

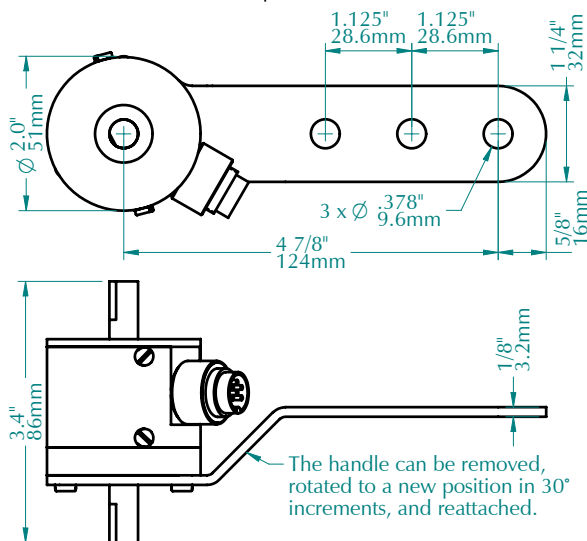
Shown with optional  
MW-8 measuring wheels  
and 16mm connector

## FEATURES

- Generates pulses for accurate linear measurement
- Heavy Duty construction
- Compact size
- Precision 8" or 20cm circumference measuring wheels
- 16mm or M12 connector, or attached cable
- "Anti-jitter" and other material handling features
- ESD, Short Circuit, Reverse Voltage protection
- Various mounting hardware kits are available
- Programmable model available - see Model R22-P
- Single wheel version - see Model R21

## DIMENSIONS

(shown with optional 16mm connector)



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## SPECIFICATIONS

### Mechanical

**Maximum Speed:** 6,000 rpm

**Shaft Loading:**

- Radial: 40 lbs. / 18.1 kg
- Axial: 30 lbs. / 13.6 kg

**Bearing Life:** 32 x 1,000,000/rpm = hours

**Materials:**

- Case: Aluminum, anodized
- Shaft: 303 Stainless steel

**Weight:** 12 oz. (340 grams)

**Protection:** IP50 (IP64 is available)

### Electrical Connections

**Single Ended Outputs:**

Optional 6-pin	Optional M12 4-pin	Function	Wire Color
1	3	Common	Black
2	1	+vdc	Red
3	-	Output Z	Brown
4	4	Output A	White
5	2	Output B	Green
6	-	not used	-

6-pin connector is Amphenol T3402000 or equivalent  
M12 4-pin is Turck FS4.4/18.25 or equivalent

**Differential Line Driver Outputs:**

Optional 8-Pin Connector	Function	Wire Color
1	Output +A	White
2	Output +B	Green
3	Output +Z	Yellow
4	Supply voltage	Red
5	Common	Black
6	Output -A	Blue or Green
7	Output -B	Brown
8	Output -Z	Orange

8-pin connector is Amphenol T3506000 or equivalent

Standard cable length is 10 ft / 3 meters.

Other lengths are available.

### Electrical

**Supply Voltages:** (specify when ordering)

5 VDC or 8-30 VDC

**Current:** 50 mA max (no load)

100 mA max (line driver)

**Pulse Rate:** 0 - 30 kHz

**Pulses per Revolution:** (specify when ordering)

1 to 1200 (call for values up to 4800)

**Operating Temperature:** 0° to 70° C

**Output Circuit:** (specify when ordering)

Output voltage level is approximately the same as the input voltage level.

Single Ended:

- 7273 open collector (30 VDC max, 50 mA max)
- 7272 Push-Pull (50 mA max source or sink)

Differential Line Driver:

- 7272 differential line driver (also with optional 5vdc output level)

**Output WaveShape:**

- Square wave outputs A and B are 50/50 duty cycle nominal. Output Z (index output) is approximately the width of one cycle on outputs A or B. Output A leads B by 90° for clockwise rotation viewed from end by handle.
- Pulse symmetry: 180° ± 30%
- Pulse interval jitter: 30% max
- Quadrature: 90° ± 30% max
- Phase jitter: 30% max

**Anti-jitter:** (single output models only)

Increases the pulse hysteresis to 1/2 of a pulse width, eliminating the effects of mechanical vibration and possible false output pulses. For example a 10 pulse per revolution output has 18° hysteresis (i.e. 360° ÷ 10 × 1/2).

### Accessories

See our website or contact us for more information about cables, measuring wheels, and mounting hardware.

## MODEL NUMBER

R22									
<b>Model Number</b>									
<b>Output Type:</b> leave blank for single output on A, Q = quadrature outputs on A and B									
<b>Index Output:</b> leave blank for no index, Z = index output									
<b>Pulses Per Revolution:</b> a number from 1 to 1200 (call for information about higher values)									
<b>Anti-jitter option:</b> leave blank for no anti-jitter, AJ = anti-jitter option (single output models only)									
<b>Supply Voltage:</b> 5 or 8-30									
<b>Output Circuit:</b> leave blank for 7272 Push/Pull, C = 7273 open collector, D = 7272 line driver, DL = 7272 line driver with 5vdc output level									
<b>Cable/Connector:</b> leave blank for attached cable, S = 16mm connector, S3 = M12 connector									
<b>Modification Number:</b> optional modification or special feature ID. Call or see our website.									
<b>Accessories:</b> leave blank for no accessories. Call or see our website for more information.									

Example: **R22-800/8-30DS MW8-10** - R22 with single output, 800 ppr, 8-30 vdc, 7272 differential line driver (+A/-A), 16mm connector (8-pin), accessories: MW-8 wheels and 10' cable.