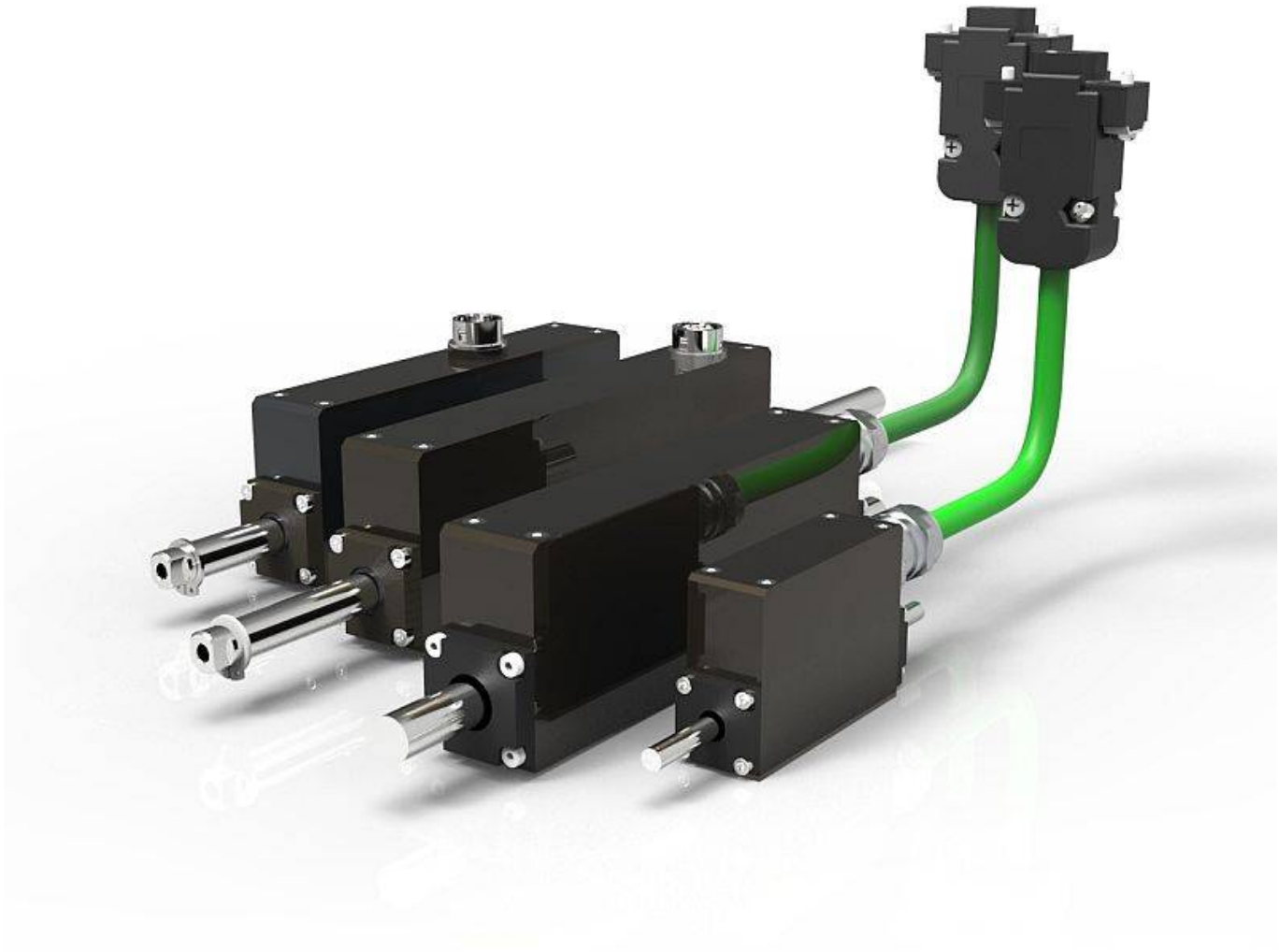
GHA FDA certification:
www.nilab.at/dokuwiki/lib/exe/fetch.php?media=miniature_motors:gha_fda_compliance_letter.pdf

GHA Antibacterial effect:
www.nilab.at/dokuwiki/lib/exe/fetch.php?media=miniature_motors:antibacterial_effect_of_gha_treatment.pdf

GHA Antivirus SARS effect:
www.nilab.at/dokuwiki/lib/exe/fetch.php?media=miniature_motors:antivirus_sars-cov2_effect_of_gha_treatment-.pdf

NiLAB's **miniature tubular linear motors** are a complete solution for the pharmaceutical and medical industry and for all kind of automatic machines in general.

One of the advantages of the **NLH series** is its compactness with flange dimensions beginning from 15x34mm till 35x63mm. The linear motor is composed of a high performance three phase winding, an integrated encoder SIN/COS 1Vpp and a rod in AISI 304 stainless steel. The **NLH series**, composed of 6 different types, has an excellent performance and dimension ratio. The force range starts from 0,6 N up to 20 N of continuous force with peak forces 6 times these values. The standard power supply of the drive is 24/48 VDC.



The difference between the NL series and the NLH series is the **G.H.A.®-coating***.

It is one of the most recent and innovative technologies applicable to the surface of all aluminium-base alloys. The surface is treated by a special **anodic oxidation**, with thickness ranging from 10 to 200µ, followed by the sealing of the micro porosities through silver ions (Ag+). The anodic oxidation of aluminium-base alloys is the safest **protection treatment** because it's unremovable.

The G.H.A.® process (**Golden Hard Anodizing**) is patented (**Patent No. EP1207220**).

The advantages of the G.H.A. process are numerous:

- Highest corrosion resistance
- High antibacterial capacity and anti-mould (Antibacterial)
- Antistatic capacity
- Thermal conductivity
- Heat resistance
- Resistance to consumption
- Melting temperature: 2100 °C
- Hardness: 500-600 HV
- Suitable for direct contact with food

Therefore, aluminium alloys with the **G.H.A.®-coating** are considered an **excellent alternative** to

expensive metals such as stainless steel or titanium alloys.

The miniature tubular linear motors of the NLH series with the innovative **G.H.A.®-coating** are specially designed for applications in the **food**, **pharma** and in the **medical industry**.

**Source: G.H.A. EUROPE S.R.L.*