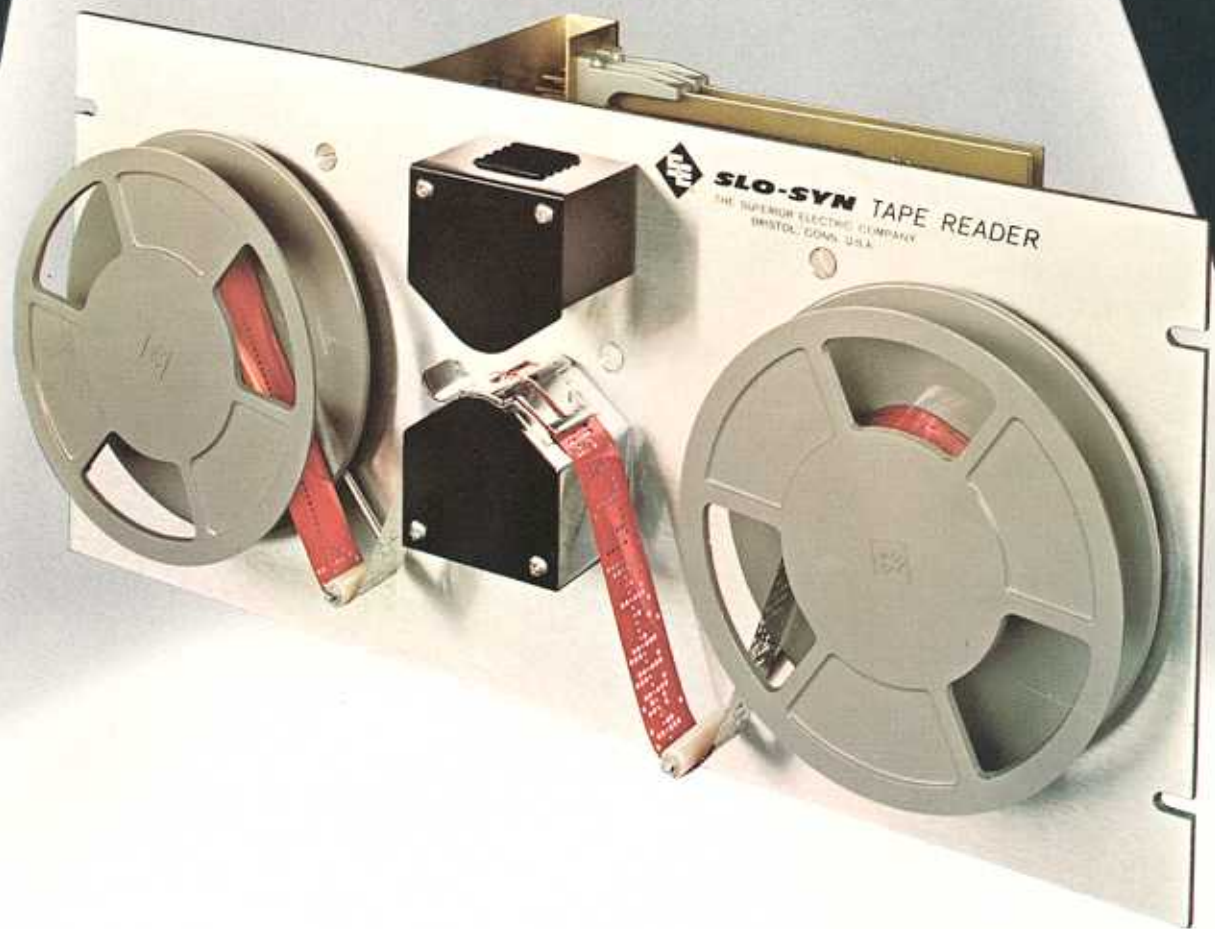


SUPERIOR ELECTRIC

slo-syn[®]

**PHOTOELECTRIC
TAPE READERS**





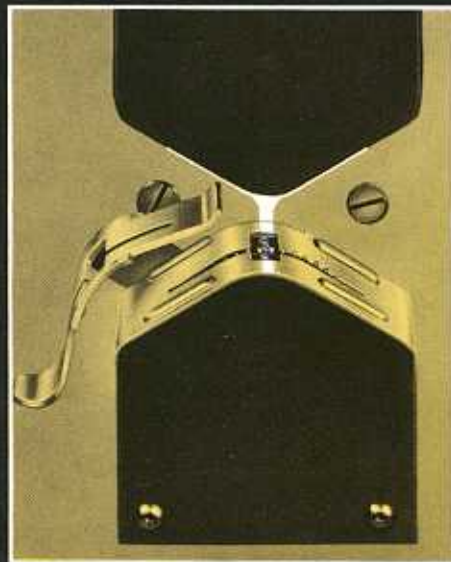
**SUPERIOR
ELECTRIC**

slo-syn

PHOTOELECTRIC TAPE READERS

FEATURES

- 5 volt and 15 volt models available
- 5 volt models DTL and TTL compatible
- Asynchronous speeds to 125 characters per second
- Bidirectional — two-channel pulse input
- Reads all opaque and translucent tapes that have a maximum light transmission of 40% — no adjustments needed
- Normal and inverted outputs
- Simple, full-view loading
- Constant-torque reelers — allow high speed spooling
- Maintenance-free operation
- Long life



SLO-SYN Photoelectric Tape Readers are low-cost, medium-speed perforated tape reading and storage devices. They combine the dependability of photoelectric design with the proven reliability of SLO-SYN stepping motors. There are no detents, ratchets, belts or gears.

Maintenance is at a minimum and reliability at a maximum.

APPLICATIONS

Program and data input to computers; numerical control systems; process control, communications, test equipment and digital to analog converters; to name but a few of the many possible applications. Models having the 5 volt logic output are DTL and TTL compatible.

PRINCIPLES OF OPERATION

Reading Principle

Silicon photo diodes sense light as it passes through holes in the perforated tape. The resulting signals are amplified into full "on" or "off" voltage levels. Each combination of data channels represents a coded number. The light source is operated at a reduced voltage for longer life. SLO-SYN Photoelectric Tape readers are adjusted at the factory to read all tapes from opaque metalized mylar to oiled translucent paper with a maximum light transmission of 40%.

Sprocket Drive

A SLO-SYN stepping motor directly drives a large 50-tooth sprocket. The stepping motor is driven by a SLO-SYN Translator. Pulses received on either the forward or the reverse input cause the sprocket to move the tape asynchronously one character per pulse.

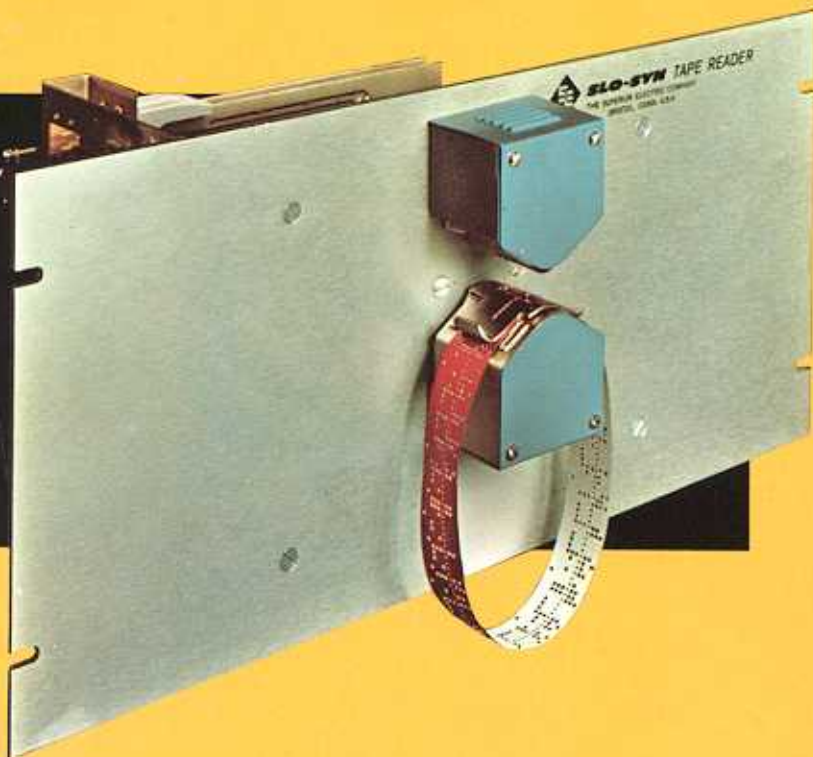
Loading Mechanism

A side movement of the tape guide cover permits full view loading. The tape contacts a minimum of seven sprocket teeth which serve as a tape guide and assure long tape life.

Reeler Mechanism (Reel Types Only)

Reel types have two tape handling reel assemblies. Each reel assembly consists of a reel, a constant-torque drive, a tension arm and an "off" switch which is operated when the tension arm is in a raised position. No clutch, mechanical drive or switching servo system is used. Each reeler operates independently and allows high speed spooling when the tape is not passed through the read head. If loop tape operation is desired, the reel assemblies can be disengaged by placing the tension arms in the raised position.

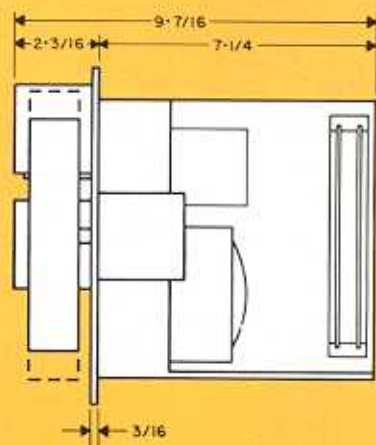
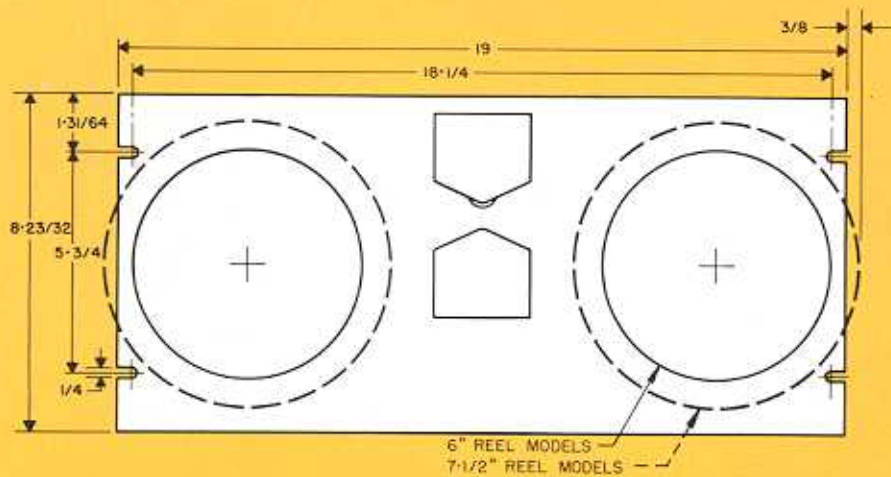
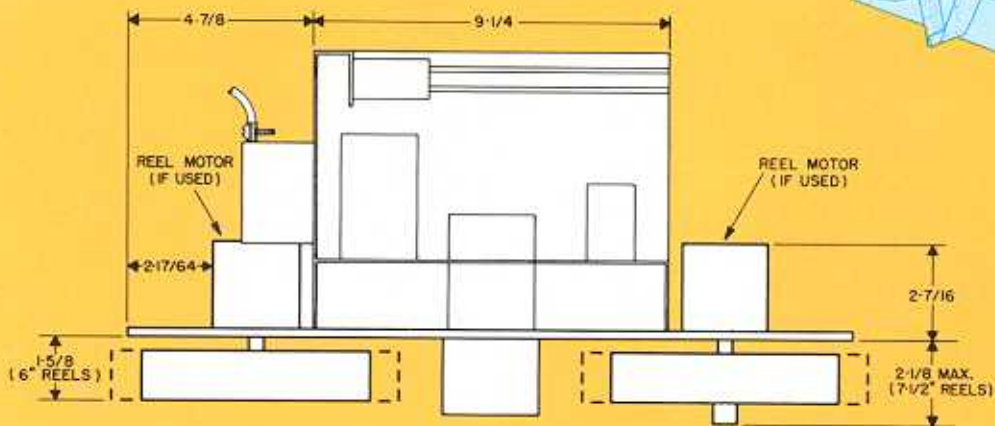
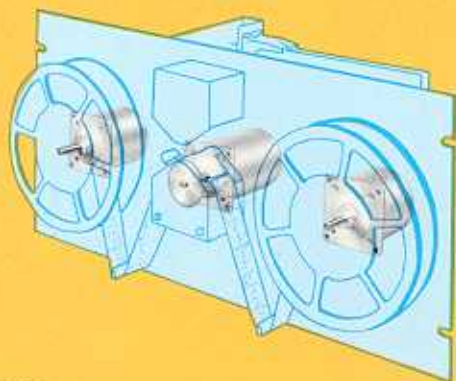
The front flange of each reel can be removed for loading and unloading tape or the entire reel can be unsnapped from its hub for storing a tape. When ordering extra reels, specify part no. EHM144170-G3 for 6" reel models and part no. EHM144184-G1 for 7½" reel models. The 6" and 7½" reels are not directly interchangeable. However, conversion kit BM144195-G1 is available for changing 6" reel models to 7½" reels.



SPECIFICATIONS

ALL MODELS

TAPE	1 inch wide — 5, 6, 7 or 8 data channels
READING RATE	0 to 125 characters per second asynchronously
MOUNTING	19 inch rack mount
AMBIENT TEMPERATURE	0°C to 50°C



MODELS

TAPE READER MODEL	REEL DIAMETER (INCHES)	APPROXIMATE WEIGHT (POUNDS)	AC POWER REQUIREMENT	LOGIC INPUT	LOGIC OUTPUT	
					NORMAL	INVERTED
TRP125-5	none	15	120 volts $\pm 10\%$ 1 ampere, 50/60 hertz	two channel pulse input: +2.5V to +5V amplitude, minimum pulse width 30 microseconds, 8 to 10K ohm input impedance	hole: 4.7V $\pm 10\%$, source resistance 470 ohms. no hole: < 0.6V, 20 milli- ampere max. DTL and TTL compatible: 20 milliampere current sinking capability 2 milliampere fanout logic capability	hole: < 0.6V, 20 milliampere max, no hole: 2.5V to 5V, source resistance 470 ohms, minimum load resis- tance 2K ohms DTL and TTL compatible 20 milliampere current sinking capability 2 milliampere fanout logic capability
6TRP125-5	6	19½				
7TRP125-5	7½					
TRP125-5X	none	15	230 volts $\pm 10\%$ 0.5 ampere, 50/60 hertz			
6TRP125-5X	6	19½				
7TRP125-5X	7½					
TRP125-15	none	15	120 volts $\pm 10\%$ 1 ampere, 50/60 hertz	two channel pulse input: +12V to +15V amplitude, minimum pulse width 30 microseconds, 1000 ohm input impedance	hole: 16.5V, source resis- tance 1.5K ohms. no hole: < 0.5V, 10 milli- ampere max.	hole: < 0.5V, 10 milliampere max. no hole: 14.5V, source resis- tance 1.5K ohms, minimum load resis- tance 3K ohms
6TRP125-15	6	19½				
7TRP125-15	7½					
TRP125-15X	none	15	230 volts $\pm 10\%$ 0.5 ampere, 50/60 hertz			
6TRP125-15X	6	19½				
7TRP125-15X	7½					

other products

The complete line of electrical/electronic equipment manufactured by The Superior Electric Company includes:

SLO-SYN® Motors, Controls and Drives
POWERSTAT® Variable Transformers
STABILINE® Automatic Voltage Regulators
SLO-SYN® Numerical Control Equipment
SUPERCON® Electrical Connectors
5-WAY® Binding Posts
LUXTROL® Light Controls

WARRANTY

Superior Electric Nederland B.V., The Hague, Netherlands warrants its apparatus to be free from defects in material and workmanship under normal use and service for a period of one year from date of shipment by Superior Electric Nederland B.V. The obligation under this warranty is limited to repair or replacement of the apparatus or parts thereof at Superior Electric Nederland B.V., The Hague, Netherlands. This warranty is in lieu of all other warranties, expressed or implied, and no other representative or person is authorized to assume for us any other liability. This warranty does not apply to any apparatus which has been tampered with or altered in any way or which has been subjected to misuse, neglect or accident.

Before returning any apparatus or parts thereof under the terms of this warranty, written authorization must be obtained from Superior Electric Nederland B.V., otherwise the shipment cannot be accepted.

The sender is responsible for all transportation charges to and from Superior Electric Nederland B.V., The Hague, Netherlands.

SUPERIOR ELECTRIC NEDERLAND B.V., The Hague, Netherlands

The right to make engineering refinements on all products is reserved. Dimensions and other details are subject to change. When dimensions are critical, detailed drawings should be obtained from the factory.

ALL PRODUCTS ARE MANUFACTURED IN THE U.S.A. BY THE SUPERIOR ELECTRIC COMPANY, BRISTOL, CONNECTICUT

**SUPERIOR ELECTRIC
NEDERLAND B.V.**

Koperwerf 33
The Hague, Netherlands
Tel: (070) 679590 Telex: 31436 Super nl
Cable Address: SUPELEC

