

MYON 320

EMG MADE EASY

EMG MADE EASY – THE NEW MYON 320 CARRIES FORWARD ALL THE BENEFITS OF THE PREVIOUS GENERATIONS OF MYON SYSTEMS WHILST SIGNIFICANTLY IMPROVING USABILITY, DESIGN AND SIGNAL QUALITY.

The myon 320 system lets you capture and record EMG, accelerometer, foot switch and other biophysical signals from up to 32 small and lightweight wireless transmitters. The receiver unit, which can interface both directly to a PC and to 3rd party analog acquisition devices, supports recording from up to 16 transmitters – and you can use two of these in parallel. Together with the convenient charging cradle for the transmitters, these units make up the new myon 320 – a new benchmark for quality, usability, functionality and design.

Offering the shortest constant latency time of any system on the market – 16ms – the myon 320 is ideally suited to real-time applications as well as integration with other equipment that requires synchronous operation. Combine this with up to 10 hours of continuous use between each re-charge and the completely automated workflow, and you have a system ideally suited for a variety of applications including gait analysis, sports, rehabilitation and research.

MYON 320 TRANSMITTERS

The wireless transmitters are lightweight, ergonomically designed, comfortable to wear, very durable and easy to attach. A short cable connects the measurement point – for example, the EMG electrodes – to the transmitter. This design makes it easy to place the transmitter away from where the signal is being measured, where it could otherwise interfere with the signals, either because of the extra inertia or because it may collide with other body parts. The signal is immediately amplified and digitized, ensuring that no extra noise is picked up. The battery lasts up to 10 hours between each re-charge, and a diode warns you when you have about 30 minutes left.

MYON 320 REAL-TIME TRANSMISSION

TECHNOLOGY

To minimize real-time latency, the myon system uses a proprietary protocol where each transmitter uses its own frequency that links to a dedicated antenna in the receiver.



Not only does this make the system very reliable and easy to use, it also means that the time it takes from the signals are recorded until they are forwarded from the receiver is a constant 16 milliseconds. The fact that it is constant is essential when synchronizing with other equipment, the fact that it is low is crucial if you want real-time feedback.

MYON 320 RECEIVER

Each receiver unit communicates with up to 16 transmitters at a range up to 30 metres. The receiver automatically links up with each transmitter as soon as they are removed from the charging cradle – you never have to worry about pressing buttons or setting IP addresses. Also, when the receiver does not receive a signal for some reason, it outputs a high-amplitude, high-frequency signal which cannot be mistaken for an actual signal – therefore, you always know when the signal is valid.

MYON 320

TECHNICAL DATA



Transmitter

MYON 320 CHARGING CRADLE

The charging cradle has two major functions: it charges the batteries of the transmitters when the cradle is connected to power, and it provides a convenient place to store them when they are not in use. The transmitters stop sending data when they are inserted, therefore conserving power and providing an ideal solution when you want to bring the system along with you. The charging time for the transmitters is very low – 90 minutes gives you up to 10 hours of continuous measurement. Furthermore, if you have forgotten to charge one day and the subject is ready and waiting, a quick 5-minute charge gives you enough for an hour or more.

MYON 320 APPLICATIONS

The robust design, ease of use, short latency and exceptional signal quality combine to make the myon 320 ideal for a large range of applications. The wireless aspect is a huge benefit for clinical gait and sports analysis, but more static scenarios such as ergonomics will also gain from less setup time and improved subject comfort. Furthermore, the low latency is ideal for biofeedback applications in rehabilitation and sports. Additionally, the growing number of sensors that interface with the myon system makes the myon system a great choice for research or clinical applications that require wireless measurements from devices such as accelerometers, force transducers or goniometers.



Receiver

Sampling rate	4000 Hz per channel
Input range / gain:	± 5 mV / 500 x, ± 2.5 mV / 1000 x, ± 1.25 mV / 2000 x, ± 0.625 mV / 4000 x
Resolution	12 bit
Range	up to 30 m
Transmission protocol	Proprietary
Transmission frequency	2.4 GHz
Battery life	up to 10 hours
Battery recharging time	60-90 minutes
Transmitter weight	22 g (incl. cables)
Transmitter size	35 x 40 x 15 mm
Receiver size	203 x 123 x 77 mm
Receiver output	Analog
Charging cradle size	215 x 115 x 80 mm
Latency	16 ms, constant
Inter-channel offset	<0.25 ms
Medical product conformity	ED 1993/42, CE
Radio installation conformity	ED 1999/5/EC (R & TTE), FCC

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