



AGBR Agricultural Encoder

The Variable Rate Sensor that combines Durability and Efficiency in Precision Agriculture applications.





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Durability and Efficiency are two essential requirements in Precision Agriculture applications

Dedicated to agriculture applications, the AGBR Encoder uses exclusive magnetic technology to provide high-precision feedback to agricultural systems, ensuring consistency in the distribution of seeds, fertilizers or any other agricultural input, inducing a precise signal in variable-rate applications, a very relevant feature in Precision Agriculture.

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The unique features of an agricultural sensor applied to the AGBR Encoder, combined with Dynapar's recognized experience in offering incremental and absolute encoders, make it a pioneering product that combines efficiency and low costs.

Highlights

- Sensor with magnetic technology
- Resolution from 0001 to 1024 PPR
- Fully protected against water or dust
- Resistant to corrosion by chemical agents, including NPK

Applications

- Variable Rate Sensor (speed, rotation or position feedback) in Precision Agriculture systems.

- Enclosure and base: were made entirely of engineering polymer with unique additives, enabling resistance to sun exposure and avoiding corrosion by fertilizers (including NPK)

- Bearing-free mechanics: special self-lubricating bushings are used in agricultural equipments preventing jamming caused by exposure to dust

- Fully sealed: electronics fully encapsulated by an exclusive resin, preventing corrosion from agricultural inoculants or environmental factors

- High compatibility/resolution and standard connections: available up to 1024 PPR, with the main automotive connectors on the market



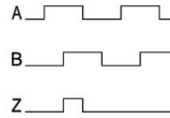
Mechanical Features

Maximum speed	500 RPM
Initial torque	Model Hubshaft: 0.28 N.m. Model Solidshaft: 0.55 N.m.
Runout (mounting shaft)	+/- 0.13 mm (maximum)
Endplay (mounting shaft))	+/- 0.6 mm
Shaft diameter	1" Hubshaft 3/8" Solidshaft
Shaft mounting	2 headless screws (stainless steel)

Electrical Features

Power Supply	5 to 26 VCC
Outputs	HTL (5-26VCC) or TTL (5VCC), 40mA maximum
Consumption	< 100mA
Maximum frequency	300 kHz (sensor)
Resolution	0001 to 1024 PPR
Electrical Protection	Reverse polarity, short circuit between outputs and overvoltage
Quadrature Phasing	90° ± 45°
Symmetry	180° ± 90°

Signal Format



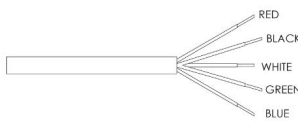
Environmental Features

Operating temperature	-15°C to 70°C (5°F to 158°F)
Storage temperature	-20°C to 70°C (-4°F to 158°F)
Shock	50G for 6ms
Vibration	5Hz to 2000Hz at 10G
Humidity	Up to 98% , no condensation
IP Protection	IP-69 (ABNT NBR IEC60529:2017)

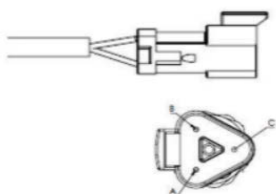
Electrical Connection

Option "0" - No plug (track cable)

Wire Color	Function
Red	Power Supply (+V)
Black	Common
White	Signal A
Green	Signal B
Blue	Signal Z



Option "N" - SuperSeal 3 Pin Superseal series, male connector



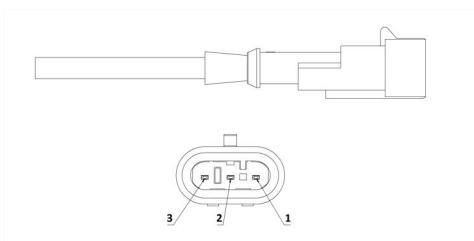
Pin	Function
A	Signal A
B	Common
C	Power +V

Option "P" - SuperSeal 3 Pin Superseal series, male connector



Pin	Function
A	Power +V
B	Common
C	Signal A

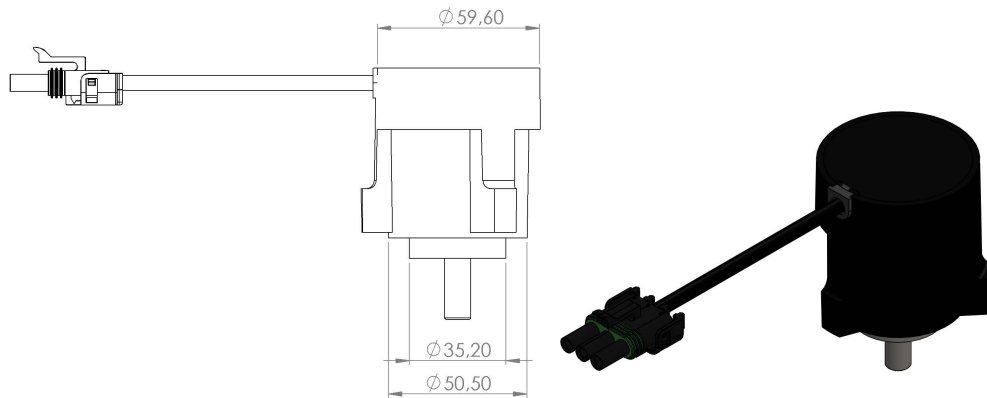
Option "S" - SuperSeal 3 Pin Superseal series, male connector



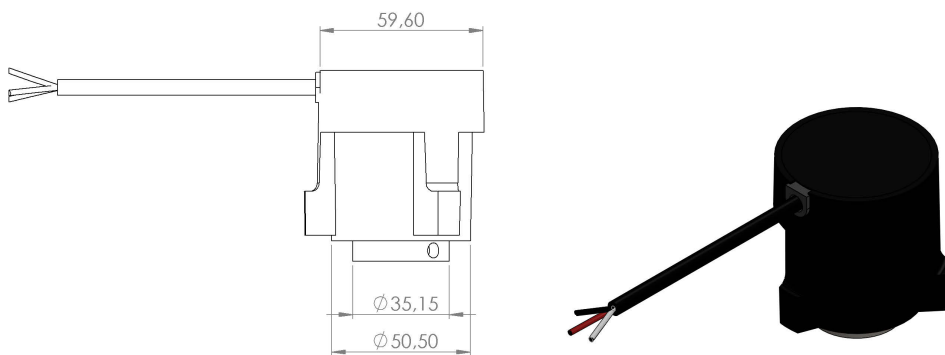
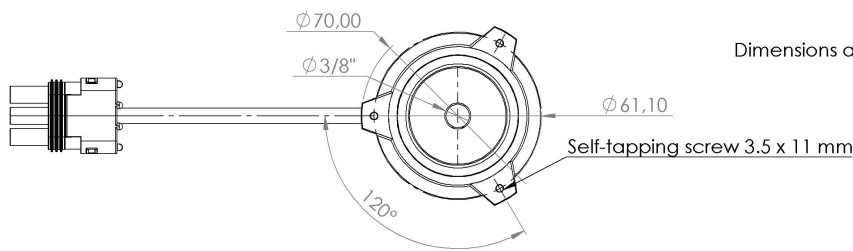
Pin	Function
A	Common
B	Power +V
C	Signal A

Dimensional Drawing

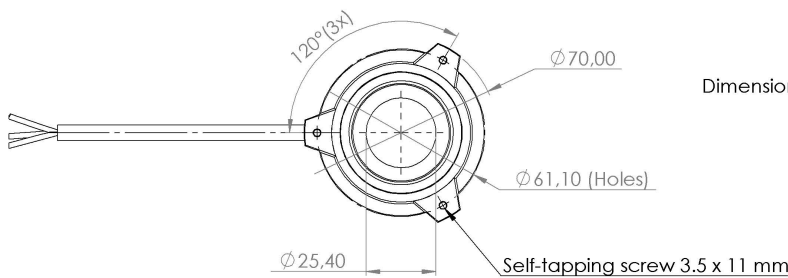
3-pin Delphi Connector



Dimensions are in millimeters (mm)



Dimensions are in millimeters (mm)



Part Number

Code 1 Model	Code 2 PPR	Code 3 Shaft	Code 4 Mounthing	Code 5 OutPut	Code 6 Connection	Code 7 Cable	Code 8 Plug	Code 9 Optional
AGBR	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AGBR	0001 a 1024	H Hubshaft 1' S 3/8" solid	N None Y Tether	A 5v - TTL - Channel A only B 5v - 26v - HTL - Channel A only (push pull line driver) D 5v - 26v - HTL - AB Channel (push pull line driver) H 5v - 26v - HTL - ABZ (push pull line driver) G 5v - TTL - ABZ (push pull line driver)	A Lateral cable	1 1.5 meters 2 2 meters 3 3 meters 4 4 meters 5 5 meters 6 6 meters 7 7 meters 8 8 meters 9 9 meters A 10 meters B 15 meters C 20 meters D 25 meters E 30 meters J 0,1m with corrugated tube Q 0,3m T 1m S 0,5m	0 None N 3 pin Male Deutsch P 3 pin Male Delphi connector S 3 pin Male Superseal connector	DV LED Output

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