Intelligent ripple control receiver
LCR 140

The LCR 140 is a high-quality and modular ripple control receiver. It can be used in standard ripple control applications as well as in modern systems with „Distributed Intelligence“ as a remotely programmable tariff switching unit.

The operation of the internal clock during a power failure can be secured for a few days from a built in supercap (option).

Features

- Digital filtering of the ripple control signal through the micro controller
- Processing of all conventional ripple control protocols and its specific pulse patterns
- Processing of a second protocol with secured data transmission according to DIN 43861-301 (VERSACOM)
- Remote parameterisation of switching times and weekday assignment of the work schedules (using the VERSACOM-protocol)
- Enable / disable of work schedules
- Switch-on status (a/b) determinable for each relay
- Cyclic switching function (Relay 1 – 3)
- Switching delay for switch-on operations (1 s - 24 h)
- Wiping timer function (1 s - 24 h.)
- Ripple control signal absence detection (e.g. for enabling a work schedule)
- Memorized schedule function (Relay 1 - 2)

Internal clock features

- Internal clock (remotely synchronizible) for autonomous operating of work schedules (weekday based)
- Real time clock with supercap (option), voltage interruptions can be bridged at min. 48 h
- Up to 32 work schedules programmable per receiver
- Up to 14 switching times programmable per work schedule
- Free assignment of work schedules to the relays
- Changes of switching times from the central station using the VERSACOM protocol, or locally via the programming interface

Supervision features

- Storage of pulse pattern and signal level of the last received telegram
- Signal absence sensing, detection of transmitter failures
- Counter for number of switching actions per relay

Programming and test equipment

The programming is performed as standard via the serial interface (also possible when receiver is without own power supply).

Output relays

The receiver will be delivered with soldered relays.

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Technical Data

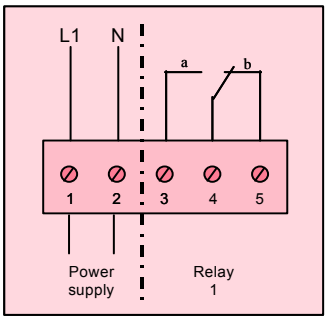
Modifications or deviations are reserved

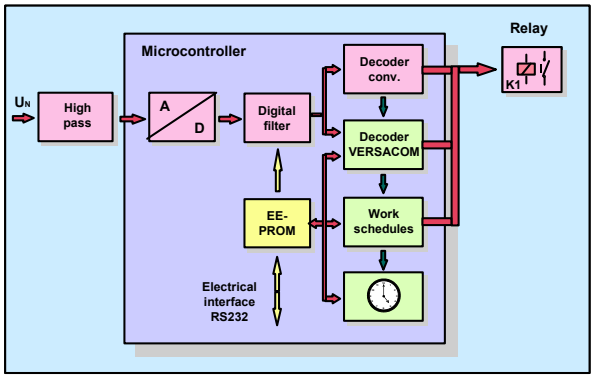
Power Supply:	Mains Voltage	230 V +11 %...-22 %
	Mains Frequency	50 Hz +1 %...-2 %
	Burden	< 1 W / 7 VA kap.
	Surge Voltage Resistance	8 kV 1,2 / 50 according to DIN EN 61 037
Filter Data:	Operational Frequency	158 Hz - 350 Hz 350 Hz - 1350 Hz
	Selection of Operational Frequency	per parameter, free selectable
	Min. Operational Voltage	Uf > 0.5 % Un
	Non-Operational Voltage	Unf < 0.3 % Un or according to agreement
	Maximum Operational Voltage	8-15 times Uf (dependent of frequency)
Output Data:	Number of Relays	1 (bistabil)
	Nominal Switching Voltage Uc	250 V, 50 Hz or 60 Hz
	Nominal Switching current Ic	6 A, cos phi = 1 (soldered) 6 A, cos phi = 0,4 ind.
	Relay Type (status a/b programmable)	potential free contact
	Terminal Size	2 x 1,5 mm² or 1 x 4 mm² wire
Internal Clock (option):	Backup	> 48 h
	Accuracy	5 +/- 23 ppm
Climatic Conditions:	Operating Temperature	-20...+60 °C
	Storage Temperature	-30...+60 °C
	Type of Protection	IP 51
Dimensions:		H = 100mm, W = 72mm, D = 77mm

Housing

The ripple control receiver housing is designed to be mounted on a wall.

Connection diagram





Block diagram LCR 140

ELSTER Messtechnik GmbH
Otto-Hahn-Strasse 25
D-68623 Lampertheim
Phone +49 (0) 62 06 / 9 33-0
Fax +49 (0) 62 06 / 9 33-292
www.elstermesstechnik.com