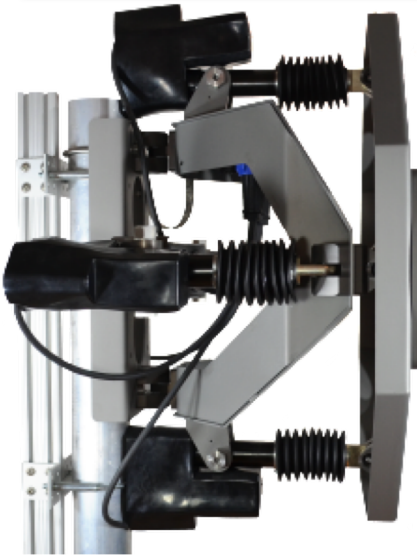


QLA-15LPT-40

AUTO ACQUISITION ANTENNA POSITIONER FOR MICROWAVE LINE OF SIGHT



The QLA-15LPT-40 is an antenna positioner designed from the ground up to automatically maintain microwave line of sight communication links for 4-6 ft antennas. Narrow beam antennas often require realignment due to seasonal fading of misalignment caused by wind loading.

The full featured web based user interface provides rapid and accurate antenna realignment. The user interface includes remote signal strength monitoring and auto peaking tools that can automatically trigger antenna realignment based on radio signal strength.

The QLA-15LPT-40 is typically paired with 4-6 ft antennas, payloads up to 300 lbs (136.1 kg), and offers +/-15° of azimuth and elevation range. Download the Interface Control Drawing (ICD) for more details.

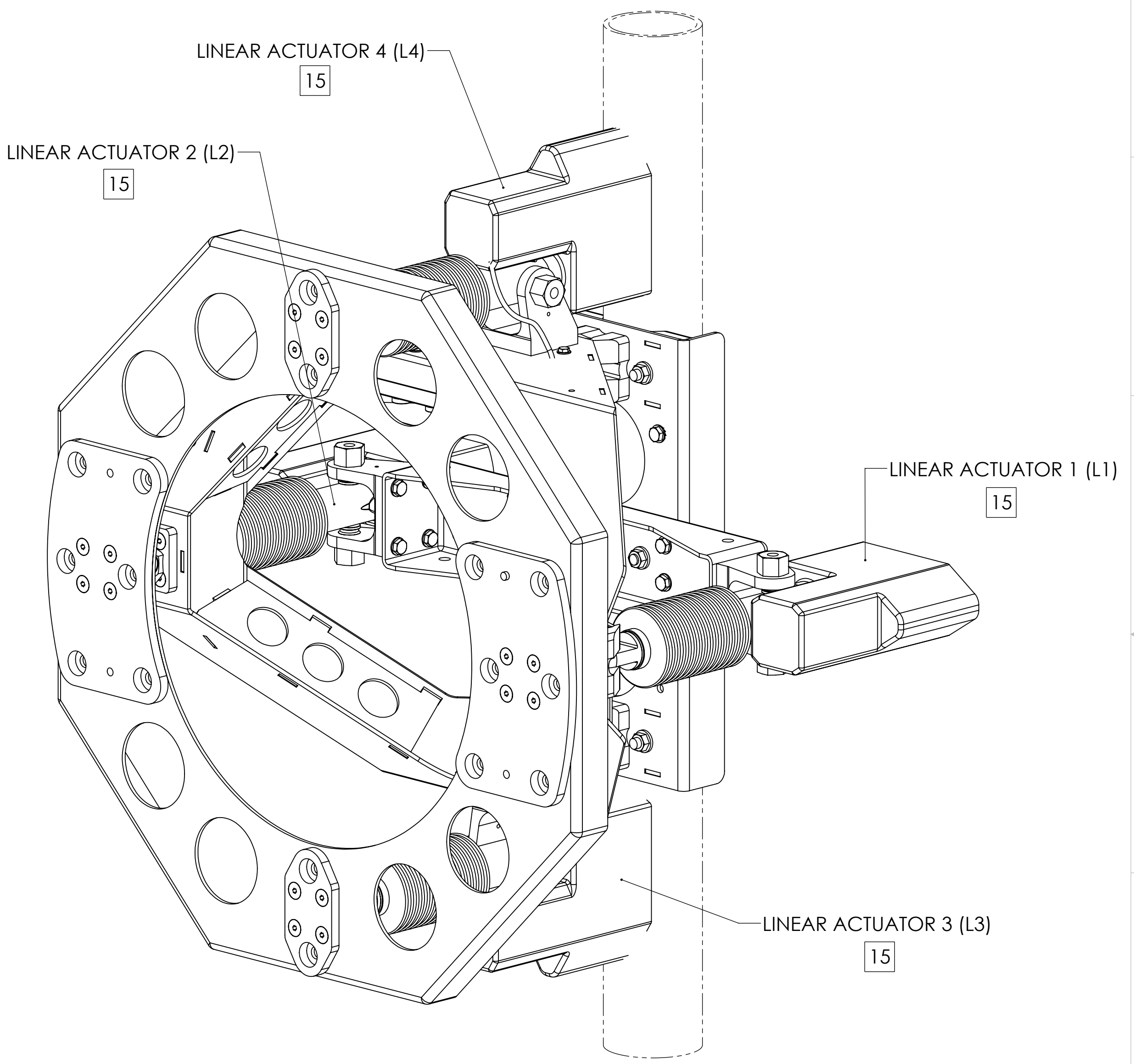
TECHNICAL SPECIFICATIONS – QLA-15LPT-40

| | |
|-------------------------|---|
| Power | 48VDC |
| Material / Finish | Aluminum with stainless steel hardware / Hard coat anodize |
| Positioner Travel | |
| Azimuth | 15° (+/-7.5°) |
| Elevation | 15° (+/-7.5°) |
| Positioner Drive Rate | |
| Azimuth | Variable, up to 0.5°/sec no load |
| Elevation | Variable, up to 0.5°/sec no load |
| Temperature | |
| Operational | -22 to 140°F (-30 to 60°C) |
| Survival | -40 to 158°F (-40 to 70°C) |
| Az / El Repeatability | +/-0.05° |
| Torque | |
| Operational (both axes) | 500 ft-lbs (677.9 Nm) |
| Survival (both axes) | 1000 ft-lbs (1355.8 Nm) |
| Payload | 300lbs (136.1 kg) |
| Dimensions | Height: 37.0" (94.0 cm), Width: 37.0" (94.0 cm), Depth: 22.5" (57.2 cm) |
| Weight | 130lbs (59.0 kg) |
| Mounting Interface | Clamps standard to a 4.5" dia mast (11.4 cm) |
| Antenna Mount Options | Any commercial antenna between 4 and 6 feet in diameter |
| Communication Interface | |
| User Interfaces | Web based hosted internal to unit, Pelco I |
| Ethernet | 10/100 Ethernet |
| Serial | RS-485 |
| REV G | Specifications subject to change without notice |

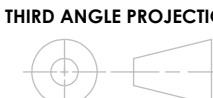
| REV | DESCRIPTION | DATE | APPROVED |
|-----|-------------|------------|----------|
| C | CN600564 | 2018-07-23 | CLC |

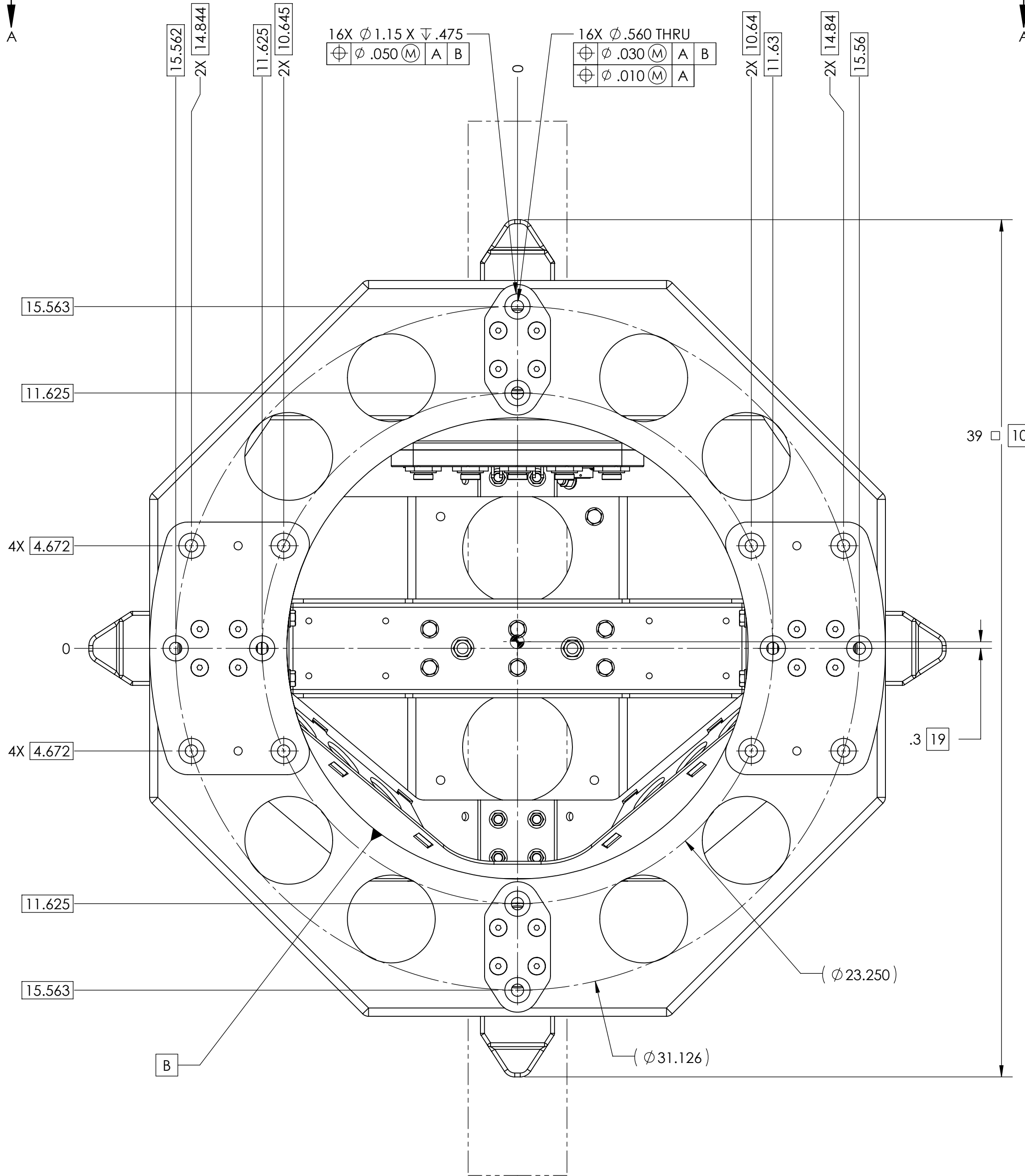
NOTES: UNLESS OTHERWISE SPECIFIED

1. QLA-15LPT-40 CONFIGURABLE OPTIONS PER TABLE I. PART NUMBER LA-15LPT-40-NCI-NCI SHOWN THROUGHOUT THIS DRAWING.
2. USE INTERFACE CONTROL DRAWING IN CONJUNCTION WITH DATASHEET N500109
3. INPUT POWER SHALL BE NOMINALLY 48VDC (45VDC TO 55VDC)
4. HARD COAT ANNO DIZE ALUMINUM CONSTRUCTION WITH STAINLESS STEEL HARDWARE
5. 15° (+/-7.5°) AZIMUTH TRAVEL WITH 0.25°/SEC DRIVE RATE
6. 15° (+/-7.5°) ELEVATION TRAVEL WITH 0.25°/SEC DRIVE RATE
7. -22 TO 140°F (-30 TO 60°C) OPERATIONAL TEMPERATURE RANGE. -40 TO 158°F (-40 TO 70°C) NON-OPERATIONAL TEMPERATURE RANGE
8. +/-0.1° PAN/TILT REPEATABILITY
9. 65 MPH (104KPH) OPERATIONAL WIND SPEED WITH GUSTS UP TO 80 MPH (128 KPH). 124 MPH (200 KPH) SURVIVAL WIND SPEED. ASSUMES 6' DIAMETER DISH WITH RADOME
- 10 39" (99 cm) HIGH X 39" (99 cm) WIDE X 22" (56 cm) DEEP. DEPTH MEASURED TO CENTER OF 4.5" DIAMETER MOUNTING POLE
11. WEIGHT APPROXIMATELY 130 LBS
- 12 MOUNTS TO STANDARD 4.5" O.D. POLE (NOT INCLUDED) WITH 3 SUPPLIED U-BOLTS SHOWN
- 13 CONFIGURATION SHOWN CONTAINS MOUNTING HOLES THAT DIRECTLY INTERFACE WITH 6' DIAMETER COMSCOPE ANTENNA PART NUMBERS UHX6-59W-P3A/B AND VHLPX6-6W-6WH/A. ADAPTER MAY BE REQUIRED TO INTERFACE WITH OTHER MAKES AND MODELS
- 14 A MINIMUM OF 1 STRUT ON EITHER SIDE OF THE MOUNTING POLE MUST BE INSTALLED (NOT INCLUDED) TO PREVENT POSITIONER FROM TWISTING ON MOUNT FROM WIND. ENSURE THAT THE STRUTS ARE INSTALLED SUCH THAT THE ANGLE THAT ARE MOUNTED AT DOES NOT EXCEED THE ANGLE SHOWN
- 15 ENSURE POWER CABLE +48VDC AND GROUND CORRESPOND WITH INPUT CONNECTOR PER DETAIL E. SHEET 3. L1, L2, L3, AND L4 INTERFACE WITH CORRESPONDING LINEAR ACTUATORS (CABLES AND CONNECTORS NOT SHOWN)
- 16 APPLY LOCTITE THREADLOCKER RED 271 TO THREADS OF INDICATED FASTENERS
- 17 TORQUE INDICATED 1/2-13 FASTENERS TO 40 FT-LBS
18. DO NOT LIFT FROM LINEAR ACTUATORS. ENSURE ALL LIFTING STRAPS ARE CLEAR OF MATING CONNECTORS AS TO NOT DAMAGE THE POSITIONER
- 19 CENTER OF GRAVITY 0.3" (0.8 cm) IN THE Y-DIRECTION AND 0" IN THE X-DIRECTION MEASURED FROM THE HORIZONTAL CENTER OF THE POSITIONER. CENTER OF GRAVITY 11.0" (27.9 cm) IN THE Z-DIRECTION MEASURED FROM THE CENTER OF THE 4.5" DIAMETER MOUNTING POLE.



| TABLE I | |
|-------------------------------|---|
| BUILDING A PART NUMBER | STANDARD OPTIONS |
| LA-15LPT - 40 - 100 - 100 | <<EXAMPLE |
| | SHIELDED ETHERNET CABLE STANDARD LENGTHS |
| | 050 = 50 ft |
| | 100 = 100 ft |
| | 150 = 150 ft |
| | 200 = 200 ft |
| | 250 = 250 ft |
| | 300 = 300 ft |
| | XXX = Custom length in feet |
| | XXXC = Add "C" to end of cable length for unterminated mating connector |
| | POWER CABLE STANDARD LENGTHS (CONNECTOR BY FLYING LEAD) |
| | 050 = 50 ft |
| | 100 = 100 ft |
| | 150 = 150 ft |
| | 200 = 200 ft |
| | XXX = Custom length in feet |
| | CUSTOM CONFIGURATION |
| | = Standard options - leave blank |
| | MOTOR DRIVES AND PAYLOAD |
| | 40 = Az 500 ft-lbs @ 0.5°/s, El 500 ft-lbs @ 0.5°/s, 300 lb payload. |
| | Typically paired with 4-6 ft antenna |
| | MODEL |
| | LA-15LPT = LinkAlign-15LPT (+/-7.5° azimuth, +/-7.5° elevation) |

| | | | | |
|---|--|--|--|------------------------|
| SYMBOL KEY <input type="checkbox"/> NOTE <input type="checkbox"/> PL ITEMS PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF QPARUSA. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF QPARUSA IS PROHIBITED. QPAR ANTENNAS USA, LLC San Diego, CA 92020 www.qparusa.com | UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES: ANGLE ± 5 DEGREES TWO PLACE DECIMAL ±.030 THREE PLACE DECIMAL ±.010 INTERPRET DIM AND TOL PER ASME Y14.5M - 1994 THIRD ANGLE PROJECTION  DO NOT SCALE DRAWING | DRAWN S. CHEYNE 2013-10-28 CHECKED C. CHEYNE 2017-05-09 ME APPR. S. CHEYNE 2013-10-28 EE APPR. 2013-10-28 | QPAR Antennas USA, LLC TITLE: QLA-15LPT-40 INTERFACE CONTROL DRAWING | |
| | | PART NO. SEE TABLE I | SIZE DWG. NO. C ICDN900212 | REV C |
| | | SCALE: 1:4 | SHEET 1 OF 5 | |



ANTENNA MOUNTING FEATURES

13

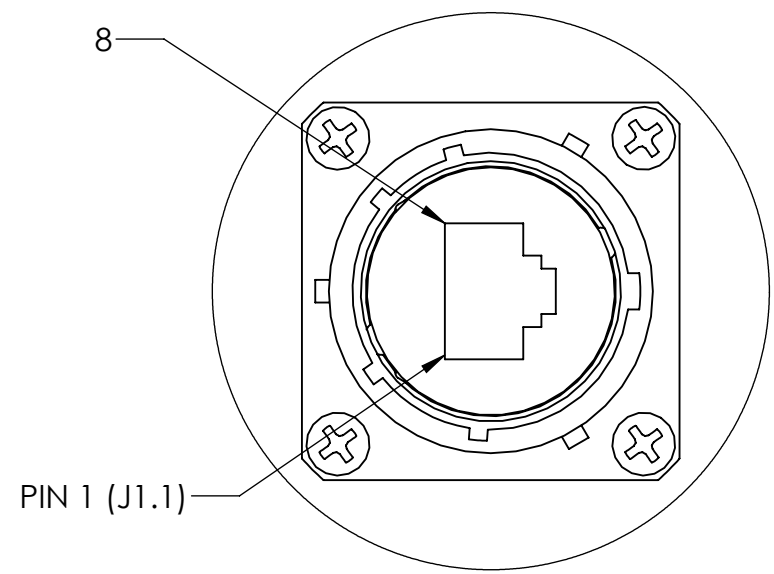
4 SURFACES

(4X .475)

SHEET 3
ZONE B-2

.3 19

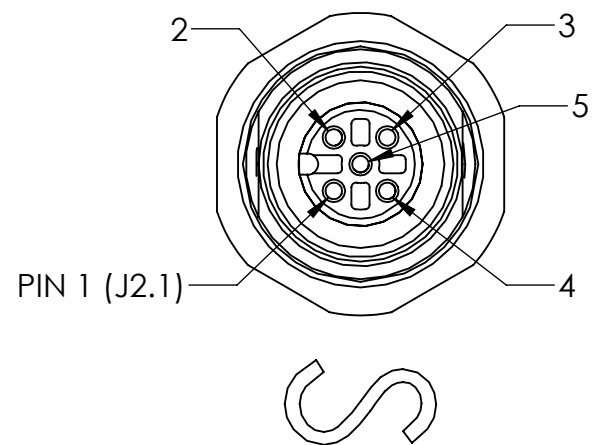
11.0 19



PIN 1 (J1.1)

J1 CONNECTOR SHOWN FROM MATING SIDE
MATES WITH AMPHENOL P/N - RJF6B

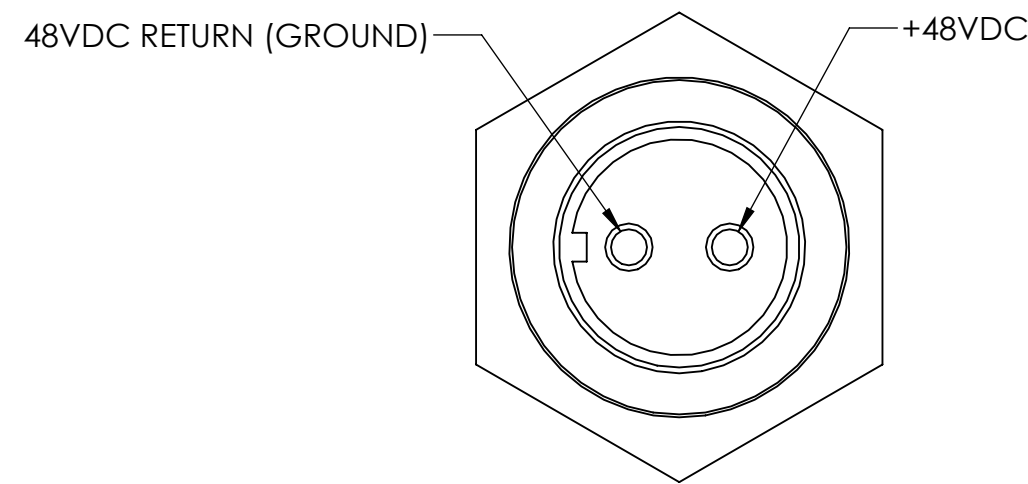
DETAIL C
SCALE 1.5 : 1
SEE TABLE II FOR PINOUT DETAILS



PIN 1 (J2.1)

J2 CONNECTOR SHOWN FROM MATING SIDE
MATES WITH TURCK P/N - 8151-0/PG9

DETAIL D
SCALE 2 : 1
SEE TABLE III FOR PINOUT DETAILS



48VDC RETURN (GROUND)

+48VDC

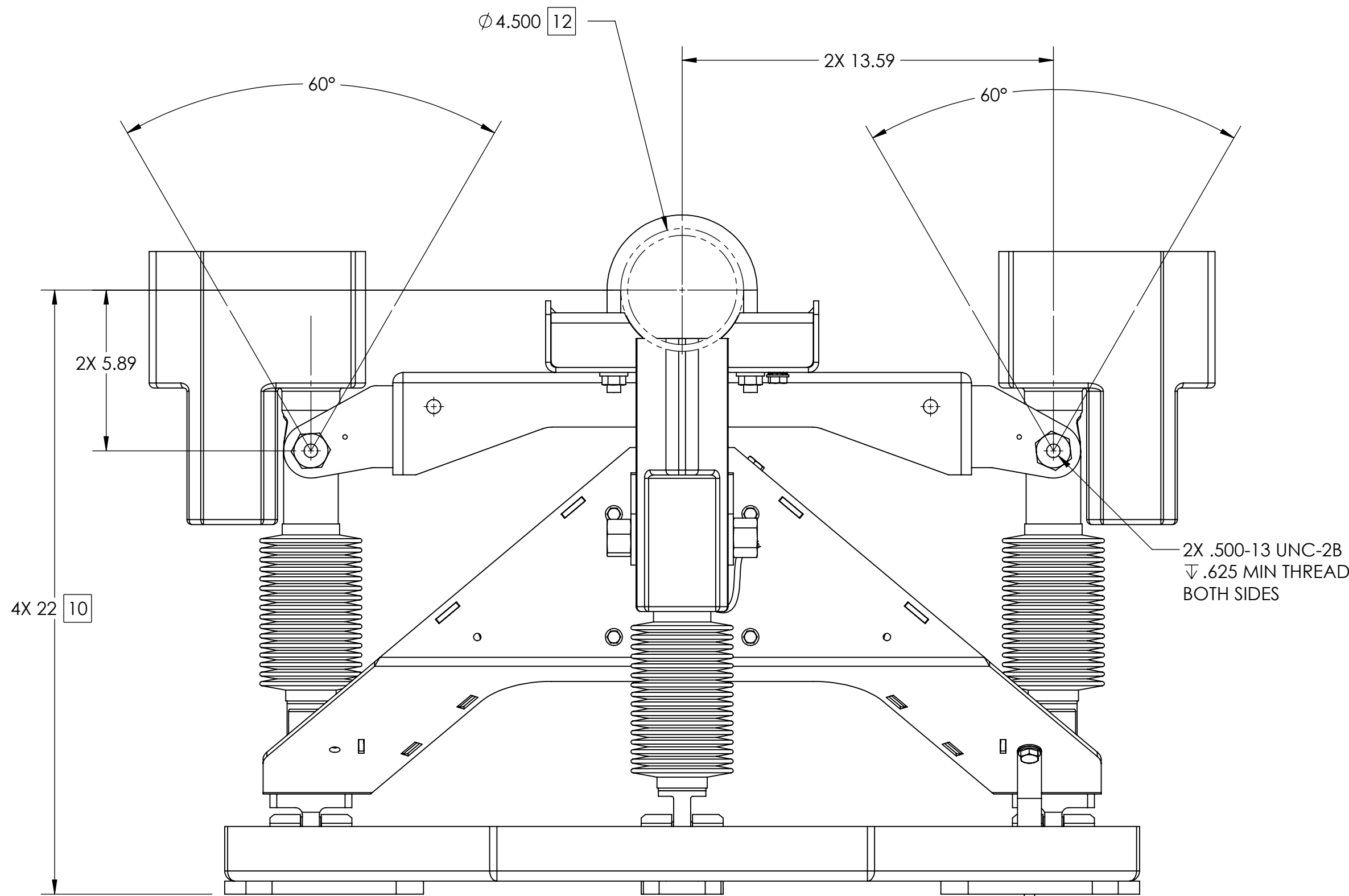
J3 CONNECTOR SHOWN FROM MATING SIDE
MATES WITH TURCK CABLE P/N - RKM 20-*M
(* INDICATES LENGTH IN METERS)

DETAIL E
SCALE 1.5 : 1
POWER INPUT

15

| TABLE II (PoE CONNECTOR) | |
|--------------------------|---------------------------|
| CONNECTOR DESIGNATION | FUNCTION |
| J1.1 | DATA PAIR 1 |
| J1.2 | DATA PAIR 1 |
| J1.3 | DATA PAIR 2 |
| J1.4 | +48-56VDC PoE POWER INPUT |
| J1.5 | +48-56VDC PoE POWER INPUT |
| J1.6 | DATA PAIR 2 |
| J1.7 | DC RETURN FOR PoE INPUT |
| J1.8 | DC RETURN FOR PoE INPUT |

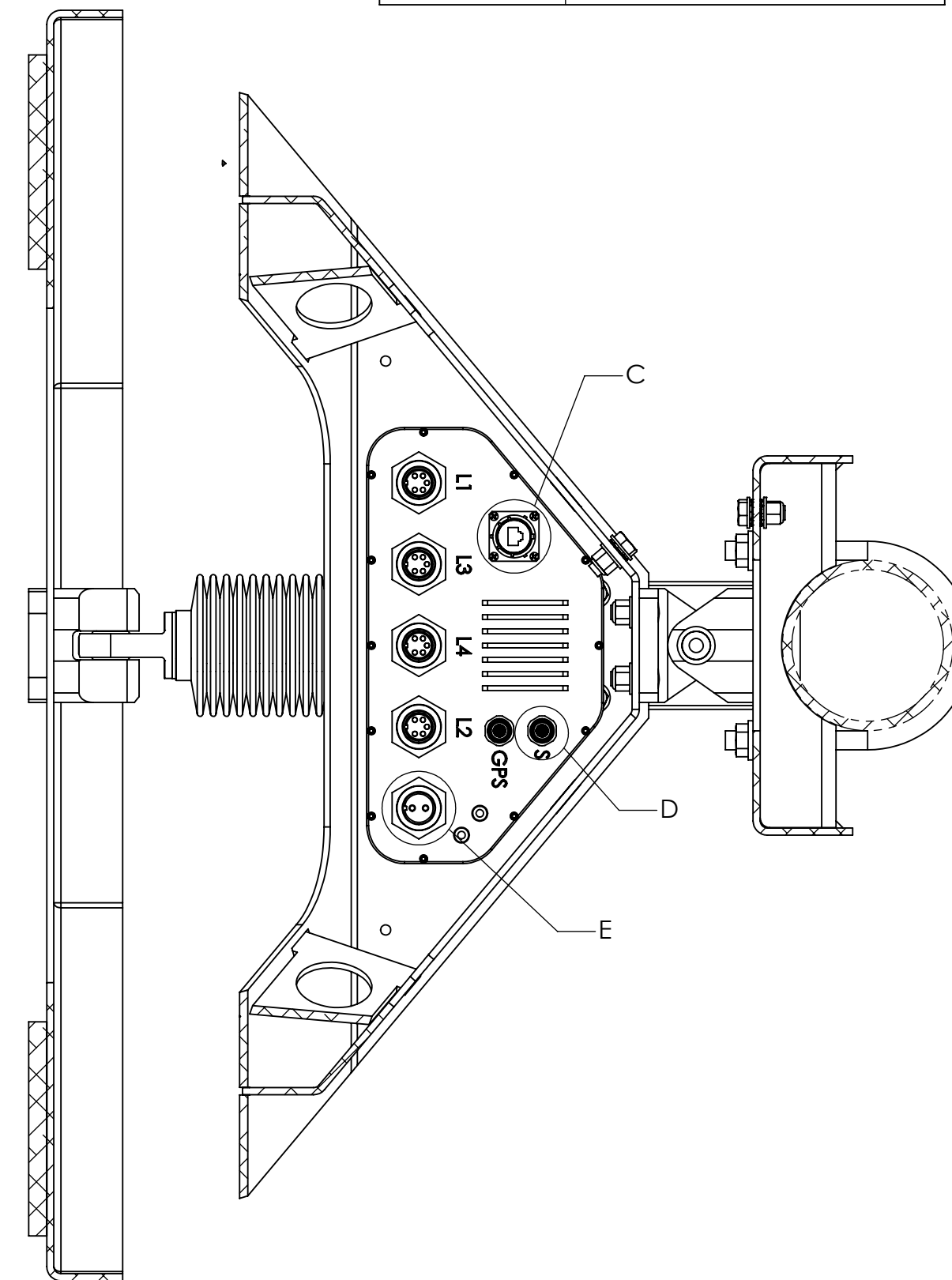
| TABLE III (SERIAL CONNECTOR) | |
|------------------------------|--------------------------------|
| CONNECTOR DESIGNATION | FUNCTION |
| J2.1 | DC RETURN FOR QPARUSA JOYSTICK |
| J2.2 | NOT USED |
| J2.3 | (B) TxD-/RxD- DATA LINE |
| J2.4 | (A) TxD+/RxD+ DATA LINE |
| J2.5 | DC POWER FOR QPARUSA JOYSTICK |



VIEW A-A
SHEET 2
ZONE F-6

STRUT INSTALLATION

14



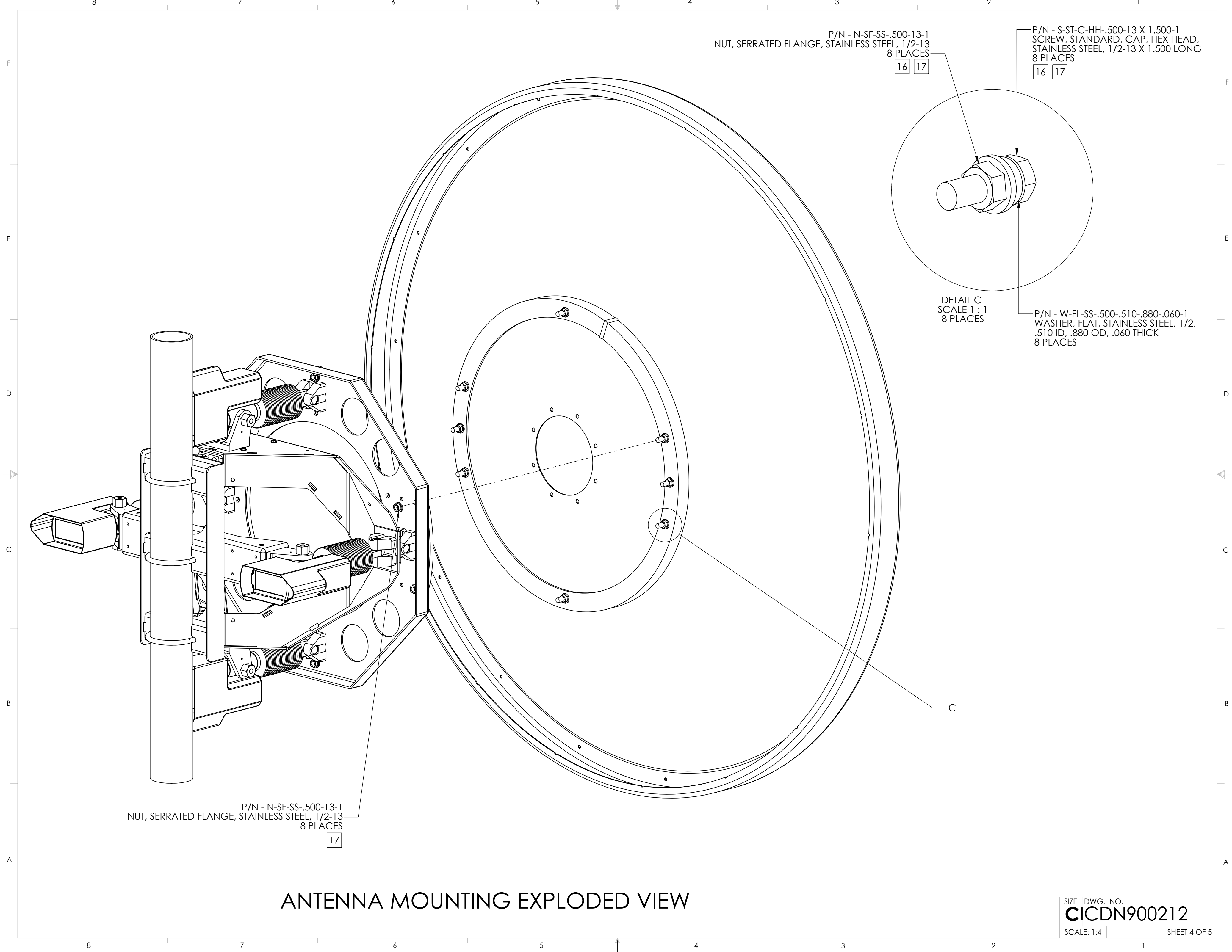
SECTION B-B
SHEET 2
ZONE D-4

MATING CONNECTORS

15

SIZE DWG. NO.
CICDN900212

SCALE: 1:4 SHEET 3 OF 5



P/N - N-SF-SS-.500-13-1
 NUT, SERRATED FLANGE, STAINLESS STEEL, 1/2-13
 8 PLACES
 16 17

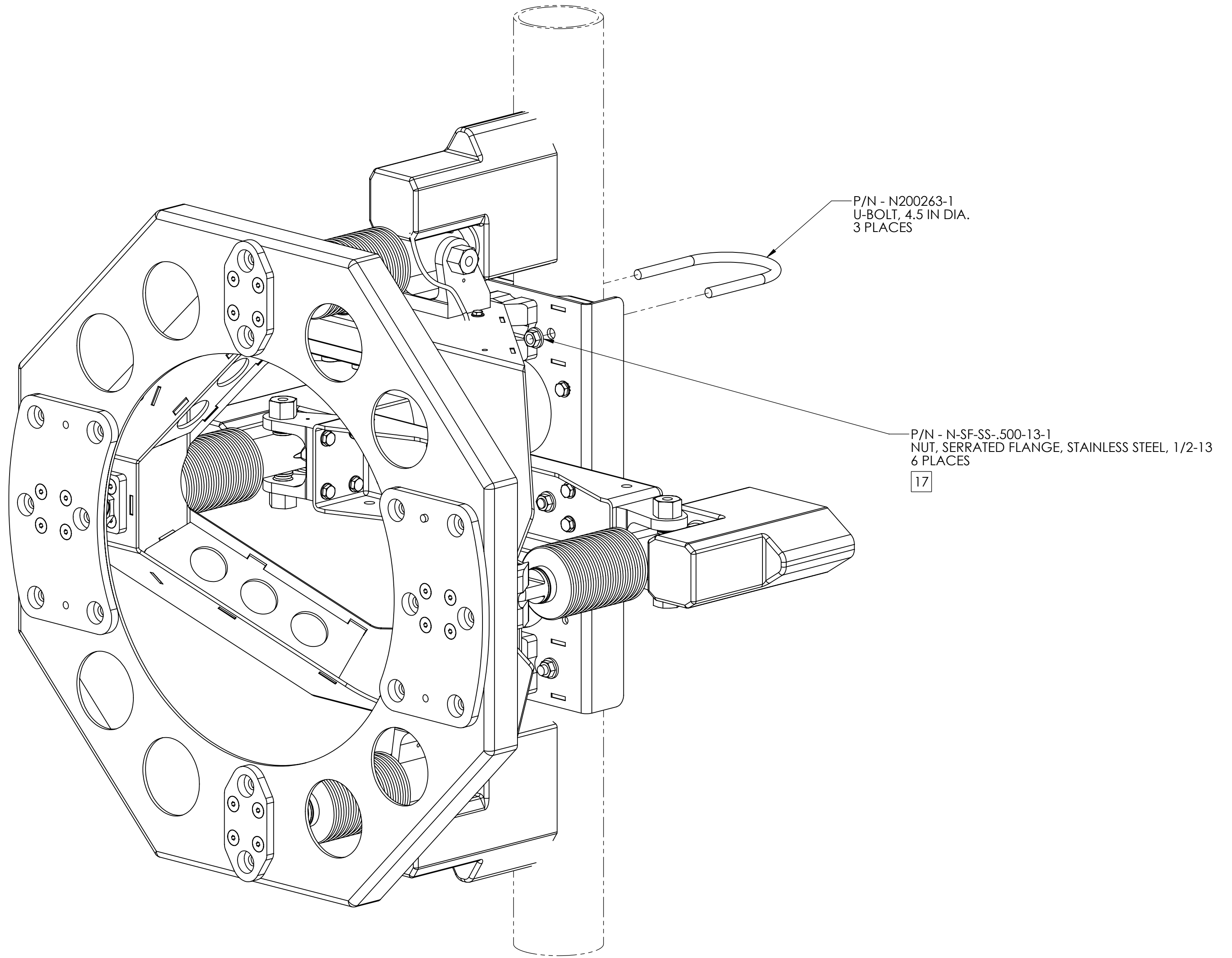
P/N - S-ST-C-HH-.500-13 X 1.500-1
 SCREW, STANDARD, CAP, HEX HEAD,
 STAINLESS STEEL, 1/2-13 X 1.500 LONG
 8 PLACES
 16 17

DETAIL C
 SCALE 1 : 1
 8 PLACES

P/N - W-FL-SS-.500-.510-.880-.060-1
 WASHER, FLAT, STAINLESS STEEL, 1/2,
 .510 ID, .880 OD, .060 THICK
 8 PLACES

P/N - N-SF-SS-.500-13-1
 NUT, SERRATED FLANGE, STAINLESS STEEL, 1/2-13
 8 PLACES
 17

ANTENNA MOUNTING EXPLODED VIEW



POSITIONER MOUNTING EXPLODED VIEW