

**High Precision and
Battery Operated
Time Switch**

**weilekes
elektronik**

Measuring Equipment
for Cathodic Protection



GPS-Syntakt

Time Switch for CP

GPS-Synchronisation · External or manual synchronisation · High precision quartz with continuous temperatur compensation
Programmable night and weekend suspend · Mechanical 15A or electronical 18A relay · 1,200 h battery operating time

GPS-Syntakt

General

The GPS-Syntakt time switch is used for the synchronous switching of rectifiers, flanges and coupons for cathodic corrosion protection applications.

After once being synchronised, the switching cycle is maintained by the internal rechargeable battery when the device is not in operation and immediately available even after the time switch has been transported in an instrument car for several weeks.



GPS-Synchronisation

GPS-Syntakt resynchronises itself automatically every 2 hours via the connected GPS antenna and thereby guarantees continuous synchronous switching without time deviations.

The GPS reception quality and successful GPS

synchronisation (during the last 24 h) are indicated by two-colour LED on the front panel.

External or Manual Synchronisation

Without a connected GPS antenna it is possible to externally synchronise via another time switch ("Master and Slave") or manually via the corresponding push button.

High Precision Quartz with continuous Temperatur Compensation

Being equipped with a highly precise and continuously temperature stabilised quartz time base the GPS-Syntakt enables synchronous switching for several weeks without resynchronisation. This high sophisticated temperature compensation is unique for CP time switches.



Battery or Mains Operation

During GPS-operation the internal lead-acid battery allows mains-independent synchronous switching for more than 6 weeks.

During mains operation the internal battery is automatically charged, and the installed charging electronics monitor the charge state.



Night and Weekend Suspend

It is possible to suspend the switching operation during the night and on weekends via a programmable LCD clock display installed on the front panel in order to maximise the protective current for the pipeline.

Secondary Switching with Relay or Primary Switching Mains

Via its two potential-free pole terminals the internal relay of GPS-Syntakt has a maximum contact capacity of 15A / 60V. During 230V mains operation a primary switching of rectifiers with 230V / 6A is also possible via the installed grounding receptacle.



Optional: Electronic Relay (18A)

The GPS-Syntakt variant with electronic 18A relay got no mechanical wear for the relay contacts. When connecting the pole terminals there is no need to care for the polarity, as needed for other switcher with electronic relay. This feature allows switching of pipe sections with AC interference.

Connection of External Slave Relays

To increase the switching power, an external slave relay can be additionally connected when the time switch is mains-operated. The mechanical slave relay permits switching of up to 60A and the electronic variants up to 100A.

Technical Data

Switching Cycles (On / Off):

4 / 2 s, 12 / 3 s, 27 / 3 s (other switching cycles at extra charge)

GPS antenna:

Type Garmin, with build-in receiver and 5 m cable

GPS synchronisation:

every 2 h, accuracy < 10 ms

Time Deviation:

maximum ± 10 ms / 24 h at 20 °C

maximum ± 20 ms / 24 h at 0 °C bis -40 °C

Secondary Switching Power:

Mechanic Option: 60 Volt DC / 15 Amps (via pole terminals)

Electronic Option: 100 Volt DC / 18 Amps (via pole terminals)

Primary Switching Power:

230 Volt AC / 6 Amps (via socket)

Operating Temperature:

-20 °C to + 60 °C

Power Supply:

Lead-acid 6V / 12Ah and 230 Volt AC / 5VA

Operating Time / Charge:

approx. 1,200 h with GPS reception at 12 / 3 cycle and 20 °C

Housing:

Aluminium with variable grip

Dimensions (W x H x D):

Housing 173 x 110 x 151 mm, GPS antenna 60 mm Ø

Weight:

4.1 kg with GPS antenna

Item No:

Mechanic Option: 140 011

Electronic Option: 140 171