

## TELEMETRY Drive Shaft Torque Measurement (Custom Design)

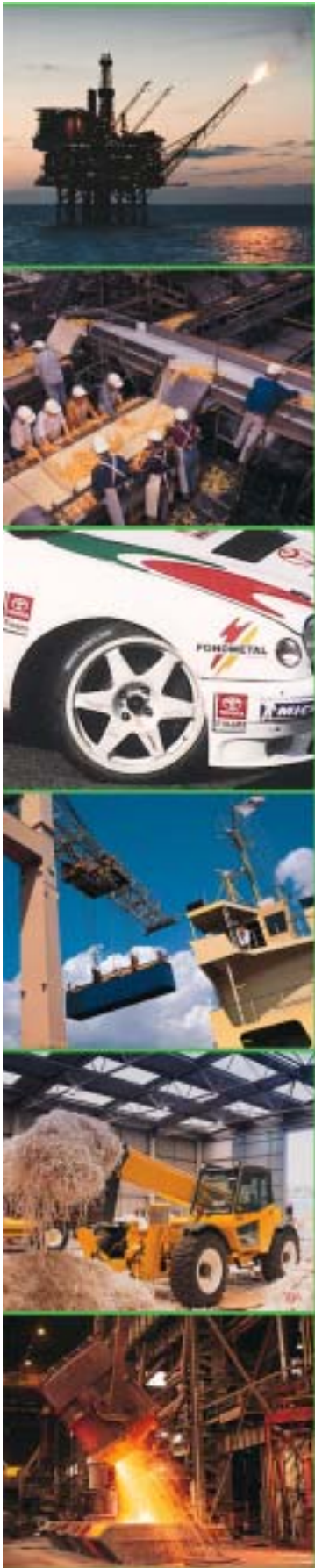


### FEATURES

- Non contacting inductive coupled power and signal transfer
- Custom build to suit the application.

### APPLICATIONS

- Automotive Drive Shafts
- Automotive Prop shafts
- Ship shafts
- Food mixers





Procter & Chester Measurements

PARAMETER		UNITS
Rated Capacities	To suit the customers shaft	NM
Rated Output	To suit the customers shaft	MV/V
Accuracy of electronic system only.	0.3%	±% of Rated Output
Temperature Range: Operating	-10 to +70	°C
Temperature Effect: On zero		±% of Rated Load/°C
Wheatstone Bridge Impedance	1000	ohm
Safe Overload	*	% of Rated Capacity
Ultimate Overload	*	% of Rated Capacity
Excitation: Recommended	12	Volts DC
System Output	4/20mA or 0.1-10V	Analogue Output
Insulation Impedance	>2000	megaohm
Shaft Speed	Maximum 6000	RPM
Shaft Diameter	Up to 120mm	
Construction	Stainless steel rotor module with 4 solder connections for the strain gauges. Stator coil unit with glanded integral cable. Oscillator / signal conditioning unit, aluminium housing.	
Environmental Protection	IP 65	
Bandwidth	250Hz with ±10mV peak – peak noise 500Hz with ±15mV peak – peak noise	
Adjustments – Gain	±10% of FS range	
Adjustment - Zero	±10% of FS range	

## Layout Example

Electronic Components

Strain Gauges

Rotor Coil Former

Three tapped holes each end for clamping

Running Gap

Rotor Coil

Cable

Stator Coil

Power in 12VDC

Signal Conditioning Unit  
Non size 180x80x60mm  
IP65 Die Cast aluminium

Signal Out  
0-10 Volts

Note: Not CE approved. This system is custom built for R&D and therefore varies from project to project.  
Document Revision Date: 0505