ELEVATE YOUR WORK WITH A UNIQUE INSIGHT INTO MUSCLE FUNCTION
SCIENTIFICALLY VALIDATED, FUNCTIONAL AND SELECTIVE MUSCLE MEASUREMENTS

Our proprietary and patented TMG - S1 measurement system is based on tensiomyography, a scientifically validated method substantiated by more than 50 independent studies.

TMG provides relevant information about muscle contractile properties in an objective, selective and non-invasive way. It gives insights into: muscle composition, muscle functional characteristics, local muscle fatigue, atrophy, muscle inhibition, spasticity, tonus, and more. High repeatability enables long-term monitoring of acute and chronic changes in muscle function.
AN EFFECTIVE DIAGNOSTIC AND TREATMENT MONITORING TOOL

Our methodology is based on selective, qualitative and quantitative monitoring of treatments or action plans with fast and simple measurements to determine the results of your interventions.

1. MEASUREMENT
2. ANALYTICS
3. ACTION
4. FEEDBACK LOOP
THE MEASUREMENT PROCESS

The measurement is completely non-invasive, fast and user-friendly. The displacement sensor is placed on the skin above the selected muscle, which is artificially stimulated with an electrical stimulator to obtain a standardized, repeatable contraction. The sensor measures the displacement and obtains time-based characteristics.

The results are displayed in real time on a screen as time/displacement curves. The dynamic response time of the sensor is depicted in the millisecond range, allowing you to distinguish the differences in the reaction between fast and slow muscle fibres.
THE MEASUREMENT SYSTEM

Our patented measurement system was developed in cooperation with the Laboratory for Biomedical and Muscle Biomechanics at the University of Ljubljana, Slovenia.

ELECTRICAL STIMULATOR

- Output current: 0 – 100 mA
- Output voltage: $U_{\text{out max}} < 10$ V rms
- Pulse duration: 1 ms
- Pulse shape: square, monophase
- Power supply (battery): 12 V DC

DIGITAL - OPTICAL SENSOR

- Operating principle: optical ladder
- Maximum measuring length: 32 mm
- Resolution: 1 μm
- Error: 1,5 μm across entire measuring length
- Maximum velocity: 1 m/s
1. ELECTRICAL STIMULATOR
2. DIGITAL SENSOR
3. TRIPOD & MANIPULATING HAND
4. ELECTRODES
5. SUPPORTING PADS
6. USER INTERFACE
SELECTED REFERENCES

EDUCATIONAL SECTOR
Harvard Medical School, USA
Ruhr-Universität Bochum, Germany
Johannes Gutenberg University Mainz, Germany
Manchester Metropolitan University, UK
University of Stirling, UK
Technical University of Madrid, Spain
Leeds Beckett University, UK
Beijing sport University, China
Kokushikan University, Japan
University College for Health Studies, Slovenia

SPORT CLUBS AND TRAINING FACILITIES
FC Barcelona, Spain
Chelsea FC, UK
Liverpool FC, UK
Manchester United FC, UK
FIGC – Italian Football Association
Baylor Bears, USA
FC Bayern München, Germany
Aspire Academy, Qatar
Bundesamt für Sport BASPO, Switzerland
UK Athletics

HEALTH SECTOR
Massachusetts General Hospital, USA
Quiron Grupo Hospitalario, Spain
Centre of a Physical Rehabilitation, Moscow, Russia
Daejeon Teun Teun Hospital, South Korea
Gemeinschaftspraxis Königsallee, Germany
Soča Rehabilitation Centre, Slovenia
Rogachev Memorial Federal Scientific Clinical Center, Russia
Orthopaedic Hospital Valdoltra, Slovenia
Universitätsmedizin Göttingen, Germany
ZVD - Institute of Occupational Health, Slovenia
Hiroshima University Hospital, Japan
Faculty of Medicine, University of Maribor, Slovenia
<table>
<thead>
<tr>
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<td>Physical activity program effects on the functional efficiency of flexors and extensor’s knee and ankle in Alzheimer’s patients</td>
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<td>Pedro Alvarez-Diaz, Eduard Alentorn-Geli, Silvia Ramon, Miguel Marin, Gilbert Steinbacher, Juan José Boffa, Xavier Cuscó, Oscar Ares, Jordi Ballester, Ramon Cugat</td>
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<td>Rodríguez-Ruiz, D.; García-Manso, J.M.; Rodríguez-Matoso, D.; Sarmiento, S.; Da Silva-Grigoletto, M.2; Pisot, R.3</td>
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