

Clock System Universal Reset Translator Installation Guide



Model: URT-EX-LL

24VAC input
0.5A 24VAC output

Synchronous Clock Reset
Converter for National EX-LL
Series Synchronous Clocks on
Non-National Synchronous
Systems

NATIONAL TIME
& SIGNAL CORPORATION

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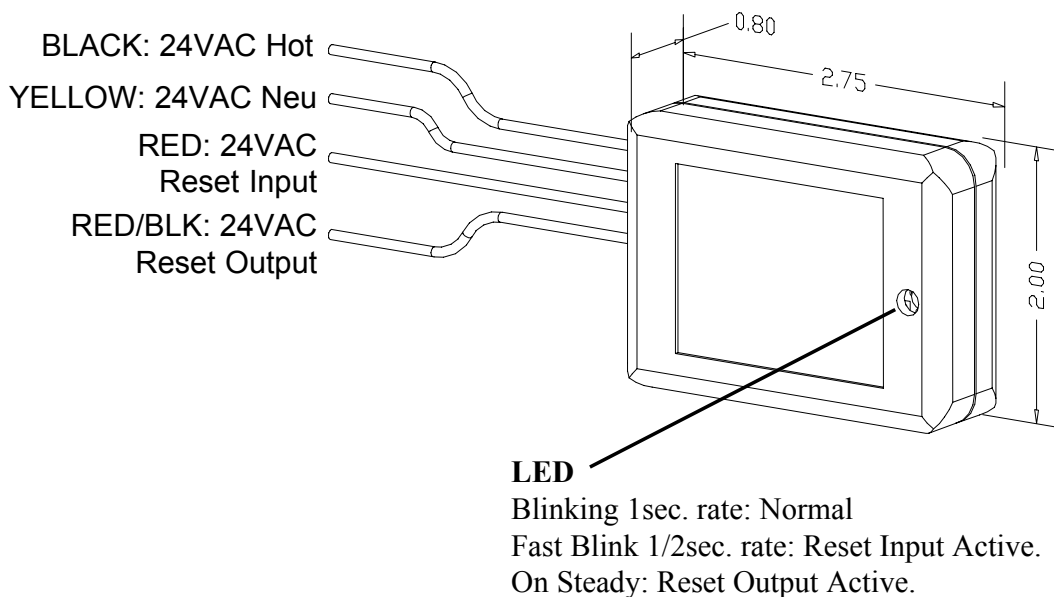
28045 OAKLAND OAKS CT. WIXOM, MI 48393

Description:

The **URT-EX-LL** module allows a National Time 24VAC EX-LL series synchronous clock to be reset by a previously incompatible clock system. Refer to the compatibility listing Bulletin C-433 for supported formats.

The non-National reset sequence from a master clock is received by the URT-EX which is capable of keeping time with its internal microprocessor circuitry. Many reset formats are automatically deciphered by the module without jumpers or dip switches. The URT-EX-LL will then autonomously keep the connected National EX Series synchronous clocks on time by outputting the National hour and 12-hour reset sequences.

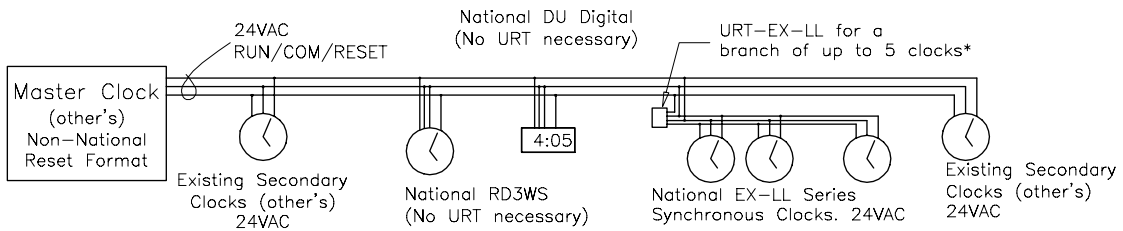
The solid state output of the URT-EX-LL is capable of driving up to 0.5A of synchronous clock resets (approximately 5 clocks). Since the National reset protocol differs from that of the existing system, the reset power is provided by the existing system's 'run' power so care should be taken not to overload the existing circuitry.



Tip:

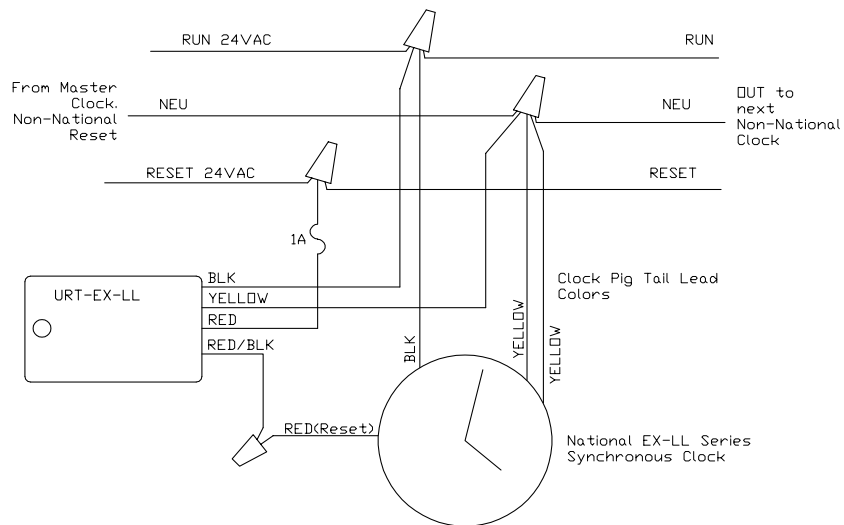
National Time also offers the Rotary Drive RD-3WS series as well as the DU Series digitals which also offer universal resetting capability without a URT module. See Bulletin C-332.

Typical System Layout:

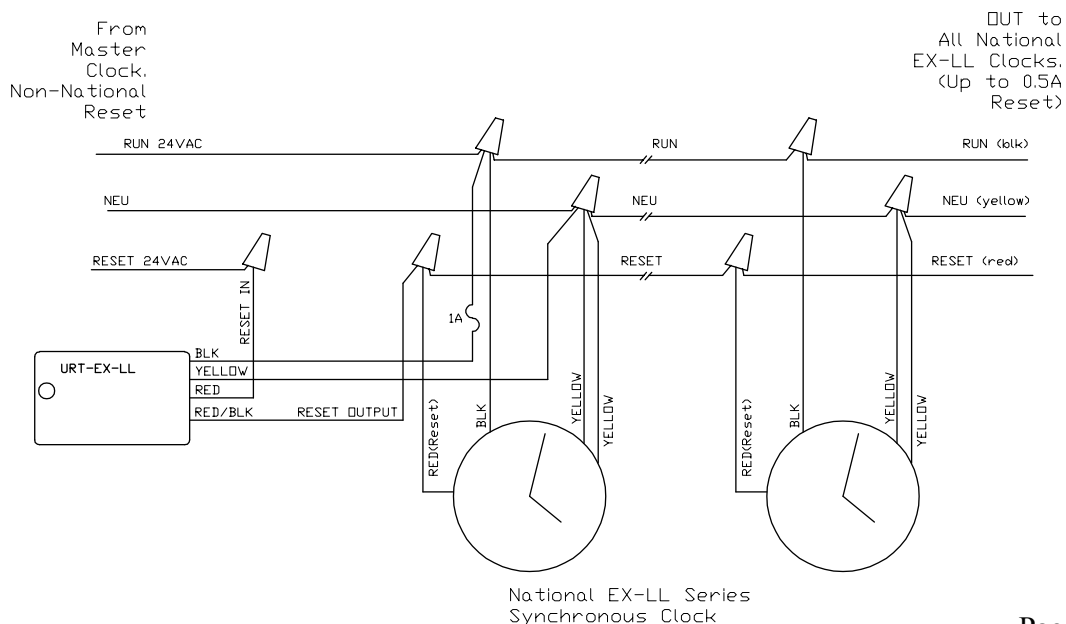


*Number of clocks may otherwise be limited by Master clock, wiring, circuit breaker etc.

Typical Wiring to control a single National EX Series Clock:



Typical Wiring to control multiple National EX Series Clocks:



Operation:

When power is applied to the URT, the LED should blink at a 1 second rate. The connected EX series clocks should run at the normal rate. Whenever the reset input is active, the LED will blink at a fast rate (1/2 sec.). While the reset output of the URT is active, the LED will be on steady.

The URT will not enable any resets to the EX series clock until at least one reset is received from the master clock. When an hour reset is received from the master clock, the URT will enable hour resets to the EX series clock(s). The reset output will then be activated each hour for 25 seconds.

When a 12-hour reset is received from the master clock, the URT will enable the 12-hour resets to the EX series clock(s). The 12-hour reset occurs each 6:00 for a duration of 25 minutes.

For those incoming reset protocols which only have a 12-hour reset, both the hour and 12-hour resets will be enabled.

Specifications:

Input Power Range: 16-28VAC; 50mA @ 24VAC

Reset Input Range: 3mA @ 16 - 28VAC

Output Voltage: (Input Power Voltage - 1)VAC

Output Power: 0.5A @ 24VAC

Dimensions: 2.75" x 2.0" x 0.8"

Other Related Products:

National Time offers a complete line of Universal Reset Translators. Contact National Time for latest product availability.

Order No.	Description
URT-EX-HH	Universal Reset Translator for National EX-HH Clocks 120VAC input/output; 0.5 Amp
URTH-EX-HH	Universal Reset Translator for National EX-HH Clocks 120VAC input/output; 5 Amp
URT-EX-LL	Universal Reset Translator for National EX-LL Clocks 24VAC input/output; 0.5 Amp
URTH-EX-LL	Universal Reset Translator for National EX-LL Clocks 24VAC input/output; 5 Amp
RPS-6-URT-EX	Remote Power Supply w/EX Reset Translator. 3.12A, 24VAC input/output, Local 120VAC
URT-OD-HH	Universal Reset Translator to On-Demand Resets; 120VAC input/output; 0.5 Amp
URTH-OD-HH	Universal Reset Translator to On-Demand Resets; 120VAC input/output; 5 Amp
URT-OD-LL	Universal Reset Translator to On-Demand Resets; 24VAC input/output; 0.5 Amp
URTH-OD-LL	Universal Reset Translator to On-Demand Resets; 24VAC input/output; 5 Amp
PS-3-URT-OD	Power Supply w/OD Reset Translator; 120VAC input, 3.12A 24VAC output.

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