



FEEDBACK

QUICK REFERENCE GUIDE

A comprehensive line of absolute, incremental
And resolver rotary feedback products.



Dynapar



HENGSTLER®



NorthStar™



ABOUT US

Dynapar is a trusted name in motion feedback control solutions. With over 60 years of experience, we are dedicated to delivering high-quality, reliable, and innovative products to our customers worldwide.

Who We Are

Dynapar encoder experts specialize in designing and manufacturing light-duty, industrial-duty, and high-performance rotary encoders. Our comprehensive product range includes both absolute and incremental encoders, tailored to meet the needs of various industries.

Our Core Values

► Quality and Reliability

Our products are built to last. Many Dynapar encoders have operated for several decades, demonstrating our commitment to durability and performance.

► Innovation

We continuously push the boundaries of feedback technology, driven by a detailed understanding of our customers' needs.

► Customization

Our flexible manufacturing processes allow us to provide custom solutions that meet specific application requirements.

► Fast Delivery

We pride ourselves on ensuring quick turnaround times and best-in-class lead times for our made-to-order products.

► Customer Service

Exceptional customer service is at the heart of everything we do. Our dedicated support teams are committed to ensuring your satisfaction.

Our Commitment

Dynapar is dedicated to providing the highest level of service and support. We understand the critical role our products play in your operations, and we strive to exceed your expectations in every interaction.

Why Choose Dynapar?



Comprehensive Product Range

From heavy-duty to light-duty applications, we offer the broadest range of encoders and accessories for motion feedback control.



Proven Track Record

Our long history and numerous satisfied customers attest to our reliability and expertise.



Customer-Focused Approach

We listen to our customers and adapt to their needs, ensuring we deliver solutions that drive their success.

Discover the Dynapar difference and see how our commitment to quality, innovation, and customer service can benefit your business.

HOW TO USE THIS GUIDE

The Feedback Quick Reference Guide is designed to make product selection simple.

The guide provides you with a decision tree to assist with selecting the appropriate product for your needs.

Step 1: Select the type of interface (Absolute, Resolver, Incremental)

Step 2: Select mounting style (Shafted, Hub Shaft, Hollowshaft, etc.)

Step 3: Select the appropriate "Duty Classification" for your application (See page 4 for encoder duty classifications)

Step 4: Scroll down to the appropriate "Duty" section to view encoder specifications

Step 5: Select the encoder that fits your criteria

Incremental

Shafted

Light Duty

Industrial Duty

Heavy Duty

Hub Shaft

Light Duty

Industrial Duty

Heavy Duty

E12	1.2" Servo Mount Encoder 100-1024 PPR	8
E14	<2.0" Servo Mount Encoder 100-2540 PPR	8
E14IC	<2.0" Servo Mount Encoder 100-2540 PPR	8
E23	2.3" Diameter Standard Servo Mount Encoder 1-2540 PPR	8
EC23	2.3" Diameter Standard Servo Mount Encoder 3000-5000 PPR	8

NexGen 22 Qube	2-2.5" Qube Style Encoder 1-20,000 PPR	9
H20	2.0" Square And Servo Mount Encoder 1-2540 PPR	9
HA25	2.5" Square Flange/Servo Mount Encoder 1-2540 PPR	9
HR25	2.5" Square Flange/Servo Mount Encoder 1-1024 PPR	9
HC25	2.5" Square Flange/Servo Mount Encoder 3000-5000 PPR	9
HA26	2.5" Encoder 1-2540 PPR	9
HR26	2.5" Encoder 1-1024 PPR	9
HC26	2.5" Encoder 3000-5000 PPR	9
H58	58mm Servo Mount Encoder 1-2540 PPR	10
RI58-0	Synchro, Clamping And Square Flange Mounts 1-10,000 PPR	10
H42	2.5" Flange Mount 1-600 PPR	10
HA725	2.5" Square Flange 8192-10,000 PPR	10

Standard Models		
HD20	2.0" Square Flange Mount Encoder 1-20,000 PPR	13
HD25	2.5" Square Flange Mount Encoder 1-20,000 PPR	13
HD35R	110mm Iec Euro Flange 1-20,000 PPR	13
DWD38	3.5" Drawworks Encoder 1-20,000 PPR	13
60 Rotopulser	3.5" Servo Mount Encoder 1-2500 PPR	13
60P Rotopulser	>2.5" Foot Mount Or 4.5" C-Face Encoder 1-2500 PPR	13
H56 Rotopulser	>2.5" Foot Mount Or 4.5" C-Face Encoder 1-2500 PPR	13
Rim Tach® NexGen 6200	4.5" C-Face Encoder 60-1200 PPR	15

Hazardous Duty Models		
Hazardous HD20	2.0" Square Flange Encoder 1-9000 PPR	13
Hazardous HD25	2.5" Square Flange Encoder 1-9000 PPR	13
ISW38	>2.5" Drawworks Encoder 1-9000 PPR	13
X25	>2.5" Square Flange Encoder 1-5000 PPR	13
RX70/71	69mm Clamping Flange Encoder 1-10,000 PPR	13

E14H	<2.0" Hub Shaft Encoder 100-2540 PPR	8
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H20 Hub Shaft	2.0" Hub Shaft Encoder 1-2540 PPR	10
RI58 - Hub Shaft	58mm Synchro Flange Encoder 1-5000 PPR	10

Standard Models		
HSD25	Hub Shaft Encoder 1-20,000 PPR	13
HSD44	>2.5" Hub Shaft Encoder 1024 PPR	13
AG25	Hub Shaft Encoder 180-512 PPR	13

Hazardous Duty Models		
ISD25	2.5" Hub Shaft Encoder 1-9000 PPR	13
EN44	>2.5" Hub Shaft Encoder 1024 & 2048 PPR	13

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Incremental

Hollow Shaft

Industrial Duty

Servo Duty

Heavy Duty

Bearingless

Modular

HS20

2.0" Hollow Bore Encoder 1-2540 PPR

10

HS35R

>2.5" Hollow Bore Encoder 1-20,000 PPR

10

HS35iQ

3.5" Hollow Bore Encoder 1- 20,000 PPR Programmable optional

10

F10

1.25" Compact Encoder 1024 & 2048 PPR 6 Poles

11

F14

<2.0" Hollow Bore Encoder 400-5000 PPR 4, 6 Or 8 Poles

11

F15

<2.0" Pancake Style Servo Mount Encoder. 1024 & 2048 PPR 6 Or 8 Pole

11

F18

<2.0" Encoder 500-5000 PPR 4, 6, 8 Or 12 Pole

11

HC20

2.0" Hollow Bore Direct Mount Encoder 50-2500 PPR 4, 6 Or 8 Pole

12

Standard Models

HSD35

3.5" Hollow Bore Encoder 1-20,000 PPR

14

HSD37

3.5" Hollow Bore Encoder 1-20,000 PPR

14

HSD38

3.5" Hollow Bore Encoder 15-5000 PPR

14

Slim Tach HT55

> 4" Hollow Bore Encoder 256-4096 PPR

16

Slim Tach® HT85 NexGen

8.0" Hollow Bore Encoder 60-2048 PPR

16

Hazardous Models

Hazardous HSD35

3.5" Hollow Bore Encoder 1-9000 PPR

14

ISD37

3.5" Hollow Bore Encoder 1-5000 PPR

14

EN42

3.5" Hollow Bore Encoder 1-5000 PPR

14

Slim Tach® NEXGEN ST56

4.5" C-Face Encoder 64-2048 PPR

15

Slim Tach® NEXGEN ST67

4.5" C-Face Encoder 64-2048 PPR

15

Slim Tach® NEXGEN ST85

8.5" C-Face Encoder 64-2048 PPR

15

Rim Tach® NEXGEN 1250

12.5" C-Face Encoder 60-2400 PPR

15

Rim Tach® NEXGEN 8500

8.5" C-Face Encoder 60-2400 PPR

15

HDP18

<2.5" Contactless Encoder 64 PPR

16

HDP30

<2.5" Contactless Encoder 8-512 PPR

16

HDN58

58mm Contactless Encoder 8-512 PPR

16

R45 Rotopulser

4.5" C-Face Encoder 60 & 120 PPR

16

M15

Size 15 Commutating Encoder 200-1000 PPR 4, 6 Or 8 Pole

12

M53

2.0" Modular Hollow Bore Encoder 500-2048 PPR 4, 6 Or 8 Pole

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Absolute

Shafted

Hub Shaft

Hollow Shaft

Housed Resolver

Industrial Duty

Servo Duty

Heavy Duty

Industrial Duty

Servo Duty

Heavy Duty

Servo Duty

Heavy Duty

AI25	58mm, 2.5" or Hub Shaft Encoder 22 bit ST, 12 bit MT Resolution	9-10
AC36	37.5mm Encoder 22 bit ST, 12 bit MT Resolution	10

AD34	37.5mm Encoder 22 bit ST, 12 bit MT Resolution	11
AD25	58mm Encoder 22 bit ST, 12 bit MT Resolution	11

Standard Models		
AR62/63	58mm or 2.5" Encoder 12 bit ST, 16 bit MT Resolution	16

Hazardous Models		
AX65	59mm Servo Mount Encoder 12 bit ST, 16 bit MT Resolution	14
AX70/71	70mm Servo Mount Encoder 17 Bit ST, 12 Bit MT Resolution	14
AX73	73.5mm Face Mount Encoder 14 bit ST, 12 bit MT Resolution	14
AC61	63.5mm Square Flange Encoder 17 Bit ST, 12 Bit MT	14
AI25 Division 2	58mm, 2.5" Encoder 22 Bit ST, 12 Bit MT	14

AI25	58mm, 2.5" or Hub Shaft Encoder 22 bit ST, 12 bit MT Resolution	9-10
AC36	37.5mm Encoder 22 bit ST, 12 bit MT Resolution	10

AD35	38mm Hub Shaft Encoder 22 bit ST, 12 bit MT Resolution	11
AD36	38mm Hollow Bore or Hub Shaft Encoder 22 bit ST, 12 bit MT Resolution	11

Hazardous Models		
AI25 Division 2	58mm, 2.5" Encoder. 22 Bit ST, 12 Bit MT	14

AD36	38mm Hollow Bore Or Hub Shaft Encoder 22 bit ST, 12 bit MT Resolution	11
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R56	>2.5" Servo And Flange Mount Resolver +/- 7 Arcmin Single Speed Accuracy	14
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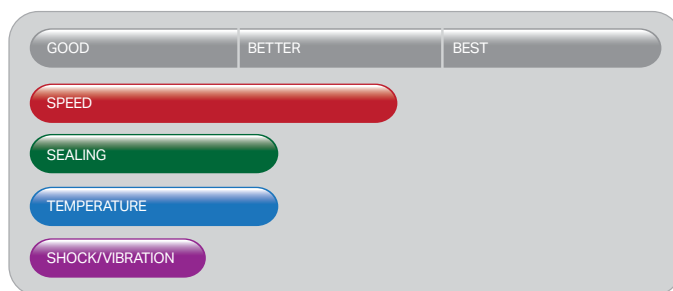
Light Duty

Light duty encoders are commonly referred to as "commercial duty" due to their frequent use in commercial or office automation products. Copiers, fax machines, lab equipment, and medical equipment are common applications for light duty encoders. Typically these devices reside in fairly benign environments with little temperature variation, are fairly clean, and not generally subjected to high shock loading or moisture.



E14 Pictured.

GENERAL PERFORMANCE DATA

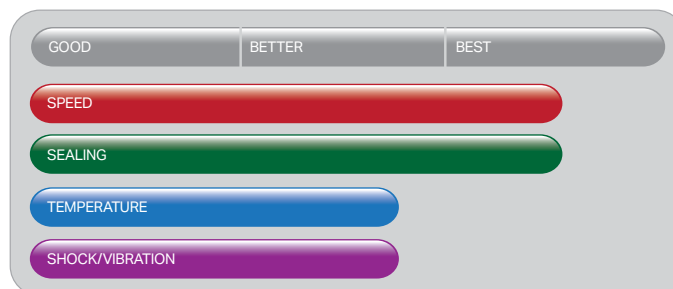


Industrial Duty

Often considered the "workhorse" of the encoder world, industrial duty encoders achieve a good compromise between ruggedness and performance. These encoders are typically used in factory environments where contaminants like dust and moisture are common. The hollow-shaft variety of industrial duty encoders is often the preferred choice of vector motor OEM's for speed feedback.



HA25 Pictured.

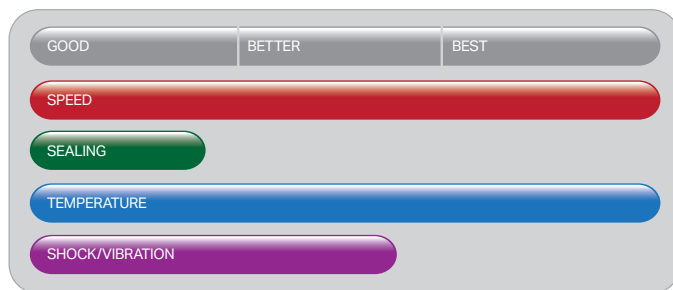


Servo Duty

This class of encoders is specifically suited to use on small-to mid-size stepper and servo motors. They typically have limited sealing due to their use inside motor housings, but are capable of very high speeds and high temperatures, a benefit due to being in such close proximity to motor windings. These devices typically come from the factory ready to mount to common motor back shafts.



ACURO AM34 Pictured.

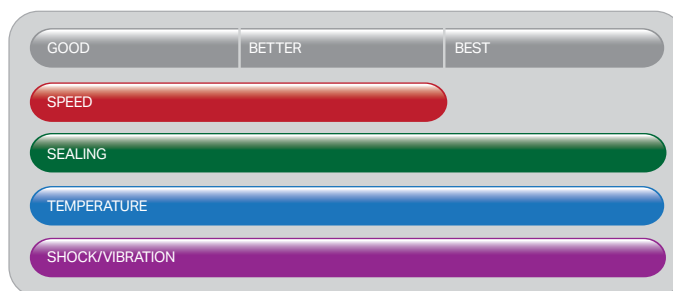


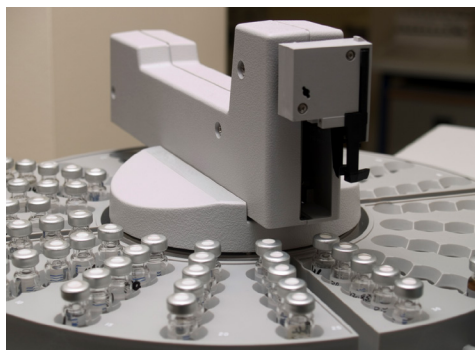
Heavy Duty

Heavy Duty encoders and resolvers are designed to survive some of the toughest environments. Paper and steel mills, aerospace applications, and food and beverage processing machinery are all areas that benefit from heavy duty encoders. Using magnetic, inductive, or specially designed optical technology, their tight sealing, heavy-duty bearings (where applicable), and high temperature range all suit them for use in harsh environments.



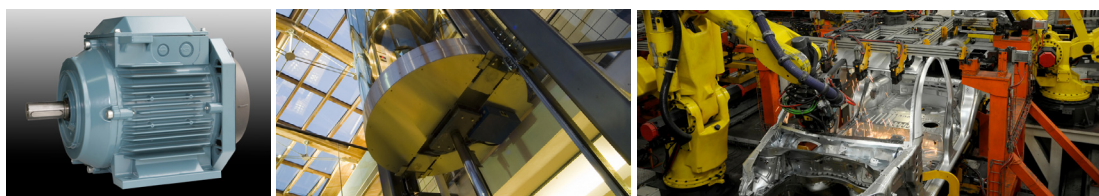
ST56 Pictured.





OPTICAL - INCREMENTAL







						
Product	E12	E14	E14IC (Integral Coupling)	E23	EC23	E14H (Hub Shaft)
Mounting Type	Shafted	Shafted	Shafted	Shafted	Shafted	Hub Shaft
Shaft/Bore Sizes	1/8"	1/8" or 1/4"	1/4" or 3/8"	1/4"	1/4"	1/4" to 5/8", 6mm to 14mm
Available Resolutions (PPR)	100 to 1024	100 to 2,540	100 to 2,540	1 to 2,540	3,000 to 5,000	100 to 2,540
Input Voltage (VDC)	5, 12, 15	5, 12, 15	5, 12, 15	5-26	5-26	5, 12, 15
Operating Temperature (°C)	0 to +70	0 to +70	0 to +70	0 to +70	0 to +70	0 to +70
Enclosure Rating	NEMA 12/IP54	NEMA 12/IP54	NEMA 12/IP54	NEMA 12/IP54	NEMA 12/IP54	NEMA 12/IP54
Certifications	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS
Special Features	Sub-Compact 1.2" diameter	Rugged Metal Housing	Integrated coupling	Screw terminal connections	High 5000 PPR capability	Hub Shaft with flex tether



OPTICAL - INCREMENTAL

									
Product	NexGen 22 Qube	H20	HA25	HR25	HC25	HA26	HR26	HC26	
Mounting Type	Shafted	Shafted	Shafted	Shafted	Shafted	Shafted	Shafted	Shafted	
Shaft/Bore Sizes	1/4" or 3/8"	1/4", 3/8" or 10mm	1/4" or 3/8"	1/4" or 3/8"	1/4" or 3/8"	1/4", 3/8" or 1/2"	1/4", 3/8" or 1/2"	1/4", 3/8" or 1/2"	
Available Resolutions (PPR)	1 to 20,000	1 to 2,540	1 to 2,540	1 to 1,024	3,000 to 5,000	1 to 2,540	1 to 1,024	3,000 to 5,000	
Input Voltage (VDC)	5-26	5-26	5-26	5-26	5-26	5-26	5-26	5-26	
Operating Temperature (°C)	0 to +70	0 to +70 (-40 to +85 opt.)	0 to +70 (-40 to +85 opt.)	0 to +70 (-40 to +85 opt.)	0 to +70 (-40 to +85 opt.)	0 to +70 (-40 to +85 opt.)	0 to +70 (-40 to +85 opt.)	0 to +70 (-40 to +85 opt.)	
Enclosure Rating	IP67 with shaft seals	NEMA 12/IP54 (NEMA 4/IP66 opt.)	NEMA 12/IP54 (NEMA 4/IP66 opt.)	NEMA 12/IP54 (NEMA 4/IP66 opt.)	NEMA 12/IP54 (NEMA 4/IP66 opt.)	NEMA 12/IP54	NEMA 12/IP54	NEMA 12/IP54	
Shock / Vibration	100g / 20g	50g / 20g	50g / 20g	50g / 20g	50g / 20g	50g / 20g	50g / 20g	50g / 20g	
Certifications	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	
Key Features	Economical anodized housing	Reliable dual-row bearing design	Wide range of resolutions available	Unbreakable code disc	High 5000 PPR capability	Integral coupling and flange	Unbreakable code disc	High 5,000 PPR resolution capability	

OPTICAL - ABSOLUTE

							
Product	AI25 (Ethernet/IP)	AI25 (Profinet)	AI25 (Profibus)	AI25 (EtherCAT)	AI25 (SSI)	AI25 (BiSS)	
Mounting Type	Shafted and Hub Shaft	Shafted and Hub Shaft	Shafted and Hub Shaft	Shafted and Hub Shaft	Shafted and Hub Shaft	Shafted and Hub Shaft	
Shaft/Bore Sizes	Shaft: 6-12mm or 3/8" Bore: 10-14mm; 1/2" or 3/8"	Shaft: 6-12mm or 3/8" Bore: 10-14mm; 1/2" or 3/8"	Shaft: 6 & 10mm, 3/8" Bore: 10 & 12mm, 3/8" Other Sizes Available	Shaft: 6 & 10mm, 3/8" Bore: 10 & 12mm, 3/8" Other Sizes Available	Shaft: 6 & 10mm, 3/8" Bore: 10 & 12mm, 3/8" Other Sizes Available	Shaft: 6 & 10mm, 3/8" Bore: 10 & 12mm, 3/8" Other Sizes Available	
Available Resolutions (Bits)	Up to 22 Bit Single-Turn, 12 Bit Multi-Turn	Up to 22 Bit Single-Turn, 12 Bit Multi-Turn	Up to 14 Bit Single-Turn, 12 Bit Multi-Turn	Up to 22 Bit Single-Turn, Up to 12 Bit Multi-Turn	Up to 22 Bit Single-Turn, 12 Bit Multi-Turn	Up to 22 Bit Single-Turn, 12 Bit Multi-Turn	
Input Voltage (VDC)	7-30	7-30	10-30	7-30	5 or 10-30	5 or 10-30	
Operating Temperature (°C)	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +100	-40 to +100	
Enclosure Rating	IP64 or IP67	IP64 or IP67	IP64 or IP67	IP64 or IP67	IP64 or IP67	IP64 or IP67	
Shock / Vibration	400g / 30g	400g / 30g	100g / 10g	400g / 30g	100g / 10g	100g / 10g	
Certifications	CE, RoHS, UL	CE, RoHS, UL	CE, RoHS, UL	CE, RoHS, UL	CE, RoHS, UL	CE, RoHS, UL	
Key Features	Ethernet/IP interface	Profinet interface	Profibus interface	EtherCAT interface	SSI interface	BiSS interface	



OPTICAL - INCREMENTAL

									
H58	RI58-0	H42	HA725	H20 Hub Shaft	RI58 Hub Shaft	HS20	HS35R	HS35iQ	Product
Shafted	Shafted	Shafted	Shafted	Hub Shaft	Hub Shaft	Hollow Shaft	Hollow Shaft	Hollow Shaft	Mounting Type
6 or 10mm	6 or 12mm	3/8"	3/8"	1/4", 3/8", 1/2" or 5/8"	10 or 12mm	1/4" to 5/8" 6mm to 16mm	up to 1-1/4" hollow shaft	up to 1-1/4" hollow shaft	Shaft/Bore Sizes
1 to 2,540	1 to 10,000	1 to 600	8,192 to 10,000	1 to 2,540	1 to 5,000	1 to 2,540	1 to 20,000	1 to 20,000	Available Resolutions (PPR)
5-26	5, 10-30	5-26	5 or 10-30	5-26	5 or 10-30	5-26	5-26	5-26	Input Voltage (VDC)
0 to +70 (-40 to +85 opt.)	-10 to +70	0 to +70	-10 to +70	0 to +70 (-40 to +85 opt.)	-10 to +70	0 to +70 (-40 to +85 opt.)	-40 to 85 (-40 to +100 opt.)	-40 to 85 (-40 to +100 opt.)	Operating Temperature (°C)
NEMA 12/IP54 (NEMA 4/IP66 opt.)	IP65, IP67	NEMA 12/IP54	NEMA 4/IP66	NEMA 12/IP54 (NEMA 4/IP66 opt.)	IP64	NEMA 4/IP65	IP67	IP67	Enclosure Rating
50g / 20g	100g / 10g	50g / 20g	50g / 2g	50g / 20g	100g / 10g	50g / 2.5g	400g / 30g	40g / 20g	Shock / Vibration
CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS, UK CA	Certifications
Euro-Standard 58mm mounting	Up to 40,000 steps with 10,000 pulses	Simplified economical design	Direct-read resolution up to 10,000 PPR	Hub Shaft with spring tether	High Accuracy with integrated flexible coupling	Electrically isolated hollow shaft	Shock Resistant to 400g	Encoder Diagnostics, Fault Output, Programmable Option Available	Key Features

OPTICAL - ABSOLUTE




						
AI25 (CANOpen)	AI25 (CANLayer2)	AI25 (DeviceNet)	AI25 (Interbus)	AI25 (Parallel)	AC36 (BiSS/SSI)	Product
Shafted and Hub Shaft	Shafted and Hub Shaft	Shafted and Hub Shaft	Shafted and Hub Shaft	Shafted and Hub Shaft	Shafted and Hub Shaft	Mounting Type
Shaft: 6 & 10mm, 3/8" Bore: 10 & 12mm, 3/8" Other Sizes Available	Shaft: 6 & 10mm, 3/8" Bore: 10 & 12mm, 3/8" Other Sizes Available	Shaft: 6 & 10mm, 3/8" Bore: 10 & 12mm, 3/8" Other Sizes Available	Shaft: 6 & 10mm, 3/8" Bore: 10 & 12mm, 3/8" Other Sizes Available	Shaft: 6 & 10mm, 3/8" Bore: 10 & 12mm, 3/8" Other Sizes Available	6 mm (Solid Shaft) 8 mm (Hub Shaft)	Shaft/Bore Sizes
Up to 14 bit Single-Turn, 12 bit Multi-Turn	Up to 14 bit Single-Turn, 12 bit Multi-Turn	Up to 14 bit Single-Turn, 12 bit Multi-Turn	Up to 12 bit Single-Turn, Up to 12 bit Multi-Turn	Up to 14 bit Single-Turn, 12 bit Multi-Turn	Up to 22 Bit Single-Turn 12 Bit Multi-Turn	Available Resolutions (Bits)
10-30	10-30	10-30	10-30	5 or 10-30	5 or 7-30	Input Voltage (VDC)
-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +100	-40 to +100	Operating Temperature (°C)
IP64 or IP67	IP64 or IP67	IP64 or IP67	IP64 or IP67	IP64 or IP67	IP64	Enclosure Rating
100g / 10g	100g / 10g	100g / 10g	100g / 10g	100g / 10g	100g / 10g	Shock / Vibration
CE, RoHS, UL	CE, RoHS, UL	CE, RoHS, UL	CE, RoHS, UL	CE, RoHS, UL	CE, RoHS, UL	Certifications
CANOpen interface	CANLayer2 interface	DeviceNet interface	Interbus interface	Parallel interface	Multi-Turn positioning in compact size	Key Features



OPTICAL - INCREMENTAL

									
Product	HD20	HD25	HD35R	DWD38	Series 60 Rotopulser®	Series 60P Rotopulser®	H56 Rotopulser®	HSD25	
Mounting Type	Shafted	Shafted	Shafted	Shafted	Shafted	Shafted	Shafted	Hub Shaft	
Shaft/Bore Sizes	3/8" or 10mm	3/8", 10mm, or 12mm	11mm	1"-14UNS x 5/8"-18 Threaded Shaft or 1"-14UNS Threaded Shaft	1/4" or 1/2"	5/8" shaft (single or dual)	5/8"	6mm - 19mm or 1/4" - 3/4"	
Available Resolutions (PPR)	1 to 20,000	1 to 20,000	1 to 20,000	15 to 20,000	1 to 2,500	1 to 2,500	1 to 5,000	1 to 20,000	
Input Voltage (VDC)	5-26	5-26	5-26	5-26	5-15	5-15	5-26	5-26	
Operating Temperature (°C)	-40 to +100	-40 to +100	-40 to +85	-40 to +100	0 to +54	0 to +54	-40 to +80	-40 to +100	
Enclosure Rating	IP67	IP67	IP67	IP67	NEMA 12/IP54	NEMA 12/IP54 NEMA 4/IP66 opt.)	NEMA 4/IP66	IP67	
Shock / Vibration	50g / 20g	50g / 20g	400g / 20g	400g / 20g	N/A	N/A	50g / 2.5g	50g / 20g	
Certifications	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	
Special Features	Unbreakable Code Disc up to 3600 PPR	Dual Isolated Outputs Available	Improved Seal Design for Increased Moisture Resistance	Stackable Encoder Options Available	Dual shaft output option	Mill-Duty Foot or Face Mount Design	Large Outer Bearings Isolate Shaft Loads	Field Replaceable Shaft Isolators	

OPTICAL - INCREMENTAL, HAZARDOUS DUTY


								
Product	Hazardous HD20	Hazardous HD25	ISW38	X25	RX70/71	ISD25	EN44	
Mounting Type	Shafted	Shafted	Shafted	Shafted	Shafted	Hub Shaft	Hub Shaft	
Shaft/Bore Sizes	3/8", 10mm	3/8", 10mm, 12mm	1"-14UNS x 5/8"-18 Threaded Shaft or 1"-14UNS Threaded Shaft	1/4" or 3/8"	10 mm	6mm - 19mm or 1/4" - 3/4"	16mm	
Available Resolutions (PPR)	1 to 9,000	1 to 9,000	1 to 9,000	1 to 5,000	1 to 10,000	1 to 9,000	1,024 and 2,048	
Input Voltage (VDC)	5-26	5-26	5 or 7-26	5-26	5 or 10-30	5 or 7-26	7-26	
Operating Temperature (°C)	-40 to +80	-40 to +80	-40 to +80	0 to +70	-40 to +60	-40 to +80	-50 to +100	
Enclosure Rating	IP67	IP67	IP67	NEMA 4X/IP56	IP64 / IP67	IP67	IP67	
Shock / Vibration	50g / 20g	50g / 20g	400g / 20g	50g / 2g	100g / 10g	50g / 20g	50g / 20g	
Certifications	CE, RoHS, CSA, ATEX	CE, RoHS, CSA, ATEX	CE, RoHS, CSA, ATEX	CE, RoHS, UL	CE, ATEX, IECEx	CE, RoHS, CSA, ATEX	CE, RoHS, CSA, ATEX, IECEx	
Special Features	Ideal for Corrosive Environments with Stringent Wash-down Requirements	Ideal for Corrosive Environments with Stringent Wash-down Requirements	Draw Works Threaded Shaft with Field Replaceable Adapters	NEC Class 1&2, Div 1&2, Groups C, D, E, F, G	Explosion Proof Design for Hazardous Applications	Field Replaceable Shaft Isolators	Triple Certified Encoder for Hazardous Locations	



OPTICAL - INCREMENTAL

				
HSD44	AG25	HSD35	HSD37	HSD38
Hub Shaft	Hub Shaft	Hollow Shaft	Hollow Shaft	Hollow Shaft
16mm	1"	1/4" to 1-1/4", or 6mm to 28mm	6mm to 1" hollow shaft	12mm - 20mm or 1/2"
1,024	180 to 512	1 to 20,000	15 to 20,000	15 to 5,000
5-30	5-28	5-26	7-26	5-26
-30 to +100	-20 to +85	-40 to +85	-40 to +100	-40 to +100
NEMA 6	IP67	IP67 (IP64 at shaft speeds above 5,000 RPM)	IP67	IP67
400g / 20g	50g / 10g	400g / 20g	400g / 20g	50g / 20g
CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS
For use in Heavy- Rail Traction Drive Applications	Corrosion Resistant Construction; Ideal for the Ag Industry	Stainless Steel Clamp and Hub Shaft for Mill Duty	Operates in High Shock and Vibration Environments	Electrically & Thermally Isolated Hollow shaft





INDUCTIVE - RESOLVER

	
R56	Product
Foot/ C- Face	Mounting Type
5/8"	Shaft/Bore Sizes
+/- 10 arcmin - Single speed 10 arcmin spread - Two speed	Accuracy
26	Input Voltage (Vrms)
-40 to +120	Operating Temperature (°C)
IP66	Enclosure Rating
50g / 10g	Shock/ Vibration
RoHS	Certifications
Latching Connector	Special Features




OPTICAL - ABSOLUTE, HAZARDOUS DUTY

		
Hazardous HSD35	ISD37	EN42
Hollow Shaft	Hollow Shaft	Hollow Shaft
6mm - 28mm, or 1/4" - 1 1/4"	6mm - 25mm or 1/4" to 1"	15mm-16mm or 5/8" - 1"
1 to 9,000	1 to 9,000	15 to 5,000
5-26	5 or 7-26	7-26 or 10-30
-40 to +85	-40 to +80	-50 to +100
IP67	IP67	IP67
400g / 20g	400g / 20g	50g / 20g
CE, RoHS, UL	CE, RoHS, CSA, ATEX	CE, RoHS, CSA, ATEX, IECEX
Class 1 Div 2 Groups A,B,C,D Class 2 Div 2 Groups F,G	Dual Isolated Outputs	Encapsulated Electronics with Increased Safety Interface for Zone 1 Use


OPTICAL - ABSOLUTE, HAZARDOUS DUTY

					
AI25 Division 2 (SSI/BISS)	AX65 (SSI/CAN-Open)	AX70/71 (BISS/SSI/Profibus/ DeviceNet /CAN-Open)	AX73 (Profibus)	AC61 (Parallel/Profibus/CAN-Open/ CANlayer2/DeviceNet/ Interbus/SSI Programmable)	Product
Shafted and Hub Shaft	Shafted	Shafted	Shafted	Shafted	Mounting Type
Shaft: 6&10mm, 3/8" Bore: 10&12mm; 1/4"-3/8"	10 mm	10 mm	10 mm	9.52 - 10 mm	Shaft/Bore Sizes
Up to 22 bit Single Turn, 12 bit Multi-Turn	12 Bit Single-Turn, 12, 13 and 16 Bit Multi-Turn	10 - 17 Bit Single-Turn, 12 Bit Multi-Turn	14 Bit Single-Turn, 12 Bit Multi-Turn	10 - 17 Bit Single-Turn, 4 - 12 Bit Multi-Turn	Available Resolutions (Bits)
5 or 7-30	10-30	5 or 10-30	10-30	10-30	Input Voltage (VDC)
-40 to +80	-40 to +60	-40 to +60	-40 to +70	-40 to +100	Operating Temperature (°C)
IP64/IP66	IP66/IP67	IP64/IP67	IP67	IP67	Enclosure Rating
100g / 10g	200g / 30g	100g / 10g	100g / 10g	100g / 10g	Shock / Vibration
CE, RoHS, UL	CE, RoHS, ATEX	CE, RoHS, ATEX, IECEX	CE, RoHS, ATEX, IECEX	CE, RoHS, UL	Certifications
Class 1 Division 2 Groups A,B,C,D Class 2 Division 2 Groups F & G	Extreme Robust Explosionproof Absolute Multiturn Encoder	Pressure-Resistant Housing for Explosive Environments	Extreme corrosion resistance: high grade stainless steel housing	Chemical and Seawater Resistant; programmable encoder	Special Features


NorthStar™
MAGNETIC - INCREMENTAL



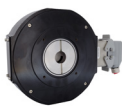
				
Product	Slim Tach® NEXGEN ST56	Slim Tach® NEXGEN ST67	Slim Tach® NEXGEN ST85	
Mounting Type	Bearingless	Bearingless	Bearingless	
Shaft/Bore Sizes	5/8" - 2 7/8" or 16mm - 80mm	5/8" - 2 7/8" or 16mm - 80mm	5/8" - 2 7/8" or 16mm - 80mm	
Available Resolutions (PPR)	64 - 2048	64 - 2048	64 - 2048	
Input Voltage (VDC)	5-26	5-26	5-26	
Operating Temperature (°C)	-40 to +100 Extended -40 to +120	-40 to +100 Extended -40 to +120	-40 to +100 Extended -40 to +120	
Enclosure Rating	NEMA 4 & 12, IP65	NEMA 4 & 12, IP65	NEMA 4 & 12, IP65	
Shock /Vibration	300g / 20g	300g / 20g	30g / 18g	
Certifications	CE, RoHS	CE, RoHS	CE, RoHS	
Special Features	Mounts to 56 and 140 C-Face Motors; Replaceable Wheels	Mounts to Reliance 6.75 Recess, 56 and 140 C-Face Motors; Replaceable Wheels	Mounts to 180 C-Face Motors; Replaceable Wheels	

MAGNETIC - INCREMENTAL


				
Product	Rim Tach® NEXGEN 6200	Rim Tach® NEXGEN 1250	Rim Tach® NEXGEN 8500	
Mounting Type	Shafted	Bearingless	Bearingless	
Shaft/Bore Sizes	5/8"	5/8" - 2 7/8" or 16mm - 80mm	5/8" - 2 7/8" or 16mm - 80mm	
Available Resolutions (PPR)	60 - 2,400	60 - 2,400	60 - 2,400	
Input Voltage (VDC)	5-26	5-26	5-26	
Operating Temperature (°C)	-40 to +100	-40 to +100	-40 to +100	
Enclosure Rating	NEMA 4 & 12, IP65	NEMA 4 & 12, IP65	NEMA 4 & 12, IP65	
Shock /Vibration	30g / 18g	200g / 18g	200g / 18g	
Certifications	CE, RoHS	CE, RoHS	CE, RoHS	
Special Features	Delivers a 70 Thousandths Air Gap; Replaceable Sensors	Circuitry for On-Board Diagnostics with LED and Alarm; Replaceable Wheels and Sensors	Circuitry for On-Board Diagnostics with LED and Alarm; Replaceable Wheels and Sensors	







MAGNETIC - INCREMENTAL

		
Slim Tach® ST 1250	Slim Tach® HT55	Rim Tach® HT85
Bearingless	Hollow Shaft	Hollow Shaft
5/8" - 3 3/4"	1/2" - 2 7/8"	5/8" - 4 1/2"
64 - 2,048	256 - 4,096	60 - 2,400
5-26	5-26	5-26
-40 to +100 Extended -40 to +120	-40 to +85	-40 to +85
NEMA 4 & 12, IP65	NEMA 4 & 12, IP65	NEMA 4 & 12, IP65
300g / 20g	100g / 20g	30g / 18g
CE, RoHS	CE, RoHS	CE, RoHS
Mounts to 12.5" C-Face & 250-C Face Motors; Requires only 1.1" (28mm) of Motor Shaft	Encapsulated Electronics Resist Moisture and Contamination	Hollow Shaft Design Mounts Easily to Large Motor Shafts

MAGNETIC ABSOLUTE









	Product
AR62/63	Product
Shafted	Mounting Type
3/8", 10 mm	Shaft/Bore Sizes
12 Bit Single-Turn, 12, 13 and 16 Bit Multi-Turn	Available Resolutions (Bits)
10-30	Input Voltage (VDC)
-40 to +100	Operating Temperature (°C)
IP67/ IP69k	Enclosure Rating
200g / 20g	Shock /Vibration
CE, RoHS	Certifications
SSI, CAN-Open and Analog Outputs Available	Special Features

MAGNETIC - INCREMENTAL

				Product
HDP18	HDP30	HDN58	R45 Rotopulser®	Product
Contactless / Bearingless	Contactless / Bearingless	Contactless / Bearingless	Bearingless	Mounting Type
1/2" to 1 1/2"	1/2" to 1 1/2"	1/2" to 1 1/2"	5/8" or 7/8"	Shaft/Bore Sizes
256	8 - 512	8 - 512	60	Available Resolutions (PPR)
6-30	6-30	6-30	5-26	Input Voltage (VDC)
-25 to +80	-25 to +80	-25 to +70	-40 to +85	Operating Temperature (°C)
IP68	IP68	Connector dependent IP65, IP67 or IP68	N/A	Enclosure Rating
N/A	N/A	50g / 10g	20g / 2.5g	Shock /Vibration
CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	Certifications
Incremental & Absolute Output's Available; Completely Sealed & Encapsulated Electronics	Incremental & Absolute Output's Available; CAN SAE J1939 Communication Protocol	Incremental & Absolute Output's Available; Wide Sensing Envelope is Tolerant to Misalignment	56C-Face Mounting	Special Features



OPTICAL - ABSOLUTE

								
Product	AD34 (BiSS/SSI)	AD35 (BiSS/SSI)	AD36 (BiSS/SSI)	AD25 (BiSS/SSI)	AD37 (BiSS/SSI)	AM34 (BiSS/SSI)	AD58 (BiSS/SSI)	AD58 Safety-DRIVE-CLiQ
Mounting Type	Shafted	Hub Shaft	Hollow Shaft & Hub Shaft	Shafted	Shafted	Hollow Shaft & Solid Shaft	Hollow Shaft & Solid Shaft	Tapered Solid Shaft & Taper Shaft
Shaft/Bore Sizes	6mm	8mm	8mm	10mm	8mm	8mm	Hollow 10-12mm Solid 10 mm	Tapered Solid Shaft 9.25 mm; Taper 1:10
Available Resolutions (Bits)	Up to 19 bit Single-Turn	Up to 22 bit Single-Turn	Up to 22 bit Single-Turn, 12 bit Multi-Turn	Up to 22 bit Single-Turn, 12 bit Multi-Turn	Up to 20 bit Single-Turn, 12 bit Multi-Turn	Up to 20 bit Single-Turn, 16 bit Multi-Turn	Up to 22 bit Single-Turn, 12 bit Multi-Turn	Up to 24 bit Single-Turn, 12 bit Multi-Turn
Input Voltage (VDC)	5 or 7-30	5 or 7-30	5 or 7-30	5	5	5	5	5
Operating Temperature (°C)	-15 to +120	-15 to +120	-15 to +120	-15 to +120	-40 to +115	-40 to +120	-40 to +115	-25 to 110
Enclosure Rating	IP40	IP40	IP40	IP40	IP40	IP20	IP40	IP40 or IP50
Shock / Vibration	100g / 10g	100g / 10g	100g / 10g	100g / 10g	100g / 10g	100g / 10g	100g / 10g	100g / 10g
Certifications	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS

OPTICAL - INCREMENTAL

				
Product	F10	F14	F15	F18
Mounting Type	Hollow Shaft	Hollow Shaft	Hollow Shaft	Hollow Shaft
Shaft/Bore Sizes	6mm	1/4", 6mm, 8mm	3/8"	1/4" to 1/2" 6 to 12mm
Available Resolutions (PPR)	1,024 to 2,048	1,000 to 5,000	1,024 to 2,048	500 to 5,000
Input Voltage (VDC)	5	5	5	5
Operating Temperature (°C)	0 to +120	0 to +120	0 to +120	0 to +120
Enclosure Rating	N/A	NEMA 1/ IP40 (w/cover)	N/A	NEMA 1/ IP40 (w/cover)
RPM	5,000	12,000	5,000	12,000
Certifications	CE, RoHS	CE, RoHS	CE, RoHS	CE, RoHS
Special Features	Compact 1.0" diameter servo ring mount	Non-marring hollow shaft	Industry standard size 15 servo mounting	Under 2.0" dia package with high 10,000 PPR capability

Find Root Cause Immediately

HS35iQ Encoder with PulseIQ™ Technology

Providing visual indication of encoder health through fault specific LEDs and digital output.



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For full part numbers and descriptions please visit our catalog or website @ www.dynapar.com

RIM SS2 SIGNAL SPLITTER



The NorthStar signal splitter routes one encoder signal to multiple isolated locations.

CABLE ASSEMBLIES



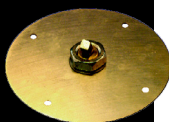
NorthStar brand offers shielded cable with MS or M12 connector and cable clamps at one end and tinned leads at the other end.

FCPL FLEXIBLE SHAFT COUPLINGS



CPL Series couplings provide maximum mechanical, thermal, and electrical protection for encoder shaft connections.

GROUNDING BRUSH KITS



Provide a low resistance, and electrical contact to the motor shaft to reduce or eliminate induced shaft currents in AC and DC motors

MEASURING WHEELS



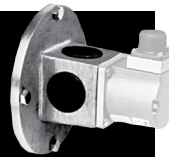
Dynapar offers a wide range of precisely machined 12" circumference wheels including rubber, phenolic and O-ring surfaces to provide maximum accuracy over a wide temperature range for a variety of conveyor or material speed measurement applications.

MATING CONNECTORS



Dynapar offers a wide variety of military style connectors for use with different style encoders.

NEMA & 5PY ADAPTERS



Dynapar offers NEMA C-face, 5PY and custom adapters to allow you to mount a variety of flange mounted encoders to 4-1/2" NEMA and DC accessory flanges.

BRACKETS



Dynapar offers a wide variety of rugged, stable, precision machined mounting brackets to secure popular Dynapar encoders for coupling to a machine shaft.

TETHER & COVER KITS



A variety of tether kits are available for NEMA C-Face and other AC motors including single point tethers, slotted tethers and rod tethers. Dynapar also offers cover kits and basket covers that fit over the motor face.



For additional information contact your Dynapar Representative at 1.800.873.8731 or visit our website at: www.dynapar.com

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product catalog,
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mobile device

