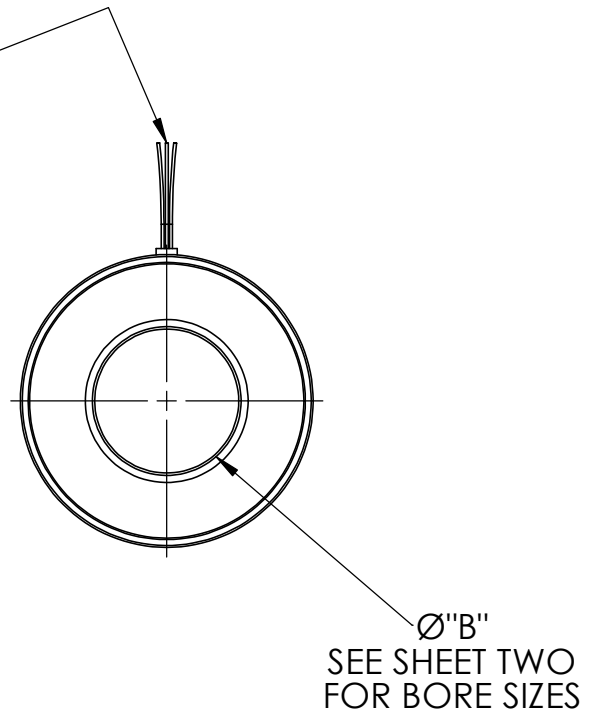


SEE SHEET TWO FOR LEAD OPTIONS

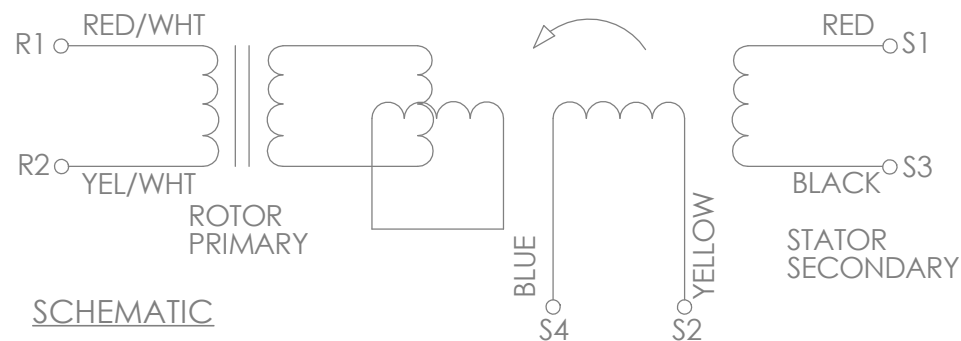
PILOT 500 SHOWN  
SEE SHEET TWO AND THREE FOR OTHER OPTIONS



NOTES:

1. ROTOR & STATOR ARE A MATCHED PAIR. DO NOT INTERCHANGE ROTOR OR STATOR BETWEEN RESOLVERS.
2. ROTOR AND STATOR TO BE MOUNTED AXIALLY FLUSH  $\pm .010$ .
3. CUSTOMER MUST MAINTAIN SHAFT RUNOUT WITH RESPECT TO DATUM 'A' WITHIN  $.003$  T.I.R.

SCHEMATIC

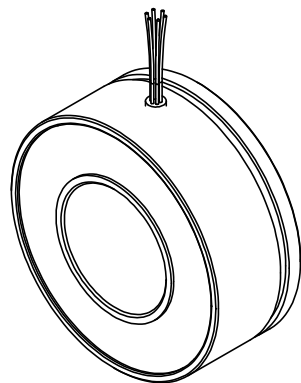


SCHEMATIC

PHASING EQUATION  
FOR CCW ROTATION OF ROTOR FACING  
TRANSFORMER MOUNTING FLANGE END.

$$E(S1-S3) = KE(R1-R2) \cos \theta$$

$$E(S2-S4) = -KE(R1-R2) \sin \theta$$



TECHNICAL INFORMATION		
HIPOT, LEADS TO CASE, 500VAC	Max. mArms	2
HIPOT, INTERPHASE, 250VAC	Max. mArms	2
TEMPERATURE RANGE	°C	-55 TO 155
WEIGHT, APPROX	g	180
CONTINUOUS SPEED	Max. kRPM	20

<p>THIRD ANGLE PROJECTION</p>	<p>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES [mm] DIAMETERS CONCENTRIC <math>.003</math> [.076] TIR FACES PERPENDICULAR <math>-.003</math> [.076] INSIDE CORNERS R .015 [.381] MAX INTERPRETATION PER ASME Y14.5M-1994</p>	<p>UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS AND BREAK SHARP EDGES <math>-.005</math>/.010 [.127/.254]</p> <p>TOLERANCES: DECIMAL <math>.00\pm.01</math> [.254] <math>.000</math> <math>\pm.005</math> [.127] ANGLE <math>\pm 30^\circ</math> CHAMFER ANGLE <math>\pm 10^\circ</math></p>	<p><b>API DELEVAN</b> <a href="http://www.delevan.com">http://www.delevan.com</a></p> <p><b>31BRCX</b></p>
	<p>MATERIAL</p> <p>FINISH</p>	<p>MACHINE SURFACES <math>\sqrt{63}</math></p> <p>APPROVALS</p> <p>DATE</p> <p>CHECKED</p> <p>DES ENG</p>	

**PART, ASSEMBLY AND ALL COMPONENTS  
MEET EU ROHS DIRECTIVE**

REVISIONS					
REV	ECO	DESCRIPTION	DATE	BY	CHECKED
-	-	NEW DRAWING			

# NUMBERING

## 31BRCX-XXX-XXXX-XXXX

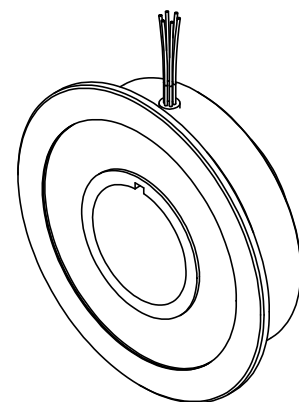
PLEASE CONTACT FACTORY FOR OTHER ELECTRICAL AND MECHANICAL OPTIONS.

SIZE  
31

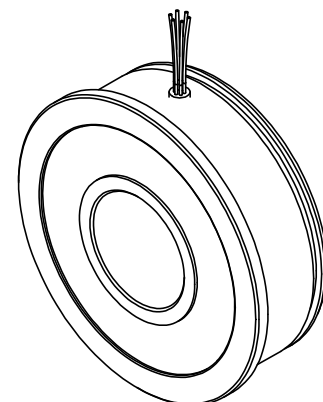
STYLE OF RESOLVER:  
FRAMELESS

PILOT NUMBER	STYLE	WINDING NUMBER	Vrms	KHz	ma Arms	Tr	SPEED	ACCURACY ±arcmin	BORE LETTER	BORE	"B" DIAMETER	CABLE DESIGNATION	CABLE	LEAD	LENGTH
500	SERVO MOUNT 3.05 [77.47] OD 1.25 [31.75] LONG	002	4	5	30	.50	1	10	A	1.5 INCH	1.5000/1.5015 [38.1/38.14] 1.25 [31.752] AOL	05	26 AWG FLYING LEADS	01	12[305]
		004	7	4	30	.50	1	10	Q	25m m	.9843/.9851 [25.0/25.02] 1.25 [31.752] AOL	06	28 AWG 3 TWISTED PAIRS	02	16[406]
		006	8	6.5	75	.50	1	20	R	30m m	1.1811/1.1819 [30.0/30.02] 1.25 [31.752] AOL	07	24 AWG FLYING LEADS W/TUBING	03	24[609]
502	FLANGE MOUNT 3.62 [91.95] OD .875 [22.23] LONG	009	4.25	7	55	.47	1	10	W	34m m	1.3386/1.3395 [34.0/34.02] 1.25 [31.752] AOL	08	28 AWG HIGH TEMP FLYING LEADS	04	60[1524]
									C	1.37 INCH W/KEYWAY	1.3750/1.3755 [34.93/34.94] .125 [3.18] WIDE KEYWAY 1.25 [31.752] AOL	09	24 AWG 3 TWISTED PAIRS	05	80[2032]
503	FLANGE MOUNT 3.54 [89.92] OD 1.181 [30] LONG								G	1.56 INCH	1.5607/1.5617 [39.64/39.67] 1.25 [31.752] AOL	11	22 AWG 4 TWISTED PAIRS W/TUBING	06	120[3048]
												12	AWG 24 FLYING LEADS		
												20	RADIATION HARDEN 26 AWG FLYING LEADS		

SEE SHEET 3 FOR DIMENSIONAL DIFFERENCES



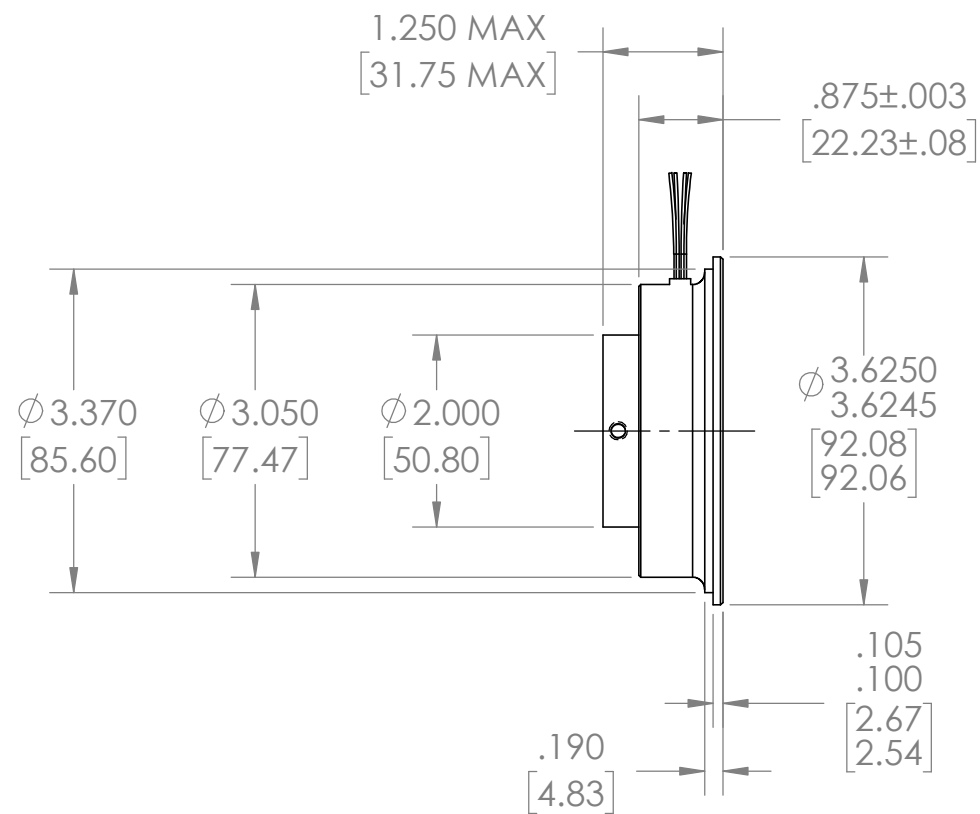
PILOT 502



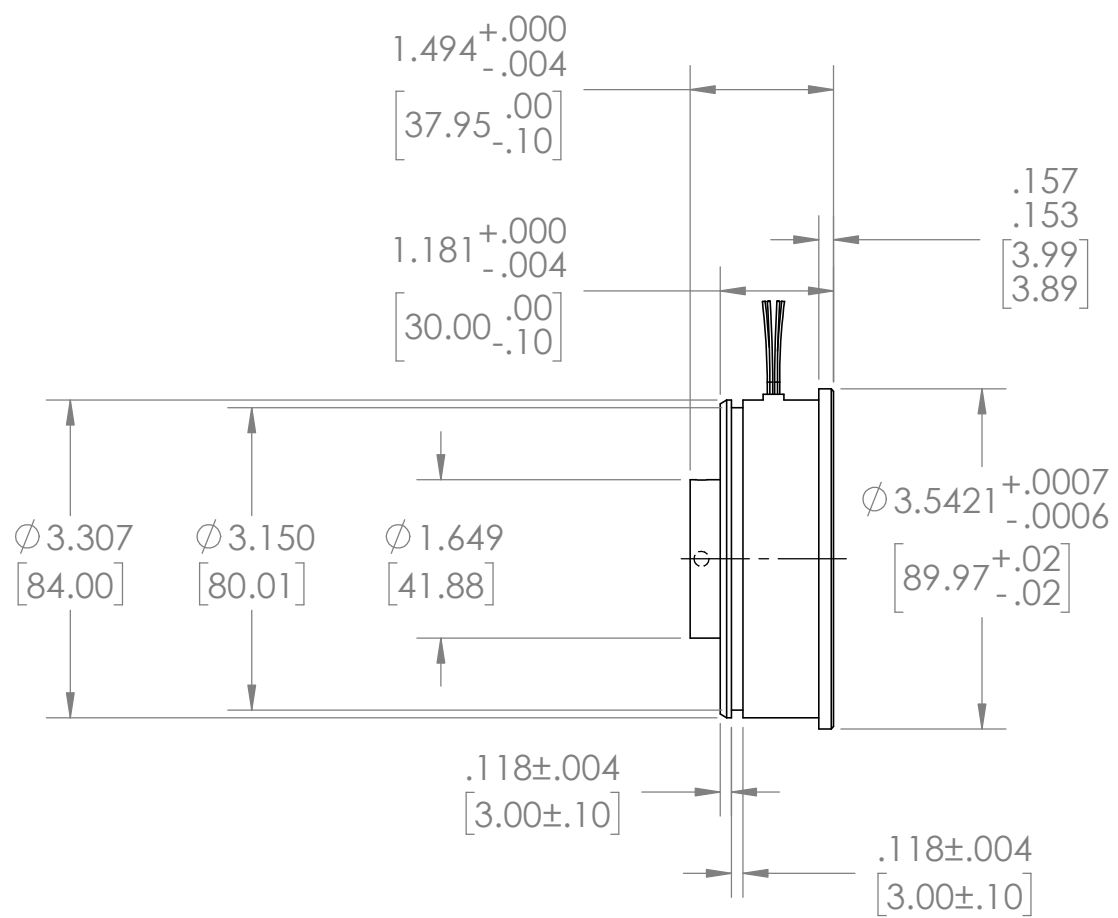
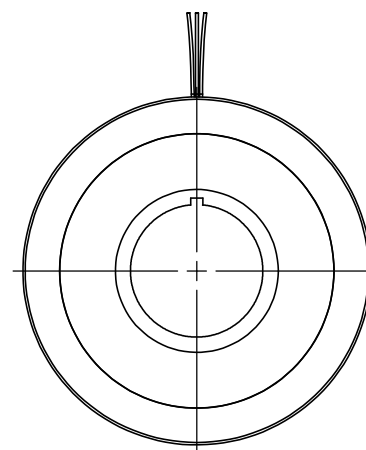
PILOT 503

<p>THIRD ANGLE PROJECTION</p>	<p>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES [mm] DIAMETERS CONCENTRIC .003 [.076] TIR FACES PERPENDICULAR .003 [.076] INSIDE CORNERS R .015 [.381] MAX INTERPRETATION PER ASME Y14.5M-1994</p>	<p>UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS AND BREAK SHARP EDGES -.005/.010</p> <p>TOLERANCES: DECIMAL .00±.01 [.254] .000 ±.005 [127] ANGLE ±0.5° CHAMFER ANGLE ±10°</p>	<p><b>API DELEVAN</b> <a href="http://www.delevan.com">http://www.delevan.com</a></p>	
			<p><b>31BRCX</b></p>	
MATERIAL	-	MACHINE SURFACES 63	APPROVALS	DATE
FINISH	-		CHECKED	-
			DES ENG	-
<p>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF API DELEVAN. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF API DELEVAN IS PROHIBITED.</p>			SIZE B	DWG. NO.
			SCALE	SHEET 2 OF 3
			CODE IDENT: 58655	

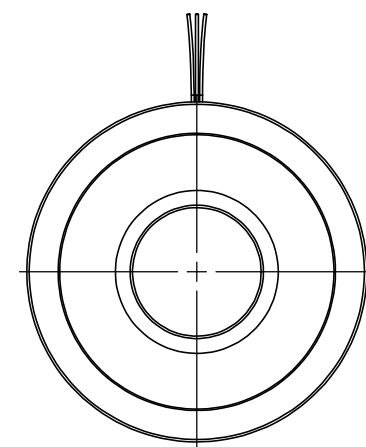
REVISIONS					
REV	ECO	DESCRIPTION	DATE	BY	CHECKED
-	-	NEW DRAWING			



PILOT 502  
DIFFERENCES FROM 500



PILOT 503  
DIFFERENCES FROM 500



<p>THIRD ANGLE PROJECTION</p>	<p>UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES [mm] DIAMETERS CONCENTRIC <math>.003</math> [0.076] TIR FACES PERPENDICULAR <math>-.003</math> [0.076] INSIDE CORNERS R <math>.015</math> [3.81] MAX</p> <p>INTERPRETATION PER ASME Y14.5M-1994</p>	<p>UNLESS OTHERWISE SPECIFIED: REMOVE ALL BURRS AND BREAK SHARP EDGES <math>-.005</math> / <math>.010</math></p> <p>TOLERANCES: DECIMAL <math>.00 \pm .01</math> [254] <math>.000</math> <math>\pm</math> <math>.005</math> [127] ANGLE <math>\pm 0.5^\circ</math> CHAMFER ANGLE <math>\pm 10^\circ</math></p>	<p><b>API DELEVAN</b> <a href="http://www.delevan.com">http://www.delevan.com</a></p>
	<p>MATERIAL</p> <p>FINISH</p>	<p>MACHINE SURFACES <math>\sqrt{63}</math></p> <p>APPROVALS</p> <p>CHECKED</p> <p>DES ENG</p>	<p>DATE</p> <p>DATE</p>
<p>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF API DELEVAN. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF API DELEVAN IS PROHIBITED.</p>	<p>SCALE</p>	<p>SHEET 3 OF 3</p>	<p>CODE IDENT: 58655</p>