InfiniDrive™

MOTOR MANUFACTURING

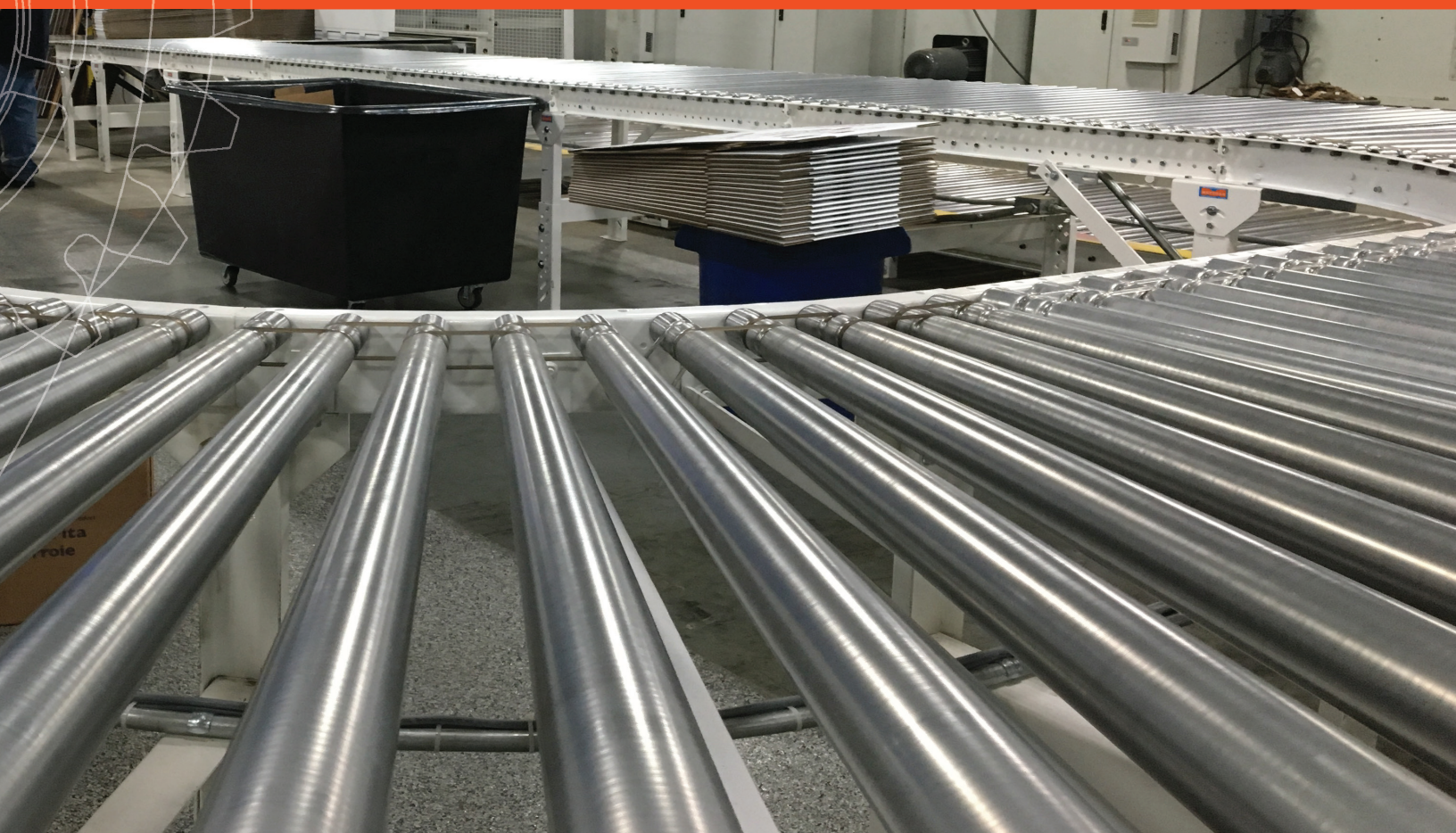
Power Transmission

Rev. 04.15.2025

Engineered Solutions

Our vision is provide our customers with comprehensive solutions. As a world-class leader in innovative solutions, we improve processes, solve problems, and reduce downtime to keep our customers moving. We accomplish this by:

- *Exhibiting integrity in our workmanship*
- *Providing competitive products and services*
- *Treating all people with dignity and respect*



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Index

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InfiniDrive™ Motor Driven Rollers

Part Numbers: RD48, RD50, RD57, RD60, RD63 and RD63S
UL Model Numbers: RCADU42 (RD48), RCBDU42 (RD50), RCCDU42 (RD57), RCDDU42 (RD60), RCEDU42 (RD63) and RAEDU42 (RD63S)
CE Model Number: MDR2400

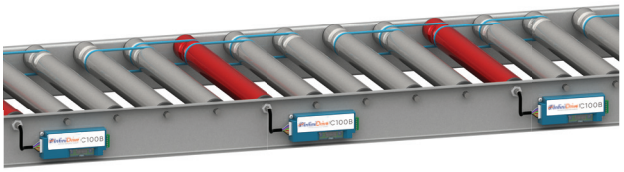
Product Overview

InfiniDrive™ Motor Driven Rollers offer the latest in motor driven roller design and are available in multiple diameters. The **InfiniDrive™ Motor Driven Rollers** provide exceptional reliability and eco-friendly performance at an economical price.

Connecting to Zero-Pressure-Accumulation (ZPA) driver card makes monitoring, controlling and optimizing performance easier than ever.

Standard Features

- 24VDC brushless motor *(thermally protected)*
- CE Certified
- UL Recognized
- Steel planetary gearbox
- ABEC precision bearings
- Zinc plated steel tube
- 7/16" hex shaft
- 400mm cable length
- JST XHP-10 pin Connector
- Maintenance-free
- Operating Environment Temperature Range of 32°F to 104°F (0°C to 40°C)



24VDC Motorized Rollers

Additional Options

- Multiple shaft configurations
- Multiple groove options
- Aluminum Poly-Ribbed Drive
- Lagging
- Mechanical brake
- Sprockets
- 1.2M or 2M cable length extensions
- Other cable connectors available

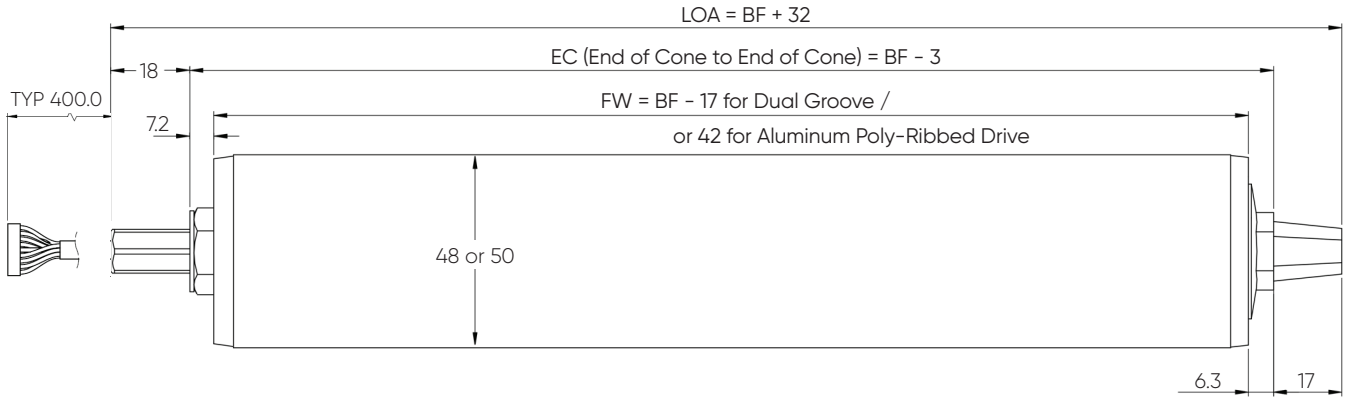
***Note:** Contact InfiniDrive™ Motor Manufacturing for additional options sales@infinidrivemotors.com*

InfiniDrive™ Motor Driven Roller Specifications and Features

RCADU42 (RD48) and RCBDU42 (RD50) Specifications		
Category	**Parameter**	**Value**
Part Number	RD48 and RD50	35W InfiniDrive™ Motor Driven Rollers
Performance	Internal Motor RPM	1000-4000
	Rated Output Power	35W
	Rated Torque	See performance data table, page 7
	Rated Current	2.8 Amps @ rated torque
	Max Torque	See performance data table, page 7
	Max Current	3.0 Amps (intermittent only)
	Duty Cycle	100% @ 40°C (104°F)
	Service Factor	1.0
	Direction of Rotation	CW and CCW
Environmental	Operating Temperature	0 to 40°C (32 to 104°F)
Electrical Power	Voltage	24VDC (+5%/-10%)
	Current Consumption	40 mA while idle (no run signal provided)
	Termination	JST connector: XHP-10

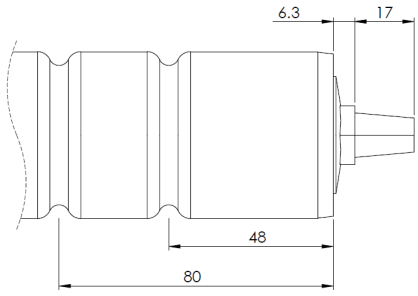
RD48 and RD50 Dimensional Footprint

Dimensions in mm



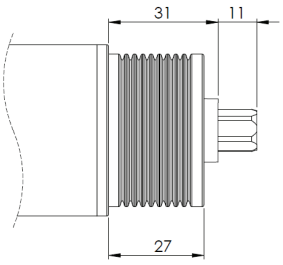
Standard Dual Groove Location for O-Ring

Dual Groove FW = (BF - 17)



Aluminum Poly-Ribbed Drive

Poly-Ribbed FW = (BF - 42)



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RD48 and RD50 Part Number System

1	2	3	4	5	6	7	8	9	10
RC	A	D042	G	0500	HTS	12	K	0	X

1

#	Type
RC	Roller Carbon Steel

2

#	Diameter
A	48mm
B	50mm

3

#	Source & Power
D000	Idler*
D032	22W**, 24VDC
D042	35W, 24VDC
DU42	35W, 24VDC, UL
DB32	22W, 24VDC, Brake**
DB42	35W, 24VDC, Brake

4

#	Tube & Face
C	Sprocket*
G	Two Standard 3/16" O-ring Grooves
H	Two Standard 1/4" O-ring Grooves
J	Two Deep 3/16" O-ring Grooves
K	Two Deep 1/4" O-ring Grooves
N	No Grooves
P	Aluminum Poly-Ribbed Drive***
D	Special Drawing*

5

#	Between Frames in mm
0316	Minimum
1270	Maximum

Note: Contact InfiniDrive™ for BF greater than 1270mm.

6

#	Shaft Options
HNA	7/16" Hex, Aluminum FE: Spring-Loaded ME: Non-Threaded***
HNS	7/16" Hex FE: Spring-Loaded ME: Non-Threaded
HTS	7/16" Hex FE: Spring-Loaded ME: Threaded
DDD	Special Drawing*

Note: FE = Free End, ME = Motor End

7

#	Gearbox Reduction
XX	Idler
04	4 : 1
05	5 : 1
09	9 : 1
12	12 : 1
16	16 : 1
27	27 : 1
36	36 : 1
48	48 : 1
64	64 : 1

8

#	Drumshell Finish
A	Standard Zinc Finish
B	Black Rubber, 1/8" Thick
K	PU Sleeve, 1/8" Thick
P	PVC Coating, 1/32" Thick
R	Linatex Rubber, 1/8" Thick
T	Soft PU Tapered Sleeve*
U	Molded PU, 1/8" Thick
W	White FDA Rubber, 1/8" Thick
X	Not Applicable
D	Special Drawing*

9

#	Cable Length
X	Idler, no motor or cable
0	400mm Standard Cable
D	Special **w**

10

#	Specials
A	Aluminum Dual Bearing Housings Both Ends, Spring-Loaded Straight Hex Free-End
D	Drawing Required for Full Description of Unit
X	Plastic End Housings Both Ends, Spring-Loaded Tapered Hex Free-End

*Part Number Must End in "D"—*Drawing Required*

**Contact sales for availability of speed, torque and BF options for 22W rollers

***Part Number Must End in "A"

RD48 Performance Data

InfiniDrive™ Motor Driven Roller RD48								
Roller Power Watts	Roller OD mm	Gearbox Stages	Gear Ratio	Speed Range FPM (m/s)	Tangential Force lbs. (N)	Rated Torque in-lbs. (Nm)	Starting Torque in-lbs. (Nm)	Rated Current Amp
35	48	1	4 : 1	115 - 462 (0.59 - 2.35)	3.8 (16.8)	3.6 (0.4)	14.4 (1.6)	2.8
			5 : 1	92 - 369 (0.47 - 1.88)	4.7 (21.0)	4.5 (0.5)	17.9 (2.0)	
		2	9 : 1	51 - 205 (0.26 - 1.04)	8.5 (37.8)	8.1 (0.9)	32.3 (3.7)	
			12 : 1	38 - 154 (0.20- 0.78)	11.3 (50.4)	10.8 (1.2)	43.1 (4.9)	
			16 : 1	29 - 115 (0.15 - 0.59)	15.1 (67.2)	14.4 (1.6)	57.4 (6.5)	
		3	27 : 1	17 - 68 (0.09 - 0.35)	25.5 (113.5)	24.2 (2.7)	96.9 (11.0)	
			36 : 1	13 - 51 (0.07 - 0.26)	34.0 (151.3)	32.3 (3.7)	129.2 (14.6)	
			48 : 1	10 - 38 (0.05 - 0.20)	45.3 (201.7)	43.1 (4.9)	172.3 (19.5)	
			64 : 1	7 - 29 (0.04 - 0.15)	60.5 (268.9)	57.4 (6.5)	229.8 (26.0)	

Table R1 35W Performance Data For RD48

RD50 Performance Data

InfiniDrive™ Motor Driven Roller RD50								
Roller Power Watts	Roller OD mm	Gearbox Stages	Gear Ratio	Speed Range FPM (m/s)	Tangential Force lbs. (N)	Rated Torque in-lbs. (Nm)	Starting Torque in-lbs. (Nm)	Rated Current Amp
35	50	1	4 : 1	120 - 478 (0.61 - 2.43)	3.6 (16.2)	3.6 (0.4)	14.4 (1.6)	2.8
			5 : 1	96 - 383 (0.49 - 1.94)	4.6 (20.3)	4.5 (0.5)	17.9 (2.0)	
		2	9 : 1	53 - 213 (0.27 - 1.08)	8.2 (36.5)	8.1 (0.9)	32.3 (3.7)	
			12 : 1	40 - 159 (0.20 - 0.81)	10.9 (48.7)	10.8 (1.2)	43.1 (4.9)	
			16 : 1	30 - 120 (0.15 - 0.61)	14.6 (64.9)	14.4 (1.6)	57.4 (6.5)	
		3	27 : 1	18 - 71 (0.09 - 0.36)	24.6 (109.5)	24.2 (2.7)	96.9 (11.0)	
			36 : 1	13 - 53 (0.07 - 0.27)	32.8 (146.0)	32.3 (3.7)	129.2 (14.6)	
			48 : 1	10 - 40 (0.05 - 0.20)	43.8 (194.7)	43.1 (4.9)	172.3 (19.5)	
			64 : 1	7 - 29 (0.04 - 0.15)	58.4 (259.6)	57.4 (6.5)	229.8 (26.0)	

Table R2 35W Performance Data For RD50

Important Safety Disclaimers

Failure to install or operate this device according to these standards may result in a safety hazard.

Environmental Specifications

Altitude: 5,300 feet / 1600 meters

Relative Humidity: 5-95% non-condensing

Pollution Degree: 2

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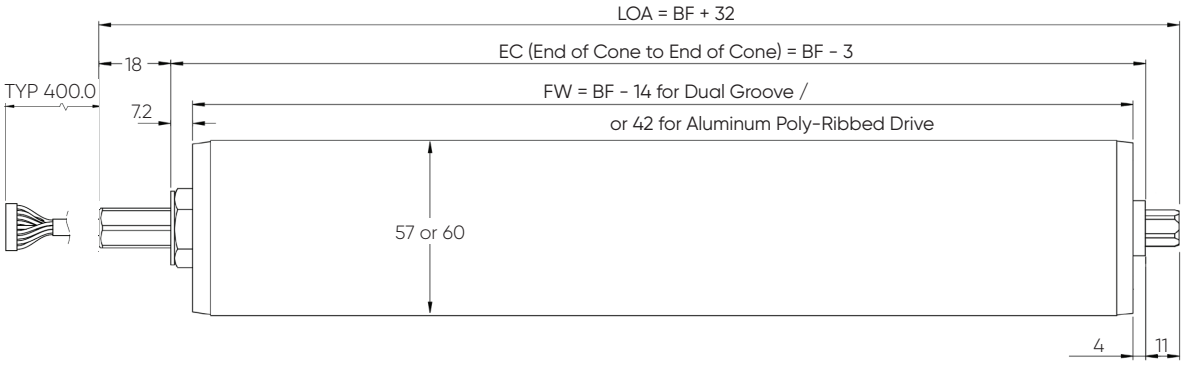
InfiniDrive™ Motor Driven Roller Specifications and Features

RCCDU42 (RD57) and RCDDU42 (RD60) Specifications and Features		
Category	**Parameter**	**Value**
Part Number	RD57 and RD60	35W InfiniDrive™ Motor Driven Roller
Performance	Internal Motor RPM	1000-4000
	Rated Output Power	35W
	Rated Torque	See performance data table, page 10
	Rated Current	2.8 Amps @ rated torque
	Max Torque	See performance data table, page 10
	Max Current	3.0 Amps (intermittent only)
	Duty Cycle	100% @ 40°C (104°F)
	Service Factor	1.0
	Direction of Rotation	CW and CCW
Environmental	Operating Temperature	0 to 40°C (32 to 104°F)
Electrical Power	Voltage	24VDC (+5%/-10%)
	Current Consumption	40 mA while idle (no run signal provided)
	Termination	JST connector: XHP-10

RD57 and RD60 Dimensional Footprint

Dimensions in mm

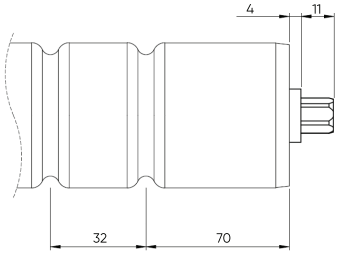


Between Frames (BF) Minimum				
Power Roller Configuration	**Motor Type**	**Gearbox Stages**		
		1	**2**	**3**
Aluminum No Groove End Housing	35W	317	330	343
Aluminum Dual Groove End Housing	35W	417	430	443
Aluminum Poly-Ribbed End Housing	35W	348	361	374

Table R3 RD57 and RD60 Min. BF

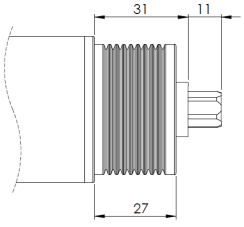
Standard Dual Groove Location for O-Ring

Dual Groove FW = (BF - 14)



Aluminum Poly-Ribbed Drive

Poly-Ribbed FW = (BF - 42)



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RD57 and RD60 Part Number System

1	2	3	4	5	6	7	8	9	10
RC	C	D042	G	0500	HNA	27	A	0	A

1

#	Type
RC	Roller Carbon Steel

2

#	Diameter
C	57mm
D	60mm

3

#	Source & Power
D000	Idler*
D042	35W, 24VDC
DB42	35W, 24VDC, Brake
DU42	35W, 24VDC, UL

4

#	Tube & Face
C	Sprocket*
G	Two Standard 3/16" O-ring Grooves
H	Two Standard 1/4" O-ring Grooves
J	Two Deep 3/16" O-ring Grooves
K	Two Deep 1/4" O-ring Grooves
N	No Grooves
P	Aluminum Poly-Ribbed Drive
D	Special Drawing

5

#	Between Frames in mm
0317	Minimum
1270	Maximum

Note: Contact InfiniDrive™ for BF greater than 1270mm.

6

#	Shaft Options
DSA	12mm Double-D FE: Spring-Loaded ME: Non-Threaded
HNA	7/16" Hex, Aluminum FE: Spring-Loaded ME: Non-Threaded
HTA	7/16" Hex, Aluminum FE: Spring-Loaded ME: Threaded
SNA	12mm Semi-circle FE: Spring-Loaded ME: Non-Threaded
DDD	Special Drawing

Note: Free end (FE), motor end (ME)

7

#	Gearbox Reduction
XX	Idler
04	4 : 1
05	5 : 1
09	9 : 1
12	12 : 1
16	16 : 1
27	27 : 1
36	36 : 1
48	48 : 1
64	64 : 1

8

#	Drumshell Finish
A	Standard Zinc Finish
B	Black Rubber, 1/8" Thick
K	PU Sleeve, 1/8" Thick
P	PVC Coating, 1/32" Thick
R	Linatex Rubber, 1/8" Thick
U	Molded PU, 1/8" Thick
W	White FDA Rubber, 1/8" Thick
X	Not Applicable
D	Special Drawing

9

#	Cable Length
X	Idler, no motor or cable
0	400mm Standard Cable
D	Special

10

#	Specials
A	Aluminum Dual Bearing Housings Both Ends, Spring-Loaded Free-End
D	Drawing Required for full description of unit

*Part Number Must End in "D"—*Drawing Required*

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RD57 Performance Data

InfiniDrive™ Motor Driven Roller RD57								
Roller Power Watts	Roller OD mm	Gearbox Stages	Gear Ratio	Speed Range FPM (m/s)	Tangential Force lbs. (N)	Rated Torque in-lbs. (Nm)	Starting Torque in-lbs. (Nm)	Rated Current Amp
35	57	1	4 : 1	137 - 545 (0.69 - 2.77)	3.2 (14.0)	3.6 (0.4)	14.4 (1.6)	2.8
			5 : 1	109 - 437 (0.56 - 2.21)	3.9 (17.5)	4.5 ().5)	17.9 (2.0)	
		2	9 : 1	60 - 243 (0.31 - 1.23)	7.1 (31.6)	8.1 (0.9)	32.3 (3.7)	
			12 : 1	46 - 181 (0.23 - 0.92)	9.5 (42.1)	10.8 (1.2)	43.1 (4.9)	
			16 : 1	34 - 137 (0.17 - 0.70)	12.6 (56.1)	14.4 (1.6)	57.4 (6.5)	
		3	27 : 1	21 - 81 (0.10 - 0.41)	21.3 (94.7)	24.2 (2.7)	96.9 (11.0)	
			36 : 1	15 - 60 (0.08 - 0.31)	29.2 (129.8)	32.3 (3.7)	129.2 (14.6)	
			48 : 1	11 - 46 (0.06 - 0.23)	38.7 (171.9)	43.1 (4.9)	172.3 (19.5)	
			64 : 1	8 - 34 (0.05 - 0.17)	51.3 (228.1)	57.4 (6.5)	229.8 (26.0)	

Table R4 35W Performance Data For RD57

RD60 Performance Data

InfiniDrive™ Motor Driven Roller RD60								
Roller Power Watts	Roller OD mm	Gearbox Stages	Gear Ratio	Speed Range FPM (m/s)	Tangential Force lbs. (N)	Rated Torque in-lbs. (Nm)	Starting Torque in-lbs. (Nm)	Rated Current Amp
35	60	1	4 : 1	144 - 571 (0.73 - 2.92)	3.0 (13.3)	3.6 (0.4)	14.4 (1.6)	2.8
			5 : 1	115 - 460 (0.59 - 2.33)	3.8 (16.7)	4.5 ().5)	17.9 (2.0)	
		2	9 : 1	64 - 256 (0.32 - 1.30)	6.7 (30.0)	8.1 (0.9)	32.3 (3.7)	
			12 : 1	48 - 191 (0.24 - 0.97)	9.0 (40.0)	10.8 (1.2)	43.1 (4.9)	
			16 : 1	36 - 144 (0.18 - 0.73)	12.0 (53.3)	14.4 (1.6)	57.4 (6.5)	
		3	27 : 1	22 - 85 (0.11 - 0.43)	20.2 (90.0)	24.2 (2.7)	96.9 (11.0)	
			36 : 1	16 - 64 (0.11 - 0.43)	27.7 (123.3)	32.3 (3.7)	129.2 (14.6)	
			48 : 1	12 - 48 (0.06 - 0.24)	36.7 (163.3)	43.1 (4.9)	172.3 (19.5)	
			64 : 1	8 - 36 (0.05 - 0.18)	48.7 (216.7)	57.4 (6.5)	229.8 (26.0)	

Table R4 35W Performance Data For RD60

Product Overview

The **InfiniDrive™ Motor Driven Roller RD63** is designed for your heavy load live roller and lightweight belt conveyor applications. The 24VDC oil-free roller comes standard with steel planetary gearing—providing substantial torque. It's square counterpart, the RD63S, is also available for modular applications. Our assortment of driver cards allows you to easily control the start, stop, speed and functions of the powered roller.

24V DC RD63S Square

Pallet Handling

The RD63 is also chain drive compatible. ANSI #40-50 & 60 chain sprockets are available to retro-fit your existing design. The 11/16" hex spring-loaded free end makes for easy installation into your conveyor frame.

Standard Features

- 24V Brushless DC motor *(thermally protected)*
- CE Certified
- UL Recognized
- Steel lubricated planetary gears
- ABEC precision bearings
- Carbon steel round drum or
- Aluminum square tube
- Aluminum end housing
- 11/16" hex shaft
- 1M cable length
- JST XHP-10 pin Connector
- Oil and maintenance free
- Operating Environment Temperature Range of 32°F to 104°F (0°C to 40°C)

Between Frames (BF) Minimum Dimensions			
Configuration	Motor Type	Gearbox Stages	
		2	3
RD63 Round	35W	442 mm	455 mm
RD63 Aluminum Poly-Ribbed End Housing	35W	464 mm	477 mm
RD63S Square	35W	411 mm	424 mm

Table R6 RD63 and RD63S Min. BF

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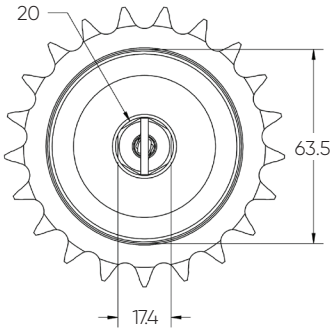
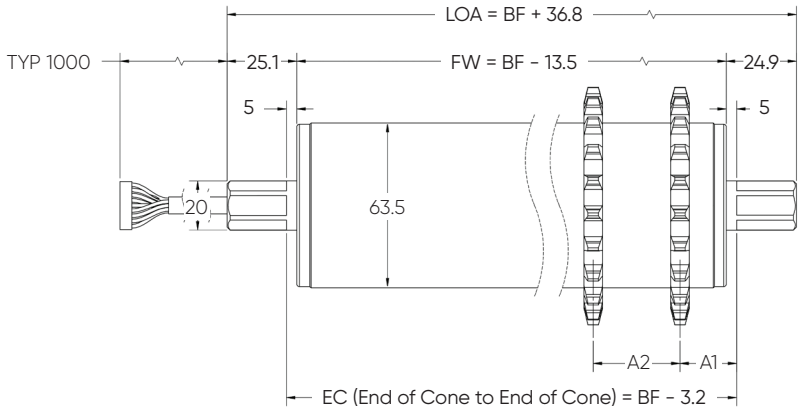
InfiniDrive™ Motor Driven Roller Specifications and Features

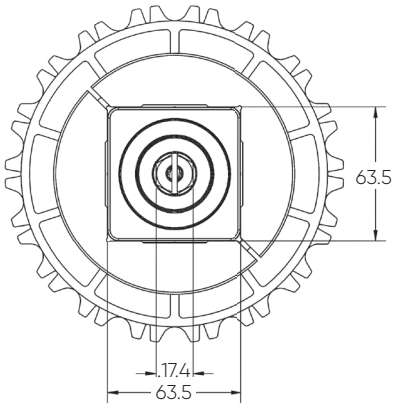
RCEDU42 (RD63) and RAEDU42 (RD63S) Specifications and Features		
Category	**Parameter**	**Value**
Part Number	RD63 and RD63S	35W InfiniDrive™ Motor Driven Roller
Performance	Internal Motor RPM	1000-4000
	Rated Output Power	35W
	Rated Torque	See performance data table, page 14
	Rated Current	2.8 Amps @ rated torque
	Max Torque	See performance data table, page 14
	Max Current	3.0 Amps (intermittent only)
	Duty Cycle	100% @ 40°C (104°F)
	Service Factor	1.0
	Direction of Rotation	CW and CCW
Environmental	Operating Temperature	0 to 40°C (32 to 104°F)
Electrical Power	Voltage	24VDC (+5%/-10%)
	Current Consumption	40 mA while idle (no run signal provided)
	Termination	JST connector: XHP-10

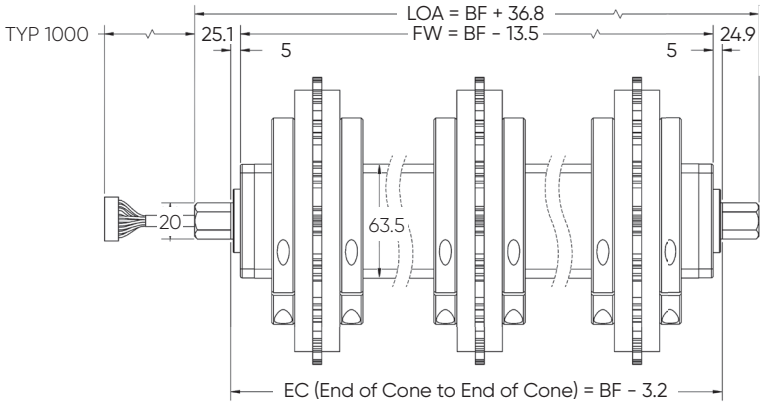
RD63 and RD63S Dimensional Footprint

Dimensions in mm









RD63 and RD63S Part Number System

1	2	3	4	5	6	7	8	9	10
RC	E	D042	F	0500	HNA	27	A	1	A

1

#	Type
RC	Round Roller Carbon Steel
RA	Square Roller Aluminum

2

#	Diameter
E	63mm

3

#	Source & Power
D000	Idler*
D042	35W, 24VDC
DU42	35W, 24VDC, UL

4

#	Tube & Face
C	Chain Sprocket*
F	Flat Face Round
M	Modular Sprocket**
P	Aluminum Poly-Ribbed Drive
T	Trapezoidal Crown
D	Special Drawing

5

#	Between Frames in mm
0411	Minimum
1270	Maximum

Note: Contact InfiniDrive™ for BF greater than 1270mm.

6

#	Shaft Options
DNA	20mm Double-D FE: Non-Spring-Loaded ME: Non-Threaded***
HNA	11/16" Hex, Aluminum FE: Spring-Loaded ME: Non-Threaded
HTA	11/16" Hex, Aluminum FE: Spring-Loaded ME: Threaded
DDD	Special Drawing

Note: Free end (FE), motor end (ME)

7

#	Gearbox Reduction
XX	Idler
09	9 : 1
12	12 : 1
16	16 : 1
27	27 : 1
36	36 : 1
48	48 : 1
64	64 : 1

8

#	Drumshell Finish
A	Standard Zinc Finish
B	Black Rubber, 1/8" Thick
C	Standard Aluminum Finish**
K	PU Sleeve, 1/8" Thick
P	PVC Coating, 1/32" Thick
R	Linatex Rubber, 1/8" Thick
U	Molded PU, 1/8" Thick
W	White FDA Rubber, 1/8" Thick
X	Not Applicable
D	Special Drawing*

9

#	Cable Length
X	Idler, no motor or cable
1	1M Standard Cable
D	Special*

10

#	Specials
A	Aluminum Dual Bearing Housings Both Ends
D	Drawing Required for full description of unit*

*Part Number Must End in "D"—*Drawing Required*

**Only available option for part numbers starting with "RA"

***Not available for parts numbers starting with "RA"

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RD63 Performance Data

InfiniDrive™ Motor Driven Roller RD63								
Roller Power Watts	Roller OD mm	Gearbox Stages	Gear Ratio	Speed Range FPM (m/s)	Tangential Force lbs. (N)	Rated Torque in-lbs. (Nm)	Starting Torque in-lbs. (Nm)	Rated Current Amp
35	63	1	4 : 1	151 - 602 (0.77 - 3.06)	2.8 (12.6)	3.6 (0.4)	14.4 (1.6)	2.8
			5 : 1	121 - 482 (0.62 - 244)	3.6 (15.9)	4.5 ().5)	17.9 (2.0)	
		2	9 : 1	67 - 268 (0.34 - 1.36)	6.4 (28.6)	8.1 (0.9)	32.3 (3.7)	
			12 : 1	50 - 200 (0.25 - 1.02)	8.6 (38.1)	10.8 (1.2)	43.1 (4.9)	
			16 : 1	38 - 151 (0.19 - 0.77)	11.4 (50.8)	14.4 (1.6)	57.4 (6.5)	
		3	27 : 1	23 - 89 (0.11 - 0.45)	19.2 (85.6)	24.2 (2.7)	96.9 (11.0)	
			36 : 1	16 - 67 (009 - 0.34)	26.4 (117.5)	32.3 (3.7)	129.2 (14.6)	
			48 : 1	13 - 50 (0.06 - 0.25)	35.0 (155.6)	43.1 (4.9)	172.3 (19.5)	
			64 : 1	9 - 38 (0.05 - 0.19)	46.4 (206.3)	57.4 (6.5)	229.8 (26.0)	

Table R4 35W Performance Data For RD63

RD63S Performance Data

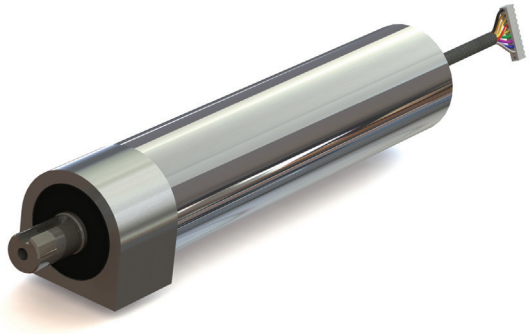
InfiniDrive™ Motor Driven Roller RD63S							
Power Watts	Outside Diameter	Gearbox Stages	Gear Ratio	RPM Square	Rated Torque in-lbs. (Nm)	Starting Torque in-lbs. (Nm)	Nominal Amps
35	63	2	9 : 1	116 - 507	8.1 (0.9)	32.3 (3.7)	2.8
			12 : 1	87 - 380	10.8 (1.2)	43.1 (4.9)	
			16 : 1	65 - 285	14.4 (1.6)	57.4 (6.5)	
		3	27 : 1	39 - 169	24.2 (2.7)	96.9 (11.0)	
			36 : 1	29 - 127	32.3 (3.7)	129.2 (14.6)	
			48 : 1	22 - 95	43.1 (4.9)	172.3 (19.5)	
			64 : 1	17 - 72	57.4 (6.5)	229.8 (26.0)	

Table R8 35W Performance Data for RD63S Square

Feet Per Minute (FPM) = .2618 x Sprocket's Nominal Pitch Diameter x RPM

GM48 InfiniDrive™ Gear Motor

Part Numbers: GM48
UL Model Numbers: GMADU42
CE Model Number: MDR2400



24VDC GM48 Gear Motor

Product Overview

The **GM48 Gear Motor** is a simple and robust design using the same motor and gear reducer components that drive InfiniDrive™ Motor Driven Rollers.

Gear motor features include four pre-drilled mounting holes for ease of installation, a protective shell to shield motor and gearbox from environmental contaminants, strain relief cable, and a drilled and tapped keyed drive shaft.

Features

- 35W 24VDC brushless motor *(thermally protected)*
- CE Certified
- UL Recognized
- Steel planetary gearbox
- ABEC precision bearings
- Zinc plated steel tube
- 400mm cable length
- JST XHP-10 pin Connector
- Maintenance-free
- Operating Environment Temperature Range of 32°F to 104°F (0°C to 40°C)

Performance Data

Gear Motor		
Gear Ratio	**Rated Torque in-lbs. (Nm)**	**Starting Torque in-lbs. (Nm)**
9 : 1	8.6 (.97)	45 (5.15)
12 : 1	11 (1.30)	50 (5.64)
16 : 1	15 (1.74)	81 (9.20)
27 : 1	24 (2.77)	147 (16.6)
36 : 1	32 (3.70)	202 (22.8)
48 : 1	35 (3.96)	253 (28.5)
64 : 1	41 (4.63)	334 (37.7)

Table G1 Gear Motor Performance

Gear Ratio	Minimum RPM	Maximum RPM
9 : 1	111	444
12 : 1	83.3	333
16 : 1	62.5	250
27 : 1	37.0	148
36 : 1	27.8	111
48 : 1	20.8	83.3
64 : 1	15.6	62.5

Table G2 Gear Motor Velocity

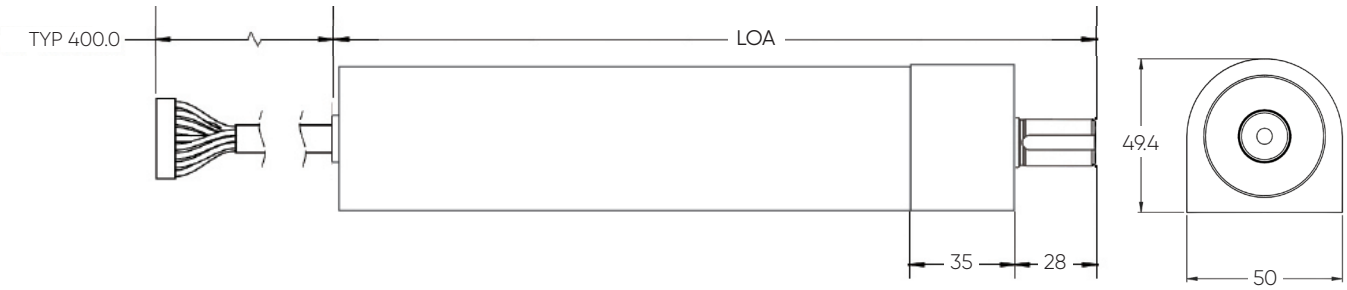
InfiniDrive™
MOTOR MANUFACTURING

Specifications and Features

GMADU42: GM48 Specifications and Features		
Category	**Parameter**	**Value**
Part Number	GM48	Gear Motor
Performance	Internal Motor RPM	1000-4000
	Rated Output Power	35W
	Rated Torque	See performance data table, page 15
	Rated Current	2.8 Amps @ rated torque
	Max Torque	See performance data table, page 15
	Max Current	3.0 Amps (intermittent only)
	Duty Cycle	100% @ 40°C (104°F)
	Service Factor	1.0
	Direction of Rotation	CW and CCW
Environmental	Ambient Temperature	0 to 40°C (32 to 104°F)
	Ambient Humidity	5-95% RH (no condensation)
	Storage	-30 to 70°C (-22 to 158°F)
	Sealing	IP54
Electrical Power	Voltage	24VDC (+5%/-10%)
	Current Consumption	40 mA while idle (no run signal provided)
	Termination	JST connector: XHP-10

Gear Motor Dimensional Footprint

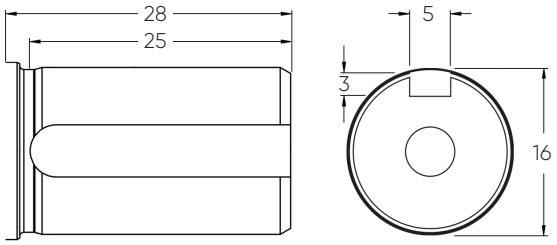
Dimensions in mm



Gearbox Reduction	Stages	Length Overall 35W
9:1, 12:1, 16:1	2	260.2
27:1, 36:1, 48:1, 64:1	3	273.2

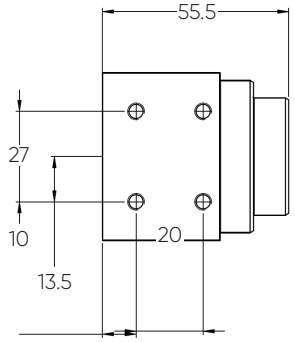
Drive Shaft Keyway

5 N9 keyway with M6x1 drilled and tapped center



Mounting

(4) Drilled and tapped M5x.8 holes on 20mm x 27mm pattern



Part Number System

GM48 Gear Motor

1	2	3	4	5	6	7	8	9	10
GM	A	D042	S	0000	GMO	16	A	0	A

1

#	Type
GM	Gear Motor

2

#	Diameter
A	48mm

3

#	Source & Power
D042	35W, 24VDC
DU42	35W, 24VDC, UL
DB32	22W, 24VDC, Brake**
DB42	35W, 24VDC, Brake

4

#	Tube & Face
S	Shaft Output

5

#	Between Frames in mm
0000	Gear Motor

6

#	Shaft
GMO	Gear Motor Output

7

#	Gearbox Reduction
09	9 : 1
12	12 : 1
16	16 : 1
27	27 : 1
36	36 : 1
48	48 : 1
64	64 : 1

8

#	Drumshell Finish
A	Standard Zinc Finish

9

#	Cable Length
0	400mm Standard Cable
D	Special

10

#	Mounting
A	Aluminum End Housing and Mounting Plate

**Contact sales for availability of speed and torque options for 22W motors

InfiniDrive™
MOTOR MANUFACTURING

C100 Series Basic Driver Cards

Part Numbers: C100B, C100DB, C101BU and C102B
UL Model Numbers: CB2435 (C101BU) ONLY
CE Model Number: MDR2400

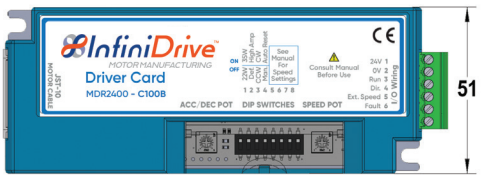
Product Overview

The **C100 Series of Basic Driver Card** connect directly to any 24VDC InfiniDrive™ Motor Driven Roller or gear motor. These cards use a micro-processor to commutate the BLDC motor. The on-board DIP switches provide specialized controls that vary based on the cards part number. ***See the table below.***

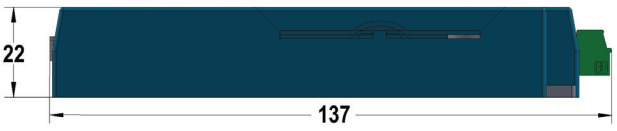
MDR2400 C100B Basic Driver Card

Feature Comparison

Feature Comparison By Part Number for C100 Series Basic Driver Cards					
Category	**Parameter**	**C100B**	**C100DB+**	**C101BU**	**C102B**
Compliance	UL Recognized	No	No	Yes	No
	CE Certified	Yes	Yes	No	Yes
Speed Control	Internal Potentiometer	Yes	Yes	Yes	Yes
	External PLC	Yes	Yes	Yes	Yes
	Digital Speed Input	No	Yes	No	No
	Ramp-up/Ramp-down Potentiometer	Yes	Yes	Yes	Yes
	RPM Output Range	1000-4000	1000-4000	1000-4000	1000-3400
On-Board Configuration Options	DIP 1	Wattage	Wattage	UL Mode	Elec. Brake
	DIP 2	Amp Boost	Mech. Brake	Elec. Brake	Mech. Brake
	DIP 3	Direction	Direction	Direction	Direction
	DIP 4	Auto-Reset	Auto-Reset	Auto-Reset	Auto-Reset
	DIP 5-8	Speed	Speed	Speed	Speed
Motor Connection	Motor Voltage	24VDC	24VDC	24VDC	24VDC
	Motor Wattage Supported	22W + 35W	35W + 55W	35W	22W
Environmental	Operating Temperature	0 to 40°C	0 to 40°C	0 to 40°C	0 to 40°C
Terminals	Motor Connection	JST XHP-10	JST XHP-10	JST XHP-10	JST XHP-10
	I/O	6 Pin	2 Pin + 7 Pin	2 Pin + 4 Pin	6 Pin



Dimensions in mm



Mounting Dimensions: 4.5mm max holes at 40mm x 120mm pattern

InfiniDrive™
MOTOR MANUFACTURING

Basic Driver Card UL Documentation

Part Numbers: CB2435/MDR2400C101BU
UL Model Numbers: C101BU
CE Model Number: MDR2400

Specifications

CB2435: C101BU Operating Specifications					
Category	**Parameter**	**Min**	**Typical**	**Max**	**Units**
Supply - Power	Voltage	21.6	24.0	25.2	VDC
	Current	0.2	3.0	4.5	Amps
Outputs	Digital Outputs Sinking			5	milli Amps
Inputs	Analog Input Reading Range[1]	0		10	VDC
	Analog Input Safe Operation	0		12	VDC
	Digital Inputs	0		28	VDC
	On NPN	0		10	VDC
	On PNP	14		28	VDC
	Off	0		6	VDC
	Off - Open Circuit				
Environmental	Operating Temperature	0°C (32°F)		40°C (104°F)	Degrees
Terminals - I/O	Wire Size	28	22	16	AWG
	Torque (Metric)		0.20		Newton Meters
	Torque (Imperial)		1.80		Pound-Inches
Terminals - Power	Wire Size	22	20	16	AWG
	Torque (Metric)		0.20		Newton Meters
	Torque (Imperial)		1.80		Pound-Inches

[1]Not isolated

Compliance

All C100 Series Basic Driver Cards are CE certified. *However, only the C101BU is UL recognized*. Safety and compliance information can be found via the link.

InfiniDrive™
MOTOR MANUFACTURING

Basic Driver Card

C100B, C100DB, C101BU + C102B

Wiring

Power and Control Wiring

Pin	Function
1	24VDC
2	Common (0V)
3	Run
4	Direction
5	External (analog) speed input
6	Fault

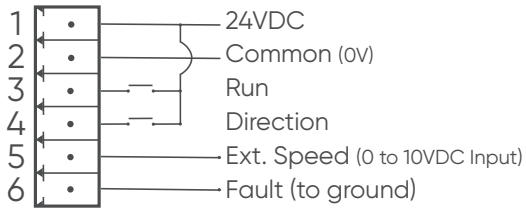
Table B4 Control Port Wiring

The power connector is Pin 1 on the motor control receptacle. Power to the **Basic Driver Card** must be 24VDC. Power supplies should be sized to allow each zone to draw 2.5 amps continuously for 22W motors, and at leaast 3.0 amps for 35W InfiniDrive™ Motor Driven Rollers.

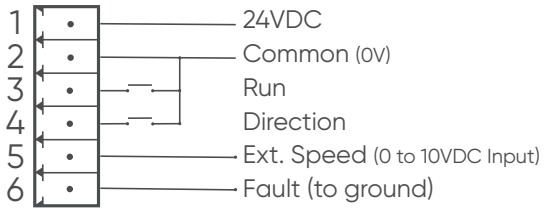
External Speed Control

Pin 5 can be used for speed control using the output of an analog device, like a PLC. The external speed control signal can be used to set motor run speed to approximately 25-100% of the motor speed range. When connecting the output of an external speed control, you must configure the control to output 0-10VDC relative to Pin 2 and DIP Switches 5-8 must be set to OFF.

Signal voltage on PIN 5 cannot exceed 10VDC or it WILL damage the driver card.



PNP Wiring Diagram



NPN Wiring Diagram

NOTES:

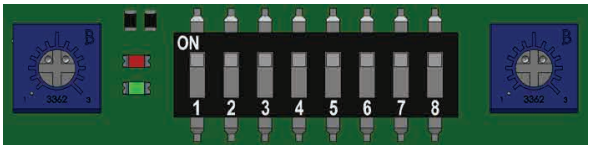
1. The basic driver card MUST share common with the Control I/O.
2. Basic driver cards will be shipped as PNP. If NPN is required, please specify at time of order.
3. Removing the cover will void the driver card warranty.
4. Running motor speed below 25% or above 100% is not recommended and may void warranty.
5. All fault signals connected to Pin 6 are 24VDC to ground.

Basic Driver Card Indications and Faults

Part Numbers: C100B, C101BU, C102B
UL Model Numbers: C101BU
CE Model Number: MDR2400

Indications

There are two LEDs (red and green) on the C100 series driver cards. Whenever 24V DC power is applied and the driver is functioning normally, the STATUS LED will display solid green. If 24VDC is present and the STATUS LED is not lit then the driver needs to be replaced. Solid red or flashing red indicates a Fault.



Accel/ Decel **LED** **DIP Switch Bank** **Speed Control**

Faults

Two types of faults are displayed on the basic driver card: Application and Critical Faults cause the motor to stop running and may require intervention.

Application Faults result in Red Flashes as indicated by Table B7.

Flashing Red LED Status Indication
Motor stall - the driver card is trying to run the motor, yet it hasn't moved for a full second. The motor will attempt to restart after 10 seconds.
Motor Thermistor Fault - The motor has reached its temperature limit (90C) and has stopped. The motor will attempt restart every 10 seconds after it cools below the over-temp limit.
Driver Card Thermistor Fault - The driver card circuitry has reached its temperature limit (100C) and has cut off power to the roller motor. The driver card will attempt to restart the motor every 10 seconds after it cools below the over-temp limit.

Table B7 Application Faults

Note: DIP Switch 4 must be set to ON for the auto-resets listed above to occur.

If the motor thermistor or the driver card thermistor senses that the motor is overheating, the driver card will restrict power to the motor. If the **Reset Mode** (DIP Switch 4) is set to OFF then the power to the driver card must be cycled to reset. If the **Reset Mode** is set to ON and the motor is in an overtemp condition, then the driver card will automatically attempt to reset the motor after the motor cools to a temperature below the over-temp limit. If the **Reset Mode** is set to ON, in the event of a stall, the basic driver card will attempt to restart the InfiniDrive™ powered roller or gear motor every 10 seconds.

InfiniDrive™
MOTOR MANUFACTURING

MDR2400 - C100Z

Part Numbers: C100Z-22 and C100Z-35
Model Number: MDR2400

Product Overview

The **C100Z** is a specialized Zero-Pressure-Accumulation driver card for 24VDC InfiniDrive™ Motor Driven Rollers.

It includes 6 PNP auxiliary I/O ports, pre-programmed ZPA logic, and an auto-sensing RJ-11 quick connect.

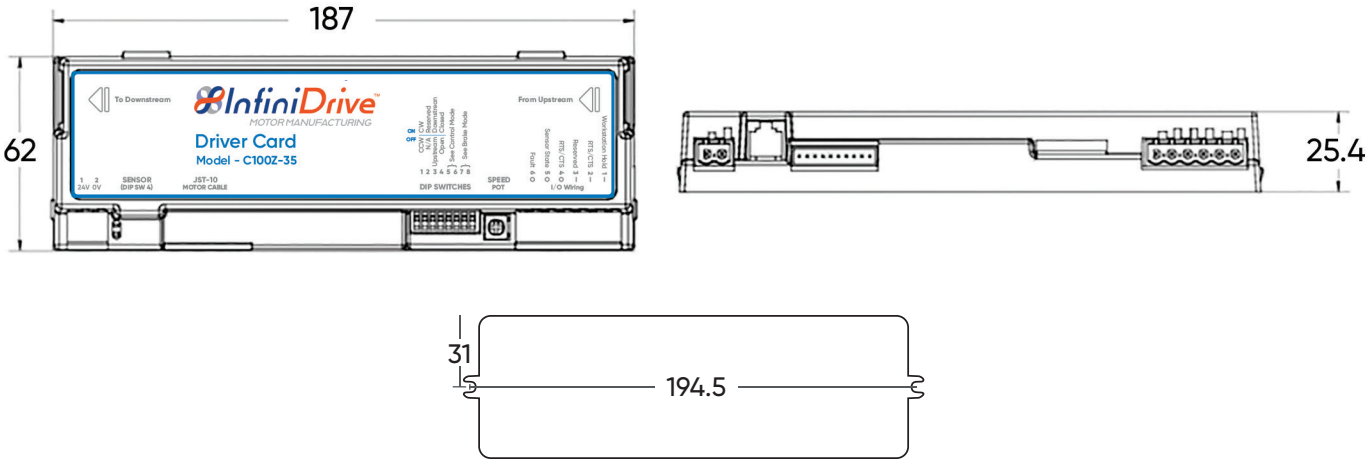
MDR2400 C100Z-35 ZPA Card

C100Z Accumulation Card Specifications and Features

MDR2400: C100Z Specifications and Features		
Category	**Parameter**	**Value**
Part Numbers	C100Z-22	Accumulation ZPA Card for 22W InfiniDrive™ Motor Driven Rollers
	C100Z-35	Accumulation ZPA Card for 35W InfiniDrive™ Motor Driven Rollers or Gear Motors
Configuration Options	Control	1 card for each motor in configuration
	Other Operating Controls	See manual.
Supply	Voltage	24VDC (+/- 10%)
	Current	100 milliAmps plus amperage from powered roller or gear motor, sensor, and aux I/O
	Motor Voltage	24VDC
	Motor Current	2.5/3.0 Amps (22W/35W)
Sensor Input	Type	Autosensing NPN or PNP
	Termination	(1) RJ-11
	Sensor Power Voltage	24VDC
	Voltage Range	0 to 30VDC
	Max Power Current	50 milliAmps
	Sourcing Current	11 milliAmps
	Sinking Current	4.3 milliAmps
Environmental	Operating Temperature	0 to 60°C (32 to 140°F)
Terminals	I/O	6 PNP configured as 3 IN and 3 OUT

C100Z Dimensional Footprints

Dimensions in mm



Mounting Dimensions: 3.8mm max hole diameters on 194.5mm centers

Setup and Troubleshooting

For more information about operating and troubleshooting the **C100Z**, please consult the manual. The manual includes the full list of flash codes along with setup and wiring instructions.

InfiniDrive™
MOTOR MANUFACTURING

EtherCAT™ Dual Zone ZPA Card

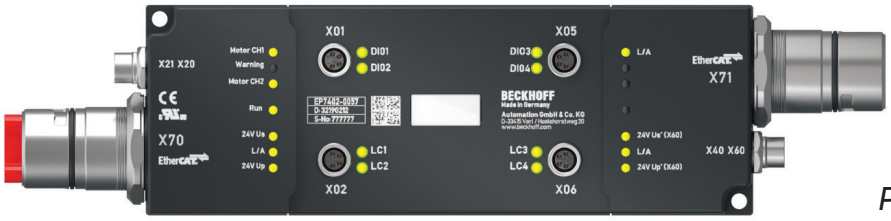
Product Overview

The **C166ZB driver card** is a specialized dual zone ZPA card for InifiniDrive™ Motor Driven Rollers and gear motors. This card comes equipped with EtherCAT™ for real-time data reporting. The C166ZB also easily connects to a computer or PLC for fully customizable software for precise zone control.

See local control commissioning manual for control setup instructions. Links to manuals on next page.

Standard Features

- EtherCAT™ communications (Licensed by Beckhoff)
- Direct connection for up to two motors InfiniDrive™ Motor Driven Rollers or Gear Motors
- ZPA functionality out of the box
- Data collection and reporting
- Fully customizable software
- IP67 rating
- CE Certified
- UL Recognized

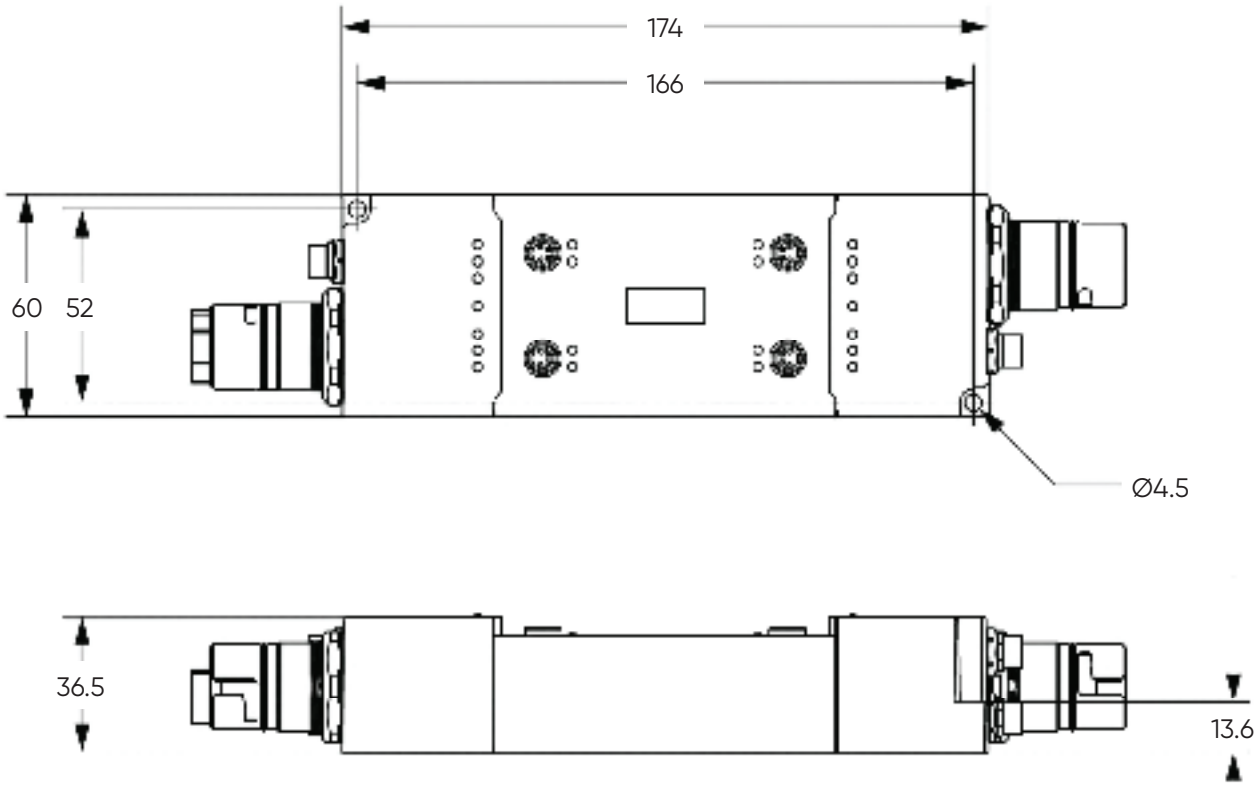


Powered by BECKHOFF

C166ZB: EtherCAT™ Dual Zone ZPA Card Specifications and Features		
Category	**Parameter**	**Value**
Part Number	C166ZB	EtherCAT™ Dual Zone ZPA Card for (2) InfiniDrive™ Motor Driven Rollers or Gear Motors
Electrical Power	Termination	B23 ENP Hybrid connector
	Voltage Range	24VDC (+15%/-20%)
Motor Connection	Type	InfiniDrive™ Motor Driven Rollers or Gear Motors
	Number	2
	Termination	(2) M8 5-Pin
	Max Average Current	3.5 Amps
Sensor Input	Type	Digital Input/Output
	Number	8
	Termination	(4) M8 sockets
	Voltage Range	24VDC
	Max Current	0.5 Amp, short-circuit proof
	Sensing	PNP
Environmental	Storage Temperature	-40° to 85° C (-40° to 185° F)
	Operating Temperature	-25° to 60° C (-13° to 140° F)
	Vibration and Shoch	Conforms to EN 60068-2-6 / EN 60068-2-27
	Protection Class	IP65, IP66, IP67 conforms to EN 60529
Control	PLC or PC	Local control. See local control commissioning manual

EtherCAT™ Dual Zone ZPA Card Dimensional Footprint

Dimensions in mm



InfiniDrive™
MOTOR MANUFACTURING

InfiniDrive™ SlimDrive™ Motor

Part Number: SD095
UL Model Number: FM24095

Product Overview

SlimDrive™ is the latest iteration of a new type of 24 volt DC motor. This unique motor combines a highly efficient 24VDC brushless motor with a built-in driver card. The SlimDrive™ motor delivers 11 in.-lbs. of torque from 95 watts output at 360 RPM. The built-in driver card eliminates the need to mount one somewhere on the conveyor.

24VDC SlimDrive™ Motor

You will have little concern of failure when applying **SlimDrive™** in your application as the unit has no gear box and the bearings are designed to provide decades of service. An additional benefit of removing the gear box is the greatly reduced decibel level providing an additional benefit.

Standard Features

- 24VDC brushless motor *(thermally protected)*
- UL Recognized
- 60 to 360 RPM
- 11 in.-lbs. torque
- 4 amp capable
- 95W output performance
- Built-in driver card allows you to connect up to 62 motors.
- Environmental Operating Temperature: 32° F to 104° F

Controls That Make Sense
SlimDrive™ has three control options to deliver optimal performance.

The **FMTC24001 Transport Card** offers the most economical solution. With this card you can connect up to sixty-two FM24095 motors in series for basic start, stop, and status indications.

The **FMZP24001 ZPA Card** provides additional features and control for up to two FM24095 motorized zones. The upstream and downstream communication adds intelligence to the conveyor system.

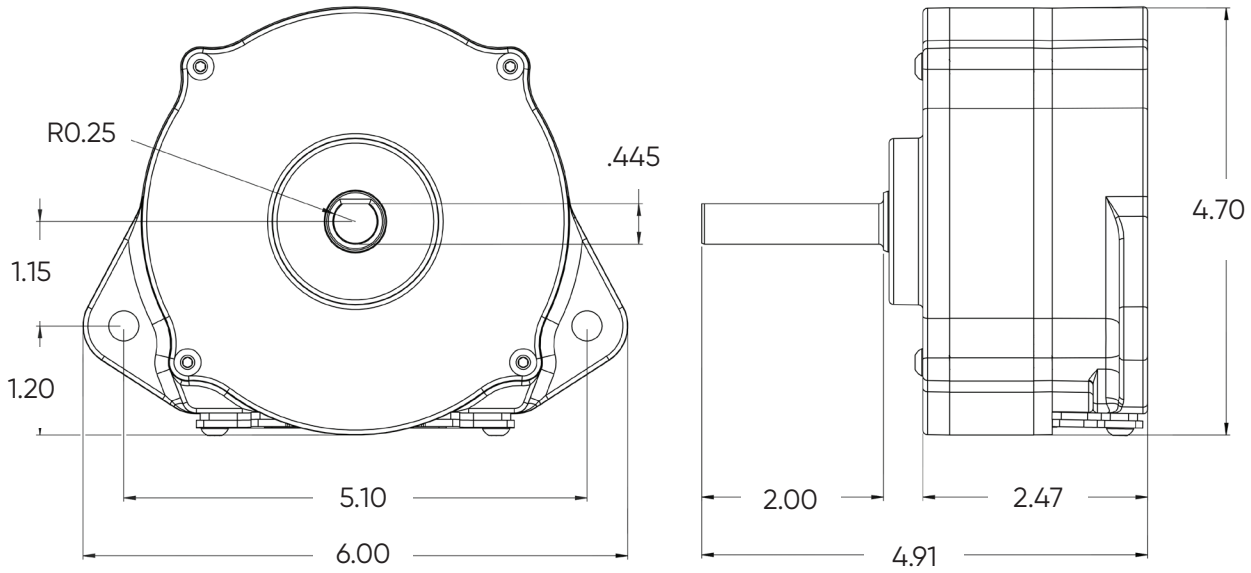
The **FMET24001 Ethernet Card** provides system level control of up to sixty-three compatible FM devices via an ethernet or Wi-Fi connection, putting real-time data in the palm of your hand!

SlimDrive™ Specifications and Features

FM24095: SlimDrive™ Specifications and Features		
Category	**Parameter**	**Value**
Part Number	FM24095	95W SlimDrive™ Motor
Performance	RPM	60-360 (no load)
	Rated Torque	11 in-lbs @ 360 RPM
	Rated Current	3 Amps @ rated torque
	Max Torque	26 in-lbs @ 60 RPM and 3 amps (intermittent only) 32 in-lb @ 60 RPM and 4 amps (intermittent only)
	Max Current	4 Amps (intermittent only)
	Duty Cycle	100% @ 50°C (122°F), 3 Amps, 360 RPM, 11 in-lbs 50% @ 50°C (122°F), 3 Amps, 180 RPM, 18 in-lbs
Environmental	Ambient Temperature	-10 to 50°C (14 to 122°F)
	Ambient Humidity	10-90% (no condensation)
	Storage	-30 to 70°C (-22 to 158°F)
	Sealing	IP32
Electrical Power	Voltage	24VDC (+/- 10%)
	Current Consumption	200 mA while idle (no run signal provided)
	Termination	Phoenix Order #1757019 (26 to 16 AWG)
Sensor Input/ Output	CAT6	RJ45 T-568A or T-568B
	Number	2

SlimDrive™ Dimensional Footprint

Dimensions in Inches



InfiniDrive™
MOTOR MANUFACTURING

FMTC24001

Part Number: T100C
Model Number: FMTC24001
UL File Number: E520785

Product Overview

The **FMTC24001 Transport Card** is a lean machine, offering basic control functionality for up to sixty-two FM24095 motorized with just a single card. This card runs on 24VDC power supplied via an I/O terminal. Four additional ports provide motor run, direction, and speed inputs, along with an output for error and run signals.

24VDC FMTC24001 Transport Card

Note: Only available for use with InfiniDrive™ 24VDC SlimDrive™ FM24095 Motor

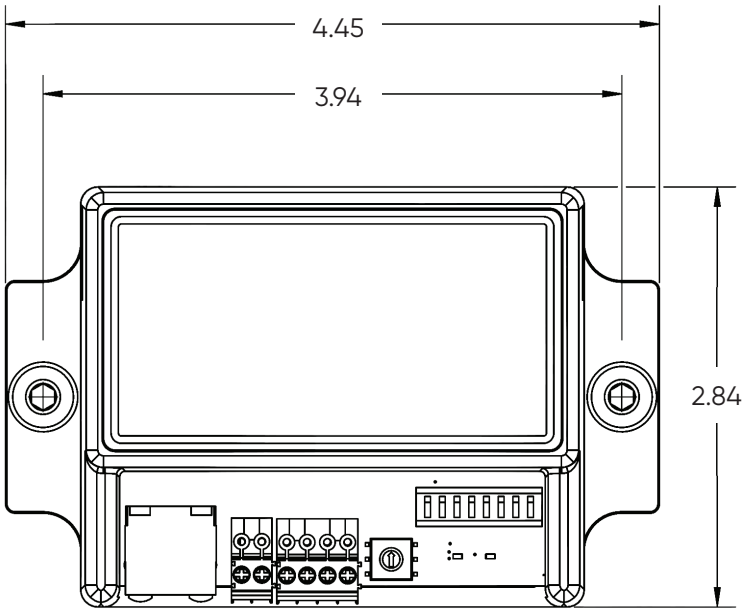
T100C Transport Card Specifications and Features

FMTC24001: T100C Specifications and Features		
Category	**Parameter**	**Value**
Part Number	T100C	Transport Card for SlimDrive™ FM24095
Configuration Options	Control	1 card for up to 62 motors
	Other Operating Controls	See manual.
Supply	Voltage	24VDC (+/- 10%)
	Current	0.20 to 0.50 Amps
	Motor Voltage	24VDC
	Motor Current	0.5 to 4.0 Amps (dependent on configuration)
Output	Digital Output High-side	0.25 Amps
Inputs	Analog Input for Speed[1]	0-10V DC
	Analog Input Safe Operation	-24 to 36VDC
	Digital Inputs[2]	0 to 28VDC
	On NPN	0 to 10VDC
	On PNP	14 to 28VDC
	Off	11 to 13VDC
	Off	Open Circuit
Environmental	Operating Temperature	0 to 60°C (32 to 140°F)
Terminals	Power	Phoenix Order #1945015, 2 pin (26 to 16 AWG)
	I/O	Phoenix Order #1984031, 4 pin (26 to 16 AWG)

[1] Not isolated
[2] Isolated

FMTC24001 Dimensional Footprint

Dimensions in Inches



Setup and Troubleshooting

For more information about operating and troubleshooting the **FMTC24001**, please consult the manual. The manual includes the full list of flash codes, the initialization process, procedures for replacing cards and motors, and warranty information.

Compliance

The FMTC24001 is UL listed under file number E520785 and is also CE certified. Safety and compliance information can be found via the link below:

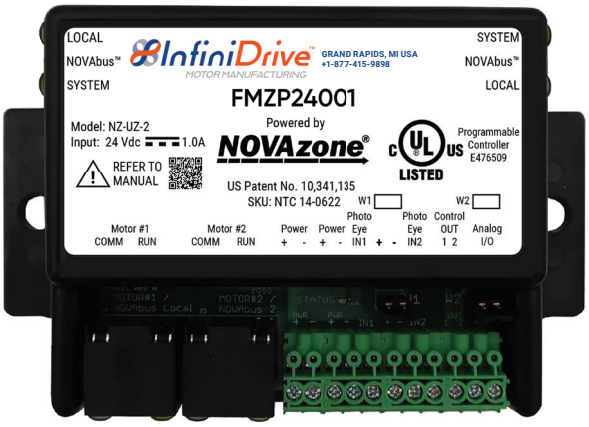
InfiniDrive™
MOTOR MANUFACTURING

FMZP24001

Part Number: Z100D
Model Number: UZ-NZ-2
UL File Number: E476509
US Patent Number: 10,341,135

Product Overview

The **FMZP24001 ZPA Card** is a dual-zone card, offering singulation controls for up to two FM24095 motorized zones. This card runs on 24VDC power supplied via an I/O terminal. Four additional ports provide motor run, direction, and speed inputs, along with an output for error and run signals.



24VDC FMZP24001 Dual Zone Control Card

Note: Only available for use with the InfiniDrive™ 24VDC SlimDrive™ FM24095 Motor

Z100D Accumulation Card Specifications and Features

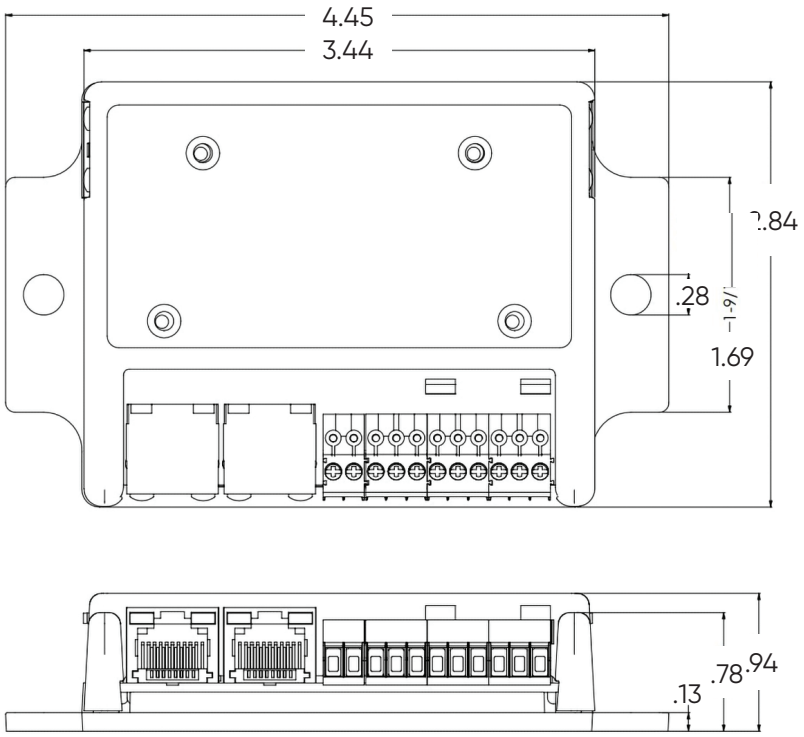
FMZP24001: Z100D Specifications and Features		
Category	**Parameter**	**Value**
Part Number	Z100D	Accumulation ZPA Card for SlimDrive™ FM24095
Configuration Options	Control	1 card for 2 motors
	Other Operating Controls	See manual.
Supply	Voltage	24VDC (+/- 10%)
	Current	0.20 to 0.50 Amps
	Motor Voltage	24VDC
	Motor Current	0.5 to 4.0 Amps (See FMET24001 Manual)
Inputs	Analog Input for speed[1]	0-10VDC
	Analog Input safe Operation	-24 to 36VDC
	Digital Inputs[2]	0 to 28VDC
	On NPN	0 to 10VDC
	On PNP	14 to 28VDC
	Off	11 to 13VDC
	Off	Open Circuit
Environmental	Operating Temperature	0 to 60°C (32 to 140°F)
Terminals	Power	Phoenix Order #1945015, 2 pin (26 to 16 AWG)
	I/O	Phoenix Order #1984031, 4 pin (26 to 16 AWG)

[1] Not isolated

[2] Isolated

FMZP24001 Dimensional Footprint

Dimensions in Inches



Setup and Troubleshooting

For more information about operating and troubleshooting the FMZP24001, please consult the manual. The manual includes the full list of flash codes, setup and wiring, procedures for replacing cards and motors, auxiliary controls, and warranty information.

Compliance

The FMZP24001 is UL listed under file number E476509 and is also CE certified. Safety and compliance information can be found via the link below:

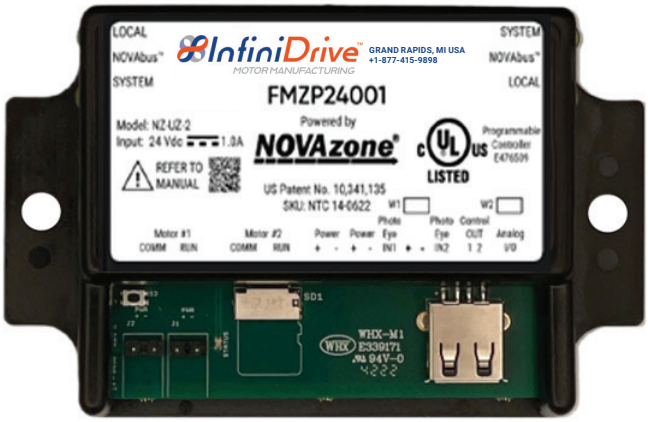
InfiniDrive™
MOTOR MANUFACTURING

FMET24001

Part Number: FMET24001
Model Number: NZ-E-1
UL File Number: E476509
US Patent Number: 10,341,135

Product Overview

The **FMET24001** Ethernet Card is an ethernet and Wi-Fi compatible control card, offering real time data and control of up to sixty-three compatible devices via the NOVAbus™ interface. This card runs on 24VDC power and is compatible with both the FMTC24001 Transport Card and SlimDrive™ FM24095 Motors.



24VDC FMET24001 Ethernet Card

Note: Only available for use with the InfiniDrive™ 24VDC SlimDrive™ FM24095 Motor

FMET24001 Ethernet Card Specifications and Features

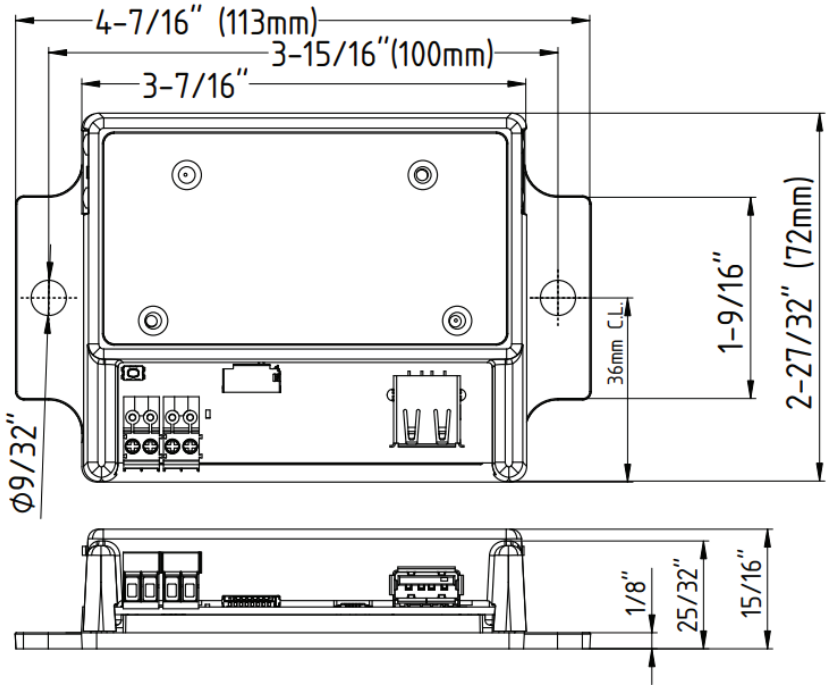
FMET24001 Specifications and Features		
Category	**Parameter**	**Value**
Part Number	FMET24001	Ethernet Card for SlimDrive™ FM24095
Configuration Options	Control	1 card for 63 devices
	Other Operating Controls	See manual.
Supply	Voltage	24VDC (+/- 10%)
	Current	0.20 to 0.50 Amps
	Motor Voltage	24VDC
	Motor Current	0.5 to 4.0 Amps (See FMET24001 Manual)
Inputs	Analog Input for speed[1]	0-10VDC
	Analog Input safe Operation	-24 to 36VDC
	Digital Inputs[2]	0 to 28VDC
	On NPN	0 to 10VDC
	On PNP	14 to 28VDC
	Off	11 to 13VDC
	Off	Open Circuit
Environmental	Operating Temperature	0 to 60°C (32 to 140°F)
Terminals	Power	Phoenix Order #1945015, 2 pin (26 to 16 AWG)
	I/O	Phoenix Order #1984031, 4 pin (26 to 16 AWG)

[1] Not isolated

[2] Isolated

FMET24001 Dimensional Footprint

Dimensions in Inches and mm



Setup and Troubleshooting

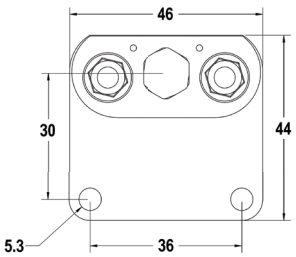
For more information about operating and troubleshooting the **FMET24001**, please consult the manual. The manual includes software setup instructions, visualization modes, global commands, reporting, and warranty information.

Compliance

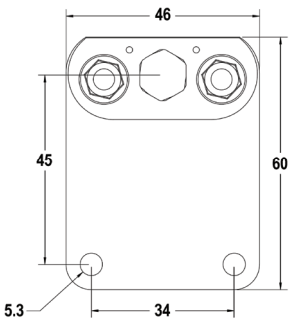
The **FMET24001** is UL listed under file number E476509 and is also CE certified. Safety and compliance information can be found via the link below:

MDR 2400 – RD48 + RD50 + RD57 + RD60
InfiniDrive™ Motor Driven Roller

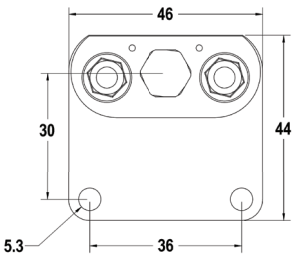
MH-PUHM-SD



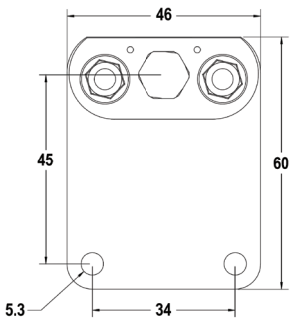
MH-PUH-SD



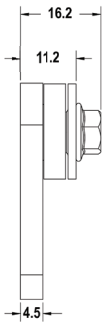
MH-FUHM-SD



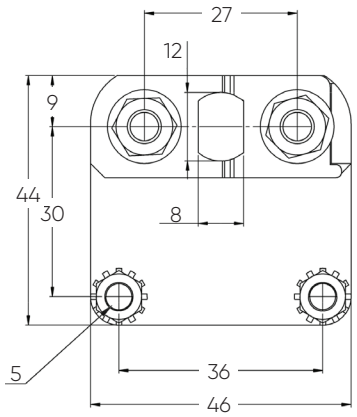
MH-FUH-SD



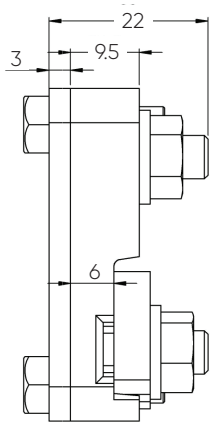
Side View



MH-DD-SD



Side View

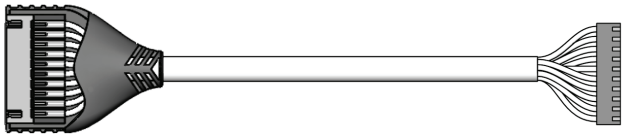


Connectors

Extension Cable

Available in 1.2M or 2M lengths

Female Board

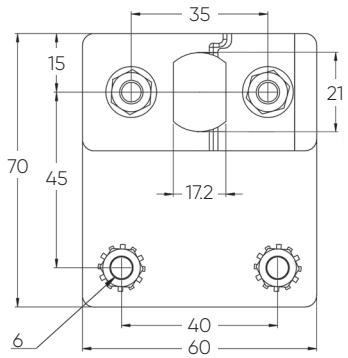


Male Plug

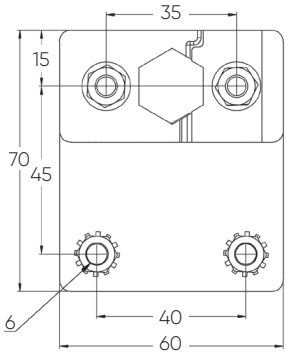
MDR 2400 – RD63 + RD63S
InfiniDrive™ Motor Driven Roller

Accessories

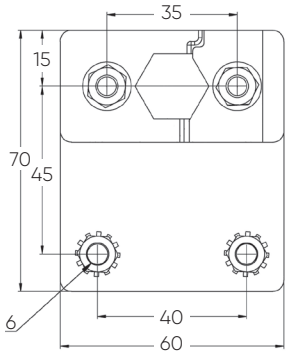
MH-DD-HD



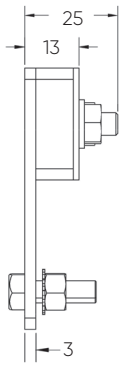
MH-PUH-HD



MH-FUH-HD



Side View

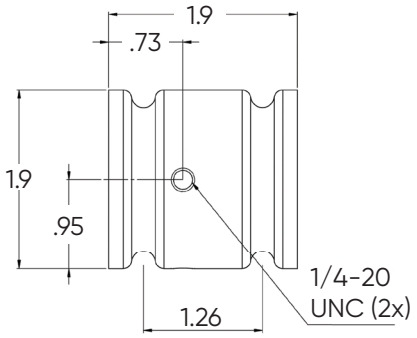


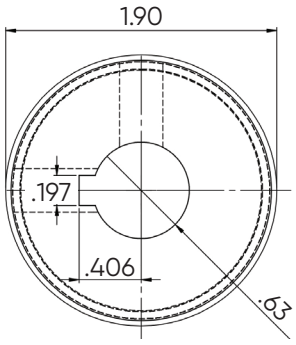
InfiniDrive™
MOTOR MANUFACTURING

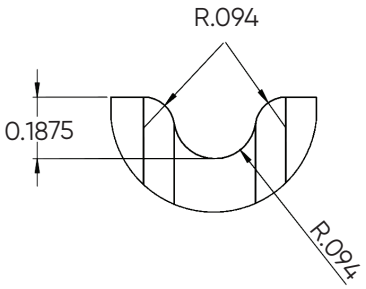
Sheaves for Gear Motor Accessories

Dimensions in Inches

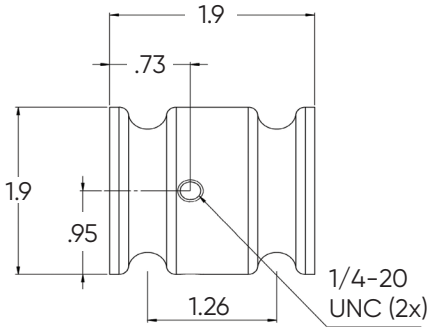
GM-SH-2G-187

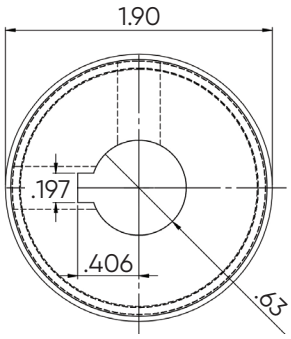


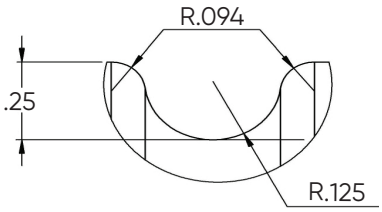




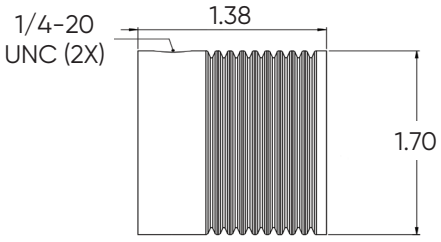
GM-SH-2G-250

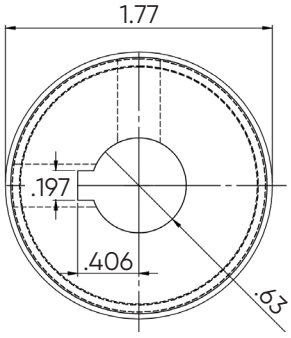


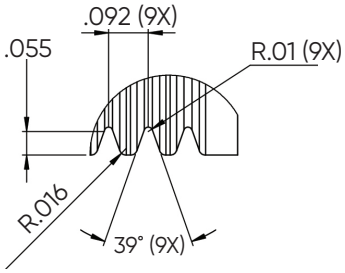




GM-SH-9V-J



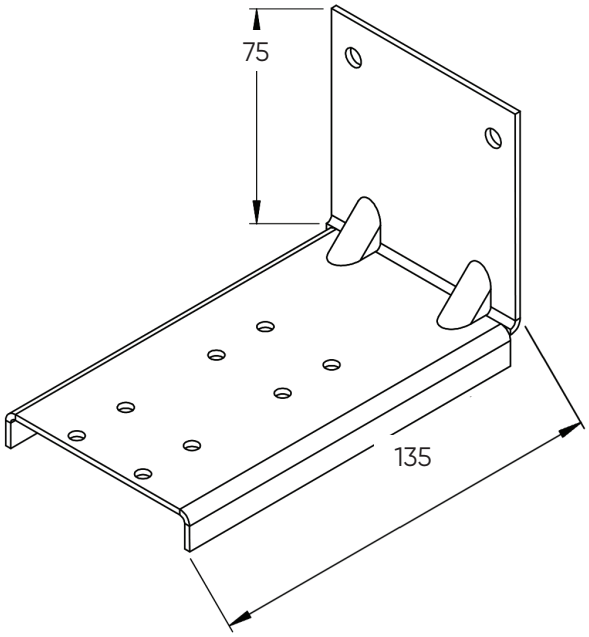


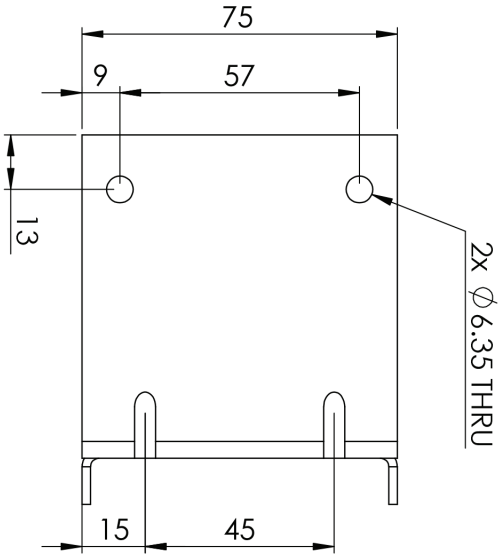


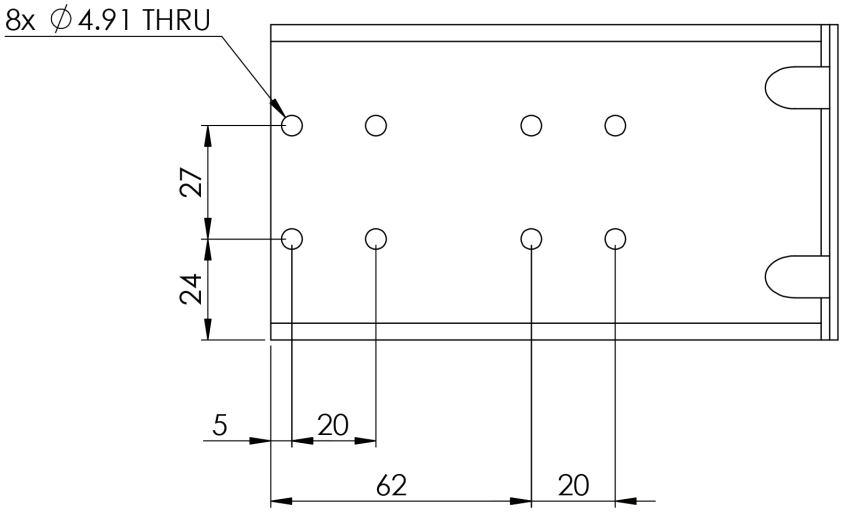
Mounting Bracket for Gear Motor Accessories

Dimensions in mm

GP-048-001







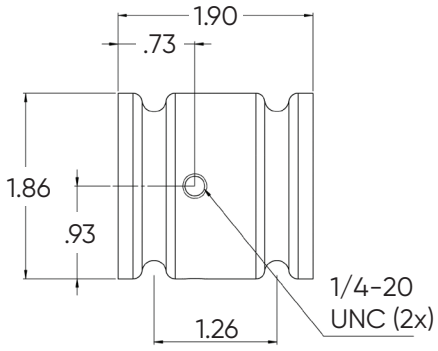
InfiniDrive™
MOTOR MANUFACTURING

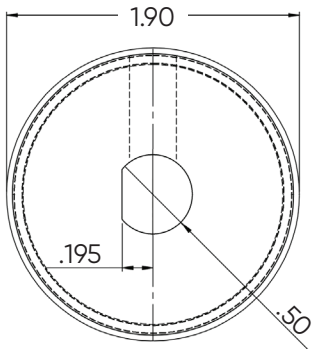
SlimDrive™ Flat Motor Accessories

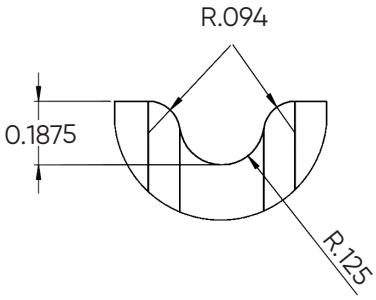
Groove Options

Dimensions in Inches

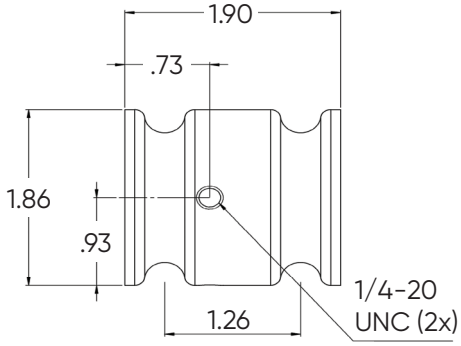
FM-SH-2G-187

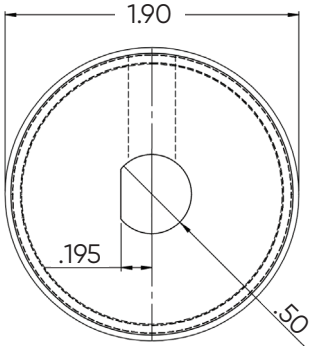


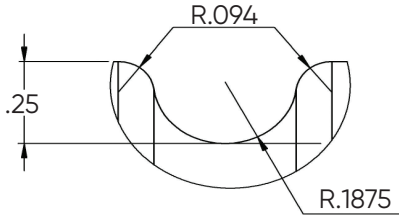




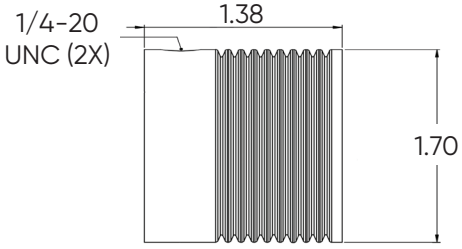
FM-SH-2G-250

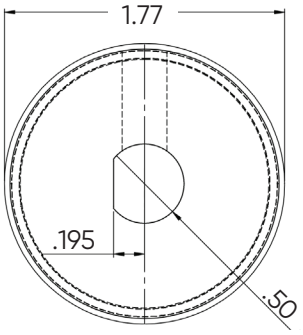


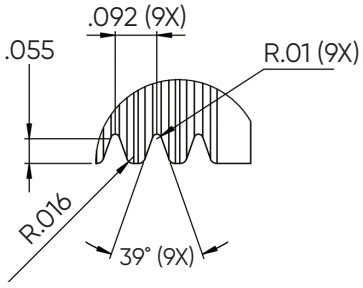




FM-SH-9V-J





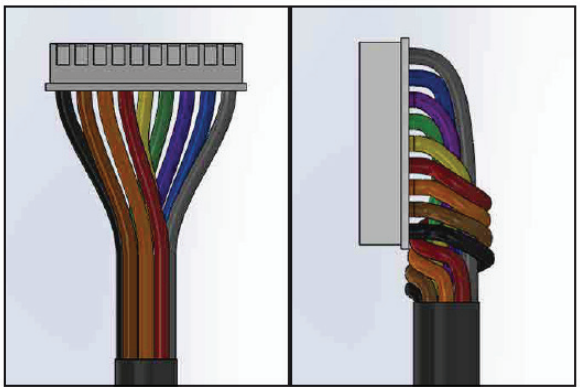


InfiniDrive™ Motor Driven Rollers
RD48 + RD50 + RD57 + RD60 + RD63

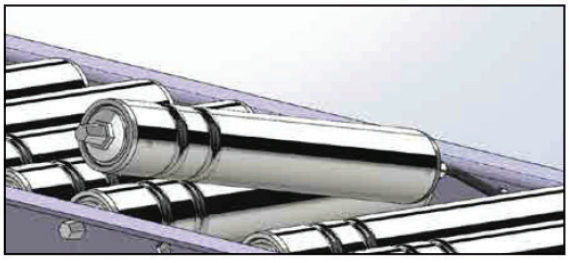
Additional Information

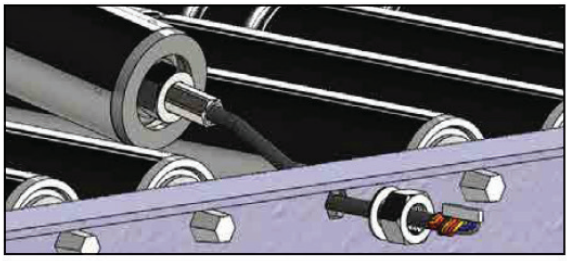
Installation Instructions—Threaded Shaft

1. Prepare motor connector for insertion by tilting 90 degrees and twisting until the wires are taut.

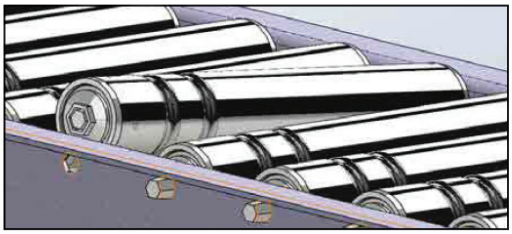


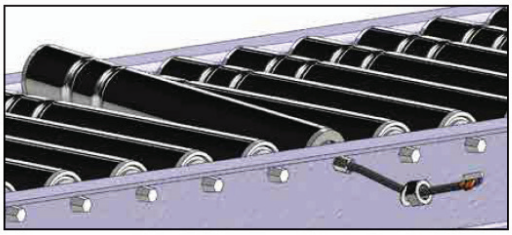
2. The first nut and lock washer come pre-installed on the shaft. Feed motor connector through the hex hole in the conveyor rail.



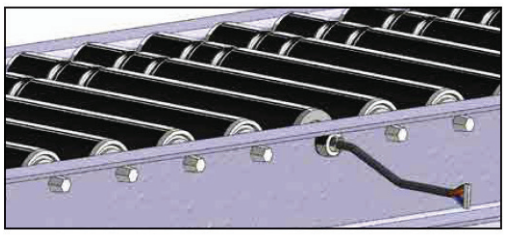


3. Depress spring-loaded shaft and insert into hex hole in opposite conveyor rail.





4. Insert wires through the second lock washer and retaining nut. Ensure the inside nut and lock washer are tight against the inside frame. Torque retaining nut to 29 ft.-lbs. for 48-60mm rollers with 7/16" hex. Torque retaining nut to 110 ft.-lbs. for RD63 rollers with 11/16" hex.



NOTE: Over-torquing and under-torquing may cause damage to InfiniDrive™ Motor Rollers. Periodically inspect for recommended torque.

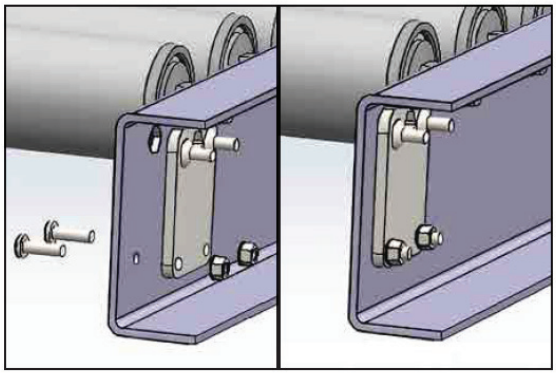
InfiniDrive™
MOTOR MANUFACTURING

InfiniDrive™ Motor Driven Rollers
RD48 + RD50 + RD57 + RD60 + RD63

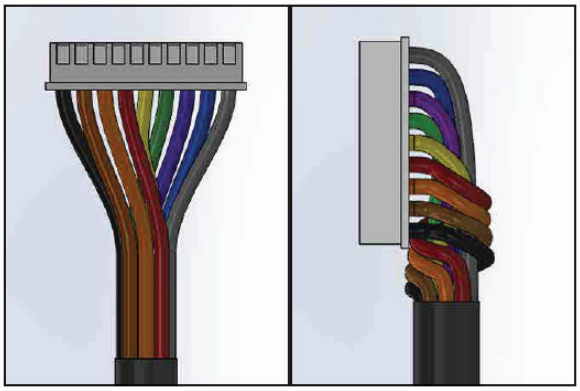
Additional Information

Installation Instructions—Non-Threaded

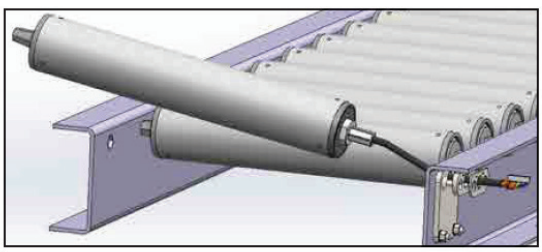
1. Align the mounting hardware with the holes in the frame and attach bracket to the conveyor rail.



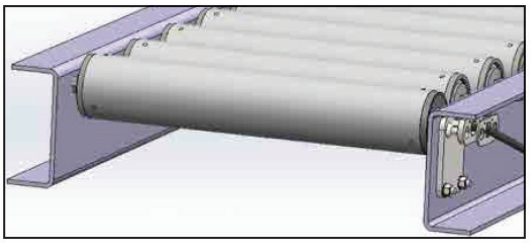
2. Prepare motor connector for insertion by tilting 90 degrees and twisting until the wires are taut.



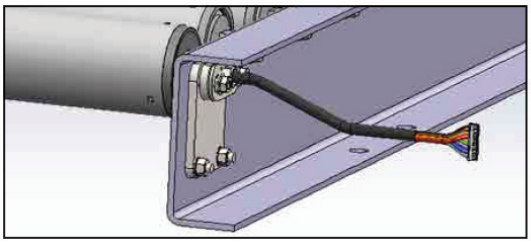
3. Feed motor connector through the hex hole in the conveyor rail, mounting hardware, and plates.

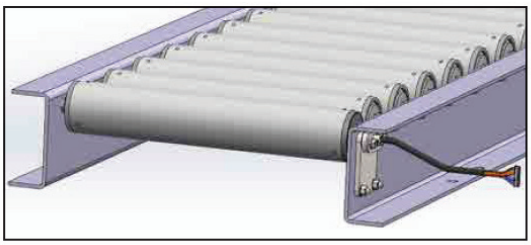


4. Depress spring-loaded shaft and insert into hex hole in opposite conveyor rail.



5. Slide plates over shaft and install nuts. Ensure the shoulder of the motorized roller is against the inside frame. Torque retaining nut to 2.2 ft.-lbs. for 48-60mmm rollers with 7/16" hex. Torque retaining nut to 6.6 ft.-lbs. for RD63 rollers with 11/16" hex.





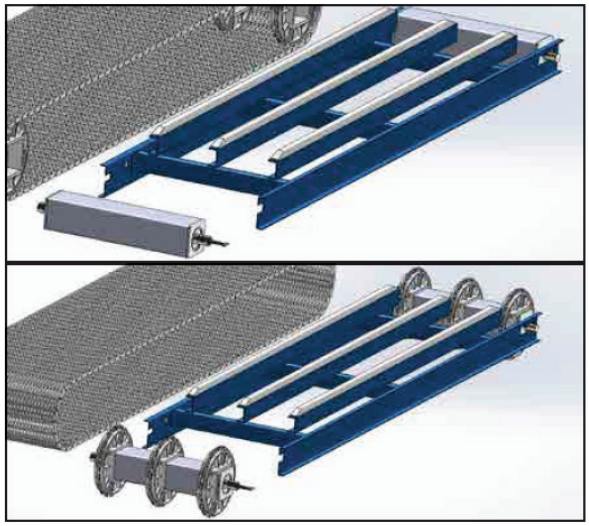
NOTE: Over-torquing and under-torquing may cause damage to bolts, plate and frame. Periodically inspect for recommended torque.

InfiniDrive™ Motor Driven Roller
RD63S

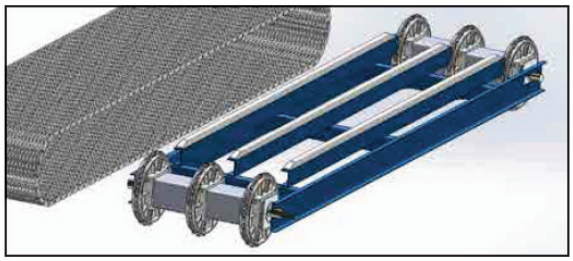
Additional Information

Installation Instructions—Modular Drive

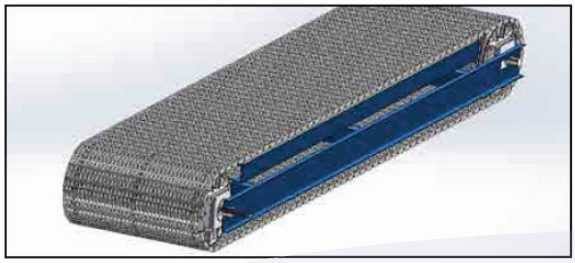
1. Fit sprockets onto the RD63S per manufacturer recommendation.



2. Place the RD63S into the drive pulley position and secure to the conveyor frame.



3. Install the modular belt per manufacturer recommendation.



Important Safety Disclaimers

⚠ *Failure to install or operate this device according to these standards may result in a safety hazard.*

Environmental Specifications

Altitude: 5,300 Feet / 1600 meters

Relative Humidity: 5-95% non-condensing

Pollution Degree: 2

Mechanical Specifications

RD63S Between Frames - 17-7/8" to 56"

Typical Weight: 10.88 lbs + 0.1 lb for every inch over 12" length

Mechanical Installation

See pages 39 and 40.

Electrical Connections

Conductors: Copper conductors capable of supplying the currents listed in the ***RCADU42/RCBDU42: RD48 and RD50 Specifications and Features Table*** shall be used see page 5.

Fastening: Terminals shall be tightened to the torque specifications listed in the ***CB2435: C101BU Operating Specifications Table. See page 19.***

For driver card connections, see page 20 or *C101BU Driver Card Manual*.

PRODUCT CONTAINS NO USER SERVICABLE PARTS. OPENING THE ENCLOSURE WILL VOID WARRANTY AND MAY POSE A SAFETY RISK. DO NOT OPEN THE DEVICE.

Protection impairment may occur if used in a manner not specified in this document.

InfiniDrive™
MOTOR MANUFACTURING

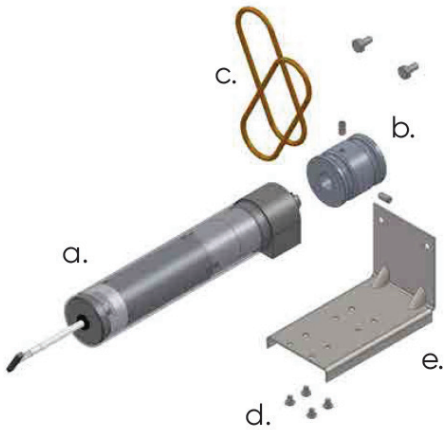
Installation Instructions—Gear Motor

GM48

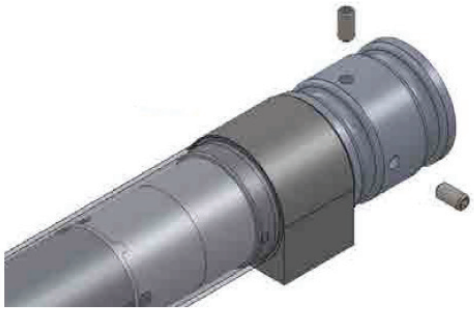
Installation Instructions

1. Gather necessary components:

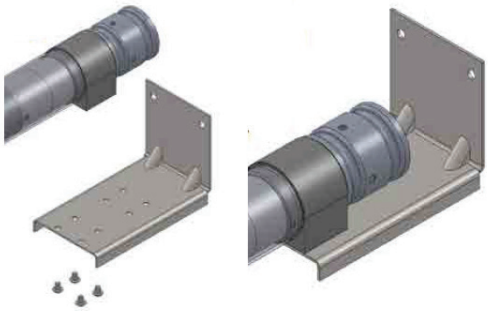
- **a.** (1) Gear motor
- **b.** (1) Pulley or sprocket as required
- **c.** (2) O-rings, poly-ribbed belts, or chain as applicable
- **d.** (4) M5 bolts, grade 8.8 minimum, for attaching gear motor to mounting plate
- **e.** (1) mounting plate with hardware for attaching to conveyor frame



2. We recommend applying Locktite® to mounting hardware.

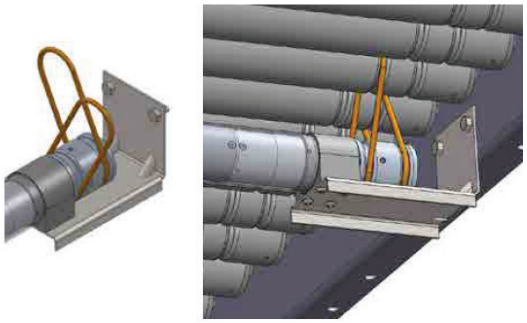


3. Place gear motor over the mounting plate and use the (4) M5 bolts to attach the gear motor to the mounting plate.



4. Attach mounting plate to the conveyor frame. Tighten to 54 in.-lbs. of torque.

5. Install applicable drive belts to the gear motor and adjacent ilder rollers.



SlimDrive™ Mounting Hardware

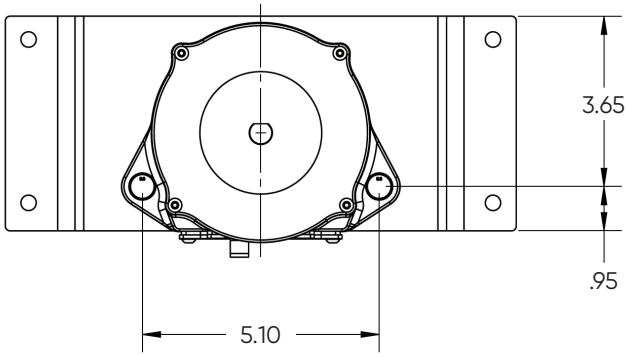
Mounting Bracket Requirements:
—Stainless steel
—Uncoated or galvanized surface
—Minimal total surface area: 368.7 cm^2
—Minimal total mass: 2,717.9 grams

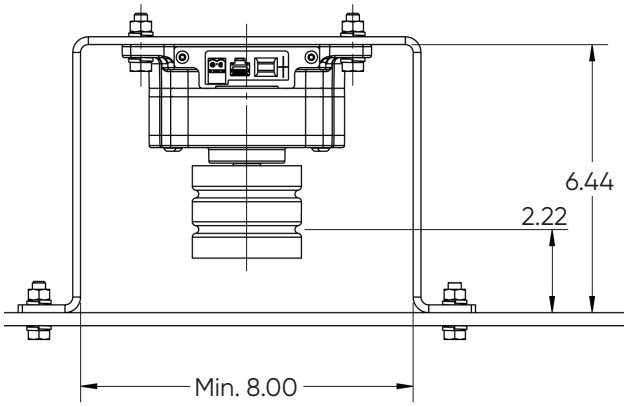
***NOTE*—Bracket shown for illustration:**
A= 742.46 cm^2
m= 2,758 grams
t= 3/16" (4.76mm)
12 gauge (0.105")

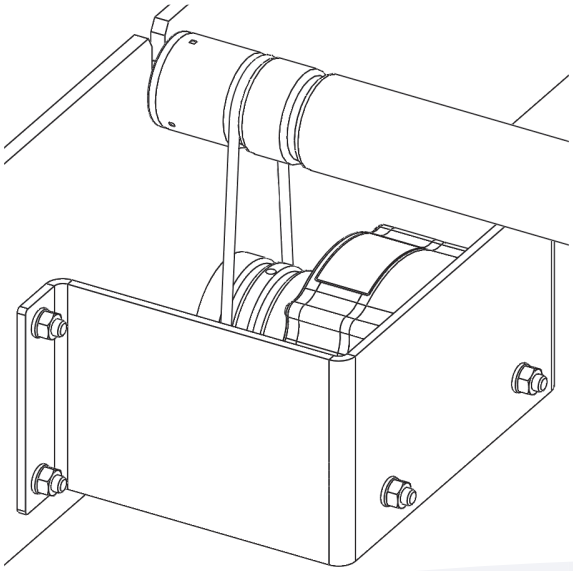
Fasteners for mounting motor to bracket
Metric Option:
—4x Split lock washer–DIN 127B-M8
—2x Nut–DIN 934–grade 8-M8
—2x Bolt–DIN 933–grade 8.8-M8x30
—Tightening torque: 28Nm (20 ft-lbs)

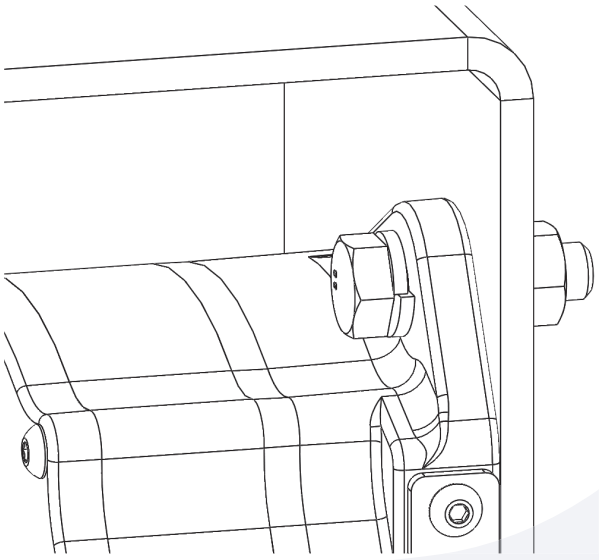
Imperial Option:
—4x Split lock washer–ASME B18.21.1-5⁄16"
—2x Nut–ASME B18.2.2–grade 5-5⁄16"-18
—2x Bolt–ASME B18.2.1–grade 5-5⁄16"-18x1-1⁄4"
—Tightening torque: 23Nm (17 ft-lbs)

Dimensions in Inches









InfiniDrive™
MOTOR MANUFACTURING

Tapered Conical Roller
MDR2400

Tapered Conical Idle Roller

Product Overview

InfiniDrive™ Motor Manufacturing offers the most robust design in **tapered conical rollers**. Our idlers are rated for impact resistance. The precision ball bearings reduce running noise while the spring-loaded shaft allows for quick installation. ***Available for the 50 mm only.***

Standard Features

- ABEC precision bearings
- Zinc plated steel tube
- Plastic rated with antistatic properties $<10^8$ Ω
- Black Polypropylene tapered cone with 1.8° conicity
- 7/16" (11.1mm) Hex shaft
- 7/16" (11.1mm) Hex shaft, spring-loaded
- Maintenance-free
- Max. load capacity: 112 lbs. up to 39"
- Max. conveyor speed: 394 FPM

Additional Options

- Standard 3/16" & 1/4" O-ring grooves
- Deep 3/16" & 1/4" O-ring grooves

Tapered Conical Roller Dimensions

Dimensions in mm

Tube Diameter	Shaft	Sleeve Length	D1	D2
Ø50mm	7/16" Hex	300	56.0	74.9
		350	52.9	74.9
		400	56.0	81.1
		450	52.9	81.1
		500	56.0	87.4
		550	52.9	87.4
		600	56.0	93.7
		650	52.7	93.7
		700	56.0	100.0
		750	52.9	100.0
		800	56.0	106.3
		850	52.9	106.3

Legend

BF = Between Frames

RL = Roller Length

SL = Sleeve Length

D1 = Min. diameter of taper cone

D2 = Max. diameter of taper cone

InfiniDrive™
MOTOR MANUFACTURING

Transport Card Mounting Hardware
FMZP24001

Fasteners for Mounting to Bracket (Included)

Metric Option:

—4x Washer DIN 125A-M

—2x Nut—DIN 934-M6

—2x Button Cap Screw—ISO 7380-M6x20

- Tightening torque: Bolt hand tight 1.5 Nm

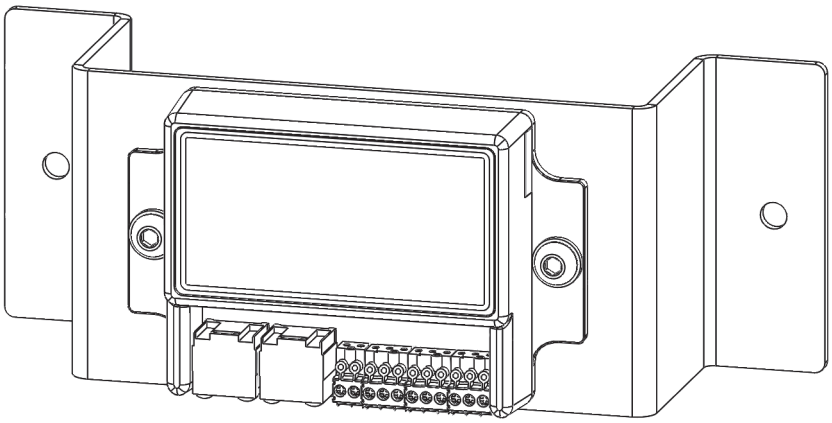
Imperial Option:

—4x Flat Washer—ASME B18.22.1-¼"

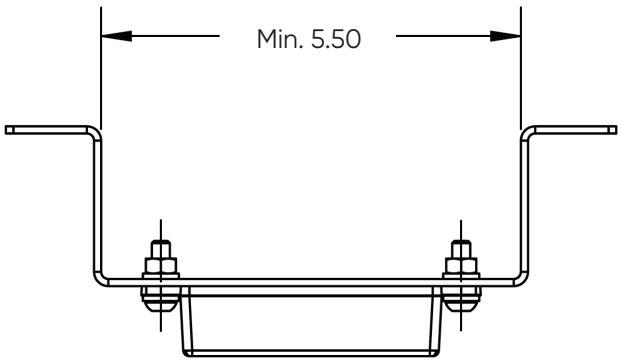
—2x Finish Nut—ASME B18.22.2-¼-28

—2x Button Cap Screw—ASME B18.3-¼-28x¾"

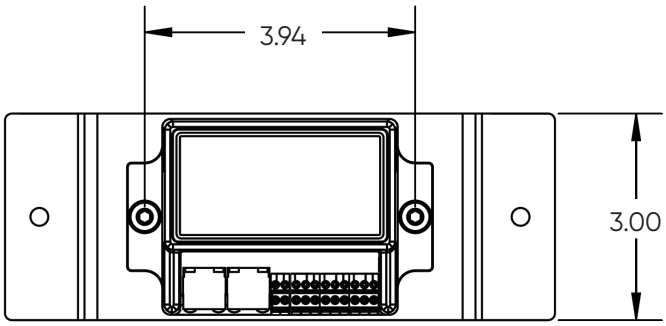
—Tightening torque: Bolt hand tight (1.1 ft-lbs)



Bracket Minimum Width:
Dimensions in Inches



Mounting Hole Spacing:
Dimensions in Inches



ZPA Card Mounting Hardware
FMZP24001

Fasteners for Mounting to Bracket (Included)

Metric Option:

–4x Washer DIN 125A-M6

–2x Nut–DIN 934-M6

–2x Button Cap Screw–ISO 7380-M6x20

–Tightening torque: Bolt hand tight 1.5 Nm

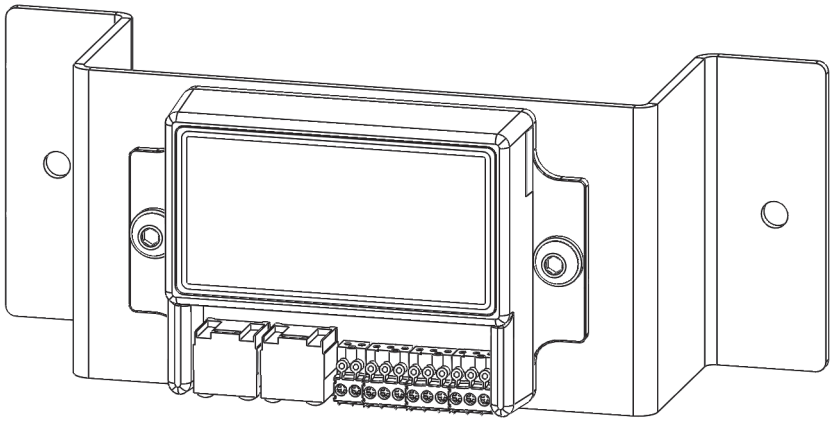
Imperial Option:

–4x Flat Washer–ASME B18.22.1-¼"

–2x Finish Nut–ASME B18.22.2-¼-28

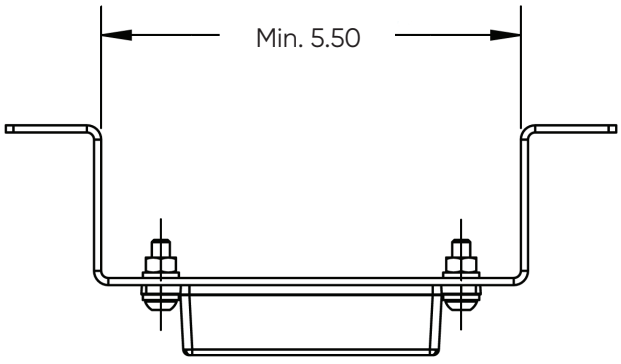
–2x Button Cap Screw–ASME B18.3-¼"-28x¾"

–Tightening torque: Bolt hand tight (1.1 ft-lbs)



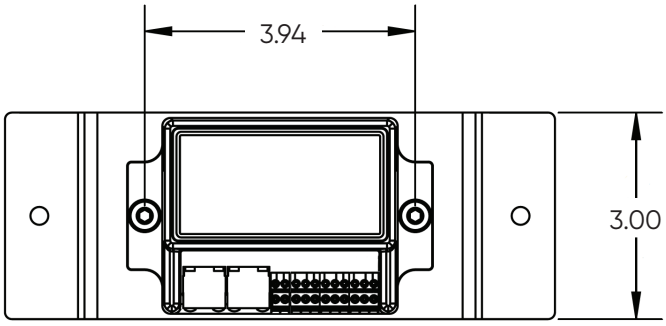
Bracket Minimum Width:

Dimensions in Inches



Mounting Hole Spacing:

Dimensions in Inches



InfiniDrive™

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