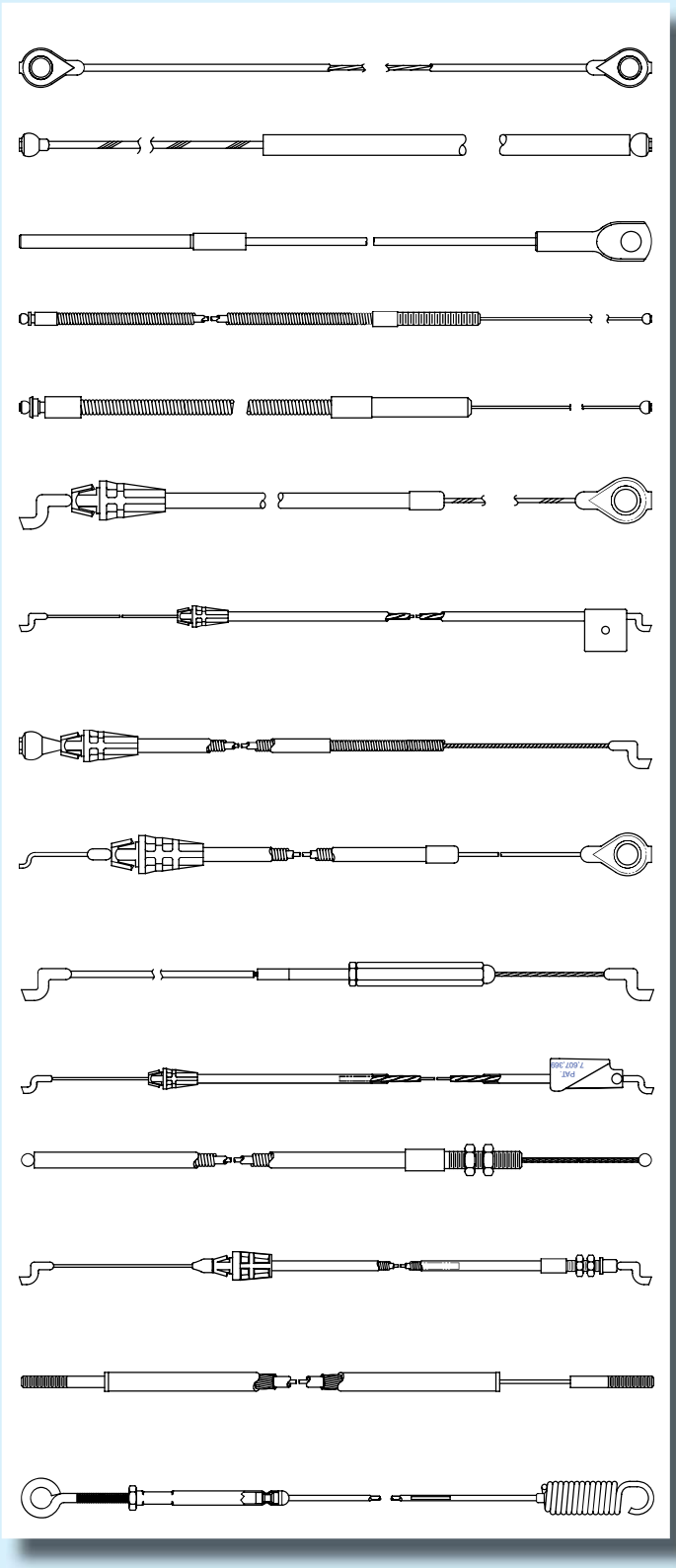

WESCON CONTROLS

Controls for a world in motion

Light Duty
Tension Cable Controls

Creative solutions for every application

- Outdoor Power Equipment of All Kinds
- Recreational Equipment
- Rotary Mowers
- Tillers
- Snow Blowers
- String Trimmers
- Consumer & Commercial Garden Equipment
- Garden Tractors & ZTR's
- ATVs
- Marine
- Medical
- Office Furniture
- Automotive & Motorcycle
- Trucking
- Off-Road Vehicles

Numerous creative methods of applying cable & conduit in a multitude of applications, using a variety of cable, conduit & zinc die cast fittings with unlimited conduit mounting options.

Applications:
Ground Drive Engagement
MZR - Manual Zone Restart Blade Engagement Controls
Blade Brake Clutch Controls (BBC)
Lanyards
Light Duty Cable Tension Products
Marine
Light Duty Brake
Pulley Applications Using Bare or Covered Flexible Cables
Recreational & Sports
Throttle Controls

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General Design Information

Generally, conduit and cable or wire assemblies are the most complicated and confusing of all mechanical linkage controls. Every assembly, almost without exception, is customized to one degree or another for its particular application.

Wescon's experience over the past 50 years has provided a wealth of information to the design engineer. The following pages represent some of the accumulated data Wescon has acquired.

Consider the following ideas when designing a control:

1. Estimate the working load to which the assemblies will be subjected and whether they are to be push-pull or pull-pull.

2. Consider the environment of the application.

3. Consider the routing of the assembly and the importance of flexibility.

4. How important are aesthetics? Will the assembly be visible to the consumer?

5. Reliability and product life should be considered.

6. Finally, consider expense. All the preceeding points affect cost to some degree. It is important to design an assembly adequate for the application without over-designing.

Above all, Wescon wants its customers to obtain the best possible product for the least possible cost. This means the best possible value. Spend a few moments to explain your needs to our sales and engineering staff for they are experts in their fields and have your interests in mind.

Guidelines for Proper Cable Selection

Construction

The greater the number of wires, the greater the cables' flexibility. For moving over pulleys, the 7 x 7 and 7 x 19 constructions should be used. For static or rigid type applications, 1 x 19 strands may be used.

Strength

The factors determining cable strength are material, diameter and construction. Cable strength is specified as a minimum breaking strength in pounds. Actual strength will exceed the required minimum; however, it is recommended that the minimum be used when designing a cable assembly system. The cable strength required should be a minimum of 4 times the system load in the absence of shocks and a minimum of 5 times the system load when a shock load is present. For use over pulleys, the ratio should be larger to obtain a longer flex life.

Breaking Strength Safety Factor

When designing cable into a product always divide the breaking strength by 5 to arrive at a "safe working load." The term "breaking strength" means just that! It is the load at which the cable or wire rope destruct. A 5 times safety factor will reduce potential accidents.

Friction

Cable used in sliding applications, as within a conduit, lined or unlined, creates a drag due to friction between the cable surface and the conduit. The following factors are involved.

Cable Type - 7 x 7 cable has approximately twice the surface roughness of 1 x 19 due to its 7 multiple-strand construction. Therefore, 1 x 19 offers less drag in a typical application.

Cable Material - Stainless cable offers less frictional drag than galvanized cable due to the smoother surface of the stainless wire.

Conduit Type - Under normal load conditions, plastic-lined conduit offers less frictional resistance than unlined. Under higher loads, however, the softer lining may tend to abrade, particularly with 7 x 7 cable. Where loads are high, 1 x 19 cable should be used, and if low friction is important, stainless cable should be specified.

Cable Type	Cable Material	Cable Dia.	Friction Factor
1 x 19	Galvanized	3/64	1.5
		1/16	1.15
	Stainless Steel	3/64	1.3
		1/16	1.0
7 x 7	Galvanized	3/64	3.0
		1/16	2.3
	Stainless Steel	3/64	2.6
		1/16	2.0

Corrosion - The surface condition of stainless cable remains relatively unchanged throughout its life, but the surface of galvanized cable can change appreciably if repeatedly exposed to moisture as in most vehicle applications. The corrosive effects on the galvanized surface will increase its roughness and result in increased friction.

Flexibility

The 7 x 7 cable construction is more flexible than the 1 x 19 construction by a factor of 3.5. Although more than twice as many strands are being flexed in the 7 x 7 cable (49 vs. 19 in 1 x 19) the small strand diameter more than compensates for the larger quantity in terms of flexibility.

Guidelines for Proper Cable Selection

Stainless, having a slightly lower modulus of elasticity than carbon steel, is inherently more flexible by the difference in the modulus (9.3%). Stainless cable strands also have a smoother surface finish than galvanized strands, and since flexibility is dependent on the strands moving relative to each other, the smoother surface reduces the friction due to this motion.

Another factor entering into flexibility is corrosion and its effect on surface finish. Here again, stainless is superior in that it maintains its finish over a long period of time while the galvanized finish will deteriorate if exposed to a moist or corrosive environment.

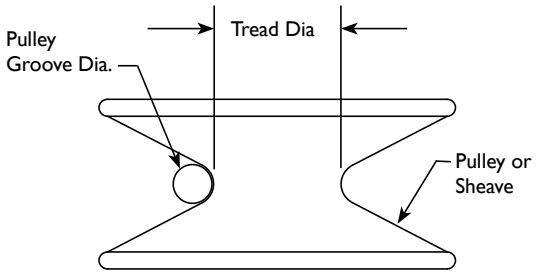
As in the case between 1 x 19 and 7 x 7 cable, the individual strand diameters will affect flexibility as the cable diameter is increased or decreased. For example, 3/64 diameter cable is 3 times more flexible than 1/16 diameter because of the smaller strand size.

Corrosion

Both stainless and galvanized cable offer adequate corrosion protection for most applications. Galvanized cable does, however, produce corrosive products when subjected to moisture conditions as would be found in most vehicle applications. The situation is aggravated by the cable being confined in the conduit which prevents the cable from drying out. These corrosive products adversely affect the friction properties of the control assembly.

Abrasion Resistance

Generally, a cable can be considered "failed" when one strand breaks. 1 x 19 cable will have about three times the abrasion resistance of 7 x 7 because of the larger strand diameter. The difference between stainless and carbon steel wire is minimal.



Cable Diameter Related to Pulley or Sheave Diameter

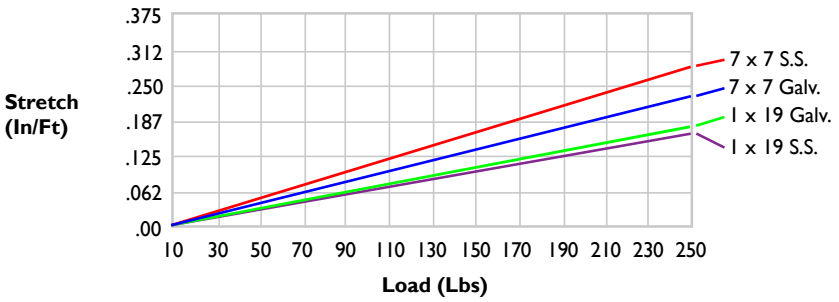
Cable will give increased service if: (1) It operates over the largest possible pulley or sheave diameter, and (2) It is properly supported in the pulley or sheave groove. Working life of the individual wire strand is greatly reduced as the pulley or sheave diameter is dimished. The chart shows minimum tread diameters over which various sizes and constructions of cable should operate.

When designing a pulley groove, the groove should be 150% of the maximum tolerance of the wire rope. Example: a 1/8" 7 x 19 aircraft cable has a maximum tolerance of .014" (.125 minimum, .139 maximum). Multiplying the .014" maximum tolerance by 150% = .021 to .139" maximum diameter = .160" which should be the pulley groove diameter.

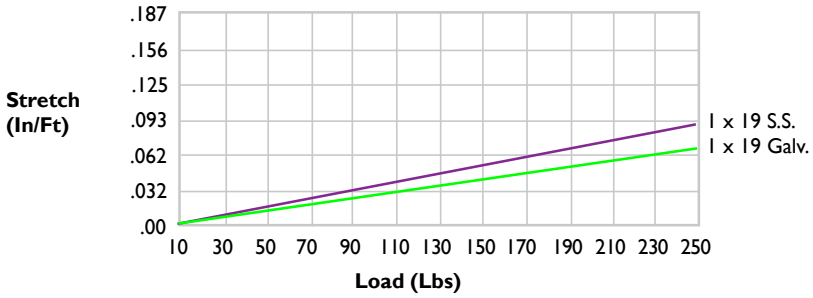
Min. Tread Dia For Pulley &/or Sheaves				
Cable Dia in Inches	Ratio: Cable Dia to Pulley Dia			
	Recommended		Minimum	
	42:1 7 x 7	24:1 7 x 19	28:1 7 x 7	18:1 7 x 19
1/16	2-5/8		1-3/4	
3/32	2-15/16	2-1/4	2-5/8	1-11/16
1/8	5-1/4	3	3-1/2	2-1/4
5/32	6-9/16	3-3/4	4-3/8	2-7/8
3/16	7-7/8	4-1/2	5-1/4	3-3/8
7/32	9-3/16	5-1/4	6-1/8	4
1/4	10-1/2	6	7	4-1/2
5/16	13-1/8	7-1/2	8-3/4	5-5/8
3/8	15-3/4	9	10-1/2	6-3/4
7/16	18-3/8	10-1/2	12-1/4	7-7/8
1/2	21	12	14	9

General Design Information

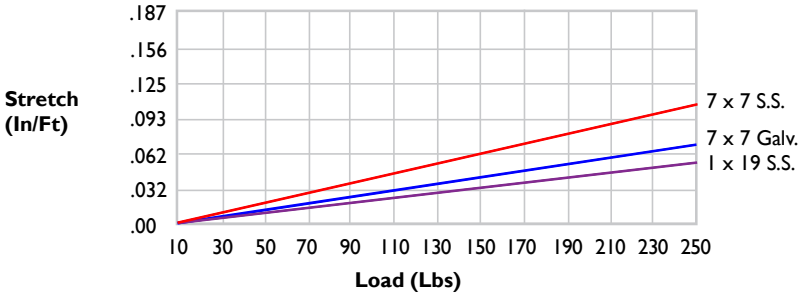
3/64 (.047) Dia Cable Stretch



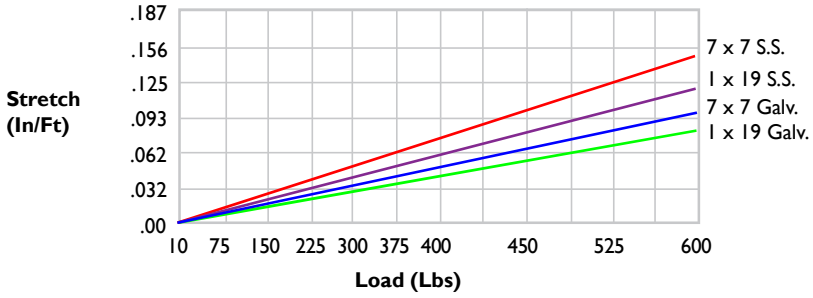
.059 Dia Cable Stretch



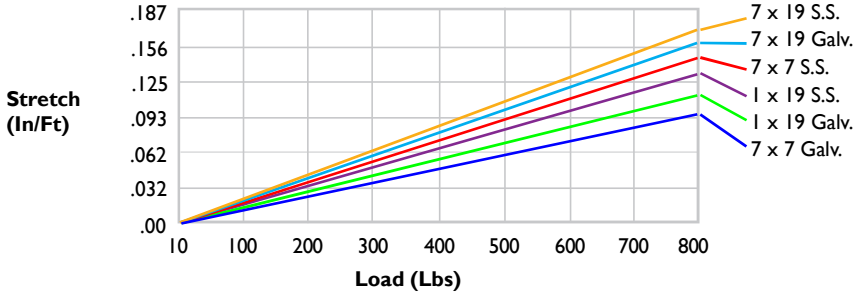
1/16 (.062) Dia Cable Stretch



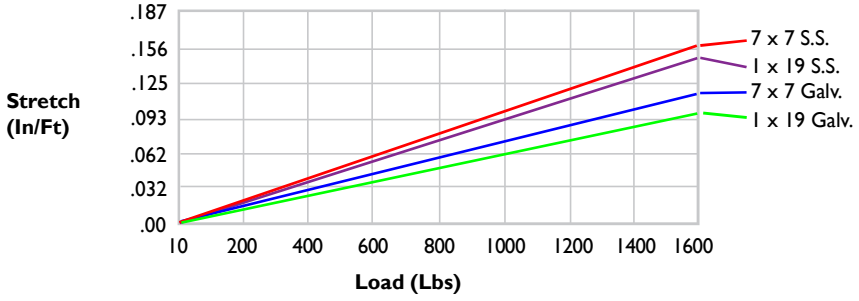
5/64 (.078) Dia Cable Stretch



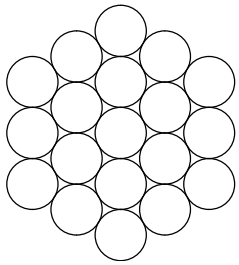
3/32 (.093) Dia Cable Stretch



1/8 (.125) Dia Cable Stretch



Stranded Cable
(1 x 19 Stranded Cable/Wescon Specifications)



* Unless specified, diecast & swage fittings are rated at 80% of cable breaking strength

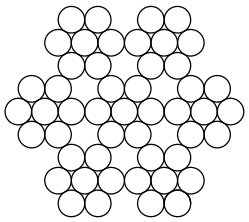
Bare Stranded Cable

Part No.	Specification Dia		Material	Dia Tolerance		Min. Break Strength* (Lbs)*
	Fraction (Inches)	Decimal (Inches)		Min.	Max.	
505047-00	3/64	.047	Galv.	.048	.052	375
506047-00	3/64	.047	S.S.	.048	.052	375
505059-00		.059	Galv.	.059	.061	500
506059-00		.059	S.S.	.059	.061	500
505078-00	5/64	.078	Galv.	.079	.084	800
506078-00	5/64	.078	S.S.	.079	.084	800
505093-00	3/32	.093	Galv.	.093	.097	1200
506093-00	3/32	.093	S.S.	.093	.097	1200
505125-00	1/8	.125	Galv.	.126	.130	2100
506125-00	1/8	.125	S.S.	.126	.133	2100

Covered Stranded Cable

Part No.	Basic Cable			Covered Data		
	Size	Const.	Mat'l	Mat'l	Color	Diameter
559059-00	.059	1 x 19	Galv.	Nylon	Gray	.098 ±.002
544059-00	.059	1 x 19	Galv.	Nylon	Black	.098 ±.002

Stranded Cable
(7 x 7 Stranded Cable/Wescon Specifications)



* Unless specified, diecast & swage fittings are rated at 80% of cable breaking strength

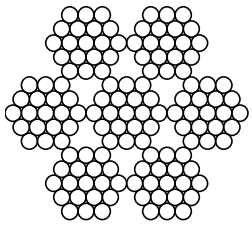
Bare Stranded Cable

Part No.	Specification Dia		Material	Dia Tolerance		Min. Break Strength* (Lbs)*
	Fraction (Inches)	Decimal (Inches)		Min.	Max.	
507047-00	3/64	.047	Galv.	.048	.052	270
508047-00	3/64	.047	S.S.	.048	.052	270
507062-00	1/16	.062	Galv.	.060	.063	480
508062-00	1/16	.062	S.S.	.060	.063	480
507078-00	5/64	.078	Galv.	.079	.084	650
508078-00	5/64	.078	S.S.	.079	.084	650
507093-00	3/32	.093	Galv.	.094	.100	920
508093-00	3/32	.093	S.S.	.094	.100	920
507125-00	1/8	.125	Galv.	.126	.133	1700
508125-00	1/8	.125	S.S.	.126	.133	1760

Covered Stranded Cable

Part No.	Basic Cable			Covered Data		
	Size	Const.	Mat'l	Mat'l	Color	Diameter
542047-00	3/64	7 x 7	Galv.	Nylon	Black	.083 ±.002
542062-00	1/16	7 x 7	Galv.	Nylon	Black	.098 ±.002
526093-00	3/32	7 x 7	Galv.	Vinyl	Clear	.150 +.006/-.000
542093-00	3/32	7 x 7	Galv.	Nylon	Black	.150 +.006/-.000
542125-00	1/8	7 x 7	Galv.	Nylon	Black	.184 +.007/-.000

Stranded Cable
(7 x 19 Stranded Cable/Wescon Specifications)



* Unless specified, diecast & swage fittings are rated at 80% of cable breaking strength

Bare Stranded Cable

Part No.	Specification Dia		Material	Dia Tolerance		Min. Break Strength* (Lbs)*
	Fraction (Inches)	Decimal (Inches)		Min.	Max.	
509093-00	3/32	.093	Galv.	.094	.100	1000
522093-00	3/32	.093	S.S.	.094	.100	920
509125-00	1/8	.125	Galv.	.126	.133	2000
522125-00	1/8	.125	S.S.	.126	.133	1760
509187-00	3/16	.187	Galv.	.183	.190	4200

Covered Stranded Cable

Part No.	Basic Cable			Covered Data		
	Size	Const.	Mat'l	Mat'l	Color	Diameter
543125-00	1/8	7 x 19	Galv.	Nylon	Black	.184 +.007/-.000

Cable Die Cast Fittings

Zinc die cast fittings on Wescon Controls cable assemblies:

Wescon Controls pioneered the technology of casting zinc fittings onto stranded cable thereby setting the standard in the industry for a cost effective alternative to swage steel fittings for cable control assemblies. It has become a world wide acceptable alternative for a wide variety of cable control applications.

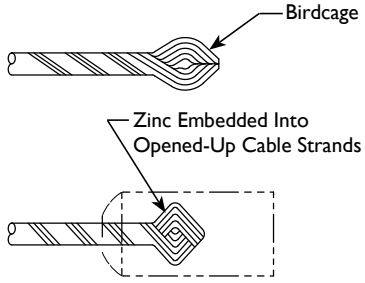
Based on over 50 years of experience, Wescon Controls has established engineering design and manufacturing standards to guide us in the proper application and load limitations of the various fittings cast to a wide variety of cable sizes and types. Wescon Controls adheres to these guidelines through the use of statistical data to meet these specified pull-off requirements. Based on this information, Wescon engineers can recommend the proper cable and fitting size for the application at hand.

When specifying zinc die cast fittings in lieu of swaged steel fittings, attention must be given to the potential of porosity of the zinc within the fittings as an inherent condition of the die casting process, thus allowances must be made by the use of proper safety factors in the design of the fittings. Porosity is difficult to detect, therefore Wescon Controls checks the integrity and strength of the fitting as well as the integrity of die casting process by periodically pulling the fittings from the cable and statistically recording the pull-off load to a desirable quality level, an acceptable worldwide method used by the industry at large.

When specifying zinc die cast fittings, Wescon Controls recommends an appropriate safety factor of at least 3:1 in the design of the cable control assembly, based upon the maximum working load of the actual application. If required by our customers, Wescon Controls will proof load each cable to the recommended load as specified on the customer drawing to insure that each fitting will perform as required. Vigilance should be used when specifying zinc die cast fittings in high load safety applications. It is suggested that thorough cycle testing, using maximum load conditions, be completed in qualifying zinc die cast cable fittings for all applications, as fatigue of the fitting during cycle testing can dramatically reduce the desired cycle life.

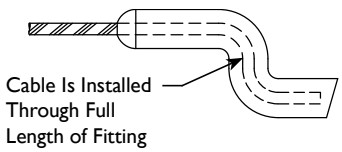
For applications involving inconsistent or uncontrolled load inputs, Wescon Controls recommends a higher safety factor or the use of steel swaged fittings which provide the user additional insurance against fitting fatigue.

Fittings can be die-cast on cables in various ways. Wescon Controls developed the "birdcaging" method of adhering the fitting to the cable by upsetting the cable end or by "birdcaging" the cable end to allow the zinc to flow within the individual strands of the cable providing an extraordinary pull-off condition. **See "Birdcaging" Diagram.**



"Birdcage" Diagram

Other methods of die-casting the cable to fittings include the "cable-through" design, whereby the cable is positioned into the fitting along its entire length. This design insures that if the fitting breaks or fatigues due to an overload condition, the safety of the system is not compromised. This design is often seen when die casting a "Z-fitting" **See "Cable-Through Fitting" Diagram.**



Cable Through Fitting Diagram

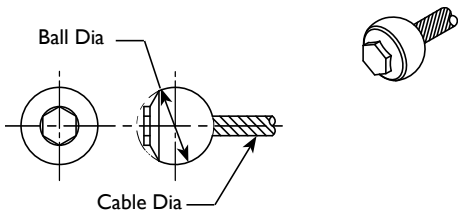
Wescon Controls has designed numerous zinc fittings that can be cast to a number of different cables and cable sizes. The following pages show the many options available. Special applications may require additional fittings that have yet to be dreamed up. If you have a special application and it requires a new fitting, please do not hesitate to contact one of our Application Engineers and they will be glad to work with you in developing a new fitting.

Cable Die Cast Fittings

29-0005-* Ball Fitting

* Insert Dash No.

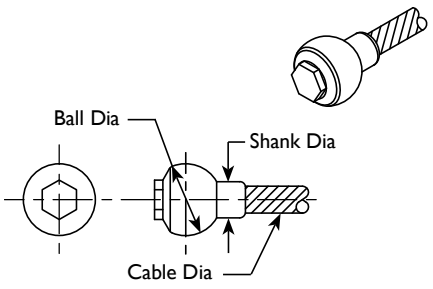
Ball Dia	Cable Sizes											
	3/64 Dia		1/16 Dia		5/64 Dia		3/32 Dia		1/8 Dia		3/16 Dia	
	Bare	Cov.	Bare	Cov.	Bare	Cov.	Bare	Cov.	Bare	Cov.	Bare	Cov.
3/16	-00		-00		-00							
1/4	-01		-01		-01		-01		-01			
5/16			-02	-02			-02		-02			
3/8			-03		-03		-03		-03			
1/2											-05	



29-1100-* Shank Ball Fitting

* Insert Dash No.

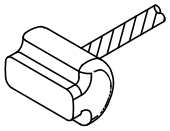
Ball Dia x Shank Dia	Cable Sizes											
	3/64 Dia		1/16 Dia		5/64 Dia		3/32 Dia		1/8 Dia		3/16 Dia	
	Bare	Cov.	Bare	Cov.	Bare	Cov.	Bare	Cov.	Bare	Cov.	Bare	Cov.
3/16 x .105	-00	-00	-00	-00	-00							
3/16 x .08												-06
1/4 x .125			-01		-01							
5/16 x .156							-02					
3/8 x .188				-03			-03		-03			
1/2 x .250											-05	

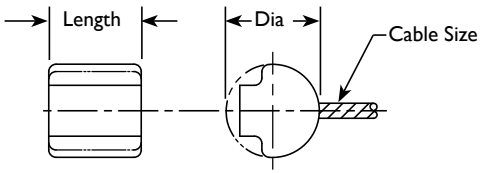


Cable Die Cast Fittings

Barrel Fittings

Size Dia x Length	Cable Sizes					
	3/64 Dia	1/16 Dia	5/64 Dia	3/32 Dia	1/8 Dia	3/16 Dia
.125 x .187	29-0027-00					
.16 x .187	29-0026-02	29-0026-02				
.16 x .285	29-0026-01					
.187 x .105	29-0029-00	29-0029-00				
.187 x .20	29-0020-00	29-0006-24				
.187 x .27		29-0026-03				
.187 x .50		29-0006-31				
.194 x 275	29-0006-15	29-0006-16				
.194 x .62	29-0006-14					
.20 x .30		29-0006-19				
.20 x .40			29-0026-00			
.219 x .25		29-0006-10	29-0006-10			
.23 x .25	29-0006-21					
.23 x .375	29-0006-22	29-0006-22				
.25 x .16	29-0006-06					
.25 x .25	29-0006-02					
.25 x .312		29-0006-04				
.25 x .375	29-0006-03	29-0006-03	29-0006-03			
.276 x .235		29-0028-00				
.281 x .313	29-0006-07	29-0006-07	29-0006-07			
.313 x .313	29-0006-12	29-0006-12				
.313 x .375		29-0006-13	29-0006-13			
.313 x .40				29-0006-25	29-0006-25	
.375 x .375						29-0006-30
.375 x .50				29-0006-18	29-0006-18	
.375 x .53		29-0006-01	29-0006-01			

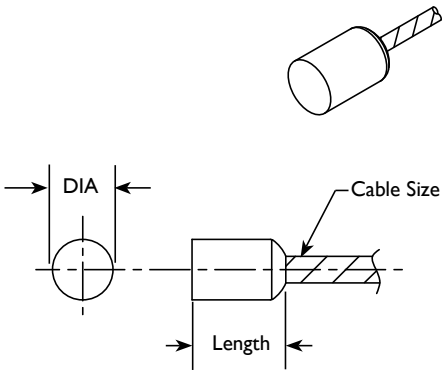




Cable Die Cast Fittings

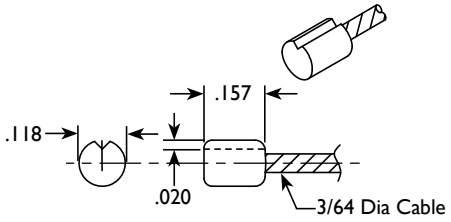
29-0007-* Slug Fittings

* Insert Dash No.

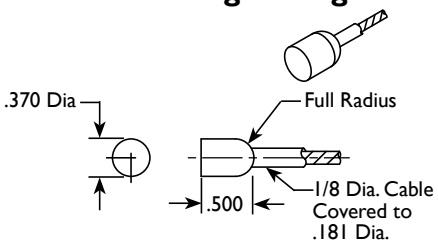


Size Dia x Length	Cable Sizes					
	3/64 Dia	1/16 Dia	5/64	3/32 Dia	1/8 Dia	5/32 Dia
.119 x .123	29-0007-01					
.122 x .185	29-0007-00	29-0007-00				
.158 x .130	29-0007-05	29-0007-05				
.187 x .225	29-0007-03	29-0007-03				
.187 x .500		29-0007-11				
.205 x .220				29-0007-08		
.250 x .250				29-0007-27		
.250 x .298			29-0007-18			
.250 x .400					29-0007-12	
.250 x .500				29-0007-09		
.250 x .525					29-0007-13	
.260 x .375		29-0007-10				
.281 x .430		29-0007-02			29-0007-02	
.310 x .400		29-0007-26				
.310 x .560						29-0007-14
.317 x .500		29-0007-16				
.370 x .450					29-0007-07	
.370 x .750					29-0007-06	

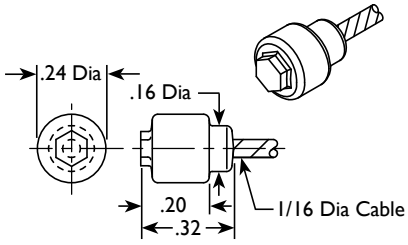
29-0007-21 Slug Fitting



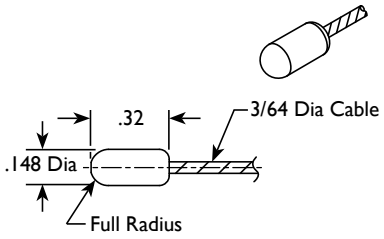
29-0014-00 Slug Fitting



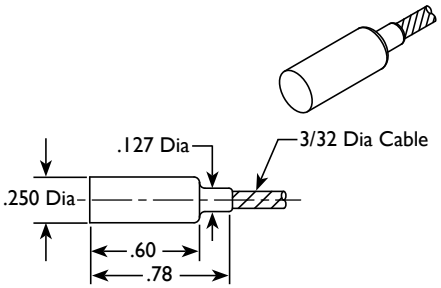
29-0019-00 Ball Fitting



29-0030-02 Slug Fitting

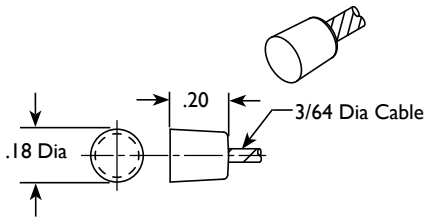


29-0055-01 Slug Fitting

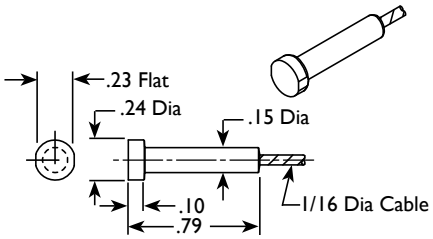


Cable Die Cast Fittings

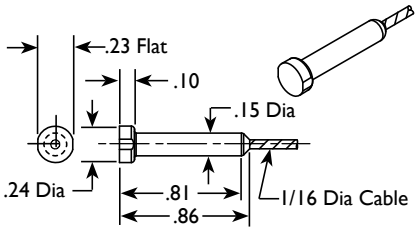
29-0072-01 Slug Fitting



29-0032-00 Shank Slug Fitting

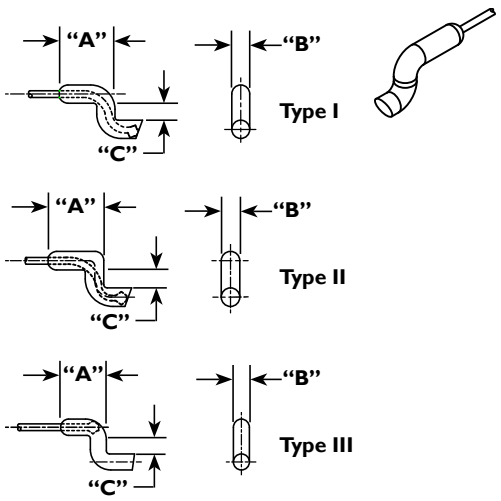


29-0032-01 Shank Slug Fitting



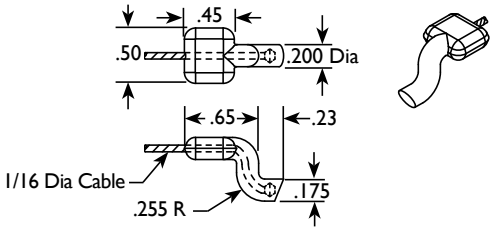
29-0056-*"Z" Fittings

						Recommended Hole Dia vs. Material Size					
Type	Dash No.	Cable Size	"A"	"B"	"C"	13 Ga (.090)	12 Ga (.105)	11 Ga (.120)	10 Ga (.134)	9 Ga (.149)	8 Ga (.164)
I	-02	.062	.51	.165	.155	.199	.206	.214	.221		
II	-03	.047/.062/.078	.51	.168	.162	.191	,198	,206	.216	.249	
II	-04	.062	.51	.160	.160	.184	.191	.199	.206		
I	-05	.062	1.06	.197	.155	.219	.227	.234	.241		
I	-06	.062	.61	.165	.155	.199	.210	.214	.223		
I	-08	.062	1.05	.170	.245	.183	.183	.183	.190	.197	.205
I	-13	.062	.815	.210	.170	.240	.257	.266	.266	.281	.295
I	-14	.062	.815	.210	.170	.240	.257	.266	.266	.281	.295
I	-15	.062/.093	.815	.210	.170	.240	.257	.266	.266	.281	.295



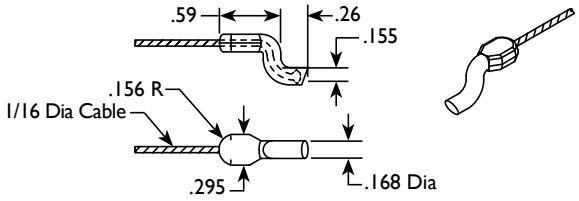
Cable Die Cast Fittings

29-0082-02 "Z" Fitting



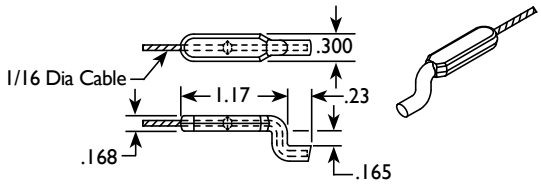
Recommended Hole Size vs. Material Thickness							
	13 Ga (.090)	12 Ga (.105)	11 Ga (.120)	10 Ga (.134)	9 Ga (.149)	8 Ga (.164)	Breaking Strength LBS.
Min. Hole Dia After Finish	.240	.257	.266	.266	.281	.295	200/400

29-0082-03 "Z" Fitting



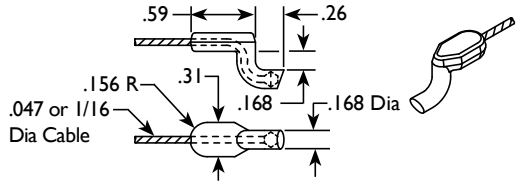
Recommended Hole Size vs. Material Thickness							
	13 Ga (.090)	12 Ga (.105)	11 Ga (.120)	10 Ga (.134)	9 Ga (.149)	8 Ga (.164)	Breaking Strength LBS.
Min. Hole Dia After Finish	.199	.210	.214	.223	N/A	N/A	200/400

29-0082-04 "Z" Fitting



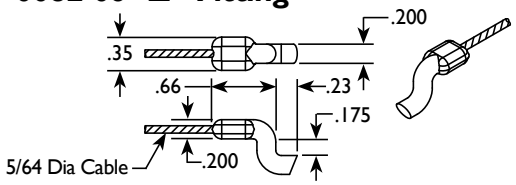
Recommended Hole Size vs. Material Thickness							
	13 Ga (.090)	12 Ga (.105)	11 Ga (.120)	10 Ga (.134)	9 Ga (.149)	8 Ga (.164)	Breaking Strength LBS.
Min. Hole Dia After Finish	.199	.210	.214	.233	N/A	N/A	150/400

29-0082-05 "Z" Fitting



Recommended Hole Size vs. Material Thickness							
	13 Ga (.090)	12 Ga (.105)	11 Ga (.120)	10 Ga (.134)	9 Ga (.149)	8 Ga (.164)	Breaking Strength LBS.
Min. Hole Dia After Finish	.199	.210	.214	.223	.234	N/A	225/400

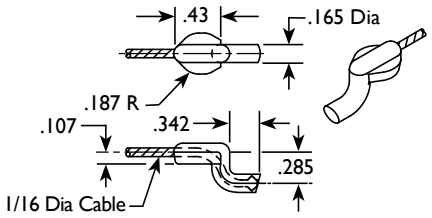
29-0082-06 "Z" Fitting



Recommended Hole Size vs. Material Thickness							
	13 Ga (.090)	12 Ga (.105)	11 Ga (.120)	10 Ga (.134)	9 Ga (.149)	8 Ga (.164)	Breaking Strength LBS.
Min. Hole Dia After Finish	.240	.257	.266	.266	.281	.295	525

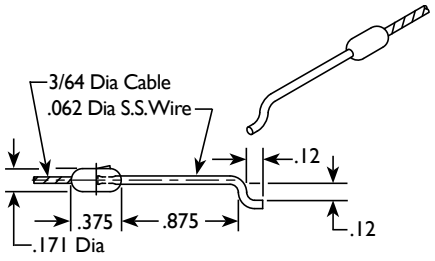
29-0111-02 Z-Bend Fitting

.226 Min. Hole Dia. after Finish 14 Ga. Material
200/400 Lbs. Pull-Off

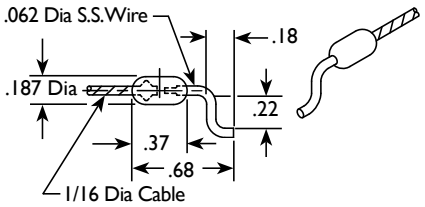


Cable Die Cast Fittings

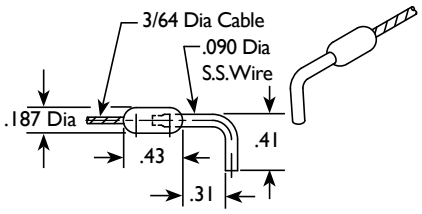
29-0083-02 Wire Z-Bend Fitting



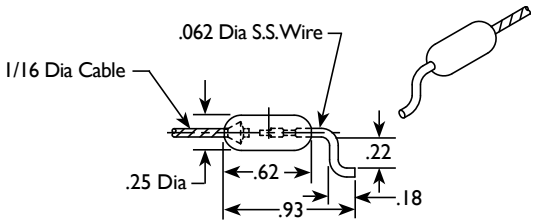
29-0083-03 Wire Z-Bend Fitting



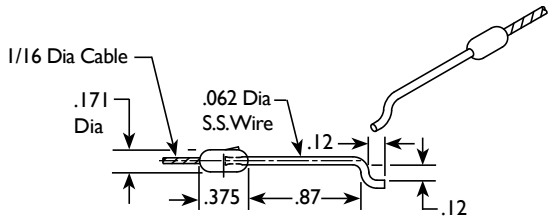
29-0083-05 Wire Z-Bend Fitting



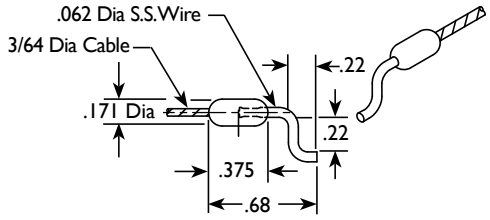
29-0083-06 Wire Z-Bend Fitting



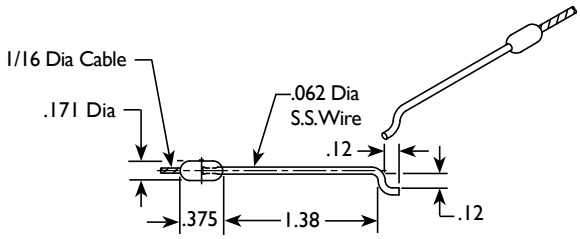
29-0083-08 Wire Z-Bend Fitting



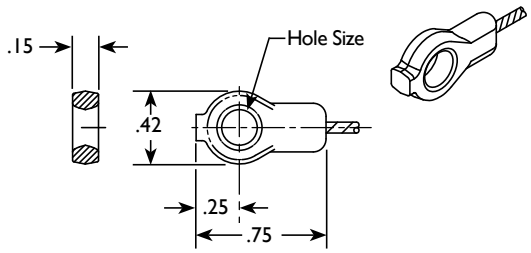
29-0083-09 Wire Z-Bend Fitting



29-0083-10 Wire Z-Bend Fitting

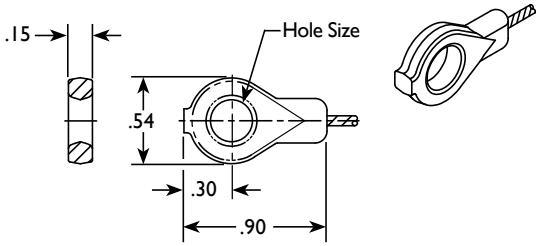


29-0062-00 Paddle Fitting



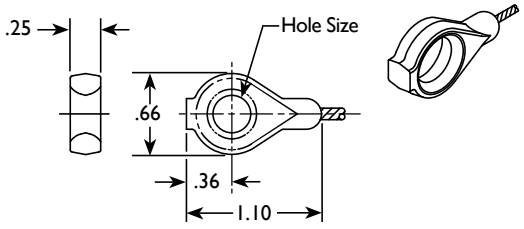
Hole Dia & Fastener Size						
Cable Dia	Cable Type	.115	.171 #8	.188	.196 3/16	.205 #10
.047	Bare		-00-01		-00-02	-00-03
	Nylon		-00-01	-00-11	-00-02	-00-03
.059 & .062	Bare		-00-01		-00-02	-00-03
	Nylon	-00-15	-00-01		-00-02	-00-03

29-0062-01 Paddle Fitting



Hole Dia & Fastener Size					
Cable Dia	Cable Type	.234 #12	.265 1/4	.209	.244
.047	Bare	-01-04	-01-05		
	Nylon	-01-04	-01-05		
.059 & .062	Bare	-01-04	-01-05		-01-09
	Nylon	-01-04	-01-05	-01-06	

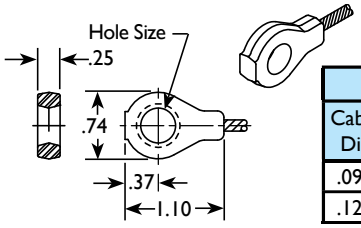
29-0062-02 Paddle Fitting



Hole Dia & Fastener Size									
Cable Dia	Cable Type	.205 #12	.265 1/4	.328 5/16	.328 x .385	.340 11/32	.367 23/64	.386 3/8	.406
.059 & .062	Bare		-02-05	-02-07	-02-12		-02-10	-02-08	02-14
.078	Bare		-02-05	-02-07		-02-13		-02-08	
.093	Bare	-02-03	-02-05	-02-07			-02-10	-02-08	02-14
.072	Innerwire		02-05						

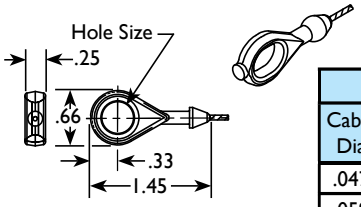
Cable Die Cast Fittings

29-0062-03 Paddle Fitting



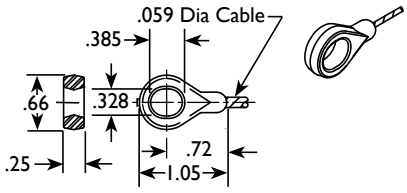
Hole Dia & Fastener Size				
Cable Dia	Cable Type	.265 1/4	.328 5/16	.386 3/8
.093	Bare	-03-05	-03-07	-03-08
.125	Bare	-03-05	-03-07	-03-08

29-0062-06 Paddle Fitting

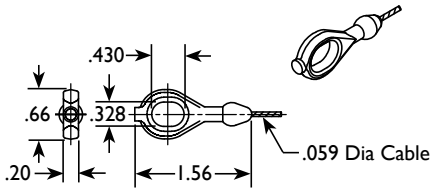


Hole Dia & Fastener Size				
Cable Dia	Cable Type	.265 1/4	.328 5/16	.386 3/8
.047	Bare	-06-05	-06-07	-06-08
.059	Bare	-06-05	-06-07	-06-08

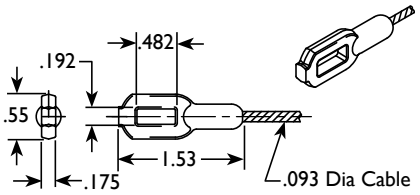
29-0062-04 Paddle Fitting



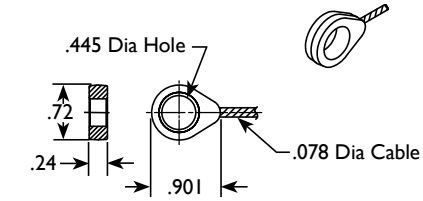
29-0062-05 Paddle Fitting



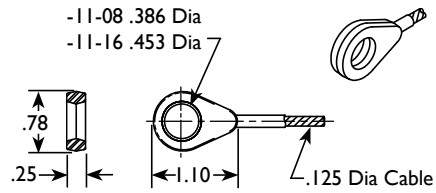
29-0062-08 Paddle Fitting



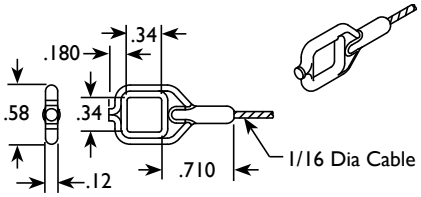
29-0062-10 Paddle Fitting



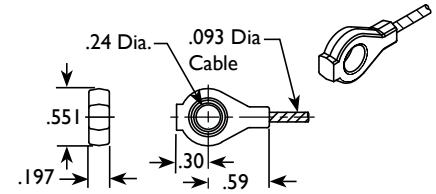
29-0062-11 Paddle Fitting



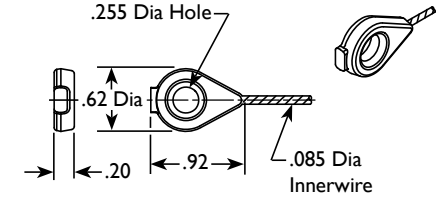
29-0062-12 Paddle Fitting



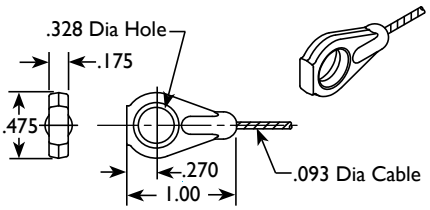
29-0062-14 Paddle Fitting



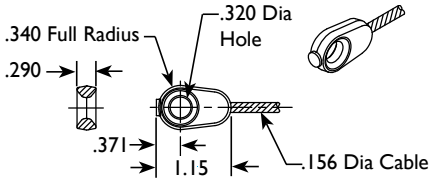
29-0062-16 Paddle Fitting



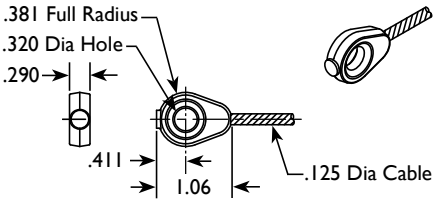
29-0062-17 Paddle Fitting



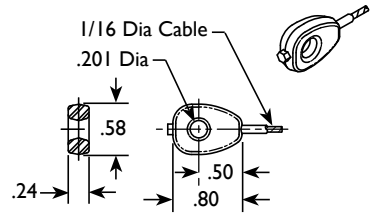
29-0062-18 Paddle Fitting



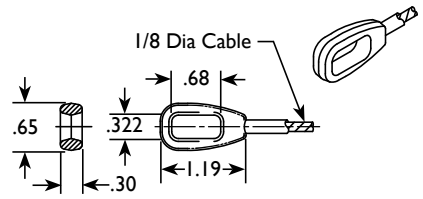
29-0062-19 Paddle Fitting



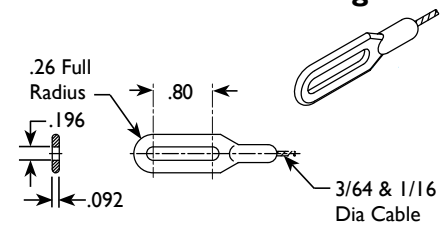
29-0043-00 Paddle Fitting



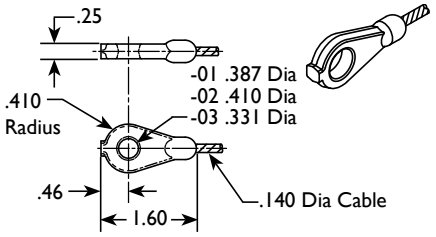
29-0050-00 Paddle Fitting



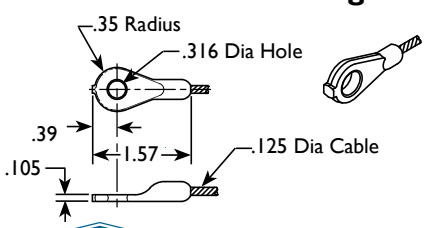
29-0059-00 Paddle Fitting



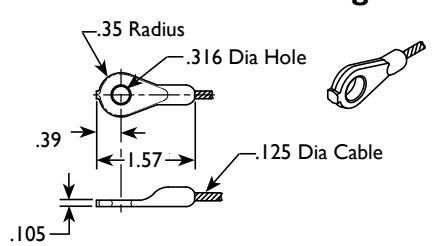
29-0074-* Paddle Fitting



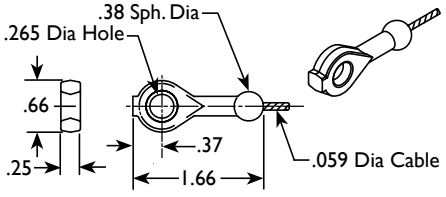
29-0075-01 Paddle Fitting



29-0075-01 Paddle Fitting

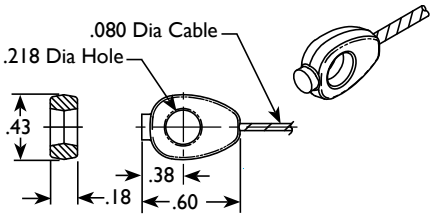


29-0076-01 Paddle Fitting

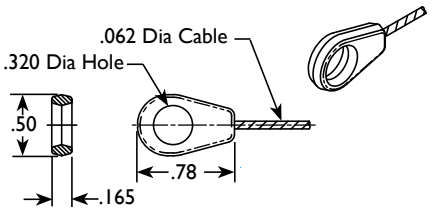


Cable Die Cast Fittings

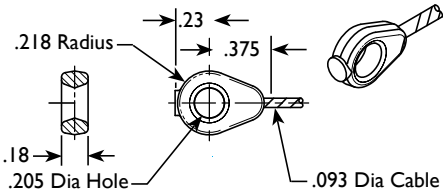
29-0095-01 Paddle Fitting



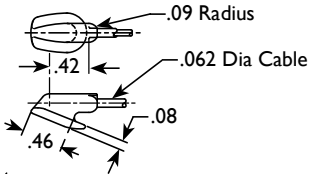
29-0099-01 Paddle Fitting



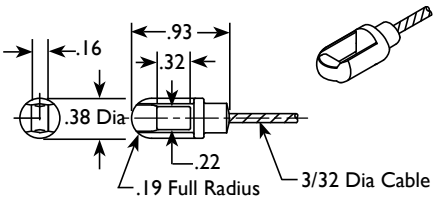
29-0144-01 Paddle Fitting



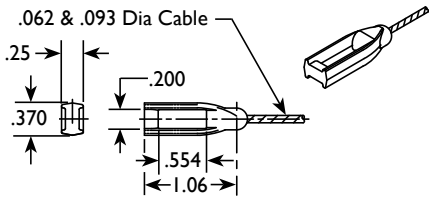
29-0042-00 Bow String Ftg



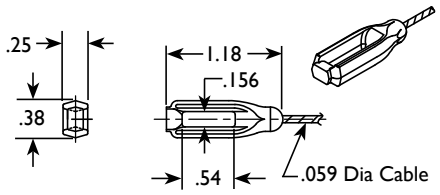
29-0048-00 Closed Clevis Ftg



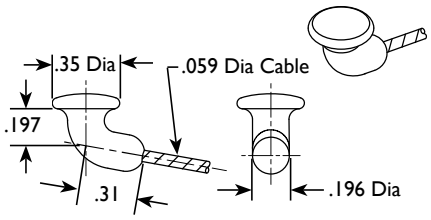
29-0048-02 Closed Clevis Ftg



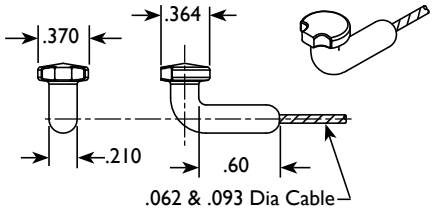
29-0048-03 Closed Clevis Ftg



29-0091-01 Jack Chain Fitting



29-0091-02 Bent Nail Fitting

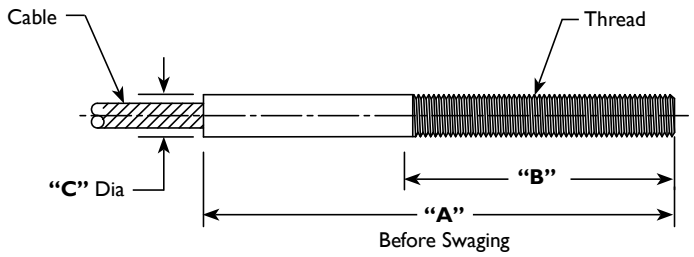


Cable Swage Fittings

21-1195-*Threaded End Rod

Finish: Plated for Corrosion Protection

* Insert Dash No.

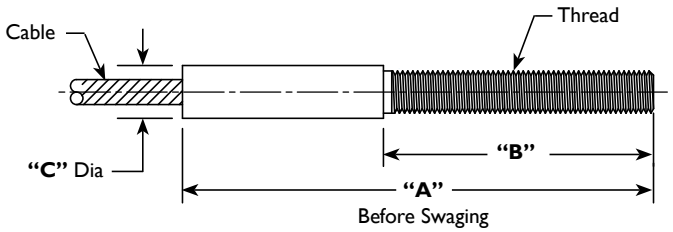


Cable Dia.	Dash No.	"A"	"B"	"C" Dia.	Thread
3/64	-60	1.250	.50	3/16	10-24
1/16	-03	1.375	.75		
	-26	2.750	2.00		
	-38	1.375	.75		10-32
	-44	1.875	1.25	1/4	1/4-28
5/64	-37	3.500	1.00	3/16	10-24
3/32	-05	1.625	.87	1/4	1/4-20
	-06	2.250	1.50		
	-69	4.75	4.00		
1/8	-08	2.750	1.75	5/16	5/16-18

21-1052-*Threaded End Rod

Finish: Plated for Corrosion Protection

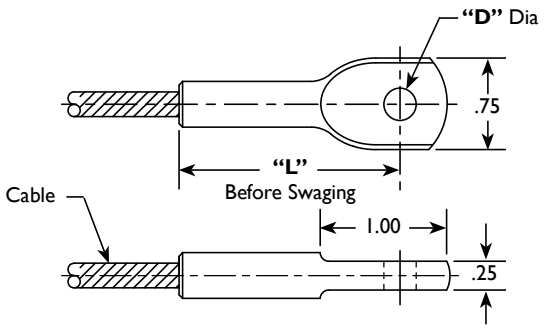
* Insert Dash No.



Cable Dia.	Dash No.	"A"	"B"	"C" Dia.	Thread
.125	-11	3.62	2.25	5/16	5/16-24
.125	-14	2.50	1.50	5/16	5/16-24
.125	-15	3.62	2.25	5/16	M8 x 1.25
.125	-19	3.00	2.10	5/16	M6 x 1.0
.125	-47	2.62	1.50	3/8	3/8-24

21-1108-* Swage Cable Eye

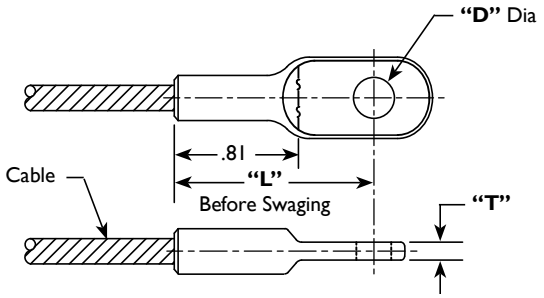
* Insert Dash No.



Dash No.	"L"	"D" Dia.	Cable Dia.
-03	1.47	.386	.140
-11	1.47	.329	.140
-19	1.47	.329	.125

21-1106-* Swage Cable Eye

* Insert Dash No.

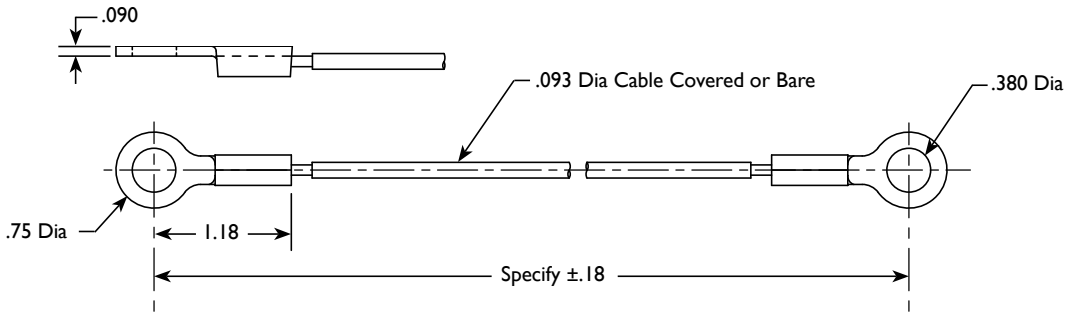


Dash No.	"L"	"D" Dia.	"T"	Cable Dia.
-10	1.37	.281	.125	.093
-29	1.37	.329	.125	.093
-28	1.37	.250	.095	.093

Tension Cable Assy

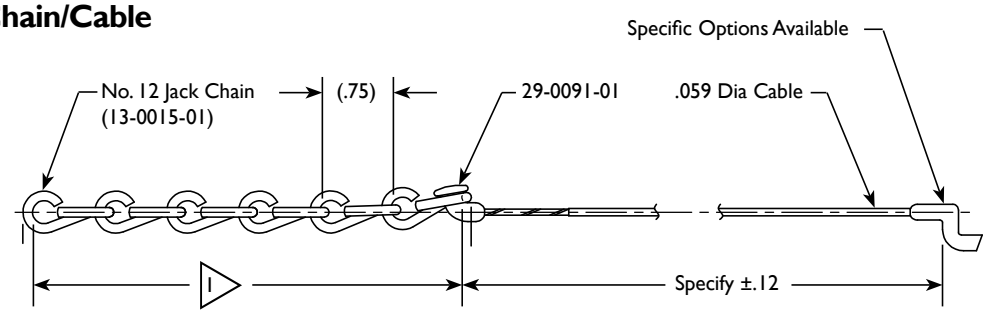
80-4028-04 Sheet Metal Eyes Lanyard

Pull Load 800 Lbs. Max.



Cable - Chain

15-0044 Single Jack Chain/Cable



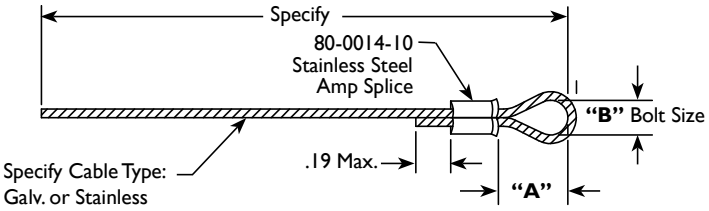
NOTES:

1 Specify the number of chain links required at .75 inch increments.

Cable - Loops

00-5000-* Amp Loop (15-0400)

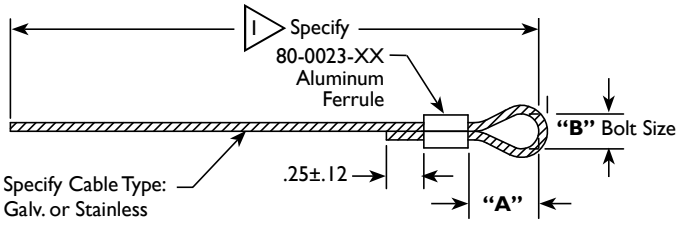
*Insert Dash No.
.047 Dia. Cable 50 Lbs. Min. Pull-Off
.062 Dia. Cable 150 Lbs. Min. Pull-Off



Dash No.	"A"	"B" Bolt Size	Cable Construction	
			1 x 19	7 x 7
-01	.38±.06	(.19)		X
-02	.50±.06	(.25)		X
-03	.63±.06	(.31)		X
-04	.75±.06	(.38)		X
-05	.88±.06	(.44)	X	X
-06	1.00±.06	(.50)	X	X
-07	1.25±.06	(.63)	X	X
-08	1.50±.06	(.75)	X	X

00-3005-* Plain Loop (15-0410)

*Insert Dash No.

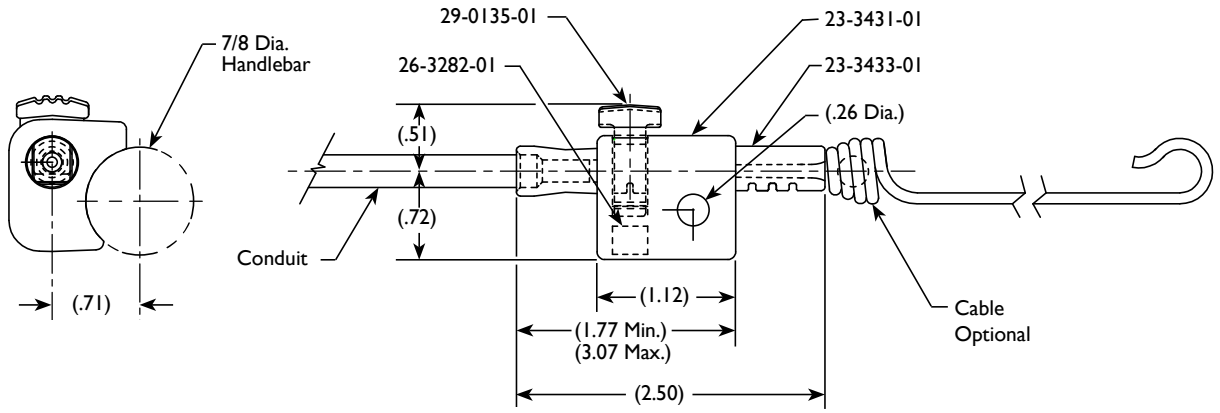


Dash No.	Cable Dia.	"A"	"B" Bolt Size	1	Cable Construction	
					1 x 19	7 x 7
-01	.047	.50±.06	(.18)	5.00		X
-02	.062	.62±.06	(.25)	6.25		X
-03	.093	1.00±.09	(.37)	10.00		X
-04	.125	1.25±.12	(.50)	12.50	X	X
-05	.187	1.75±.18	(.75)	17.50	X	X

Inline Adjuster

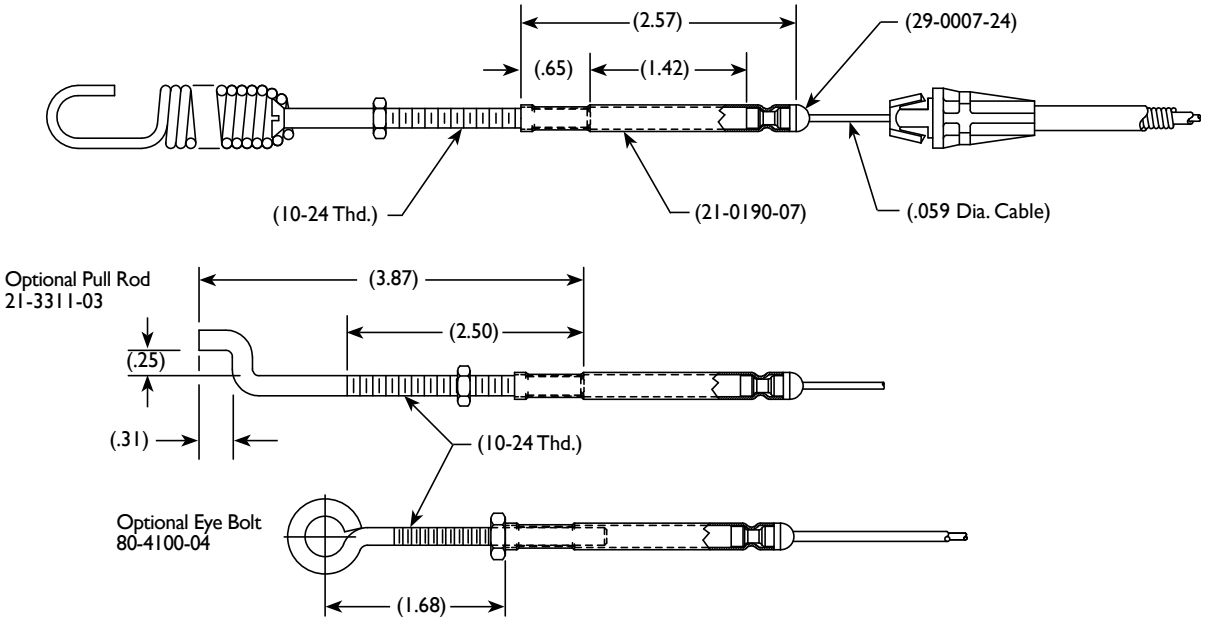
Conduit Adjuster

1.32 Total Adjustment in
Eight Increments of .165

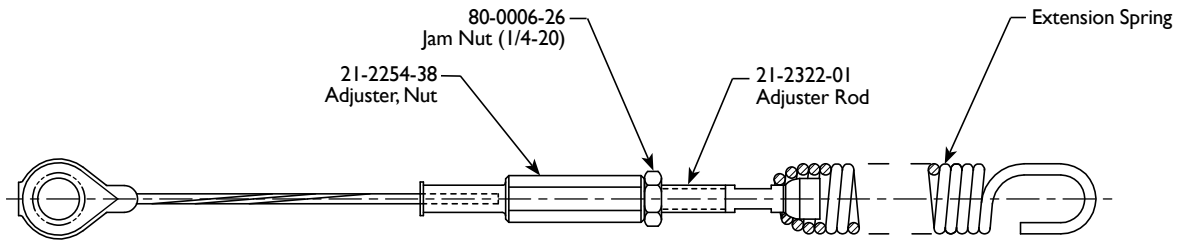


Cable Adjuster

1.48 Maximum Suggested Adjustment
2.56 Maximum Suggested Travel

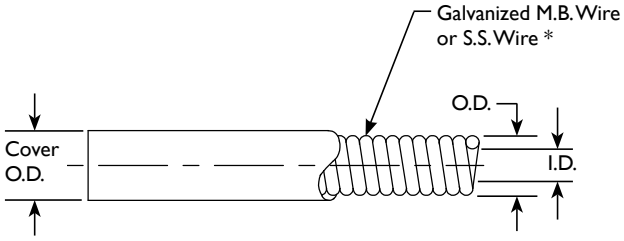


Cable Adjuster



"Bowden" Conduit

"Bowden" conduit is a small diameter flexible tight wound spring with enough initial tension to cause the spring to be straight. This tight wound spring can be urged to bend in any direction around 360 degrees from its linear axis. When a small diameter aircraft cable is strung inside this "Bowden" conduit, the assembly can be routed towards a distant location, providing the operator of the cable a means of operating a movable linkage or the like from a remote location. The plain "Bowden" wire construction does not have an internal liner but may be covered with a thin flexible shield, such as Polyethylene, Nylon or PVC depending on the environmental conditions under which it may be exposed as well as for aesthetic reasons.

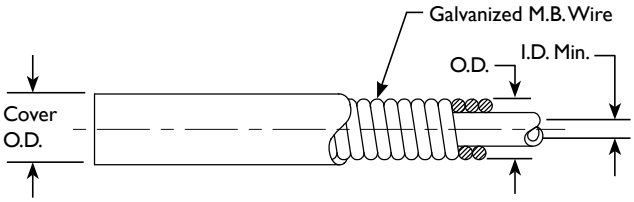


HDPE = High Density Polyethylene

Conduit Size	Part No.	O.D.	I. D. Min.	Cover O. D.	Cover Type
3/16	401187-00	.185 .191	.080	.215 .221	BARE
	402187-00				HDPE
	*403187-00				BARE
	*406187-00				HDPE
7/32	401218-00	.215 .221	.094	.245 .251	BARE
	402218-00				HDPE
1/4	401250-00	.244 .250	.103	.275 .281	BARE
	402250-00				HDPE
	405250-00				NYLON
9/32	401280-00	.274 .280	.133	.304 .310	BARE
	402280-00				HDPE

Lined "Bowden" Conduit

Lined "Bowden" conduit is "Bowden" conduit with a flexible plastic liner wound inside of the tight wound spring. This plastic liner greatly reduces friction and offers instant response even in severe weather conditions where moisture and/or corrosion may become a problem. Typical liner materials may be High Density polyethylene (HDPE), Nylon, Teflon or any other material favorable for specific applications. The flexibility of the liner enhances the low friction characteristics by permitting more severe routing without the problem of kinking the coils as could be experienced with the regular wound "Bowden" conduit. This conduit may also be covered with a flexible shield to protect the tight wound spring from the environment and for aesthetic reasons.

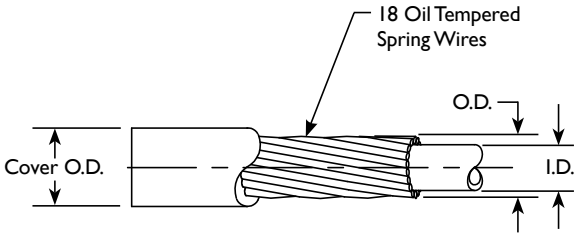


HDPE = High Density Polyethylene

Conduit Size	Part No.	O.D.	I. D. Min.	Cover O. D.	Cover Type	Liner Type
.155	415155-00	.156	.064	.188	HDPE	HDPE
	438155-00			BARE	BARE	
.156	444156-00	.156	.068	BARE	BARE	TEFLON
	445156-00			.188	NYLON	
3/16	408187-00	.188	.080	BARE	BARE	HDPE
	415187-00			.218	HDPE	
	415187-01			.237	HDPE	
	430187-00			.218	NYLON	NYLON
7/32	447218-01	.218	.090	.248	BARE	TEFLON
	448218-00				BARE	
	454218-00		.093		BARE	NYLON
	408218-00		.095		HDPE	HDPE
	415218-00				BARE	
1/4	408250-00	.247	.100	.278	BARE	HDPE
	415250-00				HDPE	
9/32	408280-00	.277	.130	.307	BARE	HDPE
	415280-00				HDPE	
5/16	408310-00	.308	.158	.337	BARE	HDPE
	415310-00				HDPE	

Conduit

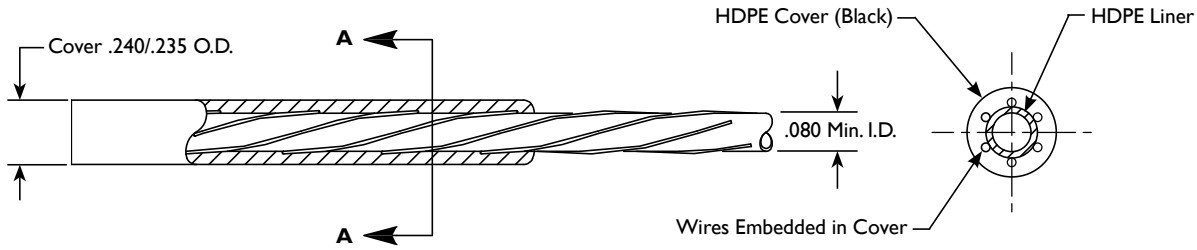
"OPE 18 Wire" Conduit



Part Number	I.D.	Cover O. D.	Liner Type	Cover Type	Color
04-2081-A1-01	.085	.235	HDPE	HDPE	BLACK
04-2081-C1-01	.091	.240		NYLON	

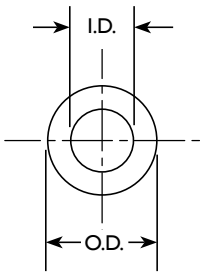
HDPE = High Density Polyethylene

456237-00 "6-Wire" Conduit



HDPE = High Density Polyethylene

Nylon/PVC Tubing (Black)



Part Number	Nominal Size	O. D.	I.D.	Material
404187-02-01	3/16	.187/.179	.112/.102	NYLON
410187-00-01		.192/.186	(.080)	PVC

PVC = Polyvinylchloride

Conduit - Bulk

Lined Bowden Conduit (50 Ft. Rolls)

Part No.	Description	Conduit Size
483187	408187 Bare Lined Conduit	3/16
484187	415187 HDPE Covered Lined Conduit	3/16
485187	426187 PVC Covered Lined Conduit	3/16
486187	447187 Nylon Covered Lined Conduit	3/16
488187	448187 Bare Lined Conduit	3/16
483218	408218 Bare Lined Conduit	7/32
484218	415218 HDPE Covered Lined Conduit	7/32
485218	426218 PVC Covered Lined Conduit	7/32
486218	447218 Nylon Covered Lined Conduit	7/32
488218	448218 Bare Lined Conduit	7/32
488240	448240 Bare Lined Conduit	.240
486240	447240 Nylon Covered Lined Conduit	.240
483250	408250 Bare Lined Conduit	1/4
484250	415250 HDPE Covered Lined Conduit	1/4
485280	426280 PVC Covered Lined Conduit	9/32
485310	426310 PVC Covered Lined Conduit	5/16

Bowden Conduit (50 Ft. Rolls)

Part No.	Description	Conduit Size
480187	401187 Bowden Conduit	3/16
482187	402187 HDPE Covered Bowden Conduit	3/16
487187	403187 Bowden Conduit	3/16
480218	401218 Bowden Conduit	7/32
482218	402218 HDPE Covered Bowden Conduit	7/32
487230	403230 HDPE Covered Bowden Conduit	.230
480250	401250 Bowden Conduit	1/4
482250	402250 HDPE Covered Lined Conduit	1/4

Conduit/Core Selection

"Bowden" Conduit/Core Selection Chart

Conduit			Core								
			Wire Size *			Cable Size *					
Size	Cover	Part No.	.054	.062	.072	3/64	.059	1/16	5/64	3/32	1/8
3/16	None	401187-00	●	●		●	●	●			
	HDPE	402187-00	●	●		●	●	●			
7/32	None	401218-00		●	●	●	●	●			
	HDPE	402218-00		●	●	●	●	●			
1/4	None	401250-00			●				●		
	HDPE	402250-00			●				●		
9/32	None	401280-00							●	●	
	HDPE	402280-00							●	●	
5/16	None	401310-00								●	●
	HDPE	402310-00								●	●

(Contact a Wescon representative for availability of other sizes)
● = Recommended

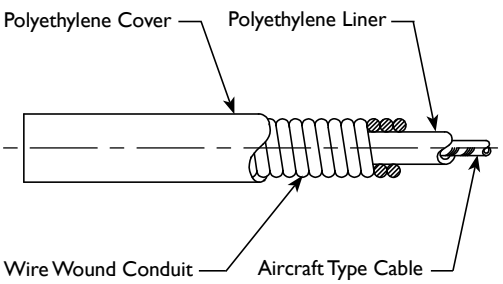
* Material Options Available
HDPE = High Density Polyethylene

Lined "Bowden" Conduit/Core Selection Chart

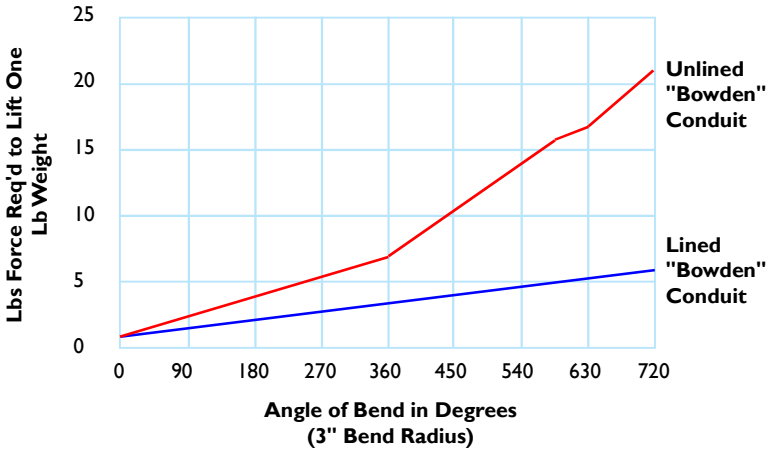
Conduit			Core								
			Wire Size *			Cable Size *					
Size	Cover	Part No.	.054	.062	.072	3/64	.059	1/16	5/64	3/32	1/8
3/16	None	408187-00	●	●		●	●	●			
	HDPE	415187-00	●	●		●	●	●			
7/32	None	408218-00		●	●	●	●	●			
	HDPE	415218-00		●	●	●	●	●			
1/4	None	408250-00			●				●		
	HDPE	415250-00			●				●		
9/32	None	408280-00							●	●	
	HDPE	415280-00							●	●	
5/16	None	408310-00								●	●
	HDPE	415310-00								●	●

(Contact a Wescon representative for availability of other sizes)
● = Recommended

* Material Options Available
HDPE = High Density Polyethylene



FRICTION COMPARISON CHART
Lined vs. Standard Housing
Note: Chart Does Not Apply to Solid Innerwire

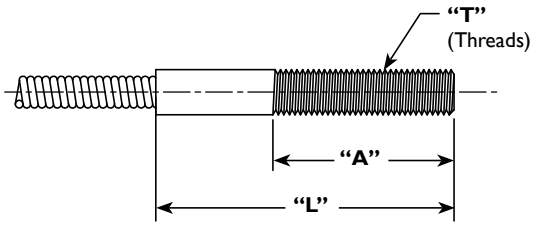


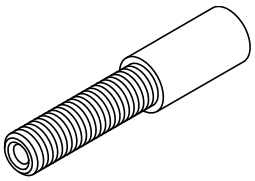
Conduit Swage Fittings

21-1064-*Threaded Conduit Fittings

Finish: Plated for Corrosion Protection

* Insert Dash No.





3/16 Covered or 7/32 Bare Conduit

Dash No.	"L"	"A"	"T"	Finish
-01	1.50	1.00	5/16-24	*
-02	2.00	1.50	5/16-24	Y
-06	2.50	2.00	5/16-24	Y
-26	1.25	.75	5/16-24	*
-42	1.57	.95	1/4-28	Y
-47	3.12	2.50	5/16-24	Y
-60	1.69	1.12	M6 x 1.0	S.S.
-75	1.69	1.12	1/4-28	Y
-76	2.62	1.97	1/4-28	Y
-78	1.69	1.12	M6 x 1.0	T
-80	2.12	1.50	M6 x 1.0	T
-82	1.50	.95	M6 x 1.0	S.S.
-85	2.00	1.50	5/16-24	T
-87	2.00	1.50	M8 x 1.25	Y
-88	2.12	1.50	M6 x 1.0	G
-91	1.69	1.12	M6 x 1.0	T

.140, .152, .155 & .164 Covered or 3/16 Bare Conduit

Dash No.	"L"	"A"	"T"	Finish
-22	1.50	1.00	1/4-28	Y
-53	2.00	1.50	5/16-18	Y
-55	1.50	.81	M6 x 1.0	Y

7/32 Covered or 1/4 Bare Conduit

Dash No.	"L"	"A"	"T"	Finish
-03	2.00	1.50	5/16-24	Y
-11	2.12	1.50	1/4-28	T
-13	1.50	1.00	5/16-24	*
-79	2.50	2.00	5/16-24	Y
-90	1.69	1.12	M6 x 1.0	T

1/4 Covered or 9/32 Bare Conduit

Dash No.	"L"	"A"	"T"	Finish
-04	2.00	1.44	5/16-24	Y

9/32 Covered or 5/16 Bare Conduit

Dash No.	"L"	"A"	"T"	Finish
-45	2.12	1.50	5/16-24	T
-59	2.56	2.00	7/16-14	Y
-66	1.62	1.00	5/16-24	Y
-74	1.25	.50	1/4-28	Y

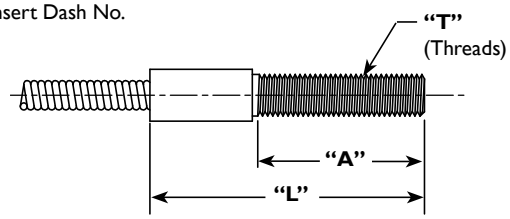
.31 Covered Conduit

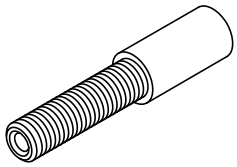
Dash No.	"L"	"A"	"T"	Finish
-100	2.12	1.50	5/16-24	Y

* = Zinc Plate w/Post Sealant
G = Magni 550-Gray
Y = Zinc Cobalt-Yellow
S.S. = Stainless Steel
T = Zinc Cobalt-Trivalent

21-1067-*Threaded Conduit Fittings

* Insert Dash No.



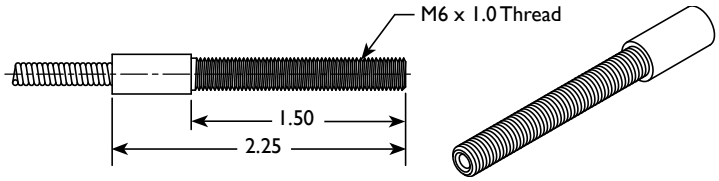


6 or 18 Wire

Dash No.	"L"	"A"	"T"
-08	2.25	1.50	1/4-28
-24	1.75	1.00	M6 x 1.0
-28	1.13	.375	M6 x 1.0

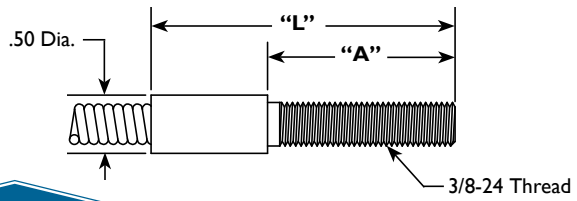
21-1068-108 Threaded Conduit Fitting

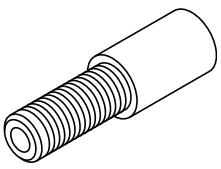
6 or 18 Wire



21-2273-*Threaded Conduit Fittings

* Insert Dash No.





5/16 Covered Conduit

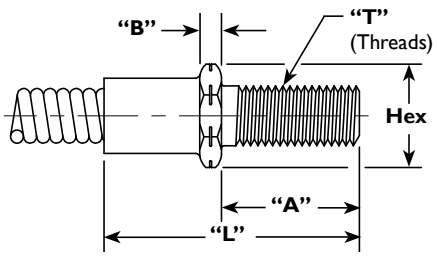
Dash No.	"L"	"A"
-04	2.25	1.00
-05	3.75	1.00
-14	1.55	.80

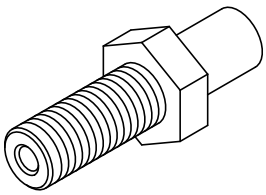
Conduit Swage Fittings

21-1068-*Threaded Conduit Fittings

* Insert Dash No.

3/16 Covered or 7/32 Bare Conduit

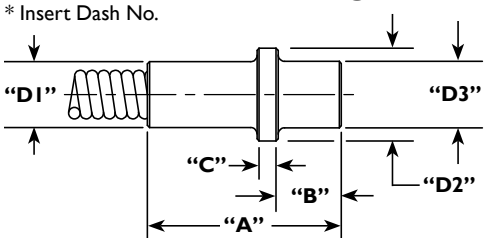


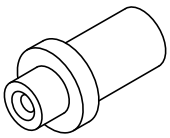


Dash No.	"L"	"A"	"B"	"T"	Hex
-08	.87	.37	.09	1/4-20	3/8
-14	.87	.25	.12	1/4-28	5/16
-57	.87	.37	.09	1/4-28	3/8
-77	1.38	.75	.18	1/4-28	1/2
-89	1.00	.50	.09	M6 x 1.0	10M
-112	1.38	.75	.18	5/16-24	1/2

21-1068-* Conduit Fittings

* Insert Dash No.

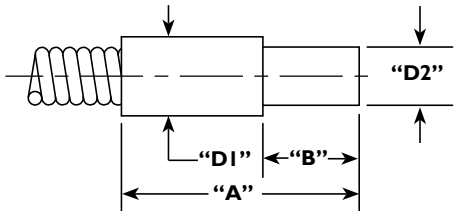


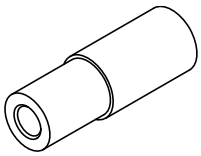


Dash No.	"A"	"B"	"C"	"D1"	"D2"	"D3"	Conduit
-38	1.25	.41	.125	.43	.62	.387	9/32
-62	.84	.25	.125	.31	.44	.31	3/16
-111	1.13	.18	.105	.25	.44	.31	6 Wire

21-1068-* Conduit Fittings

* Insert Dash No.

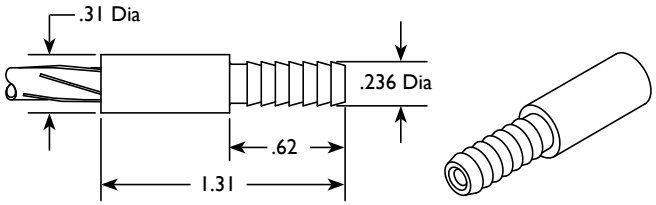




Dash No.	"A"	"B"	"D1"	"D2"	Conduit
-28	1.00	.44	.31	.229	7/32 Cov.
-58	.94	.38	.31	.235	3/16 Cov.
-82	1.27	.74	.21	.31	3/16 Bare
-104	.787	.33	.281	.245	3/16 Cov.
-106	.94	.31	.312	.235	7/32 Cov.

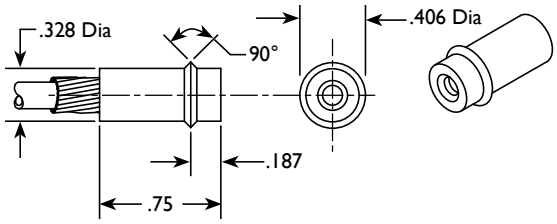
21-1067-20 Ribbed Conduit Fitting

6 or 18 Wire Conduit



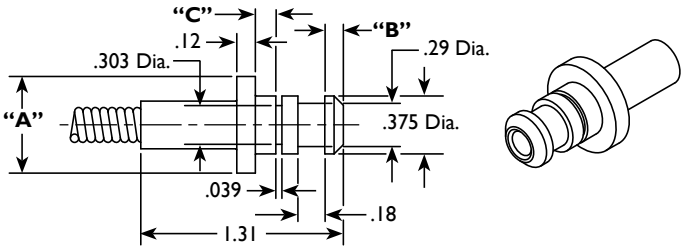
21-1068-68 Conduit Button

18 Wire Conduit



21-0500-* Conduit Fittings

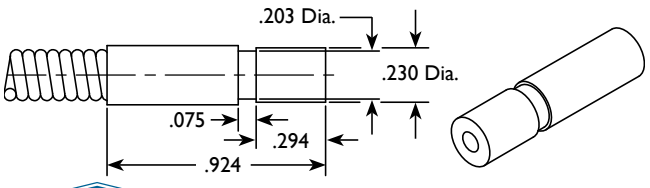
* Insert Dash No.



Dash No.	"A"	"B"	"C"	Conduit
-01	.625	.12	.134	7/32 Cov or 1/4 Bare
-13	.50	.12	.134	3/16 Cov. or 7/32 Bare
-14	.625	.09	.188	7/32 Cov. or 1/4 Bare

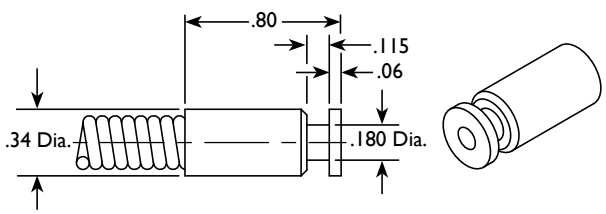
21-1060-50 Conduit Button

3/16 Covered or 3/16 Bare Conduit



21-1060-57 Conduit Button

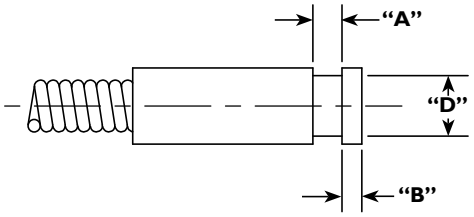
.230 Covered Conduit

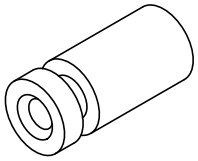


Conduit Swage Fittings

21-1060-* Conduit Button

* Insert Dash No.

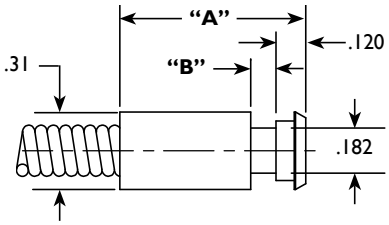


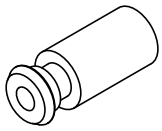


Dash No.	"D"	"A"	"B"	Conduit
-27	.182	.087	.06	3/16 Cov. or 7/32 Bare
-30	.211	.10	.10	3/16 Cov. or 7/32 Bare
-43	.182	.115	.06	3/16 Cov. or 7/32 Bare
-73	.138	.125	.10	3/16 Bare
-74	.125	.167	.06	3/16 Cov. or 7/32 Bare
-82	.180	.115	.06	6 or 18 Wire
-88	.180	.087	.10	6 or 18 Wire

21-1060-* Conduit Button

* Insert Dash No.

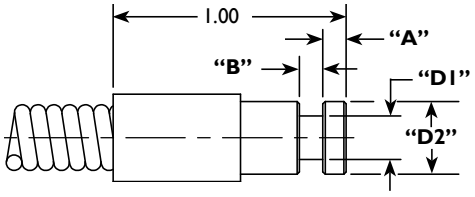


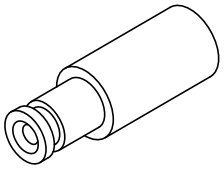


Dash No.	"A"	"B"	Conduit
-18	.75	.102	3/16 Cov. or 7/32 Bare
-52	.75	.102	7/32 Cov. or 1/4 Bare
-68	.87	.120	7/32 Cov. or 1/4 Bare

21-1060-* Conduit Button

* Insert Dash No.

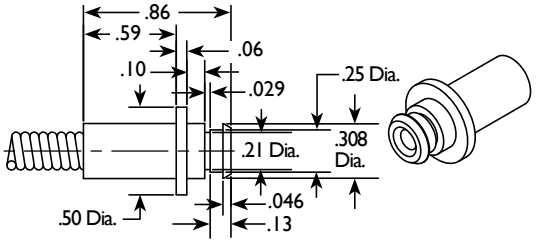




Dash No.	"D1"	"D2"	"A"	"B"	Conduit
-59	.180	.250	.05	.068	.230 Covered
-64	.180	.250	.05	.068	7/32 Bare
-78	.187	.312	.10	.10	3/16 Covered

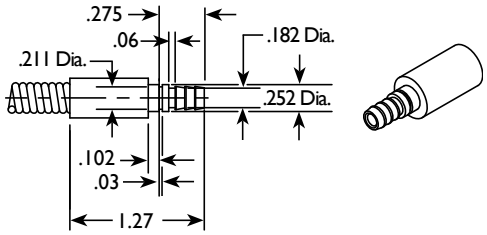
21-1060-* Conduit Button

*** -67 - 3/16 Covered Conduit**
-76 - .230 Covered Conduit



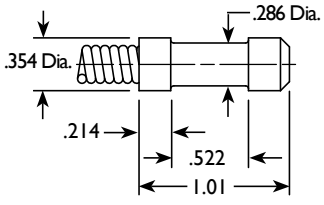
21-1060-55 Conduit Button

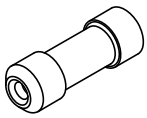
9/32 Covered Conduit



21-1060-81 Spool Conduit Fitting

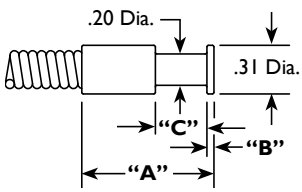
3/16 Covered Conduit

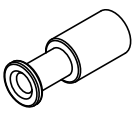




21-1067-* Conduit Button

* Insert Dash No.



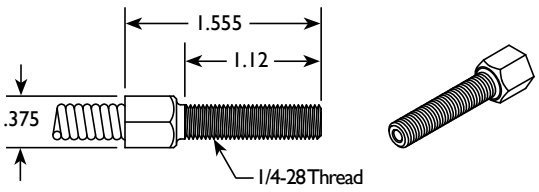


Dash No.	"A"	"B"	"C"	Conduit
-14	1.10	.05	.30	6 Wire
-22	.845	.045	.330	3/16 Covered

Conduit Swage Fittings

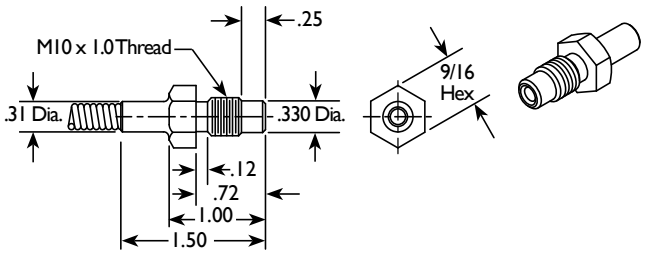
21-1067-23 Conduit Fitting

3/16 Covered Conduit



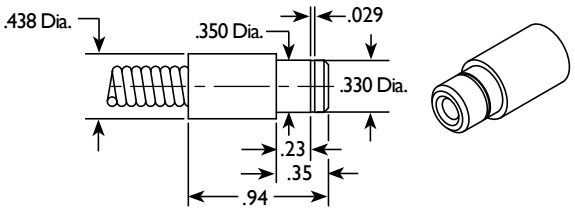
21-1068-91 Conduit Fitting

3/16 Covered Conduit



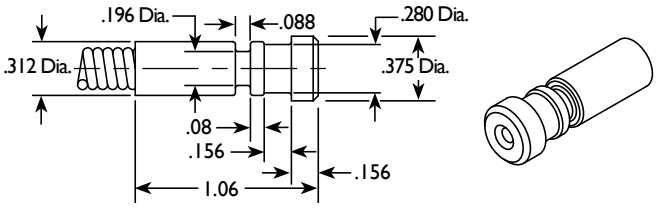
21-1068-46 Conduit Button

9/32 Covered Conduit



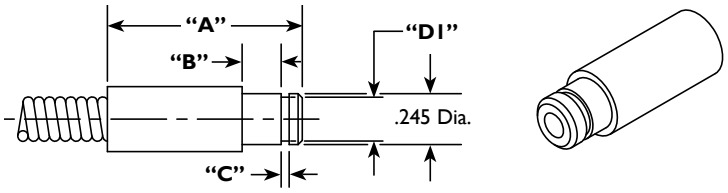
21-1068-110 Conduit Fitting

3/16 Covered Conduit



21-2257* Snap Ring Fitting

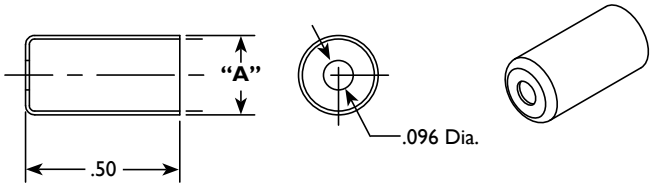
* Insert Dash No.



Dash No.	"A"	"B"	"C"	"D1"	Conduit
-01	.940	.185	.039	.210	3/16 Covered
-02	.940	.185	.039	.210	7/32 Covered
-19	.656	.055	.029	.220	3/16 Bare
-51	.886	.118	.039	.210	3/16 Covered

80-0002-* End Cap

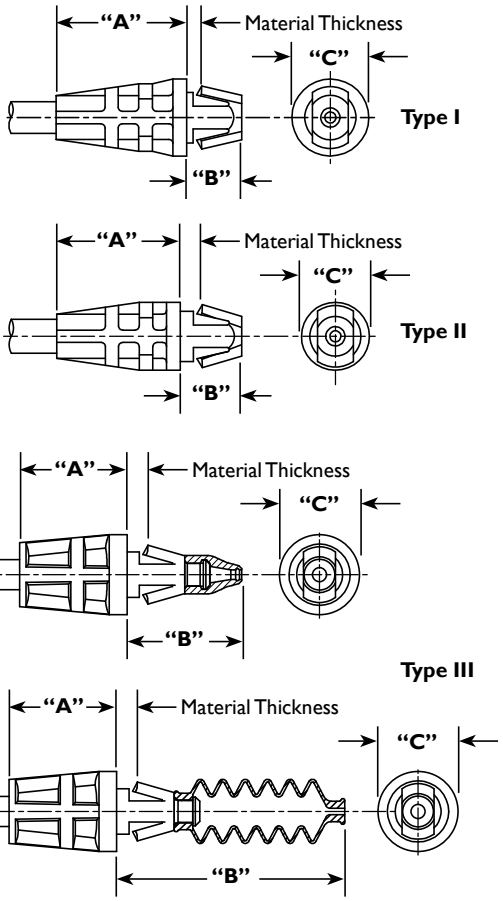
* Insert Dash No.

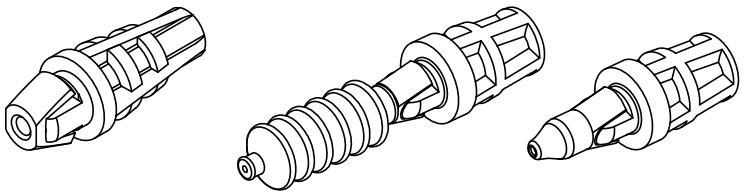


Dash No.	"A"	Conduit
-01	.258	3/16 Covered, 7/32 Bare
-02	.220	.155 Covered, 3/16 Bare

23-3184-* & 23-3242-* Snap In Fittings

* Insert Dash No.





Type	Part No.	Conduit Size/Type	Material Thickness	"A"	"B"	"C"	"D"
I	23-3184-14	6-Wire	.083/.112	.95	.42	.54	1.31
I	23-3184-15	3/16 Bowden	.083/.112	.95	.42	.54	1.31
II	23-3184-31	3/16 Bowden	.110/.128	.92	.45	.50	1.34
II	23-3184-32	3/16 Bowden	.110/.128	.92	.45	.50	1.34
I	23-3184-38	5/32 Tubing	.083/.112	.95	.42	.54	1.31
I	23-3184-46	3/16 Bowden	.083/.112	.95	.133	.54	1.31
II	23-3184-48	7/32 Bowden	.110/.128	.92	.45	.50	1.34
II	23-3184-49	3/16 Bowden	.205/.225	.83	.54	.50	1.34
II	23-3184-52	3/16 Bowden	.143/.165	.89	.48	.50	1.34
II	23-3184-56	6-Wire	.083/.112	.94	.42	.48	
II	23-3184-57	3/16 Bowden	.083/.112	.65	.42	.48	
II	23-3184-60	7/32 Bowden	.205/.225	.83	.54	.50	1.34
II	23-3184-61	6-Wire	.083/.112	.65	.42	.49	
III	23-3242-01	3/16 Bowden	.083/.109	.86	.90	.62	1.79
III	23-3242-02	7/32 Bowden	.083/.109	.86	.90	.62	1.79
III	23-3242-03	3/16 Bowden	.111/.140	.83	.93	.62	1.82
III	23-3242-04	7/32 Bowden	.111/.140	.83	.93	.62	1.82
III	23-3242-05	3/16 Bowden	.200/.233	.74	1.02	.62	1.91
III	23-3242-06	7/32 Bowden	.200/.233	.74		.62	

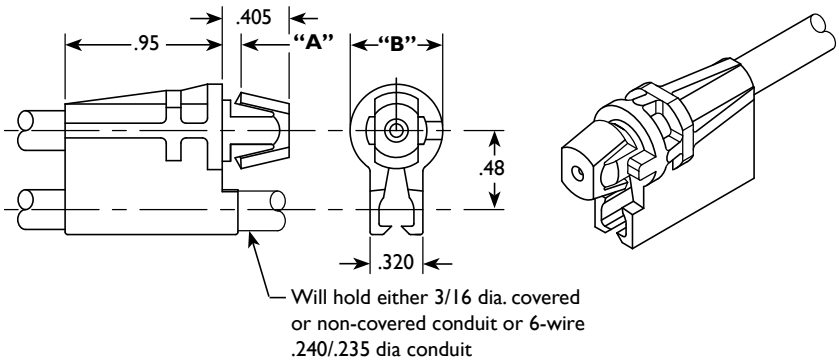
All fittings are designed to fit .375±.0005 dia. mounting hole.

23-3184-* Snap In Fittings

* Insert Dash No.

Dash No.	Usage	"A"	"B"
-18	3/16 Dia.Conduit	.076	.56

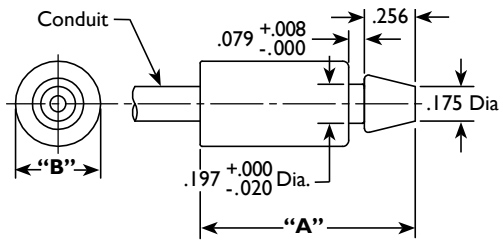
All fittings are designed to fit .355/.391 dia. mounting hole with edge slot.

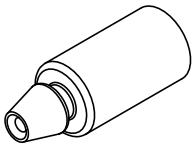


Plastic Conduit Fittings

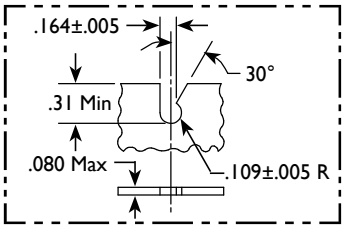
23-3184-* Slot Mount Fittings

* Insert Dash No.





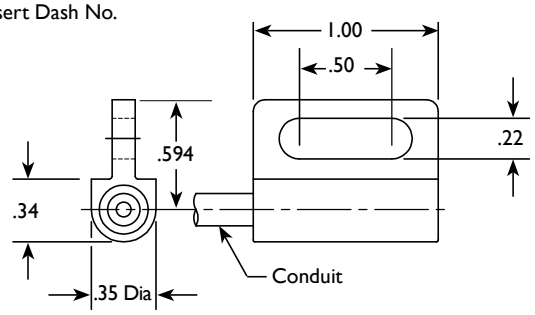
Dash No.	Usage	"A"	"B"
-23	3/16 Dia. Conduit	1.08	.418
-26	5/32 Dia Conduit (438155-00)	1.09	.430

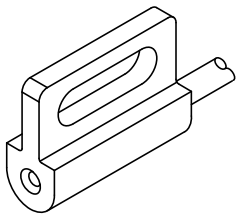


Panel Mount Detail

23-3184-* Slot Mount Fittings

* Insert Dash No.

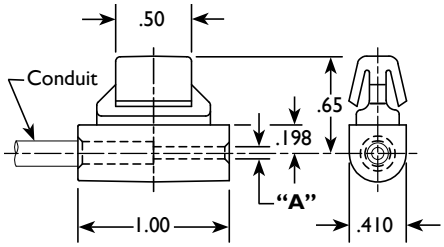


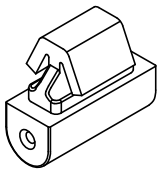


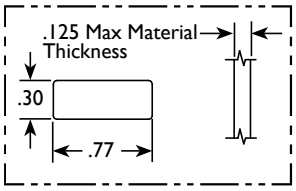
Dash No.	Usage
-22	6-Wire Conduit (456237-00)
-24	3/16 Dia. Conduit

23-3184-* Side Mount Fittings

* Insert Dash No.



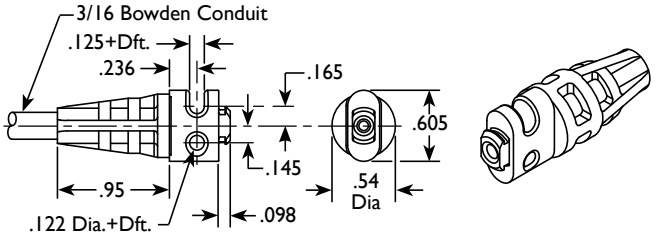




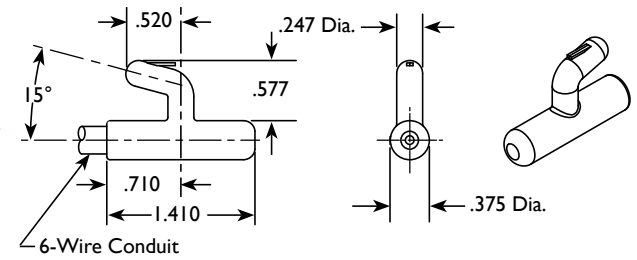
Panel Mount Detail

Dash No.	Usage	"A"
-28	3/16 Dia Conduit	.083
-50	3/16 Dia Conduit	.122

23-3184-45 Hair Pin Fitting

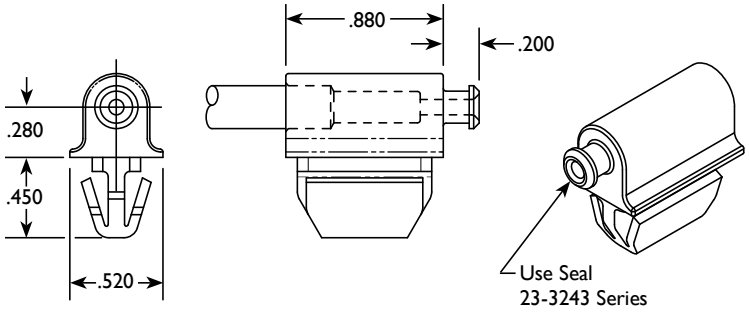


23-3184-59 Press On "Z" Fitting



23-3245-* Snap In Fittings

* Insert Dash No.

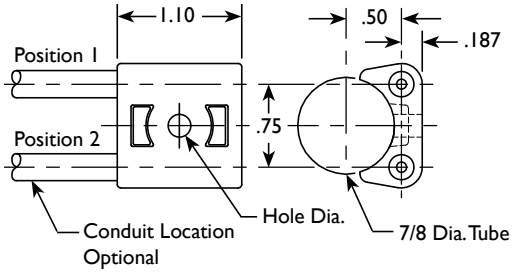


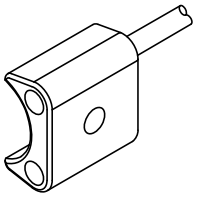
Dash No.	Usage
-01	3/16 Dia Conduit
-02	7/32 Dia. Conduit

Plastic Conduit Fittings

23-3314-* Handle Bar Contour Fittings

* Insert Dash No.





6-Wire Conduit

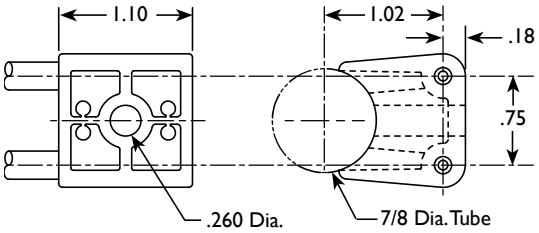
Dash No.	Hole Dia.	Bolt Size
-04-01	.260	1/4
-04-02	.205	#10
-04-03	.328	5/16

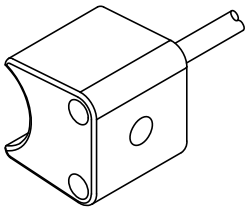
3/16 Dia. Conduit

Dash No.	Hole Dia.	Bolt Size
-05-01	.260	1/4
-05-02	.205	#10
-05-03	.325	5/16

23-3314-* Handle Bar Contour Fittings

* Insert Dash No.

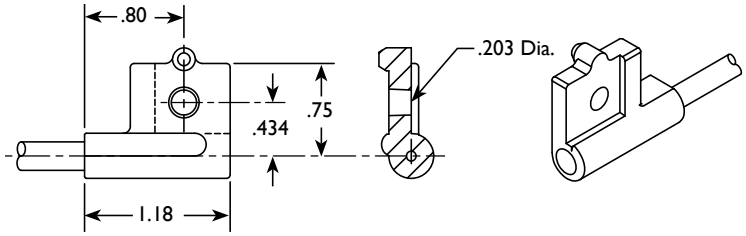




Dash No.	Usage
-06	6-Wire Conduit (456237-00)
-07	3/16 Dia. Conduit (415187-00-01)

23-3315-* Briggs & Stratton Engine Fittings

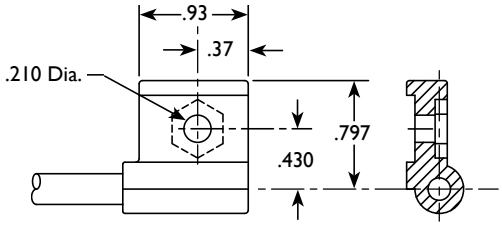
* Insert Dash No.

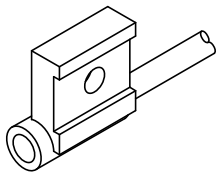


Dash No.	Usage
-07	6-Wire Conduit
-09	3/16 Dia. Conduit

23-3315-* Engine Fittings

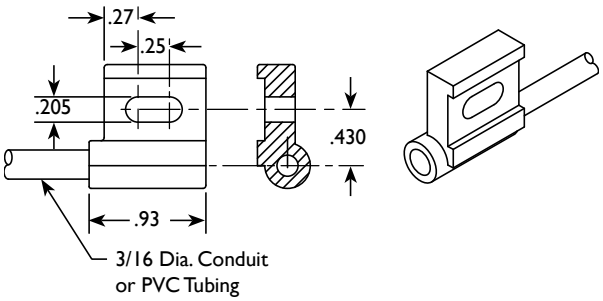
* Insert Dash No.



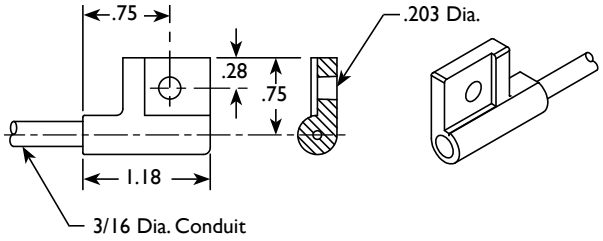


Dash No.	Usage
-10	3/16 Dia. Conduit
-11	6-Wire Conduit

23-3315-12 Engine Fitting



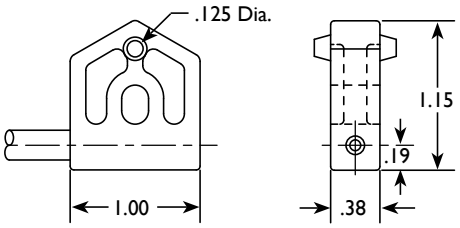
23-3315-13 Engine Fitting

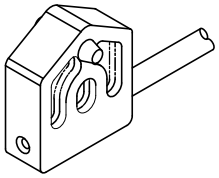


Plastic Conduit Fittings

23-3184-* End Fittings

* Insert Dash No.

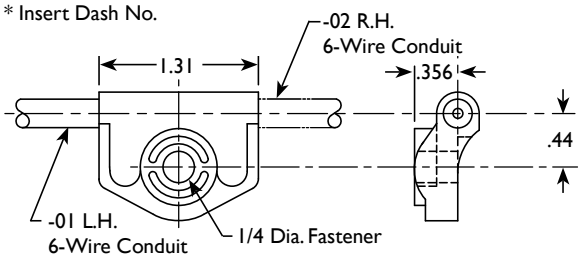


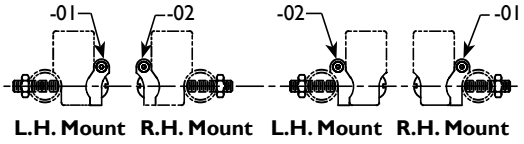


Dash No.	Usage
-29	6-Wire Conduit
-51	3/16 Dia. Conduit

23-3327-* Zone Start Fittings

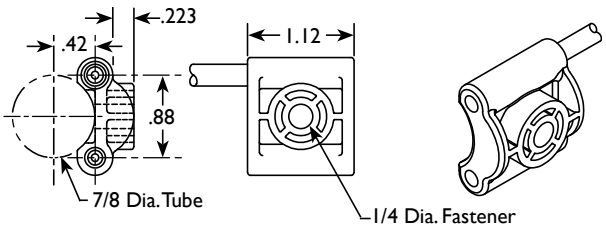
* Insert Dash No.



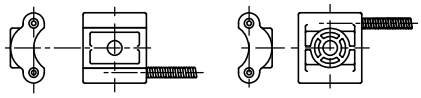


23-3327-*Throttle Mate Fittings

* Insert Dash No.



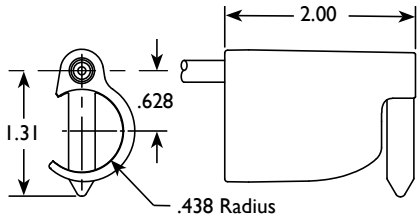
Installation Data

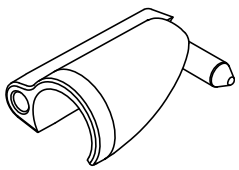


Dash No.	Usage
-03	3/16 Dia. Conduit
-04	6-Wire Conduit
-06	3/16 Dia. Conduit

23-3539-* 7/8" Handlebar Fittings

* Insert Dash No.

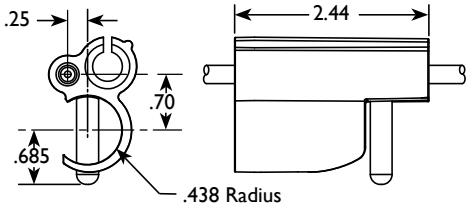


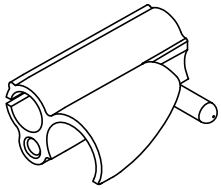


Dash No.	Usage
-01	3/16 Dia. Conduit
-02	6-Wire Conduit

23-3539-* Dual Roll On Fittings

* Insert Dash No.

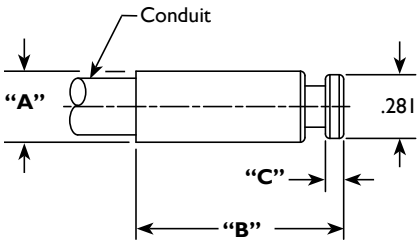


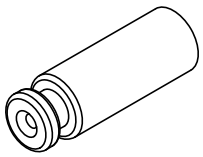


Dash No.	Usage
-03	3/16 Dia. Conduit
-04	6-Wire Conduit

23-3184-* Button Fitting

* Insert Dash No.

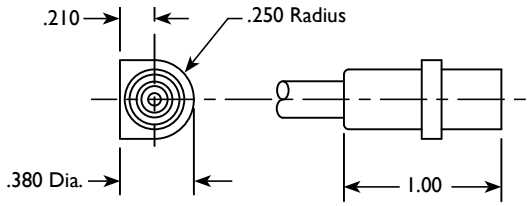


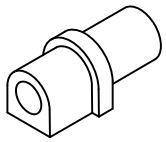


Dash No.	Usage	"A"	"B"	"C"
-39	5/32 Dia. Conduit	.306	.81	.100
-40	3/16 Dia. Conduit	.306	.81	.100
-41	5/32 Dia. Conduit	.310	.81	.100
-44	3/16 Dia. Conduit	.300	.81	.100
-101	6-Wire Conduit	.312	1.02	.080

23-2080-* Button Fitting

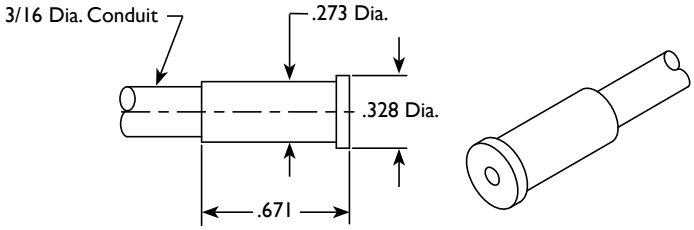
* Insert Dash No.





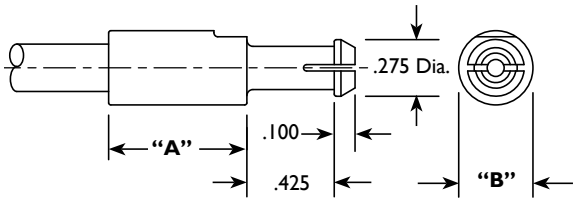
Dash No.	Usage
-01	3/16 Dia Conduit
-02	6-Wire Conduit

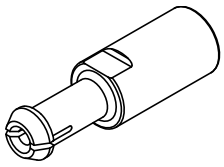
23-3131-01 Button Fitting



23-2081-* & 23-2082-* Button Fittings

* Insert Dash No.

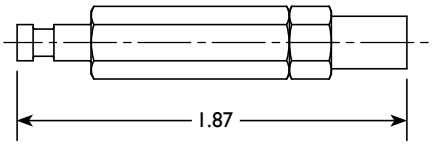


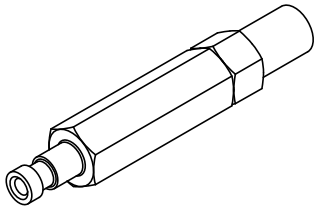


Part No.	Usage	"A"	"B"
23-2081-01	3/16 Dia. Conduit (415187-00-01)	.850	.375
23-2081-02	.155 Dia. Conduit (439155-00-01)	.850	.375
23-2081-03	6-Wire Conduit (456237-00-01)	.850	.375
23-2082-01	3/16 Dia. Conduit	.665	.360
23-2082-02	6-Wire Conduit	.665	.360

13-3000-* Swivel Fitting Adjuster Assembly

* Insert Dash No.

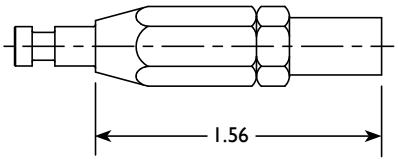


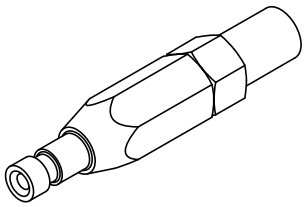


Dash No.	Adjustment	Conduit
-04	.62	7/32 Bare or 3/16 Cov.
-05	.75	1/4 Bare or 7/32 Cov.

13-3000-* Swivel Fitting Adjuster Assembly

* Insert Dash No.

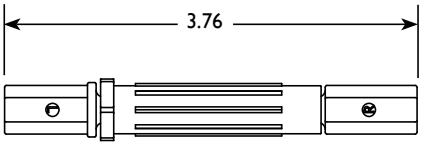


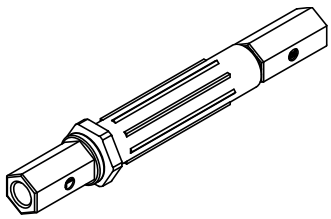


Dash No.	Adjustment	Conduit
-09	.43	1/4 Bare or 7/32 Cov.
-10	.43	7/32 Bare or 3/16 Cov.

17-3540-01 Plastic Adjuster Assembly

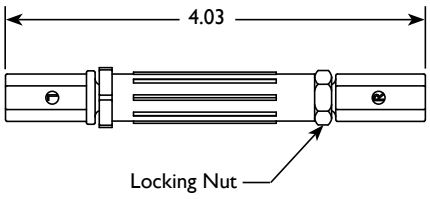
For use with .187 Dia. Bowden Conduit
(.75 Adjustment)

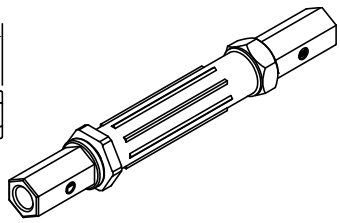




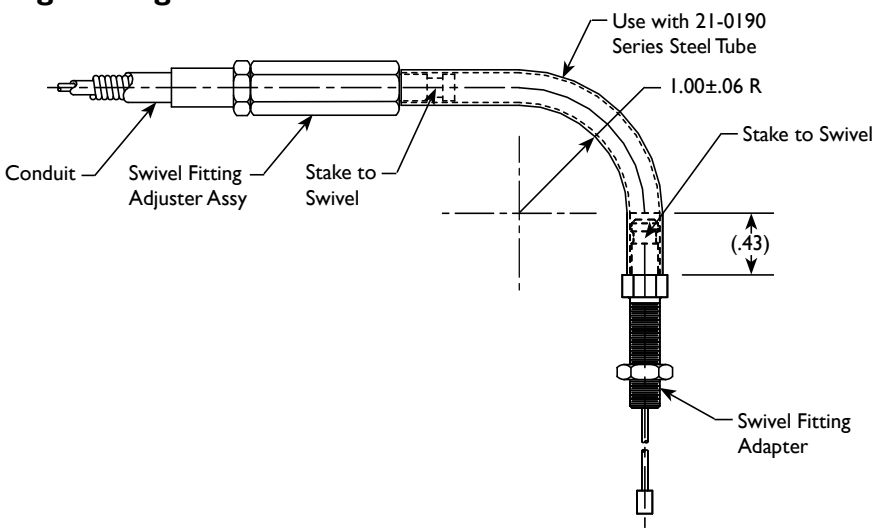
17-3540-03 Plastic Adjuster Assembly

For use with .187 Dia. Bowden Conduit
(.48 Adjustment)

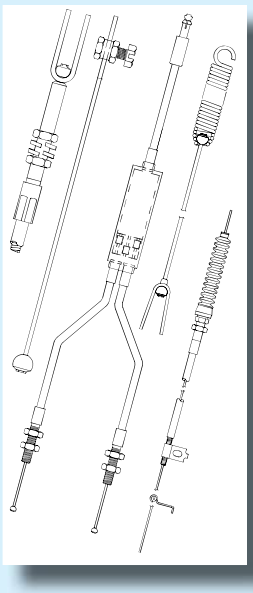




Example of Conduit Swage Fittings
Swivel & Adjuster



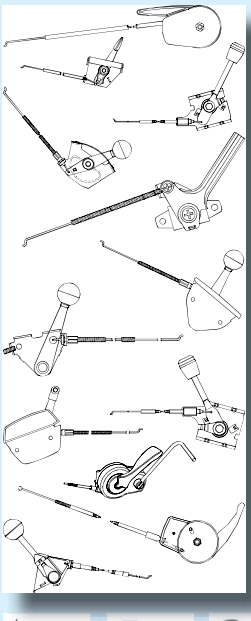
TAKE A LOOK AT OTHER WESCON PRODUCTS



WESCON CONTROLS

Controls for a world in motion

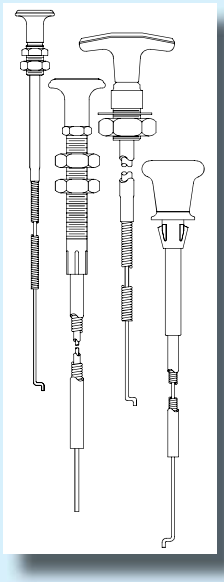
Accessories



WESCON CONTROLS

Controls for a world in motion

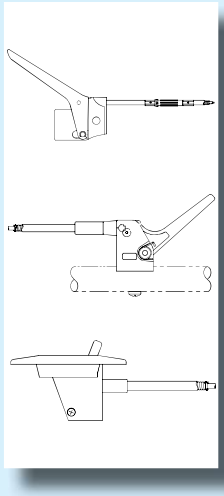
Outdoor Power Equipment Controls



WESCON CONTROLS

Controls for a world in motion

Light Duty Push-Pull and Turn-to-Lock Controls



WESCON CONTROLS

Controls for a world in motion

Light Duty Lever Controls

WESCON CONTROLS

Controls for a world in motion

WESCON CONTROLS, LLC

2533 S. West Wichita, Kansas 67217

316-942-7266 or call toll free 1-800-835-0160

Fax 316-942-5114

www.wesconcontrols.com

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2021-7-R4