



2016/2017



Silent e-Motion

THE DYNAMIC E-BIKE DRIVE FROM SWITZERLAND



■ SO WHY... ... A REAR WHEEL HUB MOTOR?

*Which motor is best?
For 125 years now, the car industry
has always given the same answer:
“It all depends.”*

■ SILENT – DYNAMIC – MAINTENANCE-FREE... ... IN ONE WORD: IMPRESSIVE!

After the trend in recent years towards a central motor, an increasing number of providers are now rediscovering the rear wheel hub motor. Why?

One of the reasons: E-bike users are getting younger and more demanding – they want their dream e-bike to stand out from run-of-the-mill products.

Another reason: The motor's technical characteristics and its hitherto unparalleled driving dynamics. This means that rear wheel hub motors are the first choice for suppliers of sporty dynamic e-bikes at the highest technical levels, as well as for manufacturers of special bikes. Some of the most demanding and ambitious bikes have been successfully using motors from GO SwissDrive for some years now. When it comes to the fast pedelec category with assistance up to 45 km/h, we are a market leader.

Silent e-Motion

■ ARGUMENTS FOR THE GO SWISSDRIVE SYSTEM IN BRIEF



MORE DYNAMIC

Rear wheel motors provide powerful acceleration, high flexibility, quiet running and generous spare capacity. With nominal output of up to 500 watts (peak power of around 1,000 watts) and genuine 45 Nm torque, GO SwissDrive sets the standard, when motors are compared on a like-for-like basis.



POWER WHERE IT HAS GREATEST EFFECT

Directly on the rear wheel hub. Without any detours. And without unnecessary wear on chain and pinion. Can be combined with derailleur gears or crankset gears. Like the high-tech gearsets from Pinion, for instance.



PRACTICALLY INAUDIBLE

The great thing is that you can't hear the GO SwissDrive motor. Running at 18 to 25 decibels, it emits just a whisper of a sound. Quieter than a quiet bedroom at night. And the design means it is a lot quieter than a comparable central motor.



MORE ENERGY VIA RECOVERY

Energy recovery (recuperation) and less wear on the brakes when riding downhill. Known also in Formula 1 as KERS (Kinetic Energy Recovery System), it is only possible on rear wheel hub motors. Can be set to a minimum of two levels on a GO SwissDrive.



FULL SYSTEM INTEGRATION

An extremely robust bolted aluminium casing means that our motor and torque sensor enjoy excellent protection. This is a definite advantage over other manufacturers and motor systems.



INDUSTRY STANDARD PROTECTION

The GO SwissDrive motor is tested to industry standard IP64, designed to prevent the ingress of dust or spray. This robust quality protects customers who use their bike in harsh conditions, such as when carrying out delivery services or engaging in mountain biking.

■ THE MOTOR UNIT – PROVEN QUALITY IN DIFFERENT VARIANTS

Our rear hub motors have proven themselves for many years even under the harshest conditions. For example in e-bikes for delivery services at a mileage of more than 100,000 kilometers.

You have the choice between four different variants: From 250 Watt for a normal pedelec according to EU-legislation, up to 500 Watt (peak performance approximately 1,000 Watt) for powerful and strong e-bikes / pedelecs of the fast class.

- All motors with integrated controller
- Integrated patented torque sensor: contactless and maintenance-free
- Brushless and special design for low free-wheeling resistance
- Adjustable by software
- Dust and water-splash protection according to industry standard IP64
- Recuperation up to 200 Watt
- Walk assistance forwards and backwards
- Suitable for bike cassettes up to 30-speed derailleur gears (compatible for 11-speed drivetrain)
- Ideal for combination with bracket gearing systems (e.g. 18-speed Pinion gearbox)
- Disc brake mount
- System communication via CAN-Bus



NEW 2017

■ NEW FEATURES



Low
Resistance
Technology

VIRTUALLY NO PEDALING RESISTANCE FROM 25 KM/H ONWARDS

The new Low Resistance Technology minimises motor resistance at higher speeds. The result: The feeling of slowing down beyond 25 km/h is now a thing of the past. The e-bike rides like a normal bicycle in this situation.



Virtual
Thermo
Technology

GREATER RANGE IN HILLY TERRAIN

Higher efficiency, better support and a greater range thanks to the new Virtual Thermo Technology: predictive calculation of the coil temperature, based upon a thermal motor model.

■ MOTOR VARIANTS AVAILABLE

Motor	Nominal power *	Max. torque *	Max. speed	Weight **	Typical application
Cruise	250 W	37 Nm	25 km/h	4,7 kg	Pedelec
Standard	250 W	40 Nm	42 km/h	5,3 kg	Allround
Power	500 W	45 Nm	45 km/h	5,6 kg	S-Pedelec, Cargo
Speed	500 W	40 Nm	55 km/h	5,6 kg	S-Pedelec

* at tested current 25A

** including freewheel body

■ EVO DISPLAY – NEW AND EASY TO RETROFIT

- 3.2" full color TFT Display
 - With transreflective display technology
 - Full sunlight readable
 - Resolution 240*320 / 16 bit color
- USB A Connector for Service and Charging
 - Charging of USB devices up to 5V / 1A
 - Storage of collected trip data on USB devices
 - Update of the Drive System via USB
- Ready for Bluetooth 4.0 communication
 - Visual phone call Indicator / Smartphone integration
 - Service data exchange
 - Ready for adaption of different Bluetooth functions via Smartphone-App
- Good vibration protection; water and dust-resistant according to IP65
- Ambient light sensor and automatic drive light control (with supported bike lights)
- Center mounted plus ergonomic handlebar remote
- Customizable design
- Anti-theft protection
- Easily retrofittable for models up to 2016



■ FUNCTIONS

3 different Riding Screens:

- Screen 1: Speed, actual consumption in Watt, remaining range and 2 other values (e.g. distance or average speed)
- Screen 2: Tour-data: Distance, riding time, average consumption, average speed, maximum speed
- Screen 3: stopwatch with counting of time and trip

Further Non-Riding Screens:

- Screen 1: Total-data: Distance, riding time, average consumption, average speed, maximum speed
- Screen 2: Smartphone functions
- Screen 3: stopwatch with counting of time and distance

■ EVO REMOTE CONTROL

- 4 buttons for interaction with the system
- Separate On/Off button allows use for fast e-bikes / pedelecs
- Start of walking mode
- Different colour options
- Switch lights On/Off
- Mountable near to handlebar grip
- Ergonomic design allows excellent interaction in every situation
- Can be mounted on the right or left
- Customised colours

Button for confirmation of settings

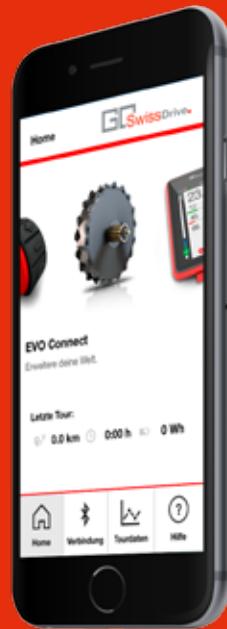
+ and – button for 5 power levels and 2 regenerative levels

Menu button to change the screens



■ GO SWISSDRIVE EVO CONNECT APP

- Your first step towards connectivity between GO SwissDrive system and smartphone
- Support levels individually adjustable depending on your needs
- Digital Tour Diary: keep track of your tours within the app
- Incoming phone calls show up on your EVO display
- Compatible with Bluetooth 4.0 and iOS 7.0 or higher and Android 4.4*



■ HEARTGO APP**

- Health and Fitness App
- A pulse control option was added to the GO SwissDrive System in collaboration with HeartGO's medical technology experts
- Intelligent, pulse-based automatic motor support control provides individual support and safety while riding
- Continuous monitoring of vital signs and e-bike data
- Immediate feedback and status information provide motivation and protection from overloading
- Innovative training and recreation with only one system



* We regret that even when using the correct versions, hardware-related incompatibilities may occur with some devices.

** Product sold by our partner, HeartGO GmbH.

■ WITH COBI INTO THE FUTURE OF SMARTBIKES***

GO SwissDrive is among the first manufacturers committed to the seamless integration of the new COBI system. In this way the smartphone becomes the central unit.

- Drive control and display of tour data
- Navigation functionality with different options
- Control of head light, tail light and brake light
- Power supply to the smartphone via hardware on the stem
- Audio functionalities via Bluetooth
- Different additional tools



■ POWERFUL BATTERIES AT CHOICE

Downtube battery 15,5 Ah, 558 Wh, max 25A

or

High-quality Tubus rear rack 12,4 Ah, 446 Wh, max. 20A, with integrated backlight

- Min. 1000 cycles with 70% remaining capacity
- RoPD (Magnetic) Connectors
- 2 and 5 ampere chargers available
- Compact design with high capacity
- Produced by German Partner BMZ





■ PERFORMANCE LEVELS INSTEAD OF SUPPORT LEVELS

Your benefits: reduced electricity consumption and direct control of motor performance. The individual adjustment is made by the dealer using a service tool or with the EVO Connect App.

MOTOR PERFORMANCE DETERMINES ELECTRICITY CONSUMPTION

Depending on physical capability, personal preferences or route profiles, users can adjust the performance (and by that the electricity flow within the motor) in several freely definable levels.

- Flat terrain: the performance could be limited to 10, 20, 30 and 50 percent in four levels. In practice this would provide fine steps. Only the fifth level would allow full motor performance, albeit using significantly more electricity than level 4.
- Hills: evenly distributed levels of 20, 40, 60, 80 and 100% would allow energy-efficient cycling in flat terrain on levels 1 and 2, and high performance on levels 4 and 5. For extremely steep climbs the motor performance can be limited in this way in order to prevent overheating.

In all cases, the limitation of motor performance permits a transparent increase of range. Especially during extended tours or prolonged climbs this can provide a marked advantage and an ideal supplement to the usual support control.

GOING FURTHER



■ CUSTOMER OPINIONS

ROLF WOLLENWEBER

CAMPUS

MD OF CAMPUS – HAND-PRODUCED BICYCLES AND E-BIKES MADE IN GERMANY

“In our experience, the GO SwissDrive motor has three particular advantages: it is silent, maintenance-free and powerful. For many of our younger customers, as well as those who remain young at heart, it must be said that the power of the motors is a major selling point. For instance, unlike with systems of other manufacturers, the motor provides particularly powerful pedal assist when the rider pedals hard and fast. For sporty riders and S-pedelec customers this sensation of power is overwhelming when it comes to their choice.”

ROBERT DORN



DEVELOPMENT MANAGER AT GOBAX – SPECIAL MANUFACTURER OF DELIVERY BIKES FOR PROFESSIONAL USE

“In view of the frequent changes of rider and distances of up to 100,000 kilometres in three years, our delivery e-bikes have to have durable, high-performing and reliable components that are as maintenance-free as possible. This requirement is fully met by the GO SwissDrive motor, which we adapt in terms of power output to the relevant topography and region of use and combine with crankset gears for use on an S-pedelec.”

PAUL HOLLANTS



MD OF HP VELOTECHNIK – SPECIALIST IN RECUMBENT BIKES AND TRIKES

“When it comes to choosing a motor, two main factors are decisive for HP Velotechnik. The first of these is being able to enjoy the ride in peace and quiet. Secondly, the weight distribution is ideal. So our decision to opt for a rear wheel hub motor is entirely logical, and GO SwissDrive is definitely our first choice. In fact, it's like a dream come true that GO SwissDrive is offering to incorporate a reverse gear.”

ELEKTRORAD

ElektroRad

EUROPE'S NO. 1 E-BIKE MAGAZINE

„The competent collaboration between skilled German engineering and Swiss precision is really impressive (...) superior dynamic and quality that can be felt and experienced.” (Portrait, issue 01/2016)



■ SWISS PRECISION WITH ALL THE TRADITIONS OF GERMAN ENGINEERING

Since its establishment in 2011, GO SwissDrive AG, Swiss subsidiary of the globally active German Ortlinghaus Group, has made a name for itself as manufacturer and supplier of premium e-bike drive systems. In its production of rear wheel hub motors and their associated control electronics, GO SwissDrive benefits from more than 100 years' engineering experience in developing high-performing technologies to meet challenging requirements.

■ PROVEN QUALITY AND RAPID SERVICE

With our proven drive system, the recipient of multiple awards, we have for years now been a partner to leading makes of bike and are a market leader when it comes to fast e-bikes / pedelecs. The GO SwissDrive motors are manufactured to state-of-the-art industry standards at our fully automated Swiss production site in Gams. This, plus the use of an automatic end-of-line test, means we can achieve consistent top quality and short delivery lead times.

The European Service Centre at the Ortlinghaus Group's headquarters in Wermelskirchen near Cologne ensures a quick response and maximum proximity to customers. This Service Centre, set up in 2013, allows us to offer very short response times outside Switzerland as well. We quickly resolve any problems at software level through our online support. Replacement systems and spare parts can be ordered direct from manufacturers and dealers as needed. Repairs are performed to clearly specified deadlines and at fixed prices.





■ THESE MANUFACTURERS TRUST ON
THE GO SWISSDRIVE SYSTEM



CAMPUS

CHEETAH



COLEENE & Mc ADAM

DOUZE
CYCLES

Electrolyte

e.move
recreational e-bikes

FALKENJAGD
TITAN BIKES

gobaX

GRACE

St. Pölten
Industriell. Integrativ. Innovativ.

Herkelmann
Fahrräder mit Persönlichkeit

HILITE
SWISS CUSTOM-MADE BIKES

HP
Velotechnik
Liegeräder und Systemzubehör

i:SY



mi:teco

onncycle⁺

PATRIA

Poison

QUANTOR

SANTOS
Built for Life

STOCKLI



STREETSCOOTER

tout terrain

NEO⁺
BY JOBFACtORY

watt's

YouMo⁺

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