



**Engine Crank Angle Encoder (Product Code: R&DU03)**

**Product / Component Specification**



**Features**

- Extensive range of Experiments
- Comprehensive teaching manual
- One year warranty
- Esthetically designed and finished Rig.
- High Quality instrumentation

<b>General specifications</b>	
Pulse count	360 ppr
<b>Electrical specifications</b>	
Operating voltage	5 V DC $\pm$ 5 %
No-load supply current $I_0$	Max. 70 mA
<b>Output</b>	
Output type	Pulse
Operating current	Max. per channel 20 mA , conditionally short-circuit proof (not with $U_b$ )
Output frequency	Max. 200 kHz
Rise time	100 ns
<b>Connection</b>	
Connector	type 9416, 12-pin, type 9416L, 12-pin
Cable	$\varnothing$ 7.8 mm, 6 x 2 x 0.14 mm <sup>2</sup> , 1 m
<b>Standard conformity</b>	
Protection degree	DIN EN 60529, IP65
Climatic testing	DIN EN 60068-2-3, no moisture condensation
Emitted interference	DIN EN 61000-6-4
Interference rejection	DIN EN 61000-6-2
Shock resistance	DIN EN 60068-2-27, 100 g, 3 ms
Vibration resistance	DIN EN 60068-2-6, 10 g, 10 ... 2000 Hz
<b>Ambient conditions</b>	
Operating temperature	-20 ... 60 °C (253 ... 333 K), fixed cable
Storage temperature	lens -40 ... 70 °C (233 ... 343 K)
<b>Mechanical specifications</b>	
Material	
Housing	aluminium, powder coated
Flange	aluminium 3.1645
Shaft	stainless steel 1.4305
Mass approx.	350 g
Rotational speed.	max 12000 min -1
Moment of inertia	$\leq$ 25 gcm <sup>2</sup>
Starting torque	$\leq$ 1.5 N-cm