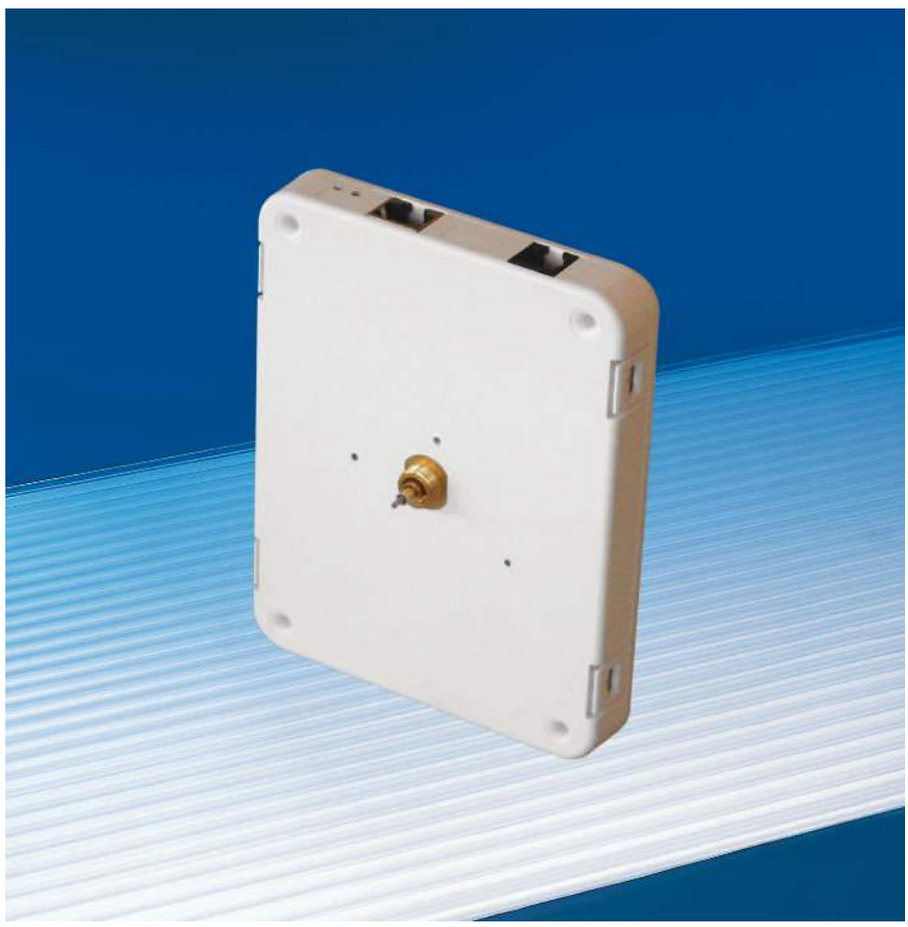


LAN Movements for NTP synchronization

SAN 40 / SEN 40

Multifunctional and easy-to-use LAN movements for indoor and outdoor clocks up to ∅ 40 cm.

The SAN 40 movement is available with hour and minute hands whereas the SEN 40 has an additional second hand.

Both movements are self-setting and powered via PoE.

Different running modes of second and minute hand available (stepwise or continuous).

Synchronization by multicast or unicast mode from a NTP server. IPv4 and IPv6 networks are supported.

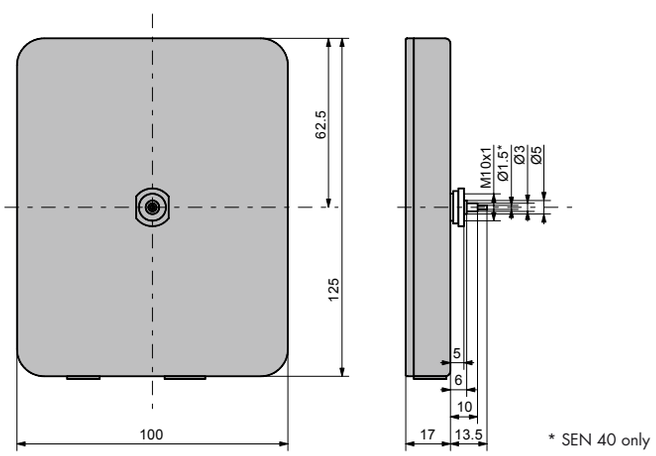
Full-fledged configuration, administration and monitoring through MOBA Network Management System (MOBA-NMS) or SNMP.

Alternative configuration by means of DIP switches (multicast) or DHCP server (unicast).

Automatic daylight saving time change.

Features of SAN40/SEN40

- Synchronization by an NTP server in an IPv4 and IPv6 network.
- Automatic acceptance of network configuration (IP address, subnet mask, NTP server address...) using DHCP.
- Alternatively use of a multicast IP address for synchronization / communication selectable by means of DIP switches (for minimal configuration effort).
- Automatic daylight saving time change according to a predefined daylight saving time rule (1 out of 7 rules selectable by means of DIP switches). The rules can be programmed by means of the PC tool MOBA-NMS with any time zone.
- Alternatively automatic daylight saving time rule can be provided by a MOBATIME time zone server in the network (1 out of 7 rules selectable by means of DIP switches).
- Operation mode selectable by means of DIP switches.
- Signalization of missing NTP synchronization after 24 hours by setting the hands to the 12 o'clock position.
- Different running modes of the second and minute hand selectable by means of DIP switches: stepwise or continuous.
- Power supply via PoE (Power over Ethernet).
- Cascade of a slave movement (I^2C bus). Synchronization, power supply and supervision by the master movement. For double sided clocks, only one LAN connection is required.



Technical data	SAN 40 (Art. no. 204018)	SEN 40 (Art. no. 204017)
Synchronization	Network Time Protocol (NTP), UTC	
Ethernet connection	10/100 MBit/s Ethernet controller, RJ45 connector, IPv4 / IPv6	
Supervision and configuration	- PC tool MOBA-NMS - SNMP V2 (without GetBulk), alarm and alive notifications (traps) for inclusion in a network management system	
Setting time after restart Daylight saving time changes	< 3 minutes 20 seconds < 15 seconds	
Power supply	PoE, phantom (Tx/Rx) or pins 4, 5, 7, 8 (class 1)	
Calculation of local time and daylight saving time change	Automatic daylight saving time change according to 1 out of 7 rules Rules pre-defined (programmable) or provided by a MOBATIME time zone server	
Accuracy	Deviation typically < +/-50 ms (synchronized)	
Synchronization loss	Signalization after 24 h by setting the hands to 12 o'clock position Deviation typically < +/-2 s after 24 h	
Number of motors	1 (h / min.)	2 (h / min. + sec.)
Temperature range	-30 to +70°C	
Weight	170 g	185 g
Dial diameter	max. 400 mm	
Maximum dial thickness	3 mm	