SPD-100

DYNALCO
strategic asset management solutions

Signal-Powered
Digital Tachometer

2-Year Warranty



FEATURES

- Signal and power derived totally from magnetic pickup or pulser.
- Intrinsically safe. Can be used in hazardous environments with approved Dynalco pickups. (See THIRD PARTY APPROVALS, next page.)
- No power supply connections. High immunity to electrical noise.
- Can be field-calibrated.
- High accuracy: 1 rpm resolution.
- High shock and vibration resistance.
- Standard SAE case size fits panels with 3-3/8 inch (86 mm) openings.
- Gasketed and spray-proof.
- Ideal for OEM use.
- Can be paralleled with governors and/or speed switches.
- Can share existing pickups or pulsers; draws only microamperes.
- Ground-free terminals have no polarity; easy installation.

*****THIRD PARTY APPROVALS

SPD-100 and SPD-108

LR45322

Canadian Standards Association (CSA): Class I, Division 1, Groups A, B, C, & D with M134, M135, M139, M203, M204, M205. Class I, Division 1, Groups C & D with M160, M201, M202, M231, and M233.

SPD-100 Only

American Bureau of Shipping: type approval for use in classed vessels.

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SPECIFICATIONS

EXTERNAL POWER REQUIREMENTS

All models are signal-powered. Lighted versions: 12 or 24 Vdc, depending on model.

DISPLAY

Four active digits (0 to 9999), non-blinking LCD display; character height of 0.5 inches (14 mm). Display contrast increases with increasing ambient light.

INPUT SIGNAL VOLTAGE

From pickups, pulsers, shaft encoders, etc.

- Minimum signal amplitude: 2.5 Vrms.
- Maximum permissible signal: 15 Vrms.

The SPD-100 automatically limits pickup signals at approximately 10 volts peak-to-peak. Input impedance is 100 Ω in series with a 6 volt Zener diode.

INPUT SIGNAL FREQUENCY

Maximum input signal frequency of 20,000 Hz. Lowest frequency range limited by gate time and corresponding numerical display.

ISOLATED CIRCUIT

All circuitry is totally floating, i.e. totally isolated and insulated from the case and from ground.

TEMPERATURE RANGE

Operating:
–5°F to +175°F (–20°C to +80°C).
Storage:
–40°F to +195°F (–40°C to +90°C).

VIBRATION

MIL STD 810C; Method 514.2; Curve Q; Procedure V; Modified to 500 Hz upper limit. 5 Hz to 10 Hz @ 0.2 inches D.A.; 10 Hz to 18 Hz @ 1.0 g (peak); 18 Hz to 57 Hz @ 0.06 inches D.A.; 57 Hz to 500 Hz @ 10 g (peak).

ACCURACY

One rpm resolution; within 0.5% (0.1% typical at room ambient) under all combined environmental conditions.

GATE TIME RANGES

SPD-100 Series : field-selectable from 0.26 to 5.7 seconds.
SPD-108 Series: field-selectable from 0.13 to 2.85 seconds.

This accommodates calibrations for an extremely broad range of corresponding pulses per second.

MAGNETIC PICKUPS

Dynalco Magnetic Pickups M102 and M107 are used with the SPD-100 Series in most applications. *Refer to Dynalco Magnetic Pickup brochure for various types and characteristics.*

For low-speed applications, or to permit operation with larger gaps, the ultrahigh sensitivity M142 can be used.

For intrinsically safe applications Dynalco Controls offers various models, with the M202 and M134 the most frequently used.

WEIGHT

1 lb (0.45 kg)