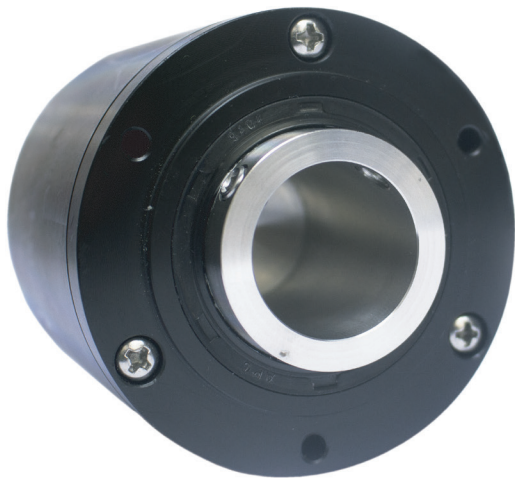




AGBR Agricultural Encoder

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



AGBR Agricultural Encoder

Durability and Efficiency are two essential requirements in Precision Agriculture applications

Dedicated to agricultural applications, AGBR Encoder uses unique magnetic technology to provide high-precision feedback in agricultural systems, contributing to ensure uniform distribution of seeds, fertilizers or any other agricultural input by generating a precise signal in variable rate applications, the most important characteristic in Precision Agriculture.

High durability and robustness never before seen are offered to the AGBR Encoder users. Every detail of the sensor has been studied and worked by Dynapar to ensure increased field uptime, performance and compatibility:

- Body and base entirely in engineering polymer with unique additions: resistance to sun exposure and corrosion by fertilizers (including NPK);
- Mechanics without bearings: special self-lubricating bushings for agricultural equipment that prevents blockages caused by exposure to dust;
- Fully sealed: electronics encapsulated by exclusive resin prevents corrosion by agricultural inputs or environmental factors;
- High compatibility - resolution and standard connections: natively available with 360 PPR (others available on request) and with the top automotive connectors on the market.

The unique characteristics of an agricultural sensor applied to the AGBR Encoder, combined with Dynapar's recognized expertise in providing incremental and absolute encoders, make it a pioneering product that combines efficiency and cost reduction.

Highlights

- Magnetic technology sensor
- 180, 360 or 512 PPR resolutions
- Fully protected against water or dust
- Resistant to corrosion by chemical agents, including NPK

Applications

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

Mechanical characteristics

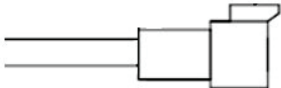
Maximum speed	500 RPM
Starting torque	1.0 N.cm
Runout (assembly shaft)	+/- 0.13 mm (maximum)
Endplay (assembly shaft)	+/- 0.6 mm
Shaft diameter	1", Hubshaft (semi-hollow)
Shaft mounting	2 headless screws (stainless steel)

Electrical Charateristics

Power Supply	5 to 26 VCC
Output	HTL (5-26 VCC) or TTL (5 VCC) 40mA maximum
Consumption	< 100mA
Maximum Frequency	300 kHz (sensor)
Resolution	180, 360 or 512 PPR
Electrical Protection	Polarity reversal, short-circuit between outputs and overvoltage
Simmetry	180°C ± 90°C

Electrical connection

Option “N” - 3-Pin male Deutsh connector



Pin	Function
A	Channel A
B	Common
C	Power supply (+V)

Signal format




Environmental characteristics

Operating temperature	-15°C to 70°C
Storage temperature:	-20°C to 70°C
Shock	50 G / 6ms
Vibration	5 Hz to 2000Hz / 10G
Humidity	Up to 98% non-condensing
IP rating	IP69 (ABNT NBR IEC 60529:2017)

Electrical connection

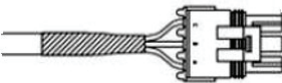
Option “0” - Without plug (cable)



RED
BLACK
WHITE
MESH

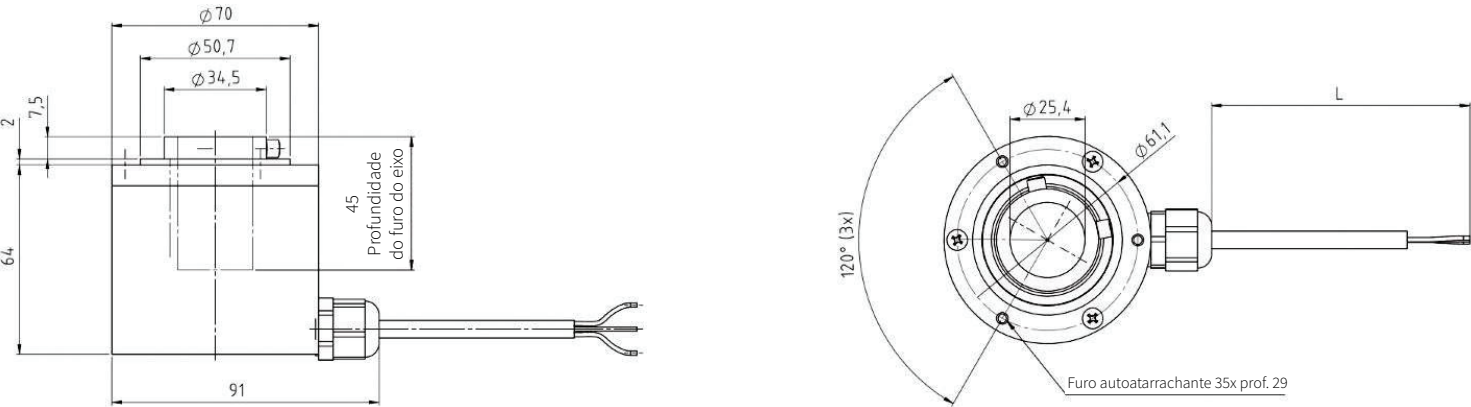
Wire	Function
Red	Power supply (+V)
Black	Common
White	Channel A
Mesh	Shield

Option “P” - 3-pin Delphi connector



Pin	Function
A	Power supply (+V)
B	Common
C	Channel A

Dimensional drawing



Coding

Code 1 Model	Code 2 PPR	Code 3 Shaft	Code 4 Shaft	Code 5 Output	Code 6 Connection	Code 7 Cable	Code 8 Plug
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"/>
AGBR	0180 0360 0512	H 1"	N Without leaf spring Y With leaf spring	A 5V - TTL - Only Channel A (push pull line driver) B 5-26V - HTL - Channel A only line driver	A Cable press lateral	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	0 Without plug N 3-Pin male Deutsh P 3-pin Delphi

Coding example: **AGBR 0360 HNAA20**
AGBR Encoder 360 PPR, 1" hubshaft, without leaf spring, 5 VCC output, lateral wire channel, 2m cable, without plug.

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