

20DAM20D10-K

C

REVISIONS				DIST	AI	BR	SP
LTR	DESCRIPTION	DATE	APVD				
A	ORIGINAL RELEASE PER ECOS06303	4/30/07	KS LOW				
B	ADDED 3.19 ON SHT 2 PER S02-0456 KG KI	12/15/08	KS LOW				
C	REVISED SHT 5 PER S02-0722 KG KI	12/9/09	KS LOW				

THIS DRAWING IS THE PROPERTY OF PORTESCAP DANAHER MOTION

RECORD OF REVISION STATUS OF EACH SHEET

I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
A	A	A	A	A																										
B	B	A	A	A																										
C	B	A	A	C																										

PRODUCT SPECIFICATION

APPROVALS		DATE
PREPARED	ZHONGLE	4/27/07
CHECKED	ERIC	12/15/08
DSGN	KS LOW	12/15/08
DSGN ENGR	FADIL	12/15/08
QA		

# Portescap

PRODUCT SPECIFICATION

SIZE	CODE IDENT NO	20DAM20D10-K
<b>A</b>		
20DAM20D10-K-PS		SHEET 1 OF 5

# CONTINUATION SHEET

## 1.0 SCOPE

1.1 THIS SPECIFICATION DEFINES THE DESIGN, CONFIGURATION AND QUALITY ASSURANCE PROVISIONS OF THE 20DAM20D10-K SERIES DIGITAL LINEAR ACTUATOR

## 2.0 APPLICABLE DOCUMENTS

2.1 THIS SECTION IS NOT APPLICABLE TO THIS SPECIFICATION.

## 3.0 REQUIREMENTS

- 3.1 OPERATING VOLTAGE : 3.6 VDC
- 3.2 LINEAR PULL-IN FORCE: ■ 8.8 N / 31.6 OZ MIN @ 3.6 VDC, 2Ø, 400PPS
- 3.3 MAXIMUM PULL-IN RATE (STEPS/SEC) : 500
- 3.4 LINEAR TRAVEL PER STEP : 0.0508 mm / .002 INCH
- 3.5 HOLDING FORCE (UNENERGIZED) : 11.1 N / 40 OZ
- 3.6 MAXIMUM TRAVEL : 31.8 mm / 1.252 INCH
- 3.7 DIRECTION OF TRAVEL : BI-DIRECTIONAL
- 3.8 BEARINGS : BALL BEARINGS (2x)
- 3.9 WEIGHT : 0.9 OZ (25 GRAMS)
- 3.10 RESISTANCE PER PHASE :  $7.5\Omega \pm 10\%$
- 3.11 INDUCTANCE PER PHASE : 2.7 mH REF
- 3.12 POWER CONSUMPTION : 3.46 WATTS
- 3.13 INSULATION RESISTANCE : 20MΩ
- 3.14 DIELECTRIC WITHSTAND VOLTAGE : 650 ± 50 VRMS FOR 1 TO 2 SECONDS
- 3.15 OPERATING TEMPERATURE : -20°C ~ 70°C
- 3.16 STORAGE TEMPERATURE : -40°C ~ 85°C
- 3.17 MARKING: SHALL CONTAIN MFG LOGO, P/N ID AND DATE CODE (YYWW)
- 3.18 CONFIGURATION : SEE FIGURE 1
- 3.19 LEADWIRES : AWG 28 STRANDED, UL STYLE 1429

SIZE	CODE IDENT NO.	DWG. NO.
<b>A</b>		20DAM20D10-K
SCALE NONE	REV B	20DAM20D10-K-PS SHEET 2

4.0 QUALITY ASSURANCE

4.1 QUALITY CONFORMANCE INSPECTION:  
IN ACCORDANCE WITH ATP 900-0006-001.

5.0 PREPARATION FOR DELIVERY

5.1 PACKAGING:  
UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR PURCHASE  
ORDER, ALL ITEMS SUPPLIED IN ACCORDANCE WITH THIS SPECIFICATION  
SHALL BE PACKAGED AND PACKED IN A MANNER TO ASSURE ACCEPTANCE BY  
COMMON CARRIER AND SAFE DELIVERY AT DESTINATION.

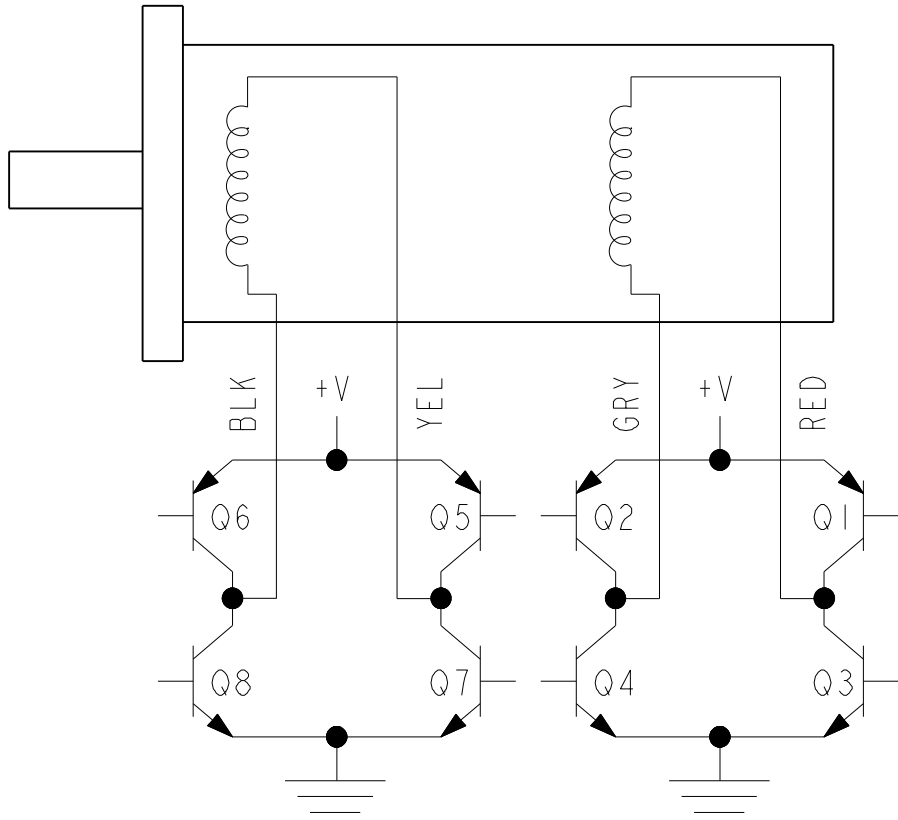
6.0 NOTES

6.1 THIS SECTION IS NOT APPLICABLE TO THIS SPECIFICATION.

7.0 APPENDIX

7.1 THIS SECTION IS NOT APPLICABLE TO THIS SPECIFICATION.

SIZE	CODE IDENT NO.	DWG. NO.	20DAM20D10-K	
<b>A</b>				
SCALE NONE	REV A	20DAM20D10-K-PS	SHEET	3



20DAM20D10-K BIPOLAR SCHEMATICS DIAGRAM

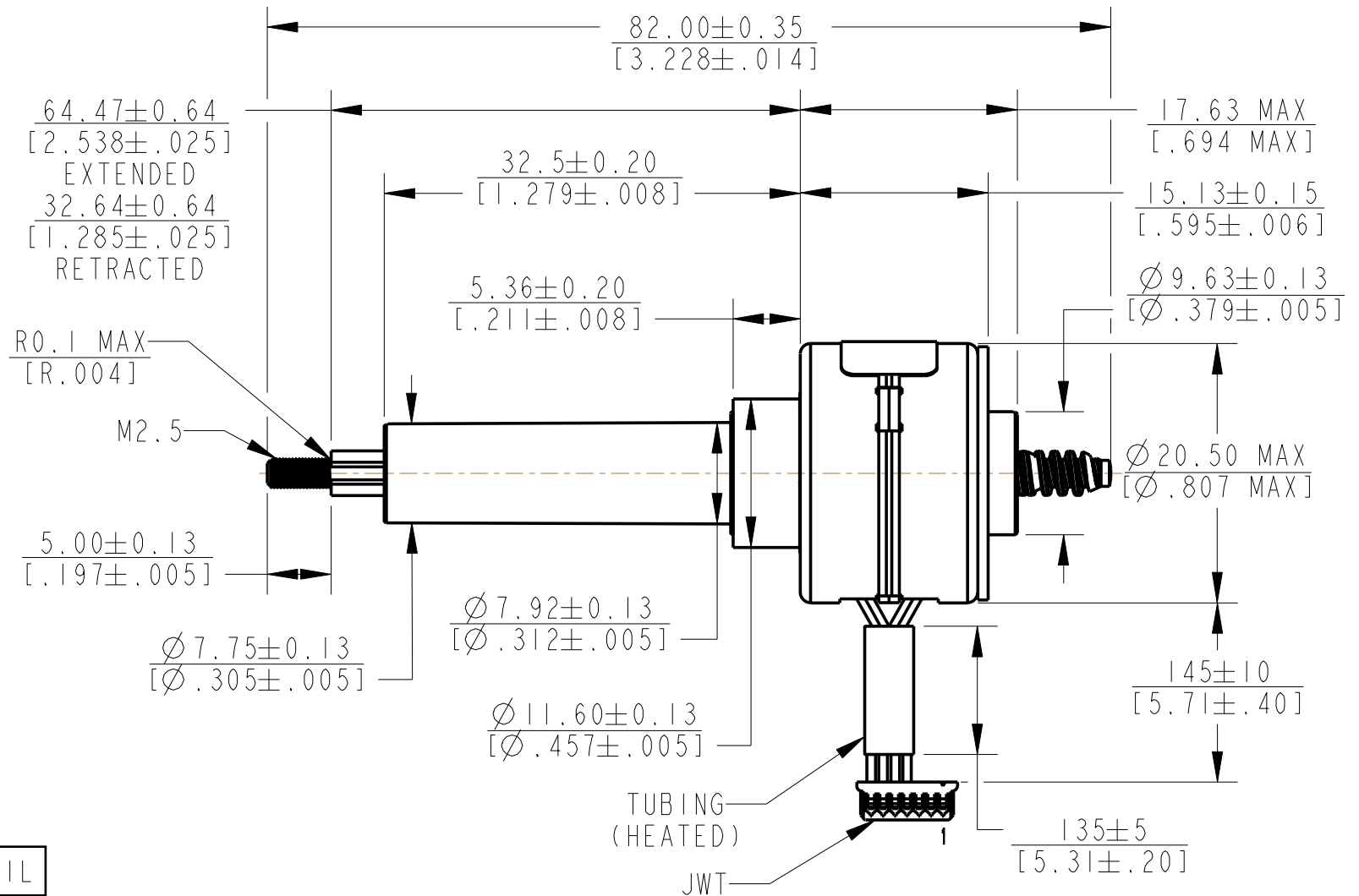
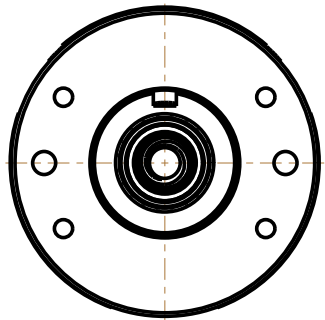
STEP	Q1 - Q4 RED	Q2 - Q3 GRY	Q5 - Q8 YEL	Q6 - Q7 BLK
1	ON	OFF	ON	OFF
2	ON	OFF	OFF	ON
3	OFF	ON	OFF	ON
4	OFF	ON	ON	OFF
1	ON	OFF	ON	OFF

EXTEND

RETRACT

BIPOLAR SWITCHING SEQUENCE

SIZE	CODE IDENT NO.	DWG. NO.	20DAM20D10-K	
<b>A</b>				
SCALE	NONE	REV	A	20DAM20D10-K-PS SHEET 4



CONNECTOR P/N: A125IH02-7P  
 TERMINALS P/N: A125ITOP-2

FIGURE 1

7	BLACK / FRONT COIL
6	YELLOW / FRONT COIL
5	RED / REAR COIL
4	GREY / REAR COIL
3	N.A.
2	N.A.
1	N.A.
PIN NO.	COLOUR / COIL

DIMENSIONS:  $\frac{\text{MM}}{[\text{INCHES}]}$

SIZE	CODE IDENT NO.	DWG. NO.	20DAM20D10-K	
A				
SCALE	NONE	REV	C	20DAM20D10-K-PS SHEET 5

CONTINUATION SHEET