

# AM-RSS - Programmable Sensor

## Rotary Shafted Sensor - Moulded

**PHOENIX**  
AMERICA

- Hall Effect Technology
- Long life - extremely robust
- Programmable Angles from 30° up to 360°
- IP68 protection
- Redundant output
- Numerous shaft and mounting options as standard
- Form U, D-Shaft and spring coupling drive shaft as standard
- Bespoke Mounting / Shaft options available on request



The AM-RSS series programmable angle sensors offer a flexible range of performance for high duty cycle position feedback applications in all areas of industry. With programmable angle selection, and a choice of U-Shaft, D-Shaft and Spring Coupling mounting shafts as standard as well as numerous input and output options this compact and contactless Hall Effect sensor series features IP68 sealing and redundant output in a very competitive package.

### General specifications

Mechanical	Electrical
<b>Typical Life Cycle</b>	<b>Supply Voltage</b>
>50 million movements (restriction by mechanics)	5V +/- 0.5V
<b>Torque</b>	<b>Output signal</b>
< 0.8 Ncm	Ratiometric 5%...95% of supply (+/-25mv of specified electrical output range for both start & end voltage) PMW frequency 100Hz... 1000Hz, 1000Hz default, duty cycle between 5%-95%
<b>Measuring range</b>	<b>Independant linearity</b>
360° redundant, signal 1 cw, signal 2 ccw	+/- 0.5% of each signal range
<b>Max. operating speed</b>	<b>Isolation resistance</b>
120 U/min	200 MΩ (500 VDC, 1 bar, 2s)
<b>Housing</b>	<b>Repeatability</b>
High Grade Temperature Resistant Plastic	<= 0.2% (dependent on mounting tolerances)
<b>Bearing</b>	<b>Electrical connection</b>
Oilite	See ordering code/wiring diagram
<b>Shaft</b>	<b>Cable type</b>
Stainless Steel- 316 as U-Shaft / D-Shaft / Spring Coupling	Raychem Spec 55, 24 AWG; Sleeving- Raychem DR25 & FEP, 24 AWG; Sleeving- PUR
<b>Environmental</b>	
<b>Operating temperature</b>	
-40°C to +125°C (Short Term 150°C [DR25 Cable]) & -40°C to +85°C (Short Term 90°C [Low Temp PUR Cable])	
<b>Vibration</b>	
20...2000 Hz; Amax = 0.75 mm; amax = 31.4 g to IEC 60068-2-6	
<b>IP rating</b>	
IP68 (minimum)	

### Ordering information

(Please use the characters in the chart below to construct your product code)

These standard models are available from stock:

94472 AM-RSS-S-112-2838-360-1178-50-R      95299 AM-RSS-S-112-2838-120-1178-50-R  
95298 AM-RSS-S-112-2838-060-1178-50-R      95300 AM-RSS-S-112-2838-180-1178-50-R

## AM-RSS - S - 1 1 2 - 2832 - 360 - 11 78 - 50 - R

Product Series	Shaft	Input Type	Output Type	Number of Channels	Mounting Flange PCD	Electrical Angle	Output Signal	Channel Direction	Cable Length	Cable Type
Rotary Shafted Sensor	U = Male U Shaft D = Male D Shaft S = Male Spring Coupling Shaft X = Customised on request	1 = 5V Supply 2 = 6-32V Unregulated Supply 3 = 12-32V Unregulated Supply 4 = 9-32V Supply	1 = Analog Ratiometric 2 = PWM 3 = 0-10V 4 = 4... 20mA	1 = Single Channel 2 = Dual Channel	32 = 32mm PCD 38 = 38mm PCD XX = Custom on request	360 = Standard Electrical Angle 360° Optional Angle from 30° to 360° in 1° steps (e.g. 181=181°)	1 = 5% to 95% of Input Voltage 2 = 10% to 90% of Input Voltage 3 = Custom on request  e.g. 11 = 5 to 95% both channels	7 = Clockwise 8 = Counter Clockwise  e.g. 77 = Clockwise both channels	50 = Standard Cable Length 500mm XX = Custom on request < 1 metre XXX = Custom on request > 1 metre	R = Raychem L = Lower Temp Rating

Input and Output options coming soon  
Some Inputs to Outputs are not configurable please contact our sales team for more info.



Subject to change without notice

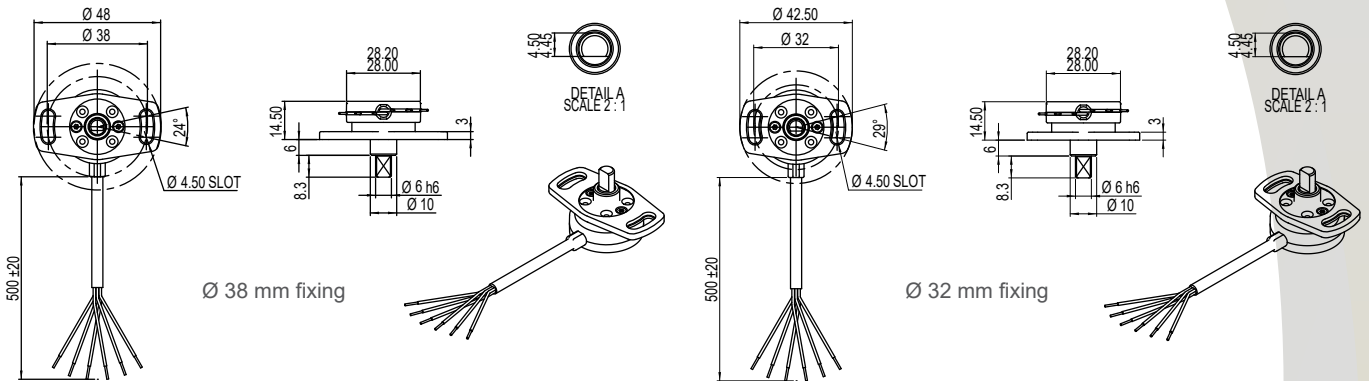
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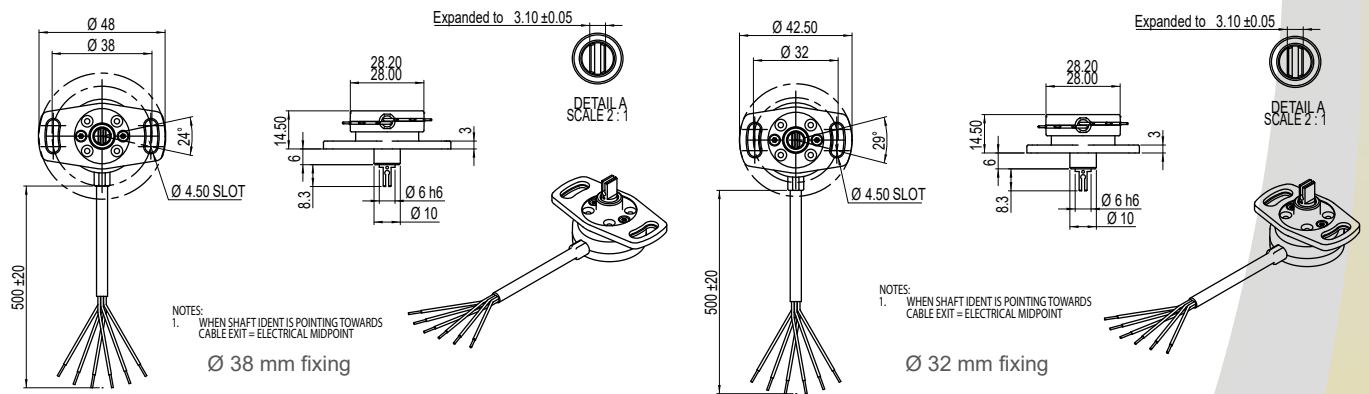


Outline dimensions in mm

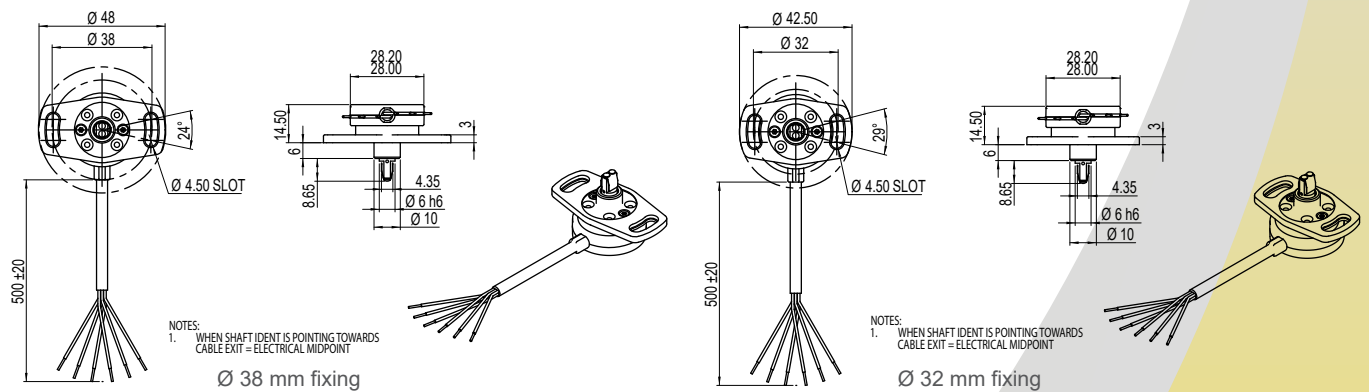
### Standard D-Shaft option



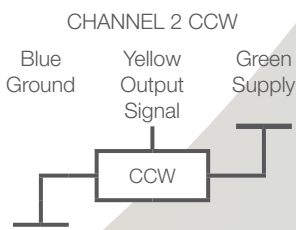
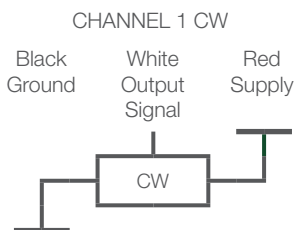
### Standard U-Shaft option



### Standard Spring-Shaft option



### Wiring



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