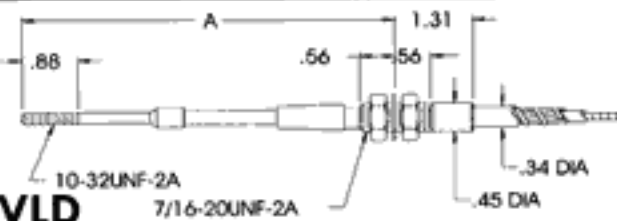
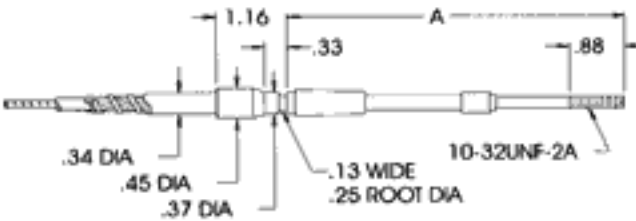
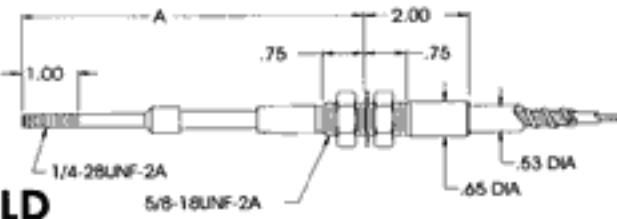
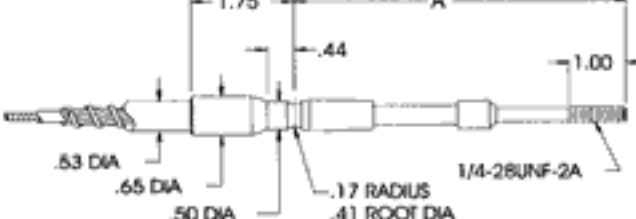
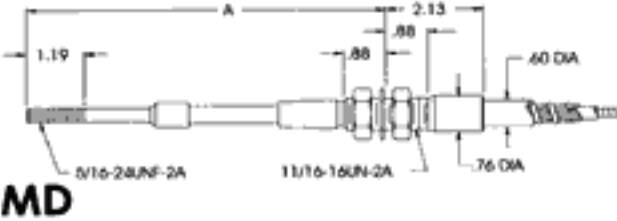
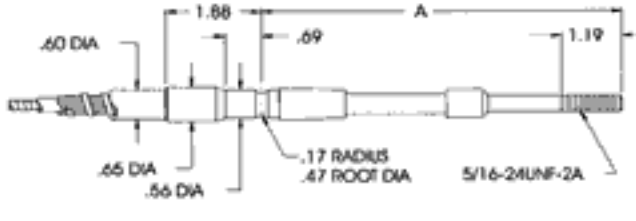
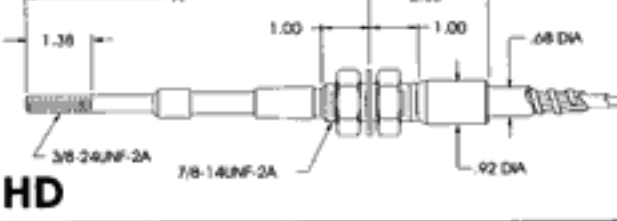
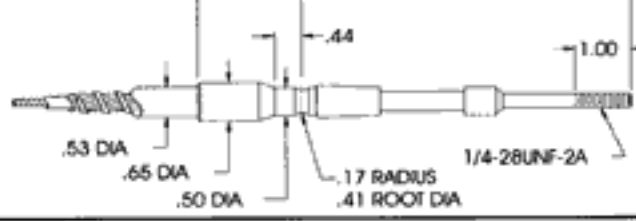


Push-Pull Cable Specifications

Threaded Swivel Conduit Fitting		'A' DIMENSION THREADED SWIVEL (Control at mid travel)	MINIMUM TRAVEL	WORKING INPUT LOAD Push/Pull	MAXIMUM INPUT OVERLOAD Push/Pull	'A' DIMENSION GROOVED SWIVEL (Control at mid travel)	Grooved Swivel Conduit Fitting	
 <p>VLD 10-32UNF-2A 7/16-20UNF-2A</p>	A	4.38	1"	80/120	120/180	3.69	 <p>1.16 .33 A .88 10-32UNF-2A .34 DIA .45 DIA .13 WIDE .25 ROOT DIA .37 DIA</p>	
	.88	5.87	2"	80/120	120/180	5.19		
	.56	7.38	3"	70/120	110/180	6.69		
	1.31	8.87	4"	60/120	90/180	8.19		
	.56	10.38	5"	45/120	70/180	9.69		
	.45 DIA	11.87	6"	30/120	45/180	11.19		
 <p>LD 1/4-28UNF-2A 5/8-18UNF-2A</p>	A	4.62	1"	150/230	230/350	4.00	 <p>1.75 .44 A 1.00 1/4-28UNF-2A .53 DIA .65 DIA .17 RADIUS .41 ROOT DIA .50 DIA</p>	
	1.00	6.12	2"	150/230	230/350	5.50		
	.75	7.62	3"	125/230	190/350	7.00		
	.75	9.12	4"	100/230	150/350	8.50		
	2.00	10.62	5"	75/230	110/350	10.00		
	.65 DIA	12.12	6"	5-230	75/350	11.50		
 <p>MD 5/16-28UNF-2A 1 1/16-16UN-2A</p>	A	5.06	1"	250/400	400/600	4.38	 <p>1.88 .69 A 1.19 5/16-28UNF-2A .60 DIA .65 DIA .17 RADIUS .47 ROOT DIA .56 DIA</p>	
	1.19	6.56	2"	250/400	400/600	5.87		
	.88	8.06	3"	210/400	300/600	7.38		
	.88	9.56	4"	170/400	250/600	8.87		
	2.13	11.06	5"	130/400	200/600	10.38		
	.60 DIA	12.56	6"	100/400	150/600	11.87		
 <p>HD 3/8-24UNF-2A 7/8-14UNF-2A</p>	A	5.69	1"	700/1000	1000/1500	5.19	 <p>1.75 .44 A 1.00 1/4-28UNF-2A .53 DIA .65 DIA .17 RADIUS .41 ROOT DIA .50 DIA</p>	
	1.38	7.19	2"	700/1000	1000/1500	6.69		
	1.00	8.69	3"	600/1000	900/1500	8.19		
	1.00	10.19	4"	500/1000	750/1500	9.69		
	2.63	11.69	5"	400/1000	600/1500	11.19		
	.68 DIA	13.19	6"	30-1000	450/1500	12.69		

Low Friction-EXT and Utility Cables Design Criteria

Efficiency

Efficiency factor ratings are for comparative purposes and may vary due to length, rate of travel, direction of travel, bend radius and temperature.

To Compare Efficiency:

$$\text{Input force} = \frac{\text{Output load (lbs)} \times \text{total degrees of bend}}{\text{Efficiency factor} + \text{output load}}$$

Efficiency Factors:

Low Friction - EXT	.0012
Utility	.002

DUTY	MINIMUM BEND. RAD.
VLD	2"
LD	3"
MD	5"
HD	6"

Backlash

Nominal Backlash = Backlash factor x total degrees of bend.

Backlash Factors:

VLD	.00015
LD	.00020
MD	.00025
HD	.00030

Temperature range: -65° to +230° F