

Network programmable relay

NPR

The NPR is a network-compatible, NTP-synchronized week timer used to set different switch times individually for every day of the week. The week program for the switch times can be easily created on a PC and uploaded to the NPR via LAN. At the defined switch times, the electric contact of the NPR is switched on or off respectively. In addition to the automatic operation, the relay output of the NPR can be manually controlled via toggle switch or remotely via software. The lock function protects the NPR from unauthorized remote access.

Control and automation processes with the NPR can easily be realized using a pre-existing network infrastructure. The NPR supports e.g. the intelligent, time-controlled switching of electric loads, thus making an important contribution to energy saving. Furthermore, the NPR can be used for many typical building automation tasks (controlling lighting installations, bells, doors, blinds...).

NPR - Application examples

Are you looking for a simple solution for controlling bells and lighting in your schoolhouse via a week switching program?

The NPR offers this very functionality!

For the programming and configuration of the NPR, you require an ethernet network infrastructure with an NTP server acting as the time source (local or on-line), two NPR devices and a PC with the software MOBA-NMS installed.

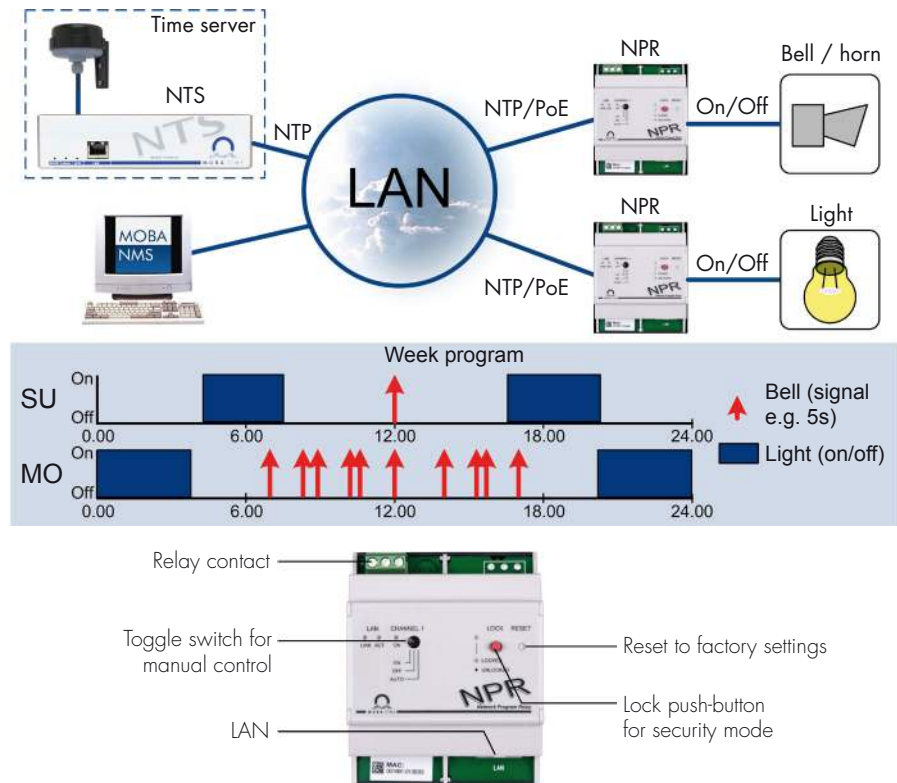
The NPR is installed by connecting it to the Ethernet network (PoE required).

After connecting the bell resp. the light to the NPR, test the function of the switch relay manually.

Now start the PC software MOBA-NMS, enter the two NPR into the device list using the search function and configure it. Afterwards, create the week programs with "on" and "off" commands for the lighting and impulse commands for the bells. Finally, upload the week programs to the two NPRs and the automatic light and bell control starts running.

Other examples of use for the NPR:

- Controlling the work shifts and breaks in industrial companies
- Light control for railway station platforms, waiting rooms, halls...
- Switching printers, copiers, coffee dispensers... on/off, synchronized to the work times in office buildings
- Automatic control of sunblinds, gates... in buildings



Technical Data	
Switch contact	Connector: Screw terminal, not fused Switch load AC: max. 250 VAC, 1250 VA, 5 A Switch load DC: max. 250 VDC, 150 W, 5 A (e.g. 30VDC, 5A, 150W; 60VDC, 1A, 60W)
Ethernet interface	RJ-45 connector, 10BaseT / 100BaseTX (IEEE 802.3), IPv4 / IPv6
Power supply	Power over Ethernet, 802.3af, class 1, < 4 watt Phantom or Spare-Pair power
Synchronization	Network Time Protocol (NTP), UTC Synchronization loss: Error signalization after 1h
Accuracy	Time deviation: < +/- 50 ms (synchronized) Holdover accuracy: < +/- 2 s / d (free running)
Operation	MOBA-NMS / MOBA-SCC / SNMPv2 MOBA NMS / SCC operation functions: Time zone, time zone server, NPR mode, relay state, week program download and upload
Supervision	SNMPv2: Alarm- and alive notifications Moba NMS supervision functions: Relay state, synchronization, NPR lock state, NPR switch mode, week program ID
Week program	Definition with: Text editor / Switch-Editor-Basic (plugin) Download with: FTP / MOBA NMS / MOBA SCC Commands: ON, OFF, impulse, exception Impulse: ON and OFF sequence, duration 1-90 s Exception: Holiday with start and end date Number of impulses and ON/OFF commands: Max. 50 Number of exceptions: max. 50 Blocking time between 2 commands: Min. 1 minute
Local operation	Relay mode (toggle switch): Auto / ON / OFF Remote access lock (push button): Lock / Unlock Factory reset (push-button)
Status LEDs	Synchronization (green), Lock (orange), Relay state (green), LAN link (green), LAN activity (orange), Error (red)
Operating temperature	-5 °C ... +50 °C
Dimensions	(L x W x H): 90 x 75 x 65 mm
Mounting	DIN rail mounting
Weight	120 g