ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Dynapar H5820480101X019* at our website: *Click HERE*

SERIES H58

Dynapar™ brand

Shafted Encoder

IND Industrial Duty

Key Features

- **Industry Standard 58mm Mounting**
- **Multiple Connection Options**
- **Rugged Design with Long-Life Bearings**



CE EN 61326-1

RoHS

SPECIFICATIONS

STANDARD OPERATING CHARACTERISTICS

Code: Incremental, Optical

Resolution: 1 to 2540 PPR (pulses/revolution)

Accuracy: (Worst case any edge to any other edge) ≤1024 PPR (metal disk): ±7.5 arc-min. >1024 PPR (glass disk): ±2.5 arc-min.

Format: Two channel quadrature (AB) with optional Index (Z) and complementary outputs

Phase Sense: A leads B for CCW shaft rotation as viewed from the shaft end of the encoder

Quadrature Phasing: 90° ± 22.5° electrical

Symmetry: 180° ± 18° electrical

Index: 180° ± 18° electrical (gated with B low)

Waveforms: Squarewave with rise and fall times less than 1 microsecond into a load capacitance of 1000 pf

ELECTRICAL

Input Power:
5 to 26 VDC at 80 mA max., not including output loads

Outputs:
7272 Push-Pull: 40mA, sink or source

7272 Differential Line Driver: 40 mA, sink or source

4469 Differential Line Driver: 100mA, sink or source

Frequency Response: 100 kHz min. (index 75 kHz min. for extended temperature range)

Noise Immunity: Tested to EN61326-1
Electrical Immunity: Reverse polarity and short circuit protected
Termination: MS Connector, M12 Connector, M23 Connector, Cable Exit

Mating Connector:
7 pin, style MS3106A-16S-1S (MCN-N5)

10 pin, style MS3106A-18-1S (MCN-N6)

10 pin, NEMA4 style (MCN-N6N4)

12 pin style M23, CW (MCN-C1)

12 pin style M23, CCW (MCN-C2)

Cable w/ 5 pin M12 Connector (112859-XXXX)

Cable w/ 8 pin M12 Connector (112860-XXXX)

MECHANICAL

Shaft Sizes: 6 mm, 10 mm

Shaft Loading: (at 6 mm from encoder face)
Resolutions ≤1024 PPR: 356 N radial, axial
Resolutions >1024 PPR: 178 N radial, axial

Shaft Speed:
Resolutions ≤1024 PPR: 10,000 RPM max.
Resolutions >1024 PPR: 5,000 RPM max.

Starting Torque: (max at 25 °C)
without shaft seal: 0.007 N-m;
with shaft seal: 0.014 N-m

Moment of Inertia: 21.2 g-cm^2

Housing and Cover: Aluminum

Shaft Material: Stainless Steel

Disc Material: Glass

Weight: 283 g. (10 oz.) max.

ENVIRONMENTAL

Operating Temperature:
Standard: 0 to +70 °C;
Extended: 0 to +85 °C

Storage Temperature: –40 to +90 °C

Shock: 50 G's for 11 milliseconds duration

Vibration: 5 to 2000 Hz at 20 G's

Humidity: Up to 98% (non-condensing)
Enclosure Rating: NEMA12/IP54 (dirt tight, splashproof); NEMA4/IP66 (dust proof, wash-down) when ordered with shaft seal and either M12 connector or watertight cable exit

Dynapar™ brand SERIES H58

Ordering Information

To order, complete the model number with code numbers from the table below:

Code 1: Model	Code 2: PPR	Code 3: Pilot, Face	Code 4: Shaft	Code 5: Shaft Seal	Code 6: Electrical	Code 7: Termination	Code 8: Connector
H58	□□□□	□	□	□	□	□	□
Ordering Information							
H58 Bidirectional with Index (Channels A, B and Z)	**0001** **0010** **0012** **0050** **0060** **0086** **0100** **0120** **0125** **0200** **0240** **0250** **0300** **0360** **0400** **0500** **0512** **0600** **0800** **1000** **1024** **1200** **1250** **1270** **1500** **1600** **1800** **1968** **2000** **2048** **2400** **2500** **2540**	**0** (3) M4 @ 42mm BC, no Pilot **1** (3) M3 @ 48mm BC, 36mm Dia. Pilot	**0** 6mm Dia. Shaft **1** 10mm Dia. Shaft	**0** no Shaft Seal **1** Shaft Seal	**0** 5-26V in, 5-26V Push-Pull out **A** Same as "**0**" with extend. temp range available when Code 7 is 2 thru B, E or F: **1** 5-26V in, 5-26V Differential Line Driver out (7272) **2** 5-26V in, 5V Differential Line Driver out (7272) **3** 5-26V in, 5V Differential Line Driver out (4469) **4** 5-15V in, 5-15V Differential Line Driver out (4469) **B** Same as "**1**" with extend. temp range **C** Same as "**2**" with extend. temp range	**0** 7 Pin Conn, End Mount **1** 7 Pin Conn, Side Mount **2** 10 Pin Conn, End Mount **3** 10 Pin Conn, Side Mount **4** 12 Pin CCW Conn, End Mount **5** 12 Pin CCW Conn, Side Mount **6** 12 Pin CW Conn, End Mount **7** 12 Pin CW Conn, Side Mount **C** 5 pin M12 Conn, End Mount **D** 5 pin M12 Conn, Side Mount **E** 8 pin M12 Conn, End Mount **F** 8 pin M12 Conn, Side Mount available when Code 5 is 1: **8** 1m Sealed Cbl, End Exit **9** 1m Sealed Cbl, Side Exit **A** 3m Sealed Cbl, End Exit **B** 3m Sealed Cbl, Side Exit	**0** No Mating Connector **1** 7 Pin Mating Connector **2** 10 Pin Mating Connector **3** 12 Pin CCW Mating Connector **4** 12 Pin CW Mating Connector

Cable Assemblies with MS Connector*

108595-XXXX 7 Pin MS, Cable Assy. For Use with Single Ended w/Index Outputs
1400635XXXX 10 Pin MS, Cable Assy. For Use with Differential Line Driver with Index Outputs
109209-XXXX NEMA4 10 pin MS, Cable Assy. For Use with Differential Line Driver with Index Outputs
108615-XXXX 12 Pin CCW (if used) MS, Cable Assy. For Use with Differential Line Driver with Index Outputs
108616-XXXX 12 Pin CW (if used) MS, Cable Assy. For Use with Differential Line Driver with Index Outputs

Cable Assemblies with M12 Connector*

112859-XXXX 5 Pin M12, Cable Assy. For Use with Single Ended Outputs
112860-XXXX 8 Pin M12, Cable Assy. For Use with Single Ended Outputs
112860-XXXX 8 Pin M12, Cable Assy. For Use with Differential Line Driver Outputs

***Note:** Standard cable length is 10 feet but may be ordered in any length in 5 foot increments. For example, for a 20 foot cable, replace XXXX with -0020.

Mating Connectors (no cable)

MCN-N5 7 pin, style MS3106A-16S-1S
MCN-N6 10 pin, style MS3106A-18-1S
MCN-N6N4 10 pin, NEMA4 style
MCN-C1 12 pin style M23, CW
MCN-C2 12 pin style M23, CCW

SERIES H58

by DYNAPAR™

ELECTRICAL CONNECTIONS

7, 10 & 12 Pin M23 Connectors and Cables - Code 7 =0 to 7

Connector & mate/accessory cable assembly pin numbers and wire color information is provided here for reference.
Models with direct cable exit carry the color coding as shown in the right hand column.

Table 1

Encoder Function	Cable # 108595-XXXX 7 Pin Single Ended		**Cable # 109209-XXXX or 1400635XXXX 10 Pin Differential Line Driver w/ Index		Cable # 108615-XXXX 12 Pin CCW		Cable # 108616-XXXX 12 Pin CW	
	Pin	Wire Color Code	Pin	Wire Color Code	Pin	Wire Color Code	Pin	Wire Color Code
Signal A	A	BRN	A	BRN	5	BRN	3	BRN
Signal B	B	ORG	B	ORG	8	ORG	4	ORG
Signal Z	C	YEL	C	YEL	3	YEL	7	YEL
Power +V	D	RED	D	RED	12	RED	2	RED
N/C	E	—	E	—	7	—	—	—
Com	F	BLK	F	BLK	10	BLK	1	BLK
Case	G	GRN	G	GRN	9	—	—	—
Signal $\overline{A}$	—	—	H	BRN/WHT	6	BRN/WHT	5	BRN/WHT
Signal $\overline{B}$	—	—	I	ORG/WHT	1	ORG/WHT	6	ORG/WHT
Signal $\overline{Z}$	—	—	J	YEL/WHT	4	YEL/WHT	8	YEL/WHT
5V Sense	—	—	—	—	2	GRN	—	—
0V Sense	—	—	—	—	11	BLK/WHT	—	—

5 & 8 Pin M12 Accessory Cables when Code 7 = C to F

Connector pin numbers and cable assembly wire color information is provided here for reference.

Table 2

Encoder Function	Cable # 112859-XXXX 5 Pin Single Ended		Cable # 112860-XXXX 8 Pin Single Ended		Cable # 112860-XXXX 8 Pin Differential	
	Pin	Wire Color Code	Pin	Wire Color Code	Pin	Wire Color Code
Signal A	4	BLK	1	BRN	1	BRN
Signal B	2	WHT	4	ORG	4	ORG
Signal Z	5	GRY	6	YEL	6	YEL
Power +V	1	BRN	2	RED	2	RED
Com	3	BLU	7	BLK	7	BLK
Signal $\overline{A}$	—	—	—	—	3	BRN/WHT
Signal $\overline{B}$	—	—	—	—	5	ORG/WHT
Signal $\overline{Z}$	—	—	—	—	8	YEL/WHT

NOTES:

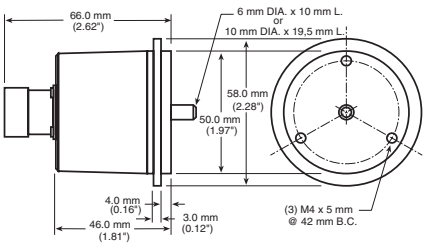
1) Cable Configuration (**Table 1**): PVC jacket, 105 °C rated, overall foil shield; 3 twisted pairs 26 AWG (output signals), plus 2 twisted pairs 24 AWG (input power)
2) Cable Configuration (**Table 2**): PVC jacket, 105 °C rated, overall foil shield; 24 AWG conductors, minimum
3) Standard cable length is 10 feet but may be ordered in any length in 5 foot increments. For example, for a 20 foot cable, replace -XXXX with -0020
4) **For watertight applications, use NEMA4 10 pin cable & connector 109209-XXXX.
5) “MS” Type mating connectors and pre-build cables are rated NEMA 12
6) “M12” Cable assemblies are rated IP67

Dynapar™ brand SERIES H58

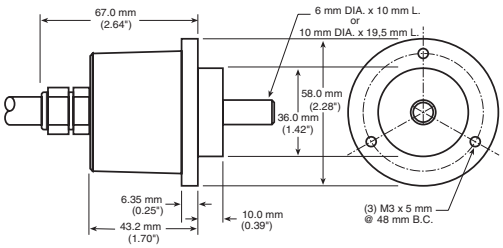
DIMENSIONS

Code 3: Pilot, Face Mounts

0 no Pilot, 42mm B.C.

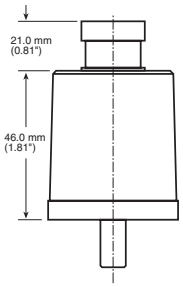


1 36mm Pilot, 48mm B.C.

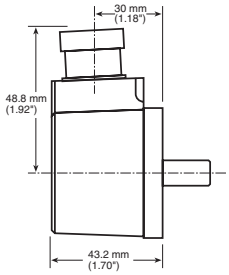


Code 7: Terminations

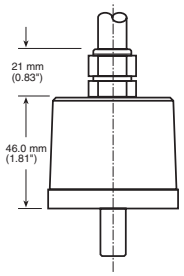
4, 6
12 Pin End Conn



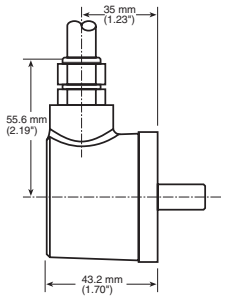
5, 7
12 Pin Side Conn



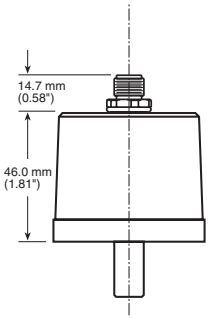
8, A
End Exit Cable



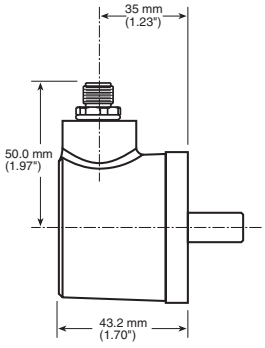
9, B
Side Exit Cable



C, E
M12 End Conn

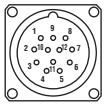


D, F
M12 Side Conn



Code 7: Terminations

4, 5 CCW (when looking at encoder)



6, 7 CW



Worldwide Brands: NorthStar™ • Dynapar™ • Hengstler™ • Harowe™

DYNAPAR™
INNOVATION - CUSTOMIZATION - DELIVERY

WWW.DYNAPAR.COM

Headquarters: 1675 Delany Road • Gurnee, IL 60031-1282 • USA

Customer Service:
Tel.: +1.800.873.8731
Fax: +1.847.662.4150
custserv@dynapar.com

Technical Support
Tel.: +1.800.234.8731
Fax: +1.847.662.4150
northstar.techsupport@dynapar.com

European Sales Representitive
Hengstler GmbH
Uhlandstrasse 49, 78554 Aldingen
Germany
www.hengstler.com

Dynapar™ brand is a trademark of DYNAPAR. All rights reserved.
Specifications subject to change without notice.
Document No. 701880-0002, Rev. G ©2017 Dynapar

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP