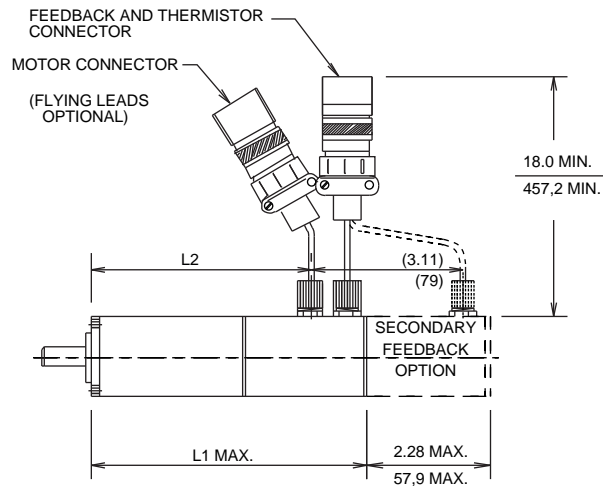


DIMENSIONS . . R20 Series

SIDE VIEW



ENGLISH (INCHES)

MODEL NUMBER	L1 MAX.	L2 REF.
R21	6.38	(4.93)
R22	7.38	(5.93)
R23	8.38	(6.93)
R24	9.38	(7.93)

Note: L1 includes primary feedback device.

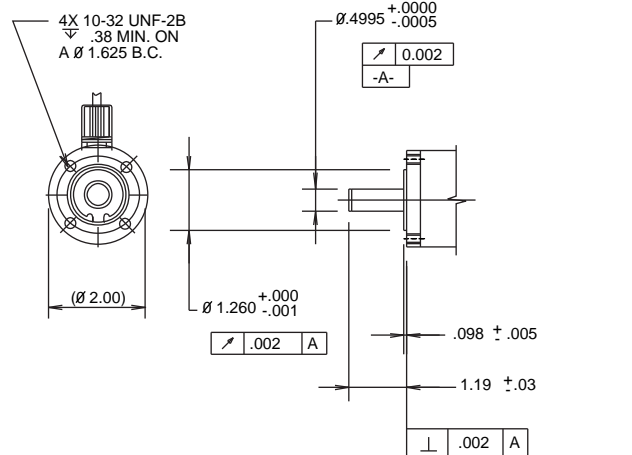
METRIC (MILLIMETERS)

MODEL NUMBER	L1 MAX.	L2 REF.
R21	162.1	(125.2)
R22	187.5	(150.6)
R23	212.9	(176.0)
R24	238.3	(201.4)

Note: L1 includes primary feedback device.

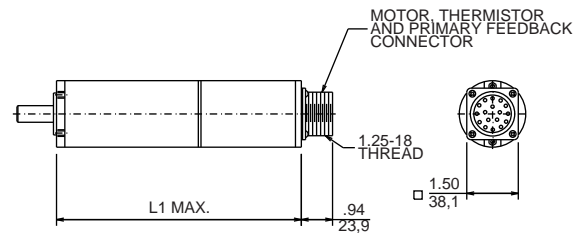
MOUNTING AND SHAFT OPTIONS

FRONT VIEW



ENGLISH (INCHES)

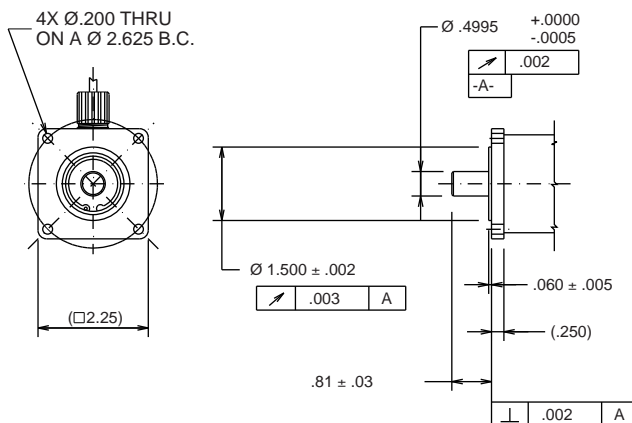
REAR MOUNTED MS CONNECTOR OPTION



NOTE:

1. Available for motors with primary feedback only
2. MS connector is the same as used for the primary and secondary on square brushless motors.

NEMA 23 (INCHES)



CONNECTORS

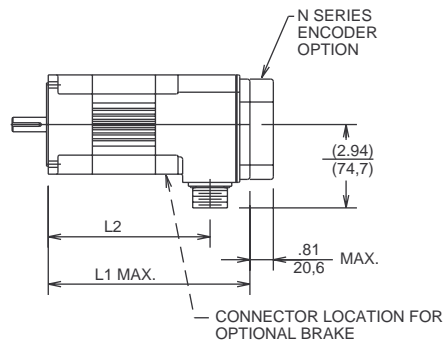
NOTE:

Ø.2500 SHAFT OPTION IS AVAILABLE. CONSULT APPLICATION ENGINEERING.

R20 SERIES CONNECTORS	
MOTOR	MS3101A20-4P
PRIMARY FEEDBACK	MS3101A20-7P
PRIMARY PLUS SECONDARY FEEDBACK	MS3101A20-29P

DIMENSIONS . . R30 Series

SIDE VIEW



ENGLISH (INCHES)

MODEL NUMBER	L1 MAX.*	L2 REF.*
R32	7.09	(5.62)
R33	8.09	(6.62)
R34	9.09	(7.62)
R35	10.09	(8.62)

Note: L1 includes primary feedback device.

METRIC (MILLIMETERS)

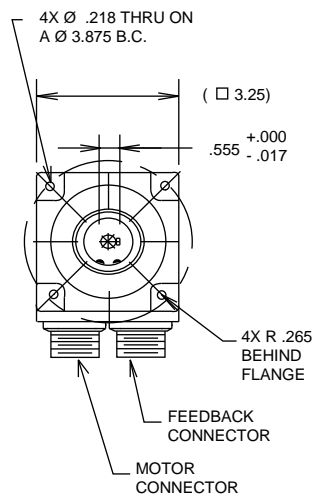
MODEL NUMBER	L1 MAX.*	L2 REF.*
R32	180.1	(142.7)
R33	205.5	(168.1)
R34	230.9	(193.5)
R35	256.3	(218.9)

Note: L1 includes primary feedback device.

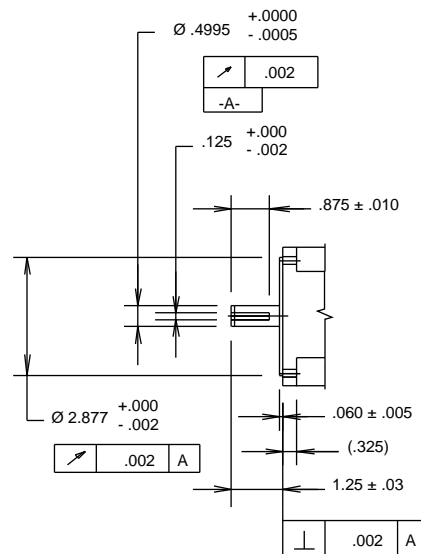
*Add 2.22 in/56.4 mm for brake option.

MOUNTING AND SHAFT OPTIONS

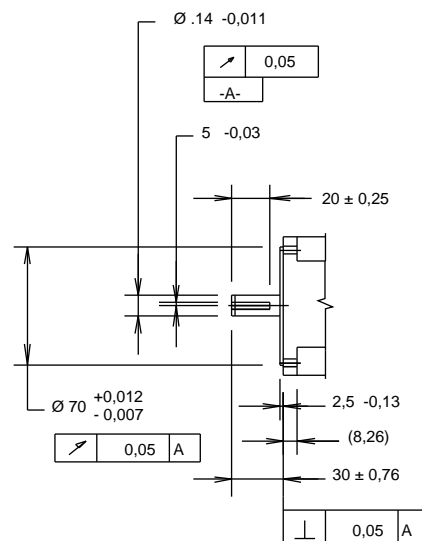
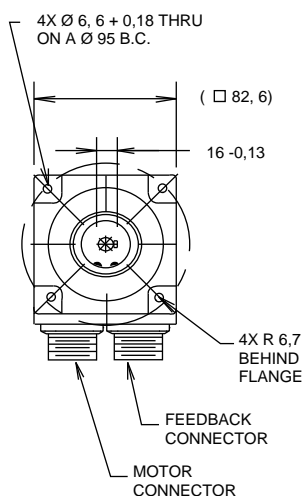
FRONT VIEW



ENGLISH (INCHES)



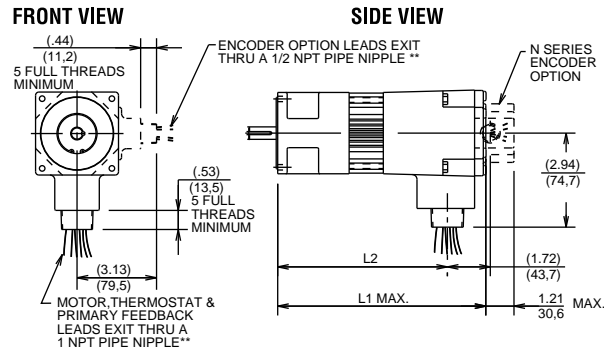
METRIC (MILLIMETERS)



CONNECTORS

R30 SERIES CONNECTORS	
MOTOR	MS3102E20-4P
PRIMARY FEEDBACK	MS3102E20-7P
PRIMARY PLUS BRAKE	MS3102E14S-9P

DIMENSIONS . . R30P SERIES



ENGLISH (INCHES)

MODEL NUMBER	L1 MAX.*	L2 REF.*
R32	8.45	(6.81)
R33	9.45	(7.81)
R34	10.45	(8.81)
R35	11.45	(9.81)

Note: L1 includes primary feedback device.

METRIC (MILLIMETERS)

MODEL NUMBER	L1 MAX.*	L2 REF.*
R32	214,4	(173,5)
R33	239,8	(198,9)
R34	265,7	(224,3)
R35	290,6	(249,7)

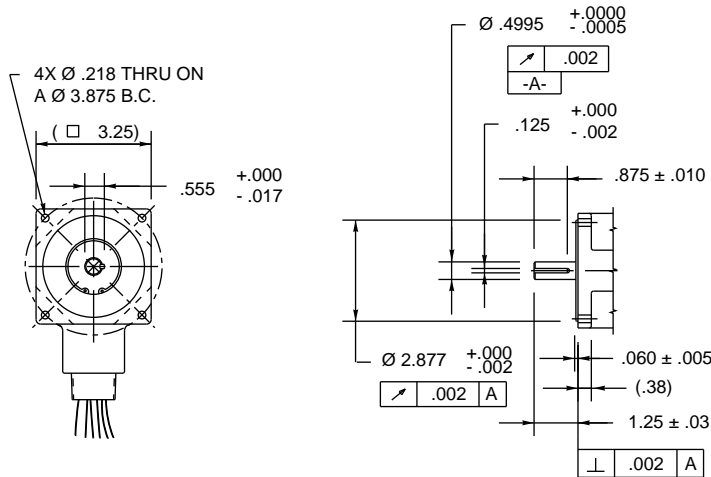
Note: L1 includes primary feedback device.

*Add 2.14 in/54,4 mm for brake option.

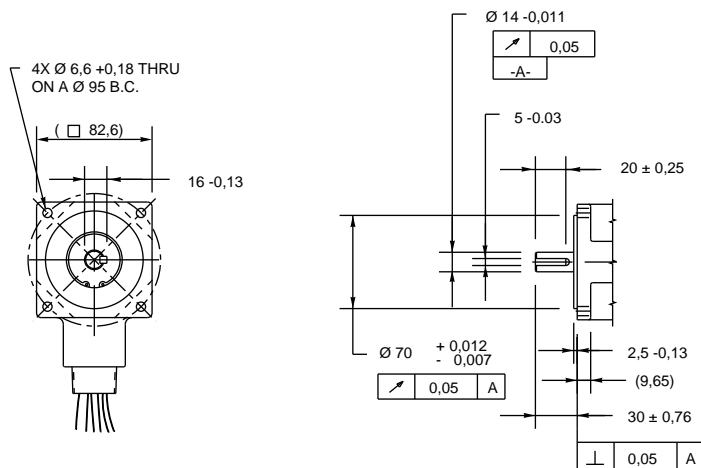
**Standard lead length is 36 in./914,4 mm.

MOUNTING AND SHAFT OPTIONS

ENGLISH (INCHES)

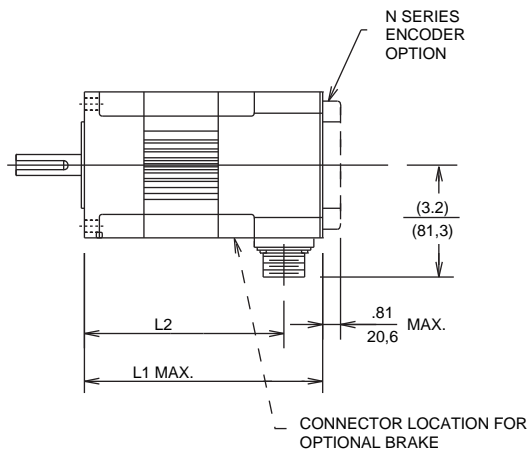


METRIC (MILLIMETERS)



DIMENSIONS . . R40 Series

SIDE VIEW



ENGLISH (INCHES)

MODEL NUMBER	L1 MAX.*	L2 REF.*
R43	8.4	(7.01)
R45	9.9	(8.51)
R46	11.4	(10.01)

Note: L1 includes primary feedback device.

METRIC (MILLIMETERS)

MODEL NUMBER	L1 MAX.*	L2 REF.*
R43	213.4	(178.1)
R45	251.5	(216.2)
R46	289.6	(254.3)

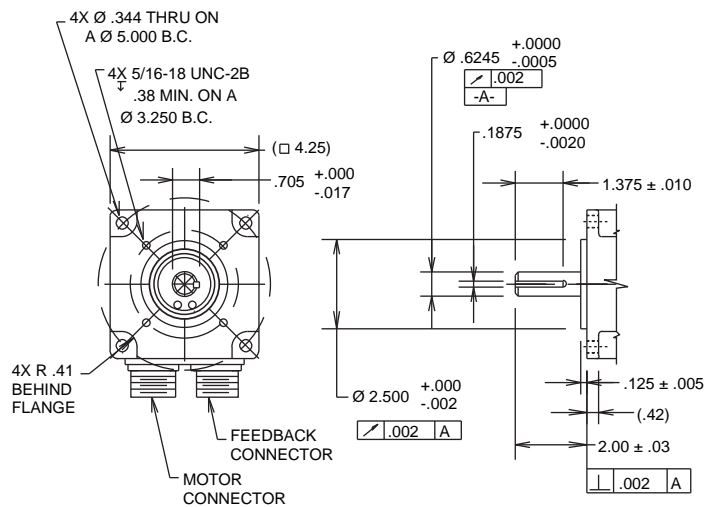
Note: L1 includes primary feedback device.

*Add 2.44 in./62.0 mm for brake option.

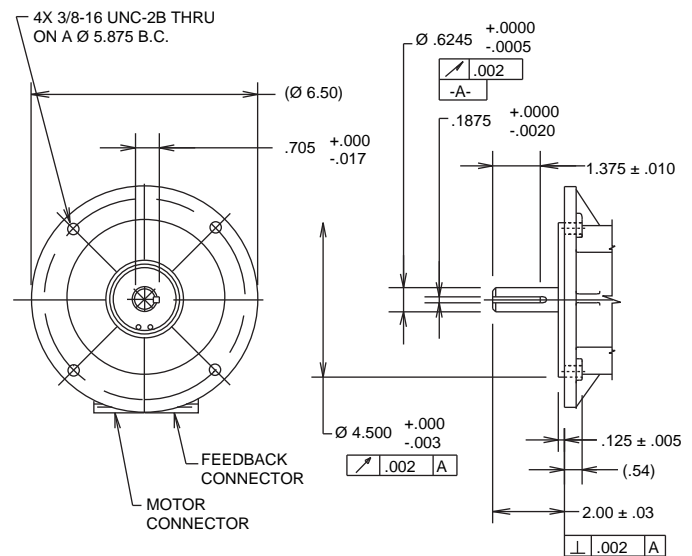
MOUNTING AND SHAFT OPTIONS

FRONT VIEW

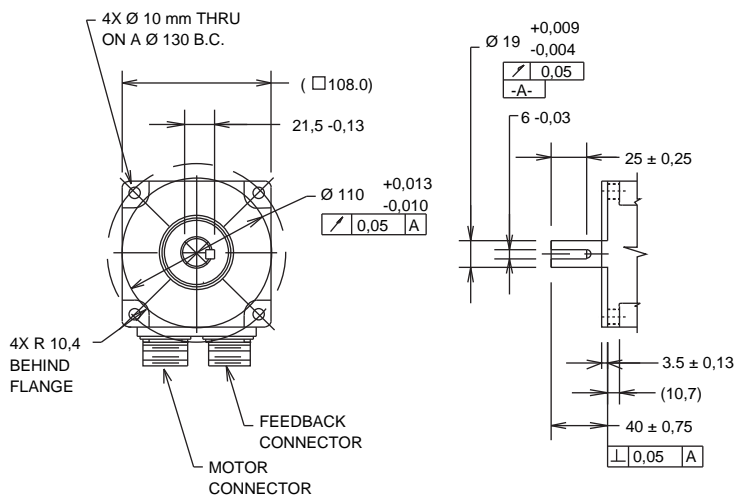
ENGLISH (INCHES)



NEMA 56C (INCHES)



METRIC (MILLIMETERS)

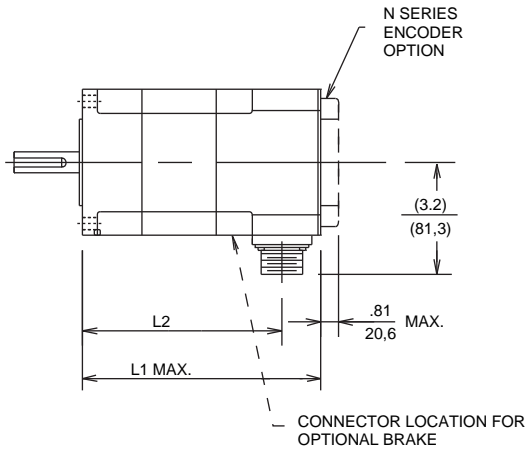


CONNECTORS

R40 SERIES CONNECTORS	
MOTOR	MS3102E20-4P
PRIMARY FEEDBACK	MS3102E20-7P
PRIMARY PLUS SECONDARY FEEDBACK	MS3102E20-29P
BRAKE	MS3102E14S-9P

DIMENSIONS . . F40 Series

SIDE VIEW



ENGLISH (INCHES)

MODEL NUMBER	L1 MAX.*	L2 REF.*
F43	8.4	(7.01)
F45	9.9	(8.51)
F46	11.4	(10.01)

Note: L1 includes primary feedback device.

METRIC (MILLIMETERS)

MODEL NUMBER	L1 MAX.*	L2 REF.*
F43	213.4	(178.1)
F45	251.5	(216.2)
F46	289.6	(254.3)

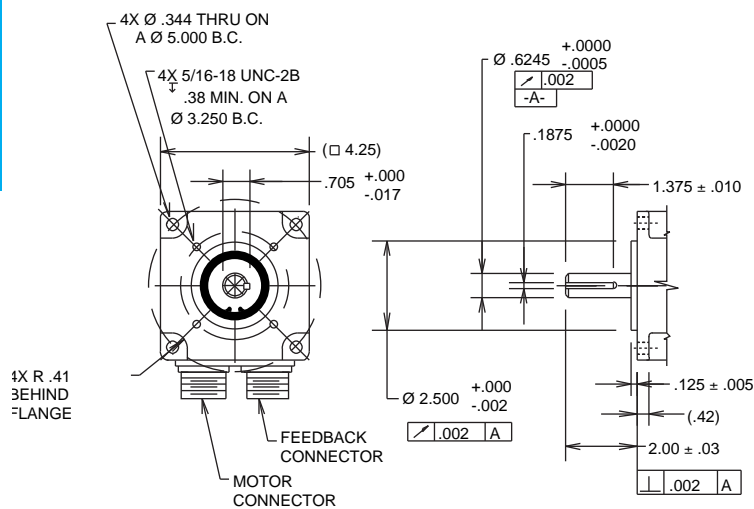
Note: L1 includes primary feedback device.

*Add 2.44 in./62.0 mm for brake option.

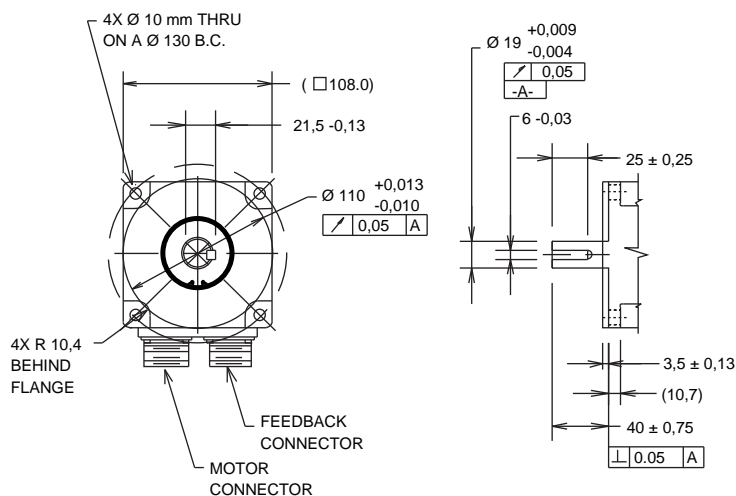
MOUNTING AND SHAFT OPTIONS

FRONT VIEW

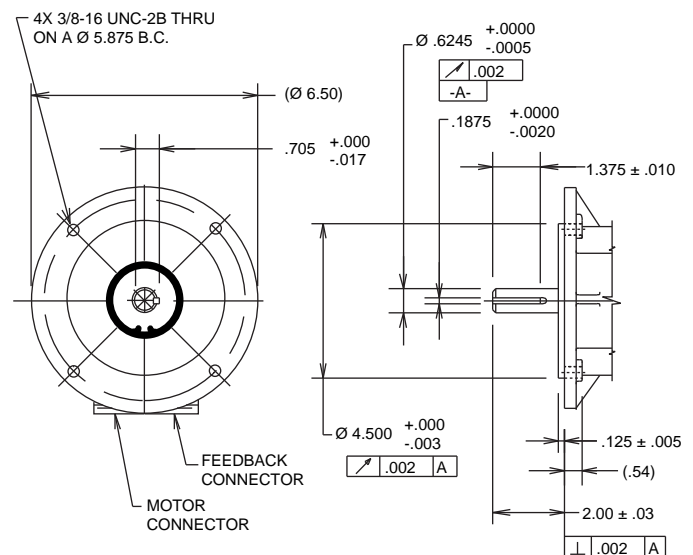
ENGLISH (INCHES)



METRIC (MILLIMETERS)



NEMA 56C (INCHES)

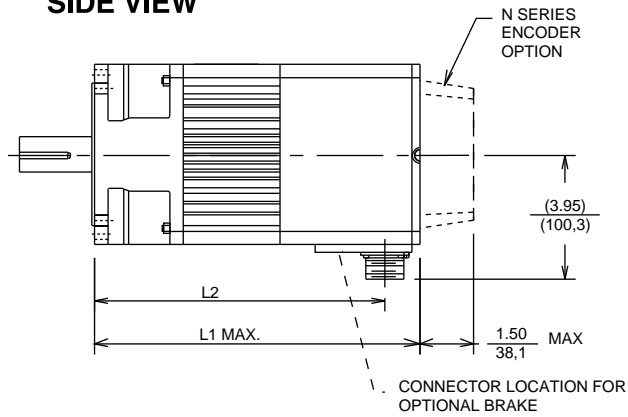


CONNECTORS

F40 SERIES CONNECTORS	
MOTOR	MS3102E20-4P
PRIMARY FEEDBACK	MS3102E20-7P
PRIMARY PLUS SECONDARY FEEDBACK	MS3102E20-29P
BRAKE	MS3102E14S-9P

DIMENSIONS . . R60 SERIES

SIDE VIEW



ENGLISH (INCHES)

MODEL NUMBER	L1 MAX.*	L2 REF.*
R63	9.36	(8.12)
R65	11.36	(10.12)
R67	13.36	(12.12)

Note: L1 includes primary feedback device.

METRIC (MILLIMETERS)

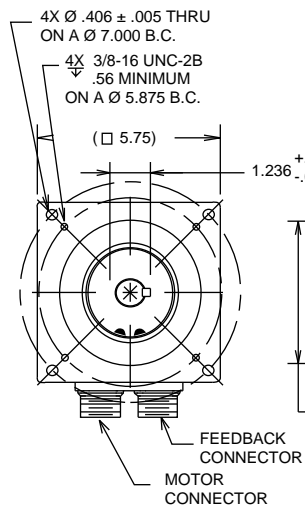
MODEL NUMBER	L1 MAX.*	L2 REF.*
R63	237.7	(206.2)
R65	288.5	(257.0)
R67	339.3	(307.8)

Note: L1 includes primary feedback device.

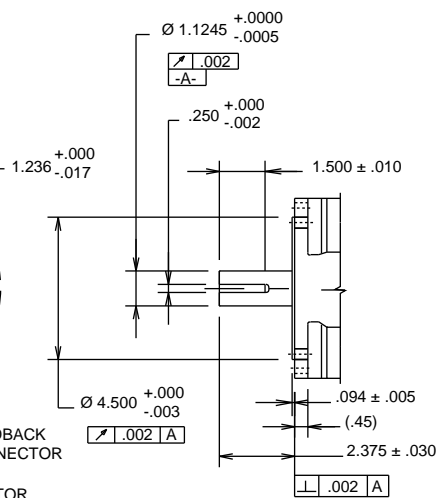
*Add 2.66 in./67.6 mm for brake option.

MOUNTING AND SHAFT OPTIONS

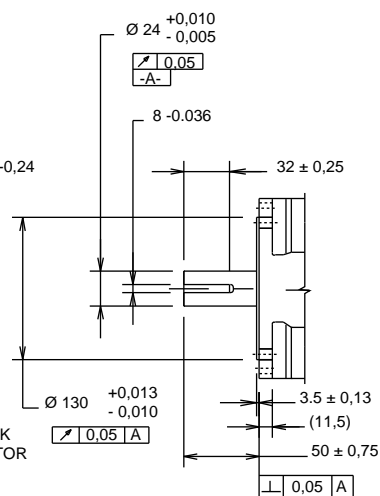
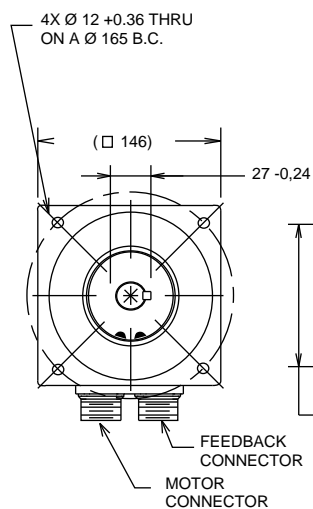
FRONT VIEW



ENGLISH (INCHES)



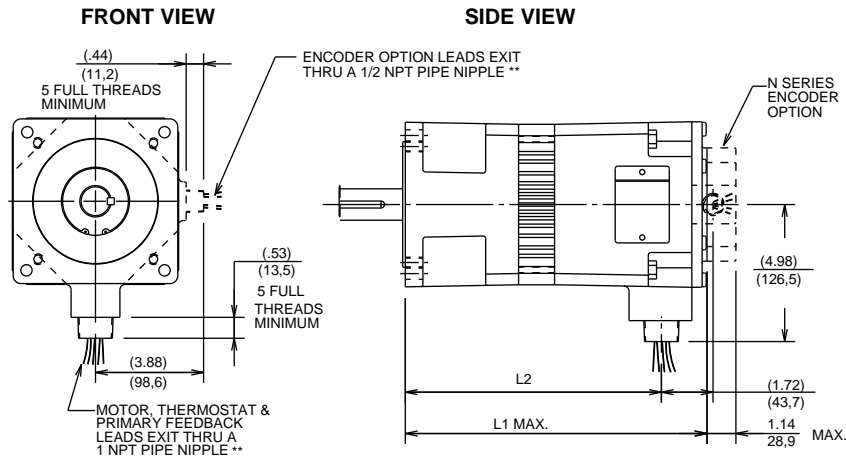
METRIC (MILLIMETERS)



CONNECTORS

R60 SERIES CONNECTORS	
MOTOR	MS3102E20-4P
PRIMARY FEEDBACK	MS3102E20-7P
PRIMARY PLUS SECONDARY FEEDBACK	MS3102E20-29P
BRAKE	MS3102E14S-9P

DIMENSIONS . . . R60P SERIES



ENGLISH (INCHES)

MODEL NUMBER	L1 MAX.*	L2 REF.*
R63	10.03	(8.33)
R65	12.03	(10.33)
R67	14.03	(12.33)

Note: L1 includes primary feedback device.

METRIC (MILLIMETERS)

MODEL NUMBER	L1 MAX.*	L2 REF.*
R63	254,8	(211,6)
R65	305,6	(262,4)
R67	356,4	(313,2)

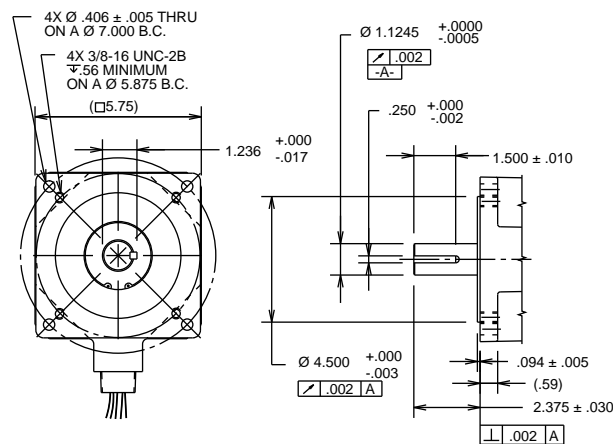
Note: L1 includes primary feedback device.

*Add 3.11 in./79,0 mm for brake option.

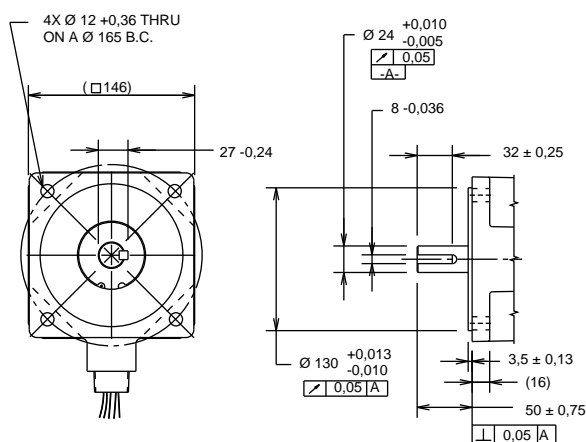
**Standard lead length is 36 in.914,4 mm.

MOUNTING AND SHAFT OPTIONS

ENGLISH (INCHES)

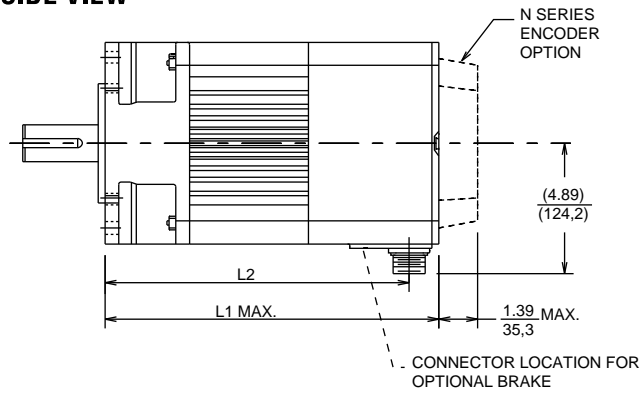


METRIC (MILLIMETERS)



DIMENSIONS . . R80 Series

SIDE VIEW



ENGLISH (INCHES)

MODEL NUMBER	L1 MAX.*	L2 REF.*
R84	10.93	(9.56)
R86	12.93	(11.56)
R88	14.93	(13.56)
R8A	16.93	(15.56)

Note: L1 includes primary feedback device.

METRIC (MILLIMETERS)

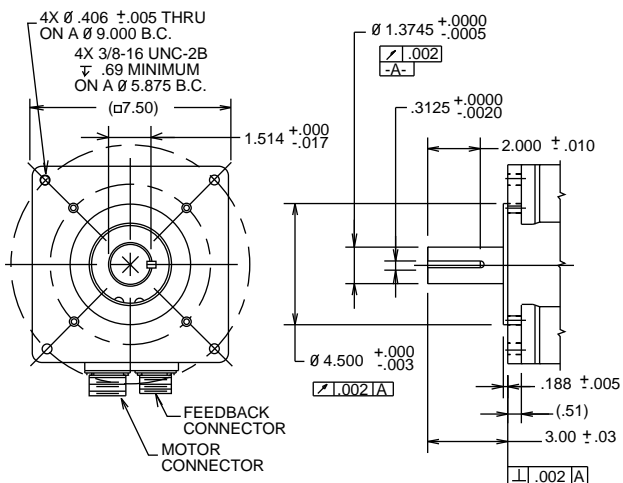
MODEL NUMBER	L1 MAX.*	L2 REF.*
R84	277.6	(242.8)
R86	328.4	(293.6)
R88	379.2	(344.4)
R8A	430.0	(395.2)

Note: L1 includes primary feedback device.

*Add 2.88 in/73.1 mm for brake option.

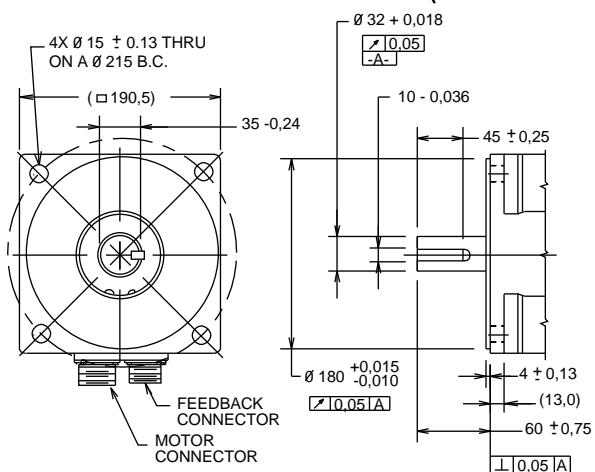
MOUNTING AND SHAFT OPTIONS

FRONT VIEW



ENGLISH (INCHES)

METRIC (MILLIMETERS)



CONNECTORS

R80 SERIES CONNECTORS	
MOTOR	MS3102E24-22P
PRIMARY FEEDBACK	MS3102E20-7P
PRIMARY PLUS SECONDARY FEEDBACK	MS3102E20-29P
BRAKE	MS3102E14S-9P