

PAM-01/B 24VDC, 110VAC, 240VAC

Pre-Start Alarm Monitor for Audible Devices

GENERAL DESCRIPTION

The Australian Standard for Conveyor requirements (AS1755) requires that unless regular periodic inspections of the pre-start Alarm (PSA) for conveyor installations are carried out the pre-start alarms have to be monitored.

The PAM-01/B Pre-start Alarm Monitor has an increased output capacity and is available with the optional delay off. When installed into the circuit of the PSA sounder the PAM-01/B monitors the load current and supply voltage to ensure they are within the normal operating parameters of the device. If both the voltage and current levels are in the healthy condition the system is enabled. Both current and voltage levels have external adjustment points with individual healthy indication.

The system healthy relay should be connected to a supervisory system that will alarm and prevent the conveyor from starting in the event of a PSA failure.



FEATURES

- ◆ Matching Supply voltage to Siren
- ◆ Output current up to 3 Amps (fused)
- ◆ Externally Accessible Set Points
- ◆ System Healthy Indication
- ◆ Voltage Healthy Indication
- ◆ Current Healthy Indication
- ◆ OFF time delay - optional (factory set)
- ◆ Fail Safe System
- ◆ Very small footprint area.

Power Supply

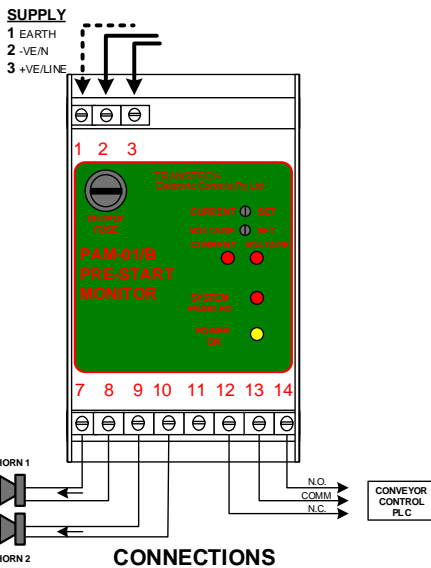
Supply nominal	24VDC +/- 20% WARNING: DO NOT ALLOW UNIT TO RUN BELOW 18Vdc 110VAC +/- 15% 240VAC +/- 15%
Speaker/Siren Load	3 Amps maximum (factory set)
Total output load	Up to a maximum 3 Amp load (protection via type T fuse)

Controls and Indication

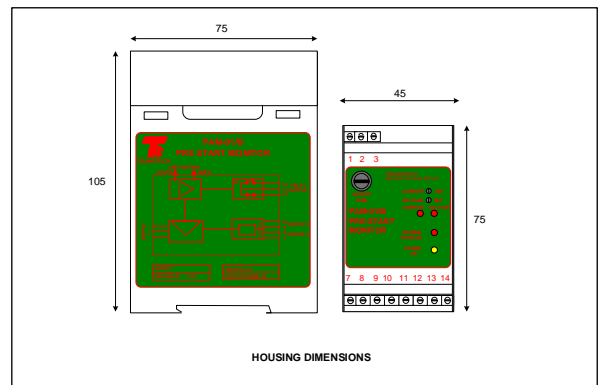
Power	LED (Blue)
Voltage Trip	Factory set to 80% of Nominal
Voltage healthy	LED indication
Current Trip	Factory set to 80% of Nominal
Current healthy	LED indication
System enabled	LED (relay energized)
Outputs 1 & 2	Supply voltage to speaker/siren
Output	Relay SPCO 1 Amp 240V A.C.
Output off delay (When installed)	Optional and factory set
	- 2.6 seconds (minimum)
	- 5.8 seconds (typical)
	- Other timings on request.

GENERAL SPECIFICATION

Accuracy	5%
Repeatability	1%
Common Mode RR	90dB
Response time	10 to 90% step in 280mSecs
Isolation level (relay)	2500Vrms
Operating Temp	0 to 60 DegC
Storage Temp	0 to 75 DegC
Terminals	Self-opening 2.5mm/12AWG
Housing Material	ABS
Mounting Style	DIN (or G rail with adapter)
Dimensions	105mm X 75mm X 45mm
Weight	120 grams for DC version 240grams for AC versions



NOTE: If connecting 2 Horns in parallel the current setting is **doubled**.



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Available current or load ranges:

Note: The PAM01/B is calibrated for single horn only.

(If you require a special factory setting – please specify on your PO)

For 24VDC the default single horn setting is 500mA – trip set at 400mA
For 240Vac the default single horn setting is 50mA – trip set at 40mA

Other ranges available on application.... (please specify on PO#)

CALIBRATION & SET-UP INSTRUCTIONS:- FIELD VERIFICATION TEST ONLY

Note: The PAM01 has a 20% hysteresis on both voltage and current.

VOLTAGE SETTING PROCEDURE

1. Connect the rated supply to terminals 2 and 3, the LED should be **ON**. To check for correct operation, slowly reduce the supply voltage down to 80% of nominal (19.2V) and the LED should go **OFF**; similarly increasing the supply voltage to 96% of nominal the LED should come **ON**. (if so the PAM-01/B voltage is set correctly).
2. However, if this is not the case, do the following:-
 - 2a. Set supply to 80% of nominal.
 - 2b. If the voltage LED is not **ON** adjust the front "Voltage" Potentiometer (VR1) clockwise until the LED comes **ON**.
 - 2c. Slowly adjust the front "Voltage Pot" counter clockwise until the LED just goes **OFF**.
 - 2d. Repeat step 1 to verify correct operation.

CURRENT SETTING PROCEDURE

3. Connect the rated load across terminals 7 and 8.
4. With the supply connected to terminals 2 and 3 and adjusted to 80% of nominal as per step 1 above (this simulates the load as equivalent to 80% of rated current).
5. The Current LED should be **ON**, if not adjust the Current Potentiometer clockwise until the LED comes **ON**.
6. Adjust the Current Potentiometer slowly counter-clockwise until the Current LED goes **OFF**.

NOTE 2: It may be necessary to increase the supply to compensate for load variation.