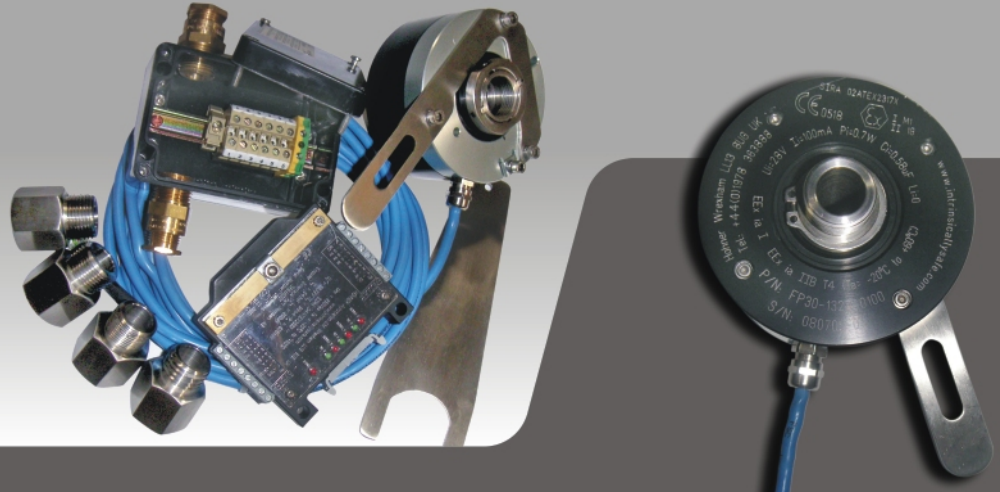




## Drawworks Direction & Speed Sensor

# DDSS-1<sup>®</sup>



### INFORMATION SHEET

#### Description

The Drawworks Direction and Speed Sensor is the most versatile package put together to ensure compatibility with virtually all types of drawworks machine, from the smallest truck-mounted rigs, to the biggest 5th generation semi-submersibles or drillships.

The 8-wire sensor is designed with differential signal transmission circuitry to handle the most electrically-noisy harsh environments and the output of the signal conditioning barrier (certified intrinsically safe) in the receiving end produces outputs that are ready for data acquisition computer and/or PLC.

#### Specifications

<b>Models</b>	SPFX-017/AM1 (Encoder) SPAB-100/AM1 (Barrier)
<b>Application</b>	Sensing the rotational speed and direction of the drawworks via encoder A and B pulses
<b>Counts per Revolution</b>	100 (other values may be requested)
<b>Outputs</b>	
<b>Maximum Speed</b>	3000 RPM
<b>Power Requirement</b>	5 - 24V, 80 mA (max)
<b>Operating Temperature</b>	-20 to 60°C (-4 to 140°F)
<b>Permissible Humidity</b>	Up to 98%
<b>Shock Resistance</b>	10 g (6m sec)
<b>Vibration Absorption</b>	5 g (500 Hz)
<b>Weight</b>	68 oz (1.9 kg)
<b>Approvals / Certification</b>	IP 66 M  II1G EEx (ia) IIB T4 SIRA O2ATEX2317X UL E216028

#### Features

- One of the slimmest optical encoders available<sup>1</sup>
- Output signals of barrier are CMOS, TTL compatible and immediately connectible to a computer DAQ or PLC input module
- Optimum precision vs. noise-prone counts per revolution
- Compatible with many different types of intrinsically safe (I.S.) barriers, from basic optical isolators to those with transformer / galvanic isolation
- Comes with 3 - 4 meters (about 9 - 12 feet) of internally pre-wired color-coded cable for easy installation
- Durable stainless steel process connection and accessories
- EExe (extended safety) polycarbonate junction box, currently the longest-lasting enclosure for I.S. connection<sup>2</sup>

#### NOTES

- 1 - among hollow-shaft encoders that are ready for connection to the drawworks
- 2 - can be changed to metal type EExd if wiring method requires Explosion Proof protection.