

Intelligent Ripple Control Receiver: LCR160

The LCR160 is a high-quality ripple control receiver including switch clock. It can be used in standard ripple control applications as well as in modern systems with "distributed intelligence" (VERSACOM) as a remotely programmable switch clock.

Digital filtering of the ripple control signal is done by a microcontroller in most modern technology.

LCR160 for Din-Rail
Installation



Compact Ripple Receiver for
DIN-Rail Installation



Simple Programming without
230VAC power supply

40 A

40A Load Relay

Functionality

- Processing of all common ripple control protocols and their specific pulse patterns
- Internal clock with optional buffering by a supercap or a battery, flexible synchronisation using VERSACOM Protocol
- Switch clock depending on week-days, with remote parameterisation using the 'VERSACOM' protocol (DIN 43861-301)
- Switch clock for a year with calculated dawn and dusk times for illumination control (e.g. street light)
- Programming and test via the electrical interface (USB) is possible with-out the 230VAC power supply
- Signal absence sensing, detection of transmitter failures
- The receiver is fitted as standard with one load control relay, rated at 40A. In addition, a second relay rated at 6A and suitable for switching TOU registers can also be fitted.
- Anti – Tampering and supervision
- Automatic refreshing of relay positions every 60 seconds
- Counter for number of switching actions per relay
- Log file for storage of pulse pattern and signal levels of last telegrams received (minimum 10 telegrams)
- Log file for storage of events (power failure, low network frequency, signal absence)
- Logical interconnection of relays
- Switching delay (1 s – 24 h)
- Passing contact function (1 s – 24 h)
- User friendly programming tool LCRset6 usable for all Receivers of the LCR Family

Power Supply	Voltage Un Frequency of power supply Lightning impulse strength	230 V + 15 %... - 20 % 50 Hz + 2 %.. - 2 % 4kV 1,2 / 50 according DIN EN 61 000-4-5
Filter Data	Audio frequency Selection of audio frequency Minimum respond signal voltage None respond signal voltage Maximum signal level	158 Hz – 1600 Hz any frequency can be set Uf > 0.5 % Un Unf < 0.3 % Un or according to agreement 8-15 times Uf (dependent on frequency)
Real Time Backup	Supercap Battery Time deviation	> 48 h without power > 3 years without power at 25 °C, life time (powered) > 10 Jahre < 2 s/day
Output Data	Number of Relays Nominal switching voltage Uc Nominal switching current Ic Relay Type Terminal size	2 (bistable) 250 V, 50 Hz or 60 Hz Relay 1: 40 A bei cos phi = 0,4....1, Relay 4: 6A bei cos phi =0,4....1 normally closed contact, bistable Relay 1: floating, potentialfrei, Relay 4: non-floating Relay 4 / power supply: 1x 2,5 mm ² or 2x 1,5 mm ² Relais 1: 1x 6 mm ²
Climate Conditions	Operating temperature Storage temperature	-20... + 60°C -30... + 60°C non-condensating
Housing		The ripple control receiver housing is designed to be mounted on a DIN - rail. For wall-mounting a cover is available.
Protection Class		IP51
Dimensions	Without cover With cover	H = 92 mm, W = 37 mm, D = 65 mm H = 150 mm, W = 62 mm, D = 67 mm

Connection Diagramm

