



F.A.S.T. DISTRIBUTOR

Felsted® HP Cables Catalog



TRASMITEC S.A.S di Gastaldi Marco & C. - Via A. De Francisco, 127 - 10036 Settimo Torinese (TO)
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HP Cables

High Performance Control Cables & Hardware

Push-Pull Cables
Universal Cables
Positive Lock Cables
Vernier Cables
Tension Cables
PTO Cables
Valve Control Cables
Hardware

Features & Construction

Core Constructions

Hi-Performance (HP) 1 x 7 coated core is available in 3, 4 and 6 series cables. HP Core uses a proprietary coating over 1 x 7 wire rope. This construction offers improved flexibility, higher push loads than armor core construction. Solid stainless steel cores are available in 3 Series push-pull, universal, positive lock and PTO cables. Tension cables use a 1 x 19 HP coated core, while 8 series push-pull remains armor core.

Liners

All Felsted brand cables utilize polymer liners, available in standard HP cable construction at -65 to +225°F (-54 to +107°C), and HEFT 2 high temperature version at -65 to +300°F (-54 to +149°C). Factory lubrication provides optimum core performance without requiring further service.

Note: With quick disconnect control head cables, though the conduit/core may be rated to +225°F or +300°F, the control head itself is not intended for these temperature ranges.

Stranded Conduit

Multiple, oil tempered spring wires are placed in a long lay pattern to protect the liner and inner core, maintain flexibility, and withstand extreme compressive and tensile loads. This long lay construction results in minimal deflections during cable operation, assuring precise controlling action to the operator.

Conduit Jacket

Heavy duty, thick-walled polymer jackets are extruded onto the stranded liner for maximum cable strength. Standard HP Cable material is polymer molded to a dark maroon color. HEFT 2 jacket, used in high temperature applications, uses a nylon based material and is molded into a satin black color.

End Fittings

Corrosion-resistant materials are used throughout to provide maximum life. Standard 3, 4 and 6 series rods and sleeves are 300 series stainless steel, while hubs are either stainless or aluminum. The 8 series fittings are plated steel.

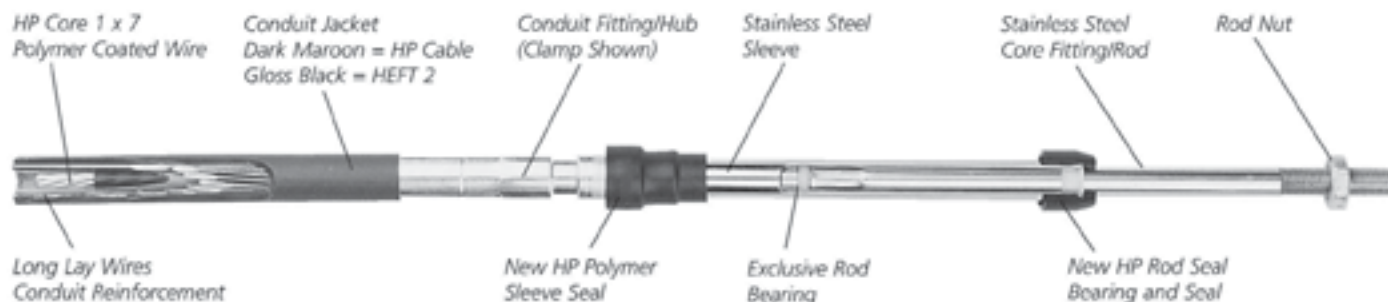
Seals & Boots

High-Performance seals are now standard! Durable custom compounded seals are used to prevent moisture and contaminants from entering the cable. The new Hi-Performance seals outperform all previous seals, and are now standard on all cables. The HP seals operate in all temperature extremes, while offering improved performance and efficiency. Tension cables use a durable tear-resistant silicone boot, designed for high cycle use and high temperature.

Rod & Sleeve Bearing

An exclusive polymer rod and sleeve bearing is used to improve efficiency, sealing and cable life by preventing metal-to-metal contact between the rod and sleeve. They also accurately align the rod with the seal to ensure superior sealing and a long cable life.

Specifications subject to
change without notice



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Cable Types/Options/Part Number System

How to Order Felsted Brand HP Cables: Part Number System

Standard/Imperial

1	0	0	0	4	3	2	3	0	1	2	0
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Example of a common Push-Pull Cable part number.
A standard HP Cable with no cable head, 4 Series, 3 inch travel, bulkhead hub, clamp hub and 120 inches in length.

Control Head Options

- 00 None — Cable Without Head
- 73 Positive Lock Quick-Disconnect Head: 3" Travel
- 75 Positive Lock Quick-Disconnect Head: 5" Travel
- 90 Vernier Head: Small, Black, Quick-Disconnect
- 92 Vernier Head: Large, Black, Quick-Disconnect
- 94 Vernier Head: Large, Black with Red Button, Quick-Disconnect

Length

Inches
(mm when M prefix is used)

Basic Cable Number

(Choose from this catalog)

Push-Pull Cables: 3, 4, 6 & 8 Series	3
Universal Cables: 3 Series Light Duty (LD)	5
Knobs & T-Handles for Universal Cables	5
Universal Cables: 3 Series Heavy Duty (HD), 4 & 6 Series	7
Positive Lock Cables: 3 Series LD, 3 Series HD, 4 Series	9
Vernier Cables: 3 Series LD, 3 Series HD, 4 Series	11
Tension Cables: 3, 4, 6 & 8 Series	13
PTO & RVO Cables	14
RVC & Special Valve Control Cables	15

Cable Types

- 0 Solid Core (3 Series)
- 1 HP Cable Standard (Temperature -65 to +225°F/-54 to +107°C)
- 2 All Stainless Steel Fittings
- 3 HEFT 2 (High Temperature -65 to +300°F/-54 to +149°C)
- 4 HEFT 2 (High Temperature -65 to +300°F/-54 to +149°C)
With all Stainless Steel Fittings

Metric

1	0	0	M	4	3	2	3	0	3	0	4	8
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See Above

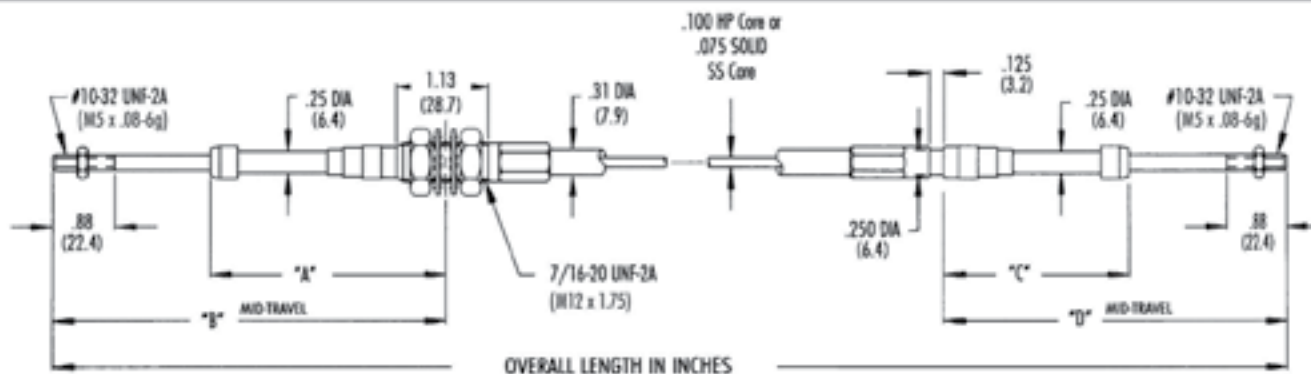
See Above

Length - mm

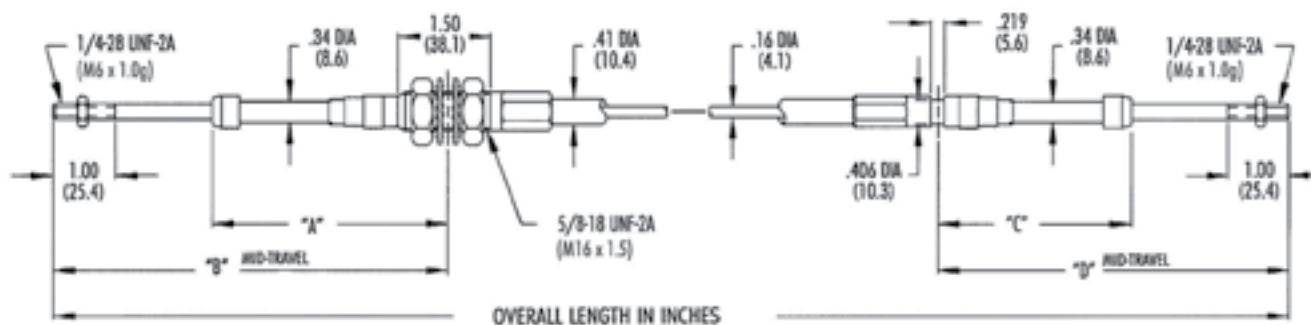
Metric

"M" prefix designates metric threads on rods
and length in mm.

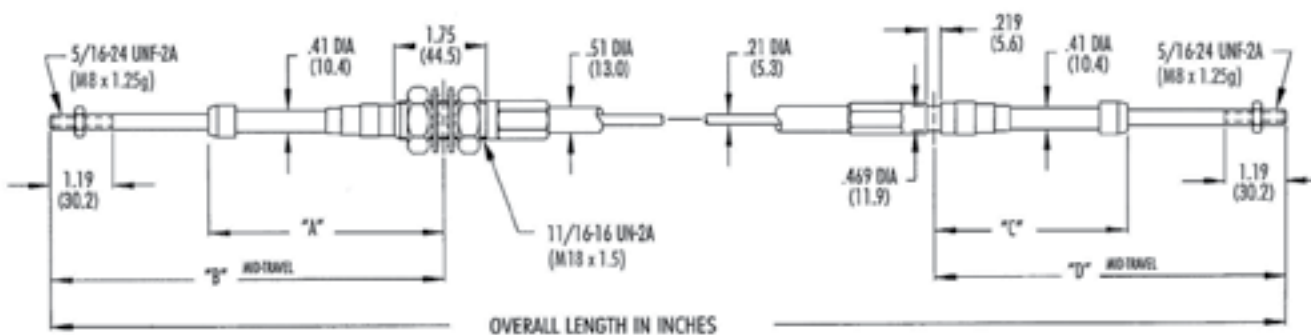
3 SERIES



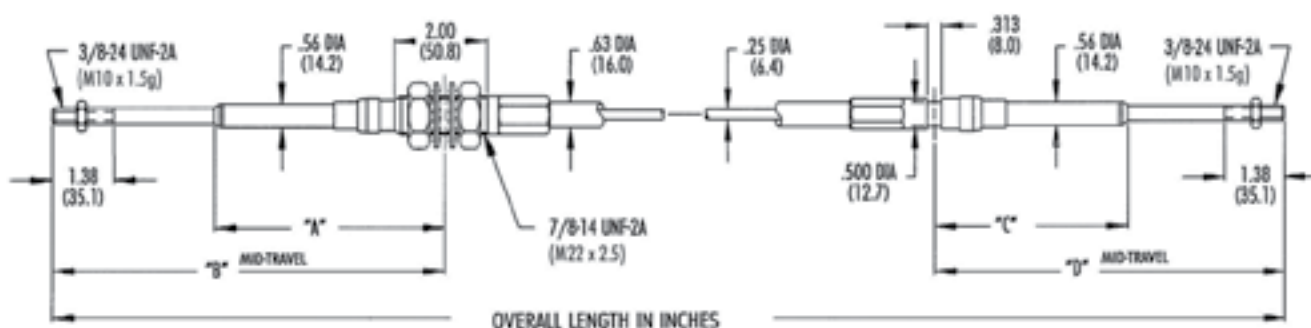
4 SERIES



6 SERIES



8 SERIES



- Temperature Range:
-65 to +225°F / -54 to +107°C Std.
-65 to +300°F / -54 to +149°C HEFT 2
- Low Backlash
- High Efficiency

- Conduit Color:
Dark Maroon - HP Cable Std.
Satin Black - HEFT 2

3 SERIES

HP Core
or Solid Core
10-32 Thread
3" Bend Radii (HP)
6" Bend Radii
(Solid Core)

Specifications

Travel	Bulkhead End		Clamp End		Operating Loads	
Inch/(mm)	DIM "A" Inch/(mm)	DIM "B" Inch/(mm)	DIM "C" Inch/(mm)	DIM "D" Inch/(mm)	Push lbs./ (N)	Pull lbs./ (N)
1.0 (25.4)	3.00 (76.2)	4.44 (112.8)	2.31 (58.7)	3.75 (95.3)	80 (356)	120 (534)
2.0 (50.8)	4.00 (101.6)	5.94 (150.9)	3.31 (84.1)	5.25 (133.4)	80 (356)	120 (534)
3.0 (76.2)	5.00 (127.0)	7.44 (189.0)	4.31 (109.5)	6.75 (171.5)	70 (311)	120 (534)
4.0 (101.6)	6.00 (152.4)	8.94 (227.1)	5.31 (134.9)	8.25 (209.6)	60 (267)	120 (534)
5.0 (127.0)	7.00 (177.8)	10.44 (265.2)	6.31 (160.3)	9.75 (247.7)	45 (200)	120 (534)
6.0 (152.4)	8.00 (203.2)	11.94 (303.5)	7.31 (185.6)	11.25 (285.7)	35 (155.8)	120 (534)
7.0 (177.8)	9.00 (228.6)	13.44 (341.4)	8.31 (211.0)	12.75 (323.8)	25 (111.3)	120 (534)

4 SERIES

HP Core
1/4-28 Thread
5" Bend Radii

Specifications

Travel	Bulkhead End		Clamp End		Operating Loads	
Inch/(mm)	DIM "A" Inch/(mm)	DIM "B" Inch/(mm)	DIM "C" Inch/(mm)	DIM "D" Inch/(mm)	Push lbs./ (N)	Pull lbs./ (N)
1.0 (25.4)	3.13 (79.5)	4.69 (119.1)	2.50 (63.5)	4.06 (103.1)	150 (667)	230 (1023)
2.0 (50.8)	4.13 (104.9)	6.19 (157.2)	3.50 (88.9)	5.56 (141.2)	150 (667)	230 (1023)
3.0 (76.2)	5.13 (130.3)	7.69 (195.3)	4.50 (114.3)	7.06 (179.3)	125 (556)	230 (1023)
4.0 (101.6)	6.13 (155.7)	9.19 (233.4)	5.50 (139.7)	8.56 (217.4)	100 (445)	230 (1023)
5.0 (127.0)	7.13 (181.1)	10.69 (271.5)	6.50 (165.1)	10.06 (255.5)	75 (334)	230 (1023)
6.0 (152.4)	8.13 (206.5)	12.19 (309.6)	7.50 (190.5)	11.56 (293.6)	55 (244.8)	230 (1023)
7.0 (177.8)	9.13 (231.9)	13.6 (347.7)	8.50 (215.9)	13.06 (331.7)	45 (200.3)	230 (1023)

6 SERIES

HP Core
5/16-24 Thread
7" Bend Radii

Specifications

Travel	Bulkhead End		Clamp End		Operating Loads	
Inch/(mm)	DIM "A" Inch/(mm)	DIM "B" Inch/(mm)	DIM "C" Inch/(mm)	DIM "D" Inch/(mm)	Push lbs./ (N)	Pull lbs./ (N)
1.0 (25.4)	3.25 (82.6)	5.00 (127.0)	2.56 (65.0)	4.31 (109.5)	250 (1112)	400 (1779)
2.0 (50.8)	4.25 (108.0)	6.50 (165.1)	3.56 (90.4)	5.81 (147.6)	250 (1112)	400 (1779)
3.0 (76.2)	5.25 (133.4)	8.00 (203.2)	4.56 (115.8)	7.31 (185.7)	210 (934)	400 (1779)
4.0 (101.6)	6.25 (158.8)	9.50 (241.5)	5.56 (141.2)	8.81 (223.8)	170 (756)	400 (1779)
5.0 (127.0)	7.25 (184.2)	11.00 (279.4)	6.56 (166.6)	10.31 (261.9)	130 (578)	400 (1779)
6.0 (152.4)	8.25 (209.6)	12.50 (317.5)	7.56 (192.0)	11.81 (299.9)	90 (400.5)	400 (1779)
7.0 (177.8)	9.25 (235)	14.00 (355.6)	8.56 (217.4)	13.31 (338.0)	60 (267)	400 (1779)

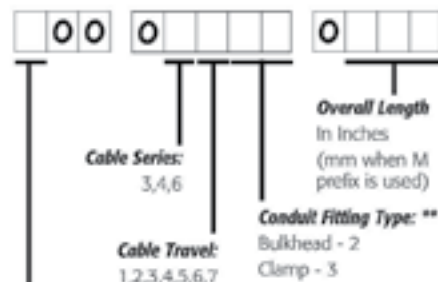
8 SERIES

Armor Core
3/8-24 Thread
10" Bend Radii

Specifications

Travel	Bulkhead End		Clamp End		Operating Loads	
Inch/(mm)	DIM "A" Inch/(mm)	DIM "B" Inch/(mm)	DIM "C" Inch/(mm)	DIM "D" Inch/(mm)	Push lbs./ (N)	Pull lbs./ (N)
1.0 (25.4)	3.69 (93.7)	5.56 (141.2)	3.19 (81.0)	5.06 (128.5)	700 (3114)	1000 (4448)
2.0 (50.8)	4.69 (119.1)	7.06 (179.3)	4.19 (106.4)	6.56 (166.6)	700 (3114)	1000 (4448)
3.0 (76.2)	5.69 (144.5)	8.56 (217.4)	5.19 (131.8)	8.06 (204.7)	600 (2669)	1000 (4448)
4.0 (101.6)	6.69 (169.9)	10.06 (255.5)	6.19 (157.2)	9.56 (242.8)	500 (2224)	1000 (4448)
5.0 (127.0)	7.69 (195.3)	11.56 (293.6)	7.19 (182.6)	11.06 (280.9)	400 (1779)	1000 (4448)
6.0 (152.4)	8.69 (220.7)	13.06 (331.7)	8.19 (208.0)	12.56 (319.0)	275 (1223.8)	1000 (4448)
7.0 (177.8)	9.69 (246.1)	14.56 (369.8)	9.19 (235.4)	14.06 (357.1)	150 (667.5)	1000 (4448)

Building a Part Number



Cable Type

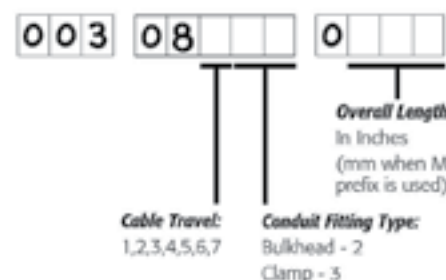
- 0 Solid Core (3 Series Only)
- 1 Hi-Performance (Standard)
- 2 Marine
- 3 HEFT 2 (Hi-Performance & High Temperature)
- 4 Marine HEFT 2

M Metric - see pg. 2

**B-C Combo Hubs = 5

Bulkhead and Clamp on same end.
To order a Bulkhead/Clamp
Combination cable, use digits "55" in
the conduit fitting type boxes above.
Note: Clamp mounting dimensions are
the same as the clamp dimensions
shown on these pages. Bulkhead
mounting dimensions grow.
The B-C Combo hub is a flexible
solution for applications where the
exact hub fitting (clamp vs. bulkhead)
is not known.

Building a Part Number



HEFT 2 Not available in 8 Series

M Metric - see pg. 2

Universal – Utility Cables

Can be custom assembled by local F.A.S.T. distributors

3 SERIES LIGHT DUTY

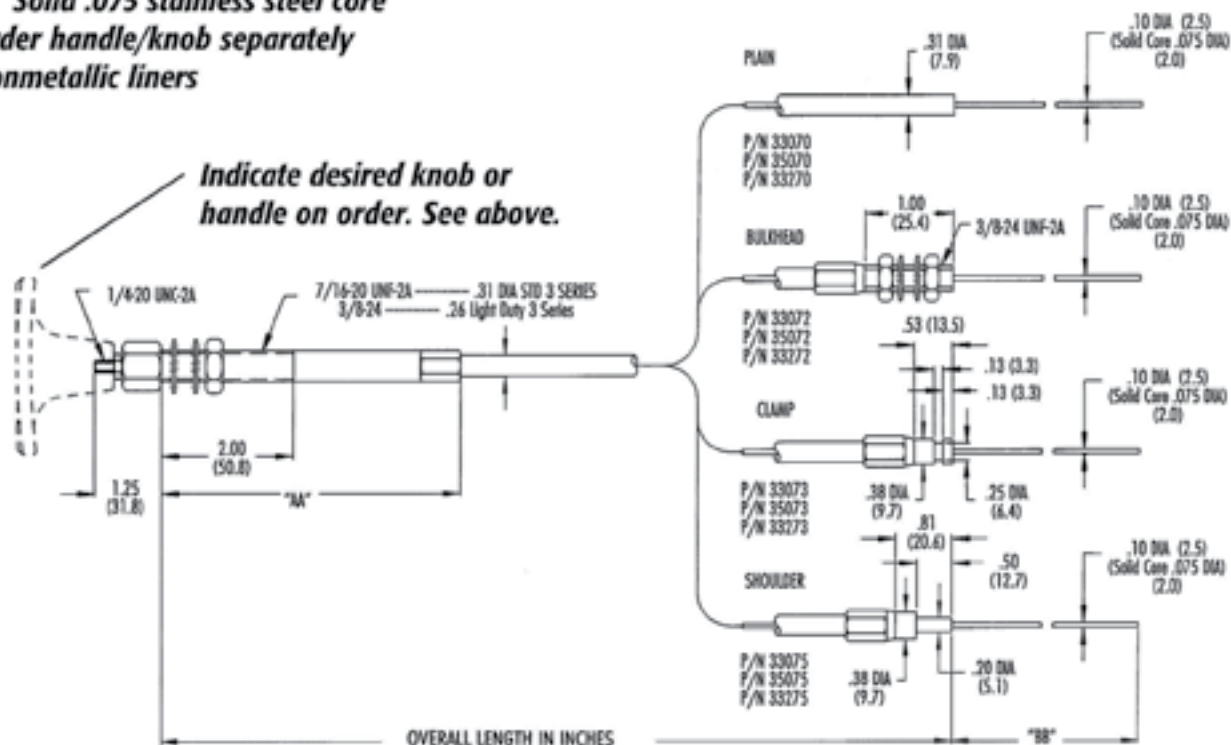
Choice of core type:

HP Core – Polymer coated 1 x 7

Solid .075 stainless steel core

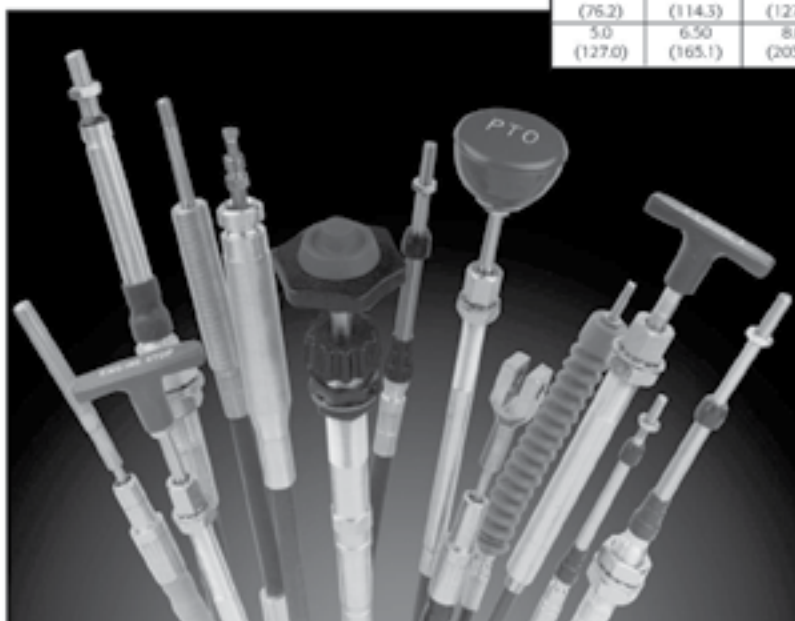
Order handle/knob separately

Nonmetallic liners



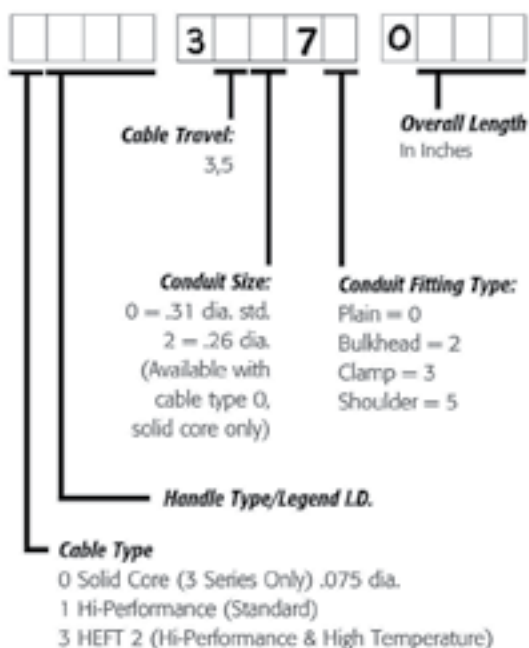
Specifications

Travel Inch/(mm)	DIM "AA" Inch/(mm)	DIM "BB" Inch/(mm)
3.0 (76.2)	4.50 (114.3)	5.0 (127.0)
5.0 (127.0)	6.50 (165.1)	8.0 (203.2)



Cable Only

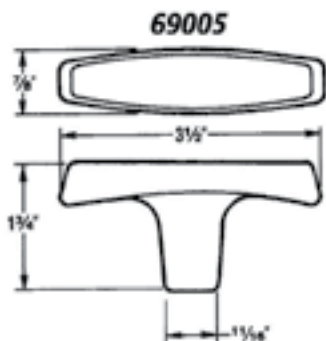
Building a Part Number



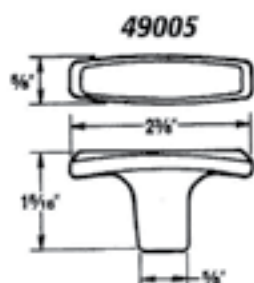
T-Handles

Tough Nylon Material

T-HANDLES



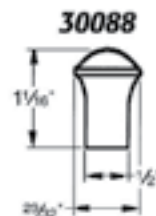
Base Part #	Type	Color
49005-1	A	Black
49005-2	B	Red
69005-1	C	Black
69005-2	D	Red



Knobs

Rugged Phenolic Material

KNOBS



Base Part #	Type	Color	Legend I.D.	Thread Size
30024-0	E	Black	01	1
30088-1	F	Black	01	1
30088-2	G	Red	01	1
30162-0	H	Red	06	1
30387-1	I	Black	01	1
30387-2	J	Red	01	1
30412-0	K	Black	01	1

Refer to "Building a Part Number" at bottom.
Knobs limited to above legend identification
and thread size combinations.

T-Handle/Knob Only Building a Part Number



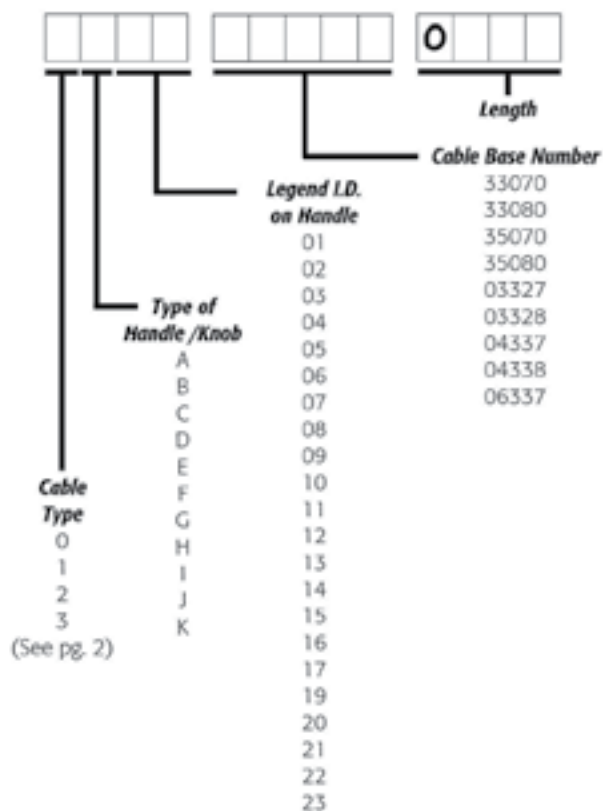
Legend Identification

01 Plain	11 Cold Start	19 Overdrive
02 Stop	12 Pump	20 Aux. Release
03 Shut-Off	13 Chute	(Lock)
04 Throttle	14 Fire	21 Rear Door
05 Choke	15 Start	(Lock)
06 PTO	16 Hood	22 Throttle
07 Emergency Stop	17 Emergency Fuel	(Lock)
08 Engine Stop	Shut-Off	23 Hatch
09 (Lock)		(Lock)
10 Disconnect		

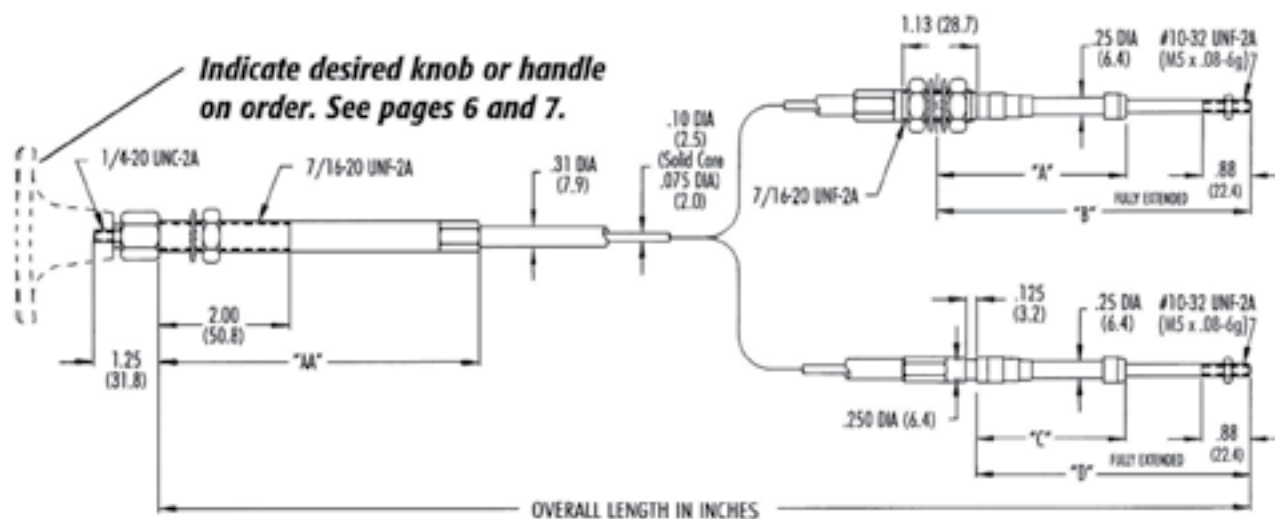
Note: 01 Plain T-handle is a stock item. Other T-handles may have minimum order quantities and special order long lead time.

Note: To order Positive Lock Spare Handle 49005-1094 w/set screw use part #30073.

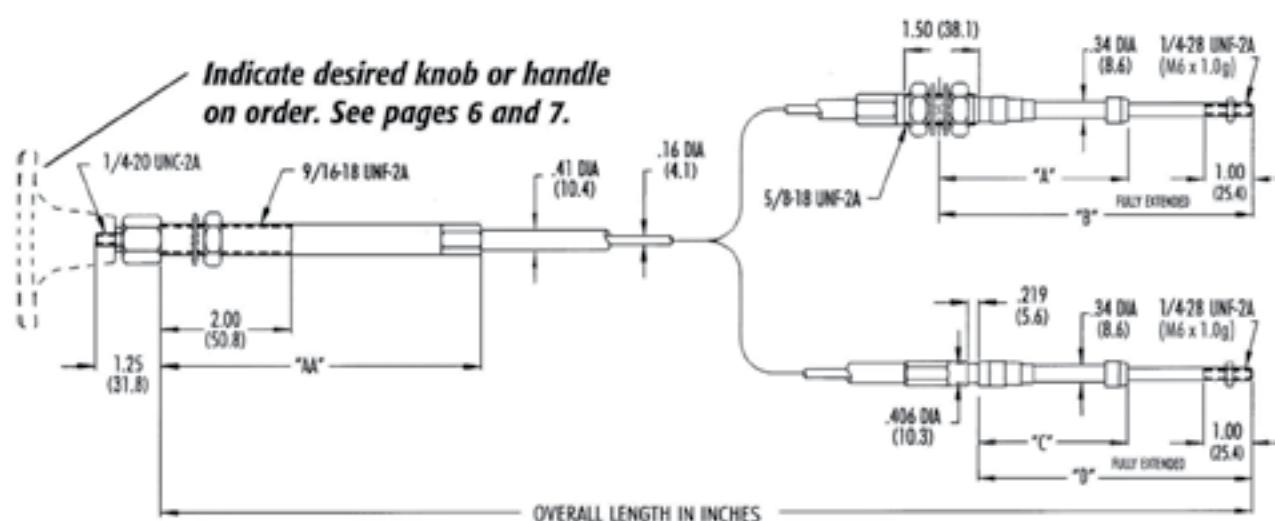
Universal, Utility, Positive Lock Cable and Knob/T-Handle Assembly Building a Part Number



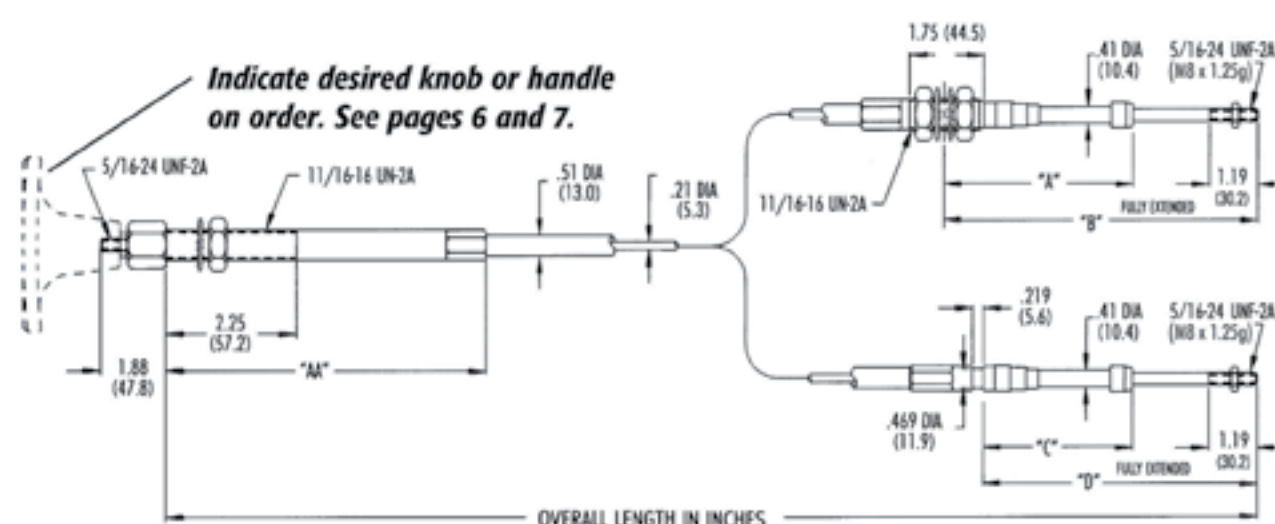
HEAVY DUTY 3 SERIES



HEAVY DUTY 4 SERIES



HEAVY DUTY 6 SERIES



- Heavy Duty: 3, 4, 6 Series threaded end rods.
- Applications: throttle, choke, engine stop, fuel shut-off, latches.

- Temperature Range:
-65 to +225°F / -54 to +107°C Std.
-65 to +300°F / -54 to +149°C HEFT 2
- Wide variety of Handles & Knobs

HEAVY DUTY 3 SERIES

Choice of Core Type

HP Core – polymer coated 1 x 7

Solid .075 stainless steel core

Specifications

Travel	DIM "AA"	Bulkhead End		Clamp End		Operating Loads	
Inch/(mm)	Inch/(mm)	DIM "A" Inch/(mm)	DIM "B" Inch/(mm)	DIM "C" Inch/(mm)	DIM "D" Inch/(mm)	Push Lbs./ (N)	Pull Lbs./ (N)
1.0 (25.4)	4.50 (114.3)	3.00 (76.2)	4.94 (125.5)	2.31 (58.7)	4.25 (108.0)	60 (267)	60 (267)
2.0 (50.8)	4.50 (114.3)	4.00 (101.6)	6.94 (176.3)	3.31 (84.1)	6.25 (158.8)	60 (267)	60 (267)
3.0 (76.2)	4.50 (114.3)	5.00 (127.0)	8.94 (227.1)	4.31 (109.5)	8.25 (209.6)	60 (267)	60 (267)
4.0 (101.6)	6.50 (165.1)	6.00 (152.4)	10.94 (277.9)	5.31 (134.9)	10.25 (260.4)	60 (267)	60 (267)
5.0 (127.0)	6.50 (165.1)	7.00 (177.8)	12.94 (328.7)	6.31 (160.3)	12.25 (311.2)	45 (200)	60 (267)

HEAVY DUTY 4 SERIES

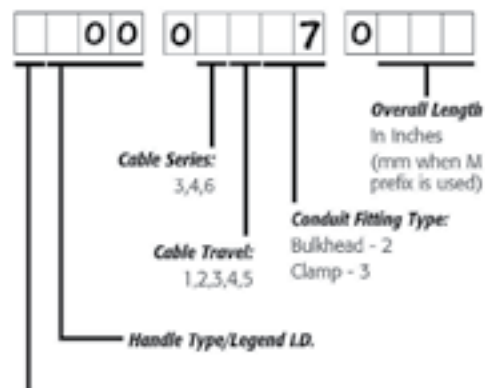
HP Core

1/4" - 28 Threaded rod (output end)

Specifications

Travel	DIM "AA"	Bulkhead End		Clamp End		Operating Loads	
Inch/(mm)	Inch/(mm)	DIM "A" Inch/(mm)	DIM "B" Inch/(mm)	DIM "C" Inch/(mm)	DIM "D" Inch/(mm)	Push Lbs./ (N)	Pull Lbs./ (N)
1.0 (25.4)	5.19 (131.8)	3.13 (79.5)	5.19 (131.8)	2.50 (63.5)	4.56 (115.8)	120 (534)	120 (534)
2.0 (50.8)	5.19 (131.8)	4.13 (104.9)	7.19 (182.6)	3.50 (88.9)	6.56 (166.6)	120 (534)	120 (534)
3.0 (76.2)	5.19 (131.8)	5.13 (130.3)	9.19 (233.4)	4.50 (114.3)	8.56 (217.4)	120 (534)	120 (534)
4.0 (101.6)	7.19 (182.6)	6.13 (155.7)	11.19 (284.2)	5.50 (139.7)	10.56 (268.2)	100 (445)	120 (534)
5.0 (127.0)	7.19 (182.6)	7.13 (181.1)	13.19 (335.0)	6.50 (165.1)	12.56 (319.0)	75 (334)	120 (534)

Building a Part Number



Cable Type

- 0 Solid Core (3 Series Only)
- 1 Hi-Performance (Standard)
- 3 HEFT 2 (Hi-Performance & High Temperature)



Metric – see pg. 2

HEAVY DUTY 6 SERIES

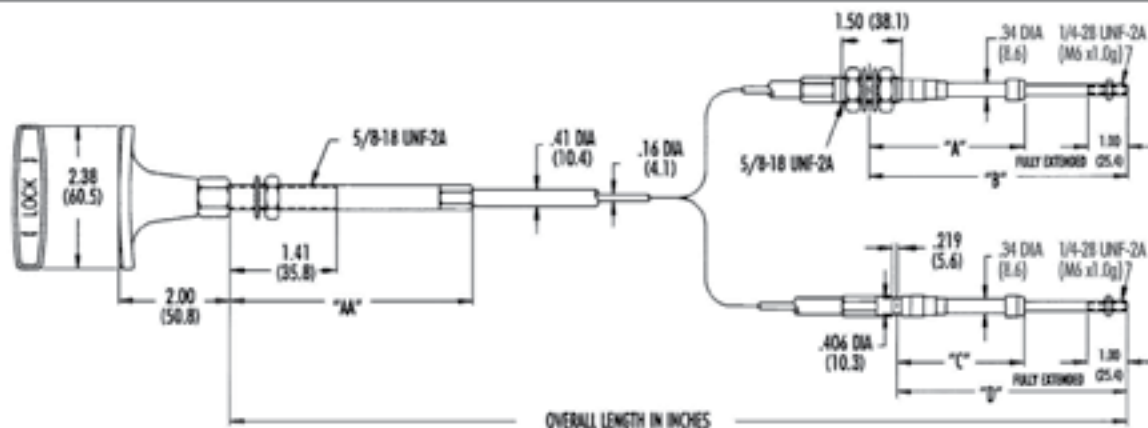
HP Core

5/16" - 28 Thread (output end)

Specifications

Travel	DIM "AA"	Bulkhead End		Clamp End		Operating Loads	
Inch/(mm)	Inch/(mm)	DIM "A" Inch/(mm)	DIM "B" Inch/(mm)	DIM "C" Inch/(mm)	DIM "D" Inch/(mm)	Push Lbs./ (N)	Pull Lbs./ (N)
1.0 (25.4)	5.19 (131.8)	3.25 (82.6)	5.50 (139.7)	2.56 (65.0)	4.81 (122.2)	225 (1001)	225 (1001)
2.0 (50.8)	5.19 (131.8)	4.25 (108.0)	7.50 (190.5)	3.56 (90.4)	6.81 (173.0)	225 (1001)	225 (1001)
3.0 (76.2)	5.19 (131.8)	5.25 (133.4)	9.50 (241.3)	4.56 (115.8)	8.81 (223.8)	210 (934)	225 (1001)
4.0 (101.6)	7.19 (182.6)	6.25 (158.8)	11.50 (292.1)	5.56 (141.2)	10.81 (274.6)	170 (756)	225 (1001)
5.0 (127.0)	7.19 (182.6)	7.25 (184.2)	13.50 (342.9)	6.56 (166.6)	12.81 (325.4)	130 (578)	225 (1001)

4 SERIES



- Light Duty: exposed Solid Core or 1 x 7 HP Core
HP Core: choose for best flexibility, lower backlash and higher efficiency. Polymer coated 1 x 7 wire rope.
Solid Core: .075 solid stainless steel core.
- Heavy Duty: 3 & 4 Series threaded end rods.
- Applications: throttle, choke, engine stop, fuel shut-off, latches.

- Temperature Range:
-65 to +225°F / -54 to +107°C Std.
-65 to +300°F / -54 to +149°C HEFT 2
- T-Handle locks in either direction.
- Quick Disconnect Positive Lock Head: see verniers page 12.
- Replacement T-Handle: 49005-1094 with 30073 set screw.

LIGHT DUTY 3 SERIES

Choice of core type:

HP Core – Polymer coated 1 x 7

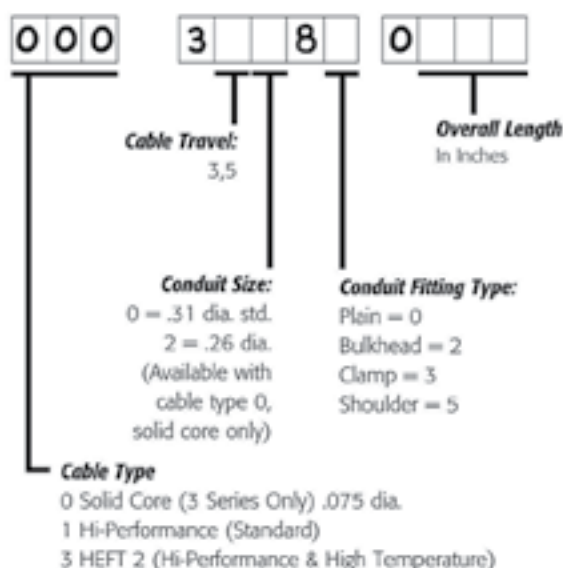
Solid .075 stainless steel core

Exposed core

Choice of 4 cable ends

Specifications		
Travel inch/(mm)	DIM "AA" inch/(mm)	DIM "BB" inch/(mm)
3.0 (76.2)	5.25 (133.4)	5.00 (127.0)
5.0 (127.0)	7.25 (184.2)	8.00 (203.2)

Building a Part Number



HEAVY DUTY 3 SERIES

Choice of core type:

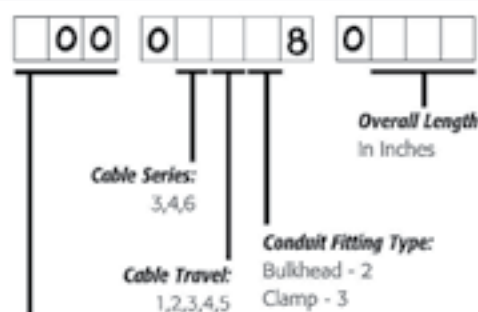
HP Core - Polymer coated 1 x 7

Solid .075 stainless steel core

10-32 Threaded End Rod

Specifications							
Travel inch/(mm)	DIM "AA" inch/(mm)	Bulkhead End		Clamp End		Operating Loads	
		DIM "A" inch/(mm)	DIM "B" inch/(mm)	DIM "C" inch/(mm)	DIM "D" inch/(mm)	Push Lbs./ (N)	Pull Lbs./ (N)
1.0 (25.4)	5.25 (133.4)	3.00 (76.2)	4.94 (125.5)	2.31 (58.7)	4.25 (108.0)	60 (267)	60 (267)
2.0 (50.8)	5.25 (133.4)	4.00 (101.6)	6.94 (176.3)	3.31 (84.1)	6.25 (158.8)	60 (267)	60 (267)
3.0 (76.2)	5.25 (133.4)	5.00 (127.0)	8.94 (227.1)	4.31 (109.5)	8.25 (209.6)	60 (267)	60 (267)
4.0 (101.6)	7.25 (184.2)	6.00 (152.4)	10.94 (277.9)	5.31 (134.9)	10.25 (260.4)	60 (267)	60 (267)
5.0 (127.0)	7.25 (184.2)	7.00 (177.8)	12.94 (328.7)	6.31 (160.3)	12.25 (311.2)	45 (200)	60 (267)

Building a Part Number



4 SERIES

HP Core

1/4" - 28 Threaded Rod (output end)

Specifications							
Travel inch/(mm)	DIM "AA" inch/(mm)	Bulkhead End		Clamp End		Operating Loads	
		DIM "A" inch/(mm)	DIM "B" inch/(mm)	DIM "C" inch/(mm)	DIM "D" inch/(mm)	Push Lbs./ (N)	Pull Lbs./ (N)
1.0 (25.4)	5.25 (133.4)	3.13 (79.5)	5.19 (131.8)	2.50 (63.5)	4.56 (115.8)	120 (534)	120 (534)
2.0 (50.8)	5.25 (133.4)	4.13 (104.9)	7.19 (182.6)	3.50 (88.9)	6.56 (166.6)	120 (534)	120 (534)
3.0 (76.2)	5.25 (133.4)	5.13 (130.3)	9.19 (233.4)	4.50 (114.3)	8.56 (217.4)	120 (534)	120 (534)
4.0 (101.6)	7.25 (184.2)	6.13 (155.7)	11.19 (284.2)	5.50 (139.7)	10.56 (268.2)	100 (445)	120 (534)
5.0 (127.0)	7.25 (184.2)	7.13 (181.1)	13.19 (335.0)	6.50 (165.1)	12.56 (319.0)	75 (334)	120 (534)

- Cable Type**
0 Solid Core (3 Series Only)
1 Hi-Performance (Standard)
3 HEFT 2 (Hi-Performance & High Temperature)

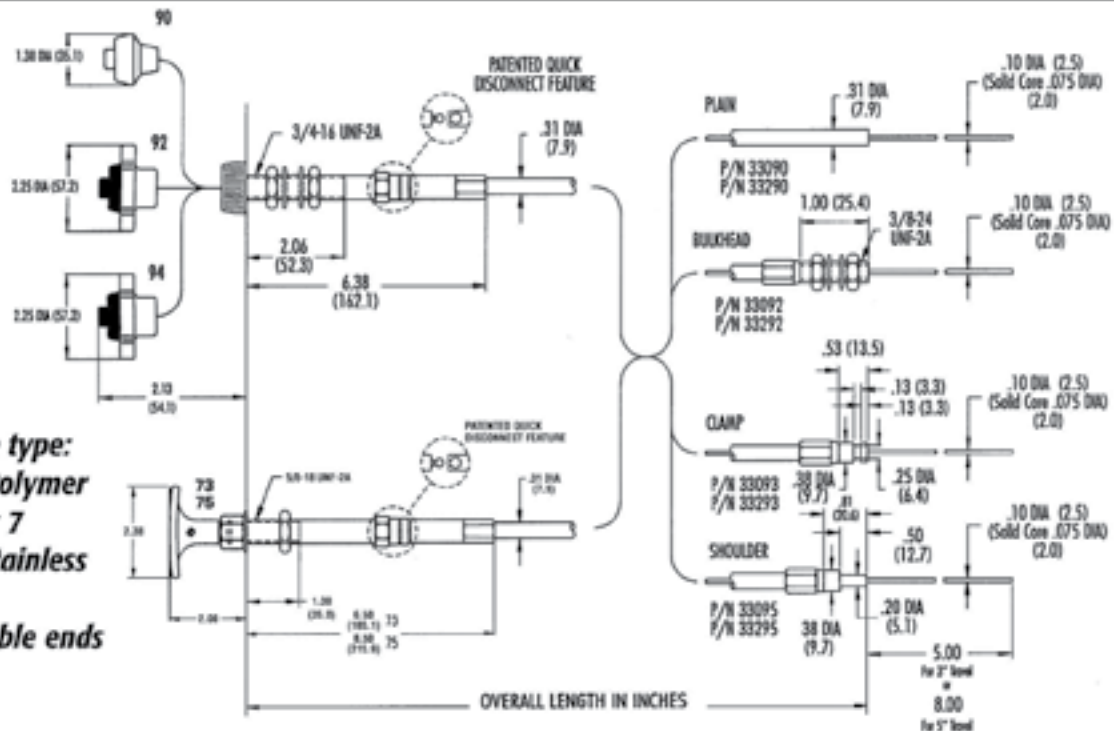
M Metric - see pg. 2

Quick Disconnect HP Cables

Can be custom assembled by local F.A.S.T. distributors

LIGHT DUTY 3 SERIES

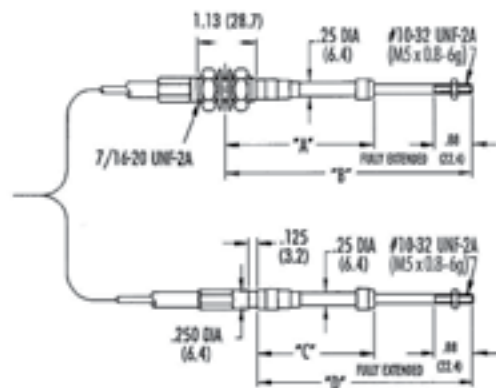
Choice of core type:
 HP Core - Polymer
 coated 1 x 7
 Solid .075 stainless
 steel core
Choice of 4 cable ends
 Exposed core



HEAVY DUTY 3 SERIES

Choice of core type:
 HP Core - Polymer coated 1 x 7
 Solid .075 stainless steel core
 10-32 Threaded Rod (output end)

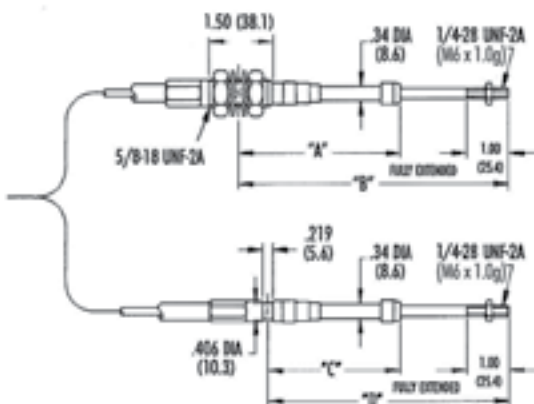
**HEAD OPTIONS
 SEE ABOVE**



4 SERIES

HP Core
 1/4"-28 Threaded Rod
 (output end)

**HEAD OPTIONS
 SEE ABOVE**



- Light Duty: exposed Solid Core or 1 x 7 HP Core.
HP Core: choose for best flexibility, lower backlash and higher efficiency. Polymer coated 1 x 7 wire rope.
Solid Core: .075 solid stainless steel core.
- Heavy Duty: 3 & 4 Series threaded end rods.

- Temperature Range:
-65 to +225°F / -54 to +107°C Std.
-65 to +300°F / -54 to +149°C HEFT 2
- Applications: engine RPM, or where coarse or fine adjustments are needed.

Quick Disconnect Cable Heads

#73 Positive Lock Head – 3" Travel

#75 Positive Lock Head – 5" Travel

#90 Vernier–Small Knob

#92 Vernier–Black Center Button

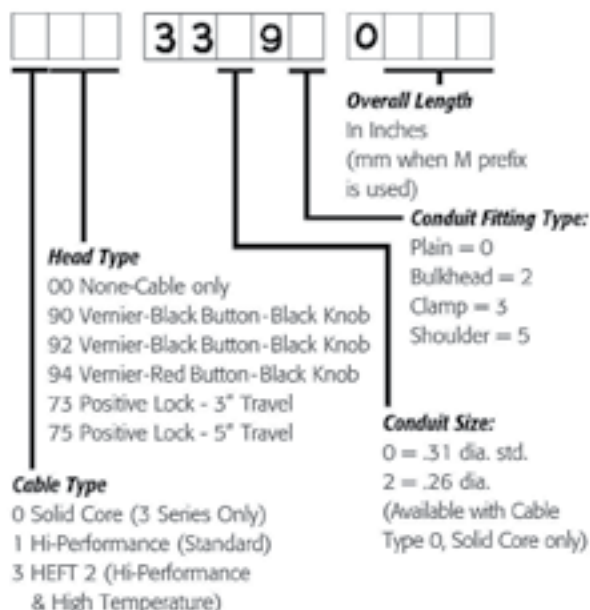
#94 Vernier–Red Center Button

To Order

Vernier and Positive Lock cable control heads may be ordered as a complete assembly (head and cable attached) or separately. Order the desired control head using the two-digit number 90, 92, 94, 73 or 75. Order the cable using the five-digit number from "Building a Part Number." To order a complete assembly, combine the control head number with the desired cable number. Example: if you desire control head #94 and cable #33092, then combine to make the assembly part number X94-33092-length.

Load Rating: Maximum 20 lbs. is recommended.

Building a Part Number



Specifications

Travel	Bulkhead End		Clamp End	
Inch/(mm)	DIM "A" Inch/(mm)	DIM "B" Inch/(mm)	DIM "C" Inch/(mm)	DIM "D" Inch/(mm)
1.0 (25.4)	3.00 (76.2)	4.94 (125.5)	2.31 (58.7)	4.25 (108.0)
2.0 (50.8)	4.00 (101.6)	6.94 (176.3)	3.31 (84.1)	6.25 (158.8)
3.0 (76.2)	5.00 (127.0)	8.94 (227.1)	4.31 (109.5)	8.25 (209.6)

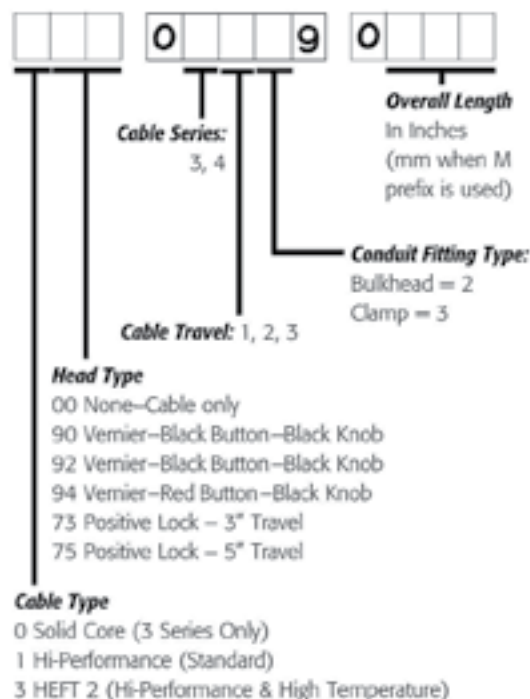
Load Rating: Maximum 20 lbs. is recommended.

Specifications

Travel	Bulkhead End		Clamp End	
Inch/(mm)	DIM "A" Inch/(mm)	DIM "B" Inch/(mm)	DIM "C" Inch/(mm)	DIM "D" Inch/(mm)
1.0 (25.4)	3.13 (79.5)	5.19 (131.8)	2.50 (63.5)	4.56 (115.8)
2.0 (50.8)	4.13 (104.9)	7.19 (182.6)	3.50 (88.9)	6.56 (166.6)
3.0 (76.2)	5.13 (130.3)	9.19 (233.4)	4.50 (114.3)	8.56 (217.4)

Load Rating: Maximum 20 lbs. is recommended.

Building a Part Number

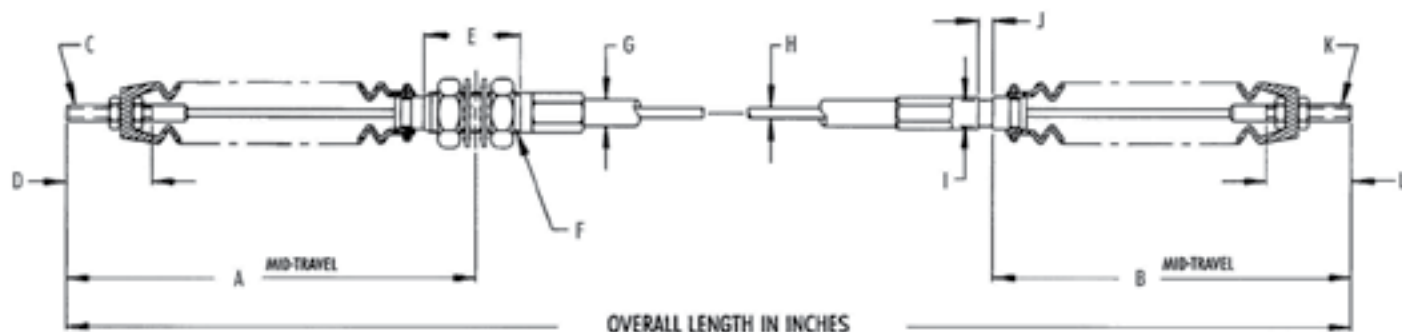


Note: A 3 Series Light Duty Conduit is available.
(.26 O.D.) Part Number is 3329X-L.

M Metric – see pg. 2

Tension HP Cables

Can be custom assembled by local F.A.S.T. distributors



- Temperature Range:
-65 to +225°F / -54 to +107°C Std.
-65 to +300°F / -54 to +149°C HEFT 2
- HP coated core and polymer liner.

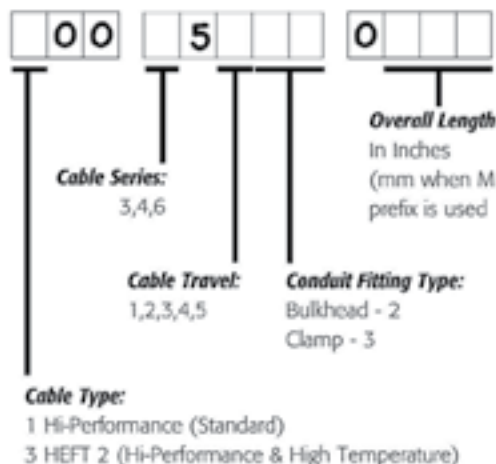
3 SERIES				
Travel	Bulkhead End	Clamp End	Operating Loads	
Inch/(mm)	DIM "A" Inch/(mm)	DIM "B" Inch/(mm)	Push Lbs./ (N)	Pull Lbs./ (N)
1.0 (25.4)	4.44 (112.8)	3.75 (95.3)	0	120 (53.4)
2.0 (50.8)	5.94 (150.9)	5.25 (133.4)	0	120 (53.4)
3.0 (76.2)	7.44 (189.0)	6.75 (171.5)	0	120 (53.4)
4.0 (101.6)	8.94 (227.1)	8.25 (209.6)	0	120 (53.4)
5.0 (127.0)	10.44 (265.2)	9.75 (247.7)	0	120 (53.4)

4 SERIES				
Travel	Bulkhead End	Clamp End	Operating Loads	
Inch/(mm)	DIM "A" Inch/(mm)	DIM "B" Inch/(mm)	Push Lbs./ (N)	Pull Lbs./ (N)
1.0 (25.4)	4.69 (119.1)	4.06 (103.1)	0	230 (102.3)
2.0 (50.8)	6.19 (157.2)	5.56 (141.2)	0	230 (102.3)
3.0 (76.2)	7.69 (195.3)	7.06 (179.3)	0	230 (102.3)
4.0 (101.6)	9.19 (233.4)	8.56 (217.4)	0	230 (102.3)
5.0 (127.0)	10.69 (271.5)	10.06 (255.5)	0	230 (102.3)

6 SERIES				
Travel	Bulkhead End	Clamp End	Operating Loads	
Inch/(mm)	DIM "A" Inch/(mm)	DIM "B" Inch/(mm)	Push Lbs./ (N)	Pull Lbs./ (N)
1.0 (25.4)	5.23 (133.3)	4.44 (112.8)	0	400 (177.9)
2.0 (50.8)	6.65 (168.4)	5.94 (150.9)	0	400 (177.9)
3.0 (76.2)	8.15 (206.5)	7.44 (189.0)	0	400 (177.9)
4.0 (101.6)	9.65 (244.8)	8.94 (227.1)	0	400 (177.9)
5.0 (127.0)	11.15 (282.7)	10.44 (265.2)	0	400 (177.9)

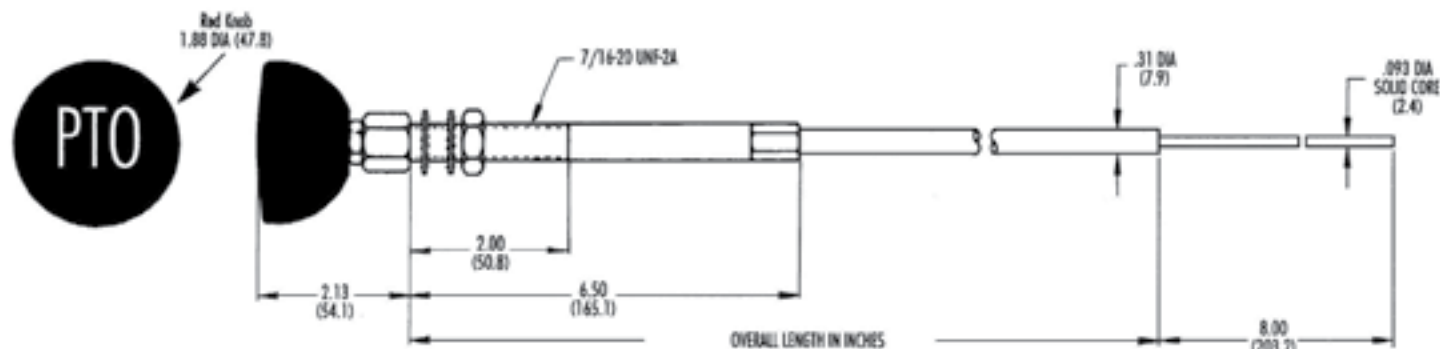
DIMENSIONS	3 SERIES	4 SERIES	6 SERIES
C	#10-32 UNF-2A	1/4-28 UNF-2A	5/16-24 UNF-2A
D	1.25 (31.8)	1.25 (31.8)	1.56 (39.6)
E	1.13 (28.7)	1.50 (38.1)	1.75 (44.5)
F	7/16-20 UNF-2A	5/8-18 UNF-2A	11/16-16 UNF-2A
G	.31 DIA (7.9)	.41 DIA (10.4)	.51 DIA (13.0)
H	.08 DIA (2.0)	.13 DIA (3.3)	.18 DIA (4.6)
I	.250 DIA (6.4)	.406 DIA (10.3)	.469 DIA (11.9)
J	.125 (3.2)	.219 (5.6)	.219 (5.6)
K	#10-32 UNF-2A	1/4-28 UNF-2A	5/16-24 UNF-2A
L	1.25 (31.8)	1.25 (31.8)	1.56 (39.6)

Building a Part Number



PTO Cables

- Power take off operation
- .093 Solid Stainless Steel Core
- Full 5" travel
- 6" Bend radius



Power Take Off Cables

Red knob - standard

Temperature Range:

-65 to +225°F / -54 to +107°C Std.

Building a Part Number

000 35000 0

Overall Length
In Inches
(mm when M
prefix is used)

RVO Cables

- Remote valve control operation (Felsted levers ONLY).
- HP Cable construction - same as 4 Series Push-Pull on pages 3 - 4.

Can be custom assembled by local F.A.S.T. distributors

Building a Part Number

00 456 0

Cable Type:

- 1 Hi-Performance (Standard)
- 3 HEFT 2 (Hi-Performance & High Temperature)

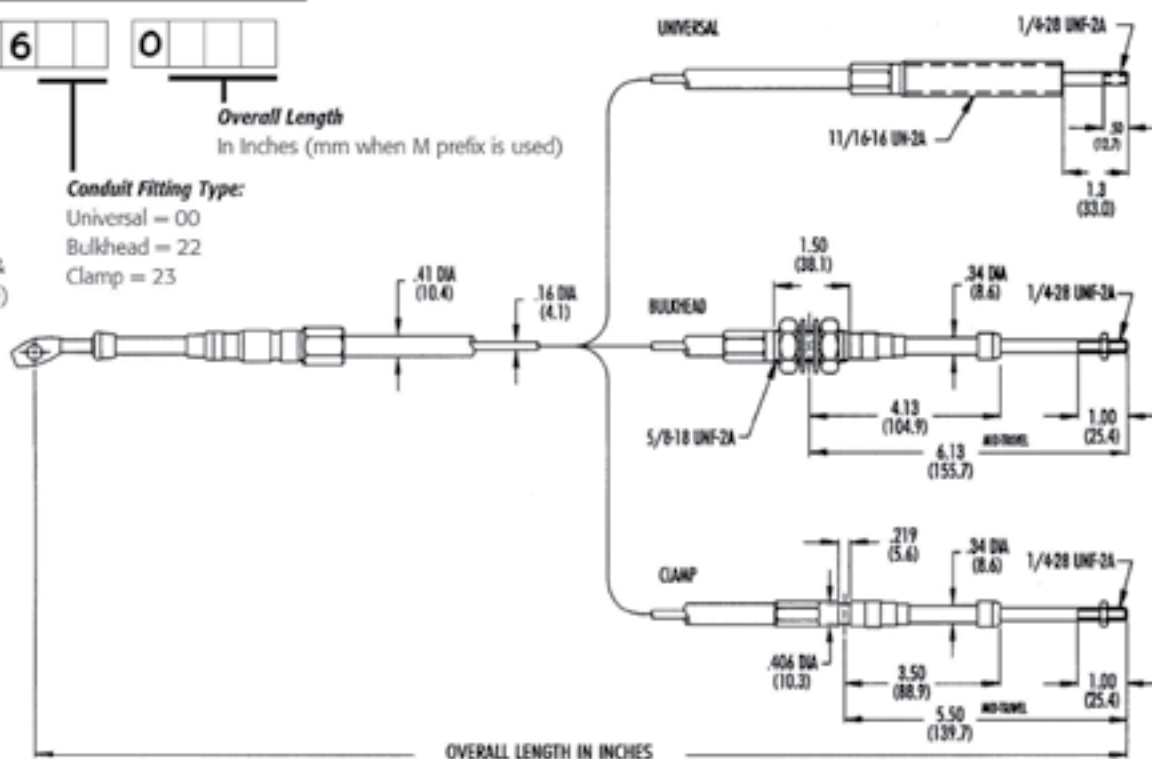
Conduit Fitting Type:

- Universal = 00
- Bulkhead = 22
- Clamp = 23

Overall Length
In Inches (mm when M
prefix is used)

Valve Connection Kit End

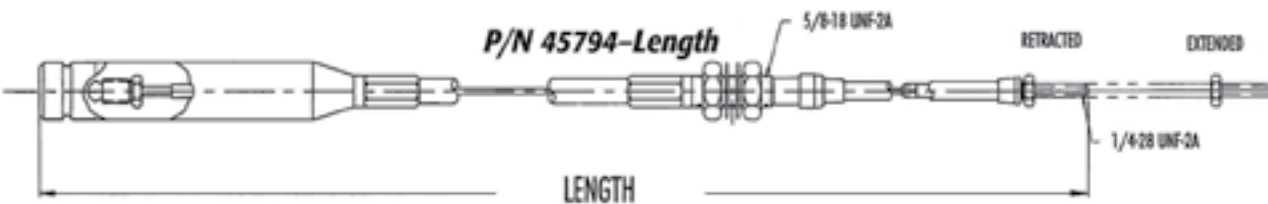
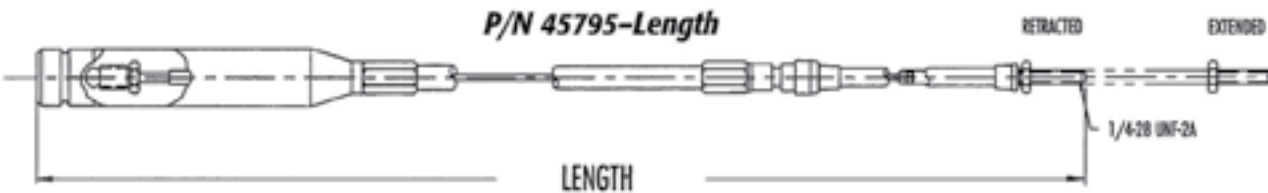
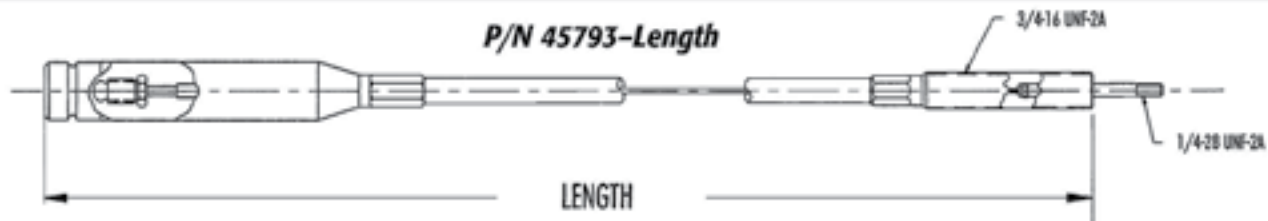
**Connects to
Felsted Brand
Remote Valve
Controls
55700
55709
55786-1**



RVC Cables

- Remote Valve Control Cables
- Fits Morse RVC Controls

Can be custom assembled by local F.A.S.T. distributors

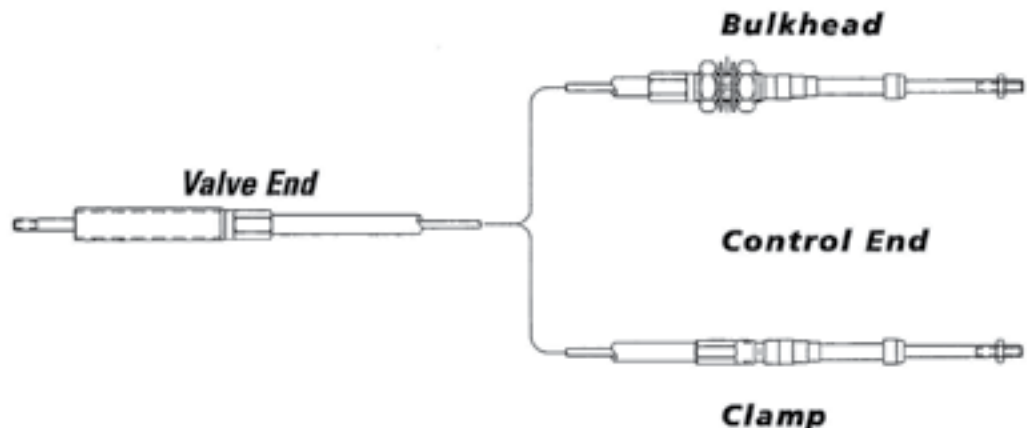


Special Valve Control Cables

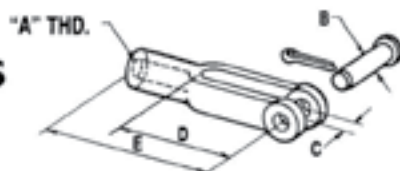
- HD lever applications
- Remote valve dump body control use • HP cable construction

Can be custom assembled by local F.A.S.T. distributors

Base Part Number			OAL inches			Valve End Connection	Control End Connection		
1	0	0	4	5	6	3	0	11/16" -16 thread connects to valve connection kit	5/8"-18 bulkhead hub connects to an HD Lever
1	0	0	4	5	6	3	9	11/16" -16 thread connects to valve connection kit	Clamp hub connects to a 55781-2 dump body control shifter
1	0	0	4	5	7	3	4	11/16" -16 thread connects to valve connection kit	Clamp hub connects to a 3" mounting dump body control shifter
1	0	0	4	5	7	9	6	3/4"-16 thread connects to valve connection kit	Clamp hub connects to a 55781-2 dump body control shifter



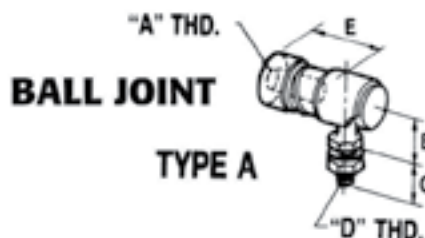
CLEVISES



Part #	A	B	C	D	E
3 SERIES					
39003-1 **	10-32 UNF-2B	5/16" (4.8mm)	7/32" (5.6mm)	1" (25.4mm)	1-9/16" (39.7mm)
49003-2	10-32 UNF-2B	1/4" (6.4mm)	9/32" (7.1mm)	1-1/4" (31.8mm)	2" (50.8mm)
69003-2 *	10-32 UNF-2B	5/16" (7.9mm)	11/32" (8.7mm)	1-7/16" (36.5mm)	2-1/4" (57.2mm)
4 SERIES					
49003-1	1/4-28 UNF-2B	1/4" (6.4mm)	9/32" (7.1mm)	1-1/4" (31.8mm)	2" (50.8mm)
49044-1 *	1/4-28 UNF-2B	1/2" (12.7mm)	9/16" (14.3mm)	1-7/8" (47.6mm)	3" (76.2mm)
69003-3	1/4-28 UNF-2B	5/16" (7.9mm)	11/32" (8.7mm)	1-7/16" (36.5mm)	2-1/4" (57.2mm)
6 SERIES					
49003-3	5/16-24 UNF-2B	1/4" (6.4mm)	9/32" (7.1mm)	1-1/4" (31.8mm)	2" (50.8mm)
49044-2	5/16-24 UNF-2B	1/2" (12.7mm)	9/16" (14.3mm)	1-7/8" (47.6mm)	3" (76.2mm)
69003-1	5/16-24 UNF-2B	5/16" (7.9mm)	11/32" (8.7mm)	1-7/16" (36.5mm)	2-1/4" (57.2mm)
69034	5/16-24 UNF-2B	7/16" (11.1mm)	1/2" (12.7mm)	1-7/8" (47.6mm)	2-7/8" (73.1mm)
89003-2	5/16-24 UNF-2B	3/8" (9.5mm)	7/16" (11.1mm)	1-5/8" (41.3mm)	2-1/2" (63.5mm)
8 SERIES					
89003-1 *	3/8-24 UNF-2B	3/8" (9.5mm)	7/16" (11.1mm)	1-5/8" (41.3mm)	2-1/2" (63.5mm)
*SPECIAL SERIES					
49044-3	3/8-24 UNF-2	1/2" (12.7mm)	9/16" (14.3mm)	1-7/8" (47.6mm)	3" (76.2mm)
49044-4 *	1/2-20 UNF-2	1/2" (12.7mm)	9/16" (14.3mm)	1-7/8" (47.6mm)	3" (76.2mm)
69034-1	3/8-24 UNF-2	7/16" (11.1mm)	1/2" (12.7mm)	1-7/8" (47.6mm)	2-7/8" (73.1mm)

* Consult factory for leadtime and availability.

** Note: The 39003-1 clevis is made of polymer and is not identical to the illustration shown above.



BALL JOINT

TYPE A

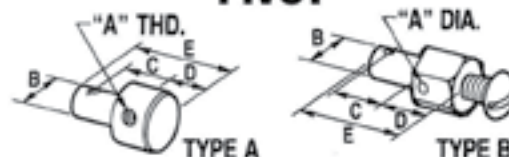
Part #	Type	A	B	C	D	E
3 SERIES						
39006	A	10-32 UNF-2B	15/32" (11.9mm)	9/16" (14.3mm)	1/4-28 UNF-2A	31/32" (24.6mm)
4 SERIES						
49006	A	1/4-28 UNF-2B	15/32" (11.9mm)	9/16" (14.3mm)	1/4-28 UNF-2A	31/32" (24.6mm)
49007	A	1/4-28 UNF-2B	15/32" (11.9mm)	7/8" (22.2mm)	5/16-24 UNF-2A	31/32" (24.6mm)
6 SERIES						
69007	A	5/16-24 UNF-2B	17/32" (13.5mm)	11/16" (17.5mm)	5/16-24 UNF-2A	1-1/8" (28.5mm)

CONDUIT CLIP



Type B
Part No. 39064-1

PIVOT

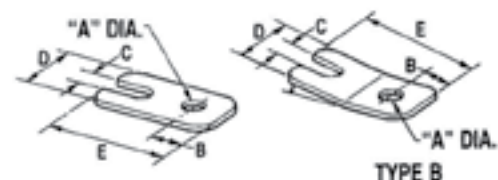


TYPE A

TYPE B

Part #	Type	A	B	C	D	E
3 SERIES						
39011-1	B	7/64" (2.8mm)	1/4" (6.4mm)	5/32" (4.0mm)	5/16" (7.9mm)	9/16" (14.3mm)
39011-2	B	7/64" (2.8mm)	1/4" (6.4mm)	19/64" (7.5mm)	5/16" (7.9mm)	11/16" (17.5mm)
39050-2 *	B	7/64" (2.8mm)	5/16" (7.9mm)	19/64" (7.5mm)	5/16" (7.9mm)	11/16" (17.5mm)
39042	A	10-32 UNF-2B	1/4" (6.4mm)	15/64" (5.2mm)	21/64" (8.3mm)	5/8" (15.9mm)
39045 *	A	10-32 UNF-2B	5/16" (7.9mm)	3/8" (9.5mm)	3/8" (9.5mm)	15/16" (23.8mm)
4 SERIES						
49008 *	A	1/4-28 UNF-2B	1/4" (6.4mm)	13/32" (10.3mm)	1/2" (12.7mm)	1-1/16" (27.0mm)
49008-1	A	1/4-28 UNF-2B	1/4" (6.4mm)	5/16" (7.9mm)	1/2" (12.7mm)	31/32" (24.6mm)
49011	A	1/4-28 UNF-2B	1/4" (6.4mm)	13/64" (5.2mm)	7/16" (11.1mm)	3/4" (19.1mm)
49042	A	1/4-28 UNF-2B	3/8" (9.5mm)	15/32" (11.9mm)	1/2" (12.7mm)	1-3/16" (30.2mm)
50061-1	A	1/4-28 UNF-2B	5/16" (7.9mm)	3/16" (4.8mm)	9/16" (14.3mm)	27/32" (21.4mm)

CLIP BRACKET



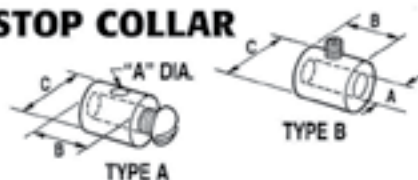
TYPE A

TYPE B

Part #	Type	A	B	C	D	E
3 SERIES						
30121	B	9/32" (7.5mm)	3/8" (9.5mm)	1/4" (6.4mm)	5/8" (15.9mm)	1-7/32" (30.0mm)
39004-1 Stainless	A	9/32" (7.5mm)	3/8" (9.5mm)	1/4" (6.4mm)	5/8" (15.9mm)	1-5/16" (33.3mm)
39004-2 Plated Steel	A	9/32" (7.5mm)	3/8" (9.5mm)	1/4" (6.4mm)	5/8" (15.9mm)	1-5/16" (33.3mm)

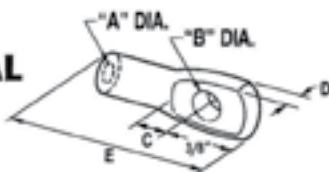
*Consult factory for leadtime and availability.

STOP COLLAR

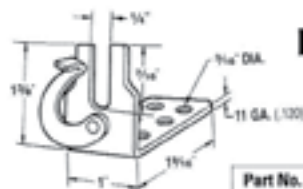


Part #	Type	A	B	CD	
3 SERIES					
30103	A	7/64" (2.8mm)	5/16" (7.9mm)	5/16" (7.9mm)	— —
4 SERIES					
40081	A *	3/16" (4.8mm)	5/16" (7.9mm)	5/16" (7.9mm)	— —
49043	B	3/16" (4.8mm)	1/4" (6.4mm)	7/16" (11.1mm)	— —

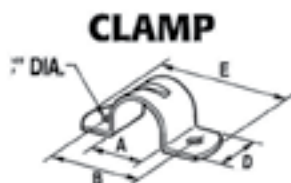
TERMINAL EYES



Part #	A	B	C	D	E
3 SERIES					
49004-4 *	10-32 UNF-2B	1/8" (3.2mm)	5/8" (15.9mm)	3/8" (9.5mm)	1-7/8" (47.6mm)
4 SERIES					
49004-1	1/4-28 UNF-2B	5/16" (7.9mm)	5/8" (15.9mm)	3/8" (9.5mm)	1-7/8" (47.6mm)
49004-2 *	1/4-28 UNF-2B	1/2" (12.7mm)	5/8" (15.9mm)	3/8" (9.5mm)	1-7/8" (47.6mm)
49004-3	1/4-28 UNF-2B	1/4" (6.4mm)	5/8" (15.9mm)	3/8" (9.5mm)	1-7/8" (47.6mm)
6 SERIES					
69004-1	5/16-24 UNF-2B	3/8" (9.5mm)	5/8" (15.9mm)	3/8" (9.5mm)	1-7/8" (47.6mm)
69004-2 *	5/16-24 UNF-2B	5/16" (7.9mm)	5/8" (15.9mm)	3/8" (9.5mm)	1-7/8" (47.6mm)
69004-3 *	5/16-24 UNF-2B	1/2" (12.7mm)	5/8" (15.9mm)	3/8" (9.5mm)	1-7/8" (47.6mm)
69004-4	5/16-24 UNF-2B	1/4" (6.4mm)	5/8" (15.9mm)	3/8" (9.5mm)	1-7/8" (47.6mm)



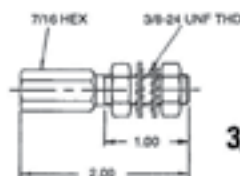
FIELD CLAMP



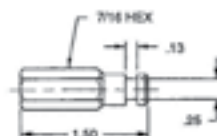
Part #	A	B	C	D	E
3 SERIES					
39001	3/8" (9.5mm)	1" (25.4mm)	13/64" (5.2mm)	1/2" (12.7mm)	1-1/2" (38.1mm)
4 SERIES					
49001	1/2" (12.7mm)	1" (25.4mm)	7/32" (5.6mm)	1/2" (12.7mm)	1-1/2" (38.1mm)
6 SERIES					
69001	9/16" (14.3mm)	1-1/4" (31.8mm)	9/32" (7.1mm)	5/8" (15.9mm)	1-5/8" (41.3mm)

Field Hub Kits for Standard Felsted 3 Series Cables

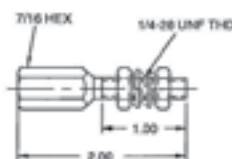
(Solid or HP Core) • (Conduit Outside Diameter of .31")



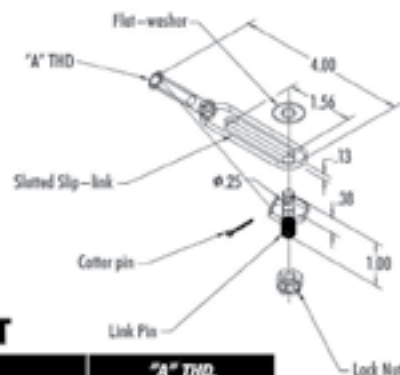
Kit #39067-2
3/8-24 THD HUB



Kit #39067-3
CLAMP HUB



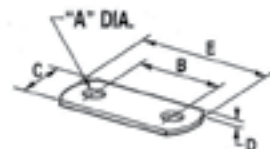
Kit #39067-4
1/4-28 THD HUB



SLIP LINK KIT

GR Number		"A" THD.
Polymer	59049-1	10-32 UNF-2A
	59049-2	1/4-28 UNF-2A
Metal	M00-59049-1	10-32 UNF-2A
	M00-59049-2	1/4-28 UNF-2A

SHIM

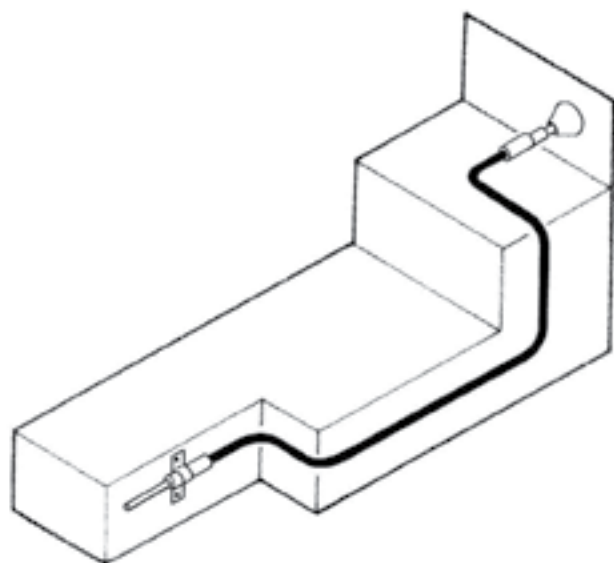


Part #	A	B	C	D	E
3 & 4 SERIES					
39002	13/64" (5.2mm)	1" (25.4mm)	1/2" (12.7mm)	3/32" (2.4mm)	1-1/2" (38.1mm)
6 SERIES					
69002	9/32" (7.5mm)	1-1/4" (31.8mm)	5/8" (15.9mm)	5/64" (2.0mm)	1-3/4" (44.5mm)

SHIFTER CABLE CONNECTION KIT



KR #	A THD.	B DIA.	C	D THD.	E
50030	1/4-28 UNF-2B	5/16" (7.9mm)	1" (25.4mm)	10-32 UNF-2A	1/8" (3.2mm)
50035	5/16-24 UNF-2B	5/16" (7.9mm)	1-1/4" (31.8mm)	1/4-20 UNF-2A	1/8" (3.2mm)
59033	10-32 UNF-2B	5/16" (7.9mm)	1" (25.4mm)	10-32 UNC-2A	1/8" (3.2mm)



Routing/Measuring

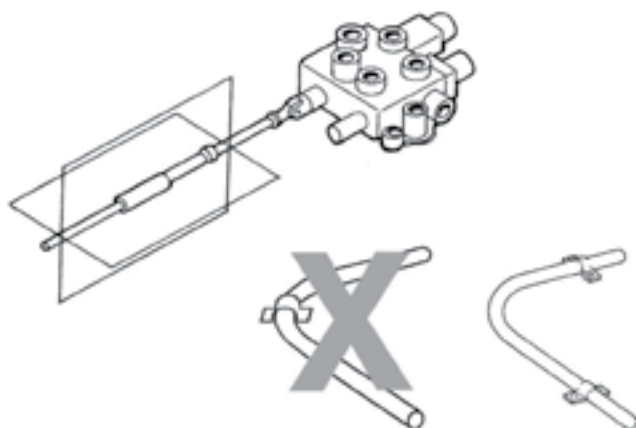
Measure the cable along the path it will take from the points where the cable hubs will be anchored. Follow the actual cable path as closely as possible, allowing for the largest practical bend radii.

Optimum Life Bend Radii	
Series	Operating Life Minimum
3	3 inches*
4	5 inches
6	7 inches
8	10 inches

* HP Core: Solid Core has 6" Bend Radii

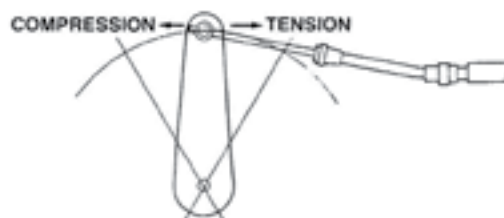
Installation Notes: Control & Work End

Where a Felsted Brand cable is to be connected to objects requiring linear movement only (e.g. spool valves), maximum life and efficiency is achieved by accurately aligning, in both planes, the cable hubs and the controlled object. See illustration:

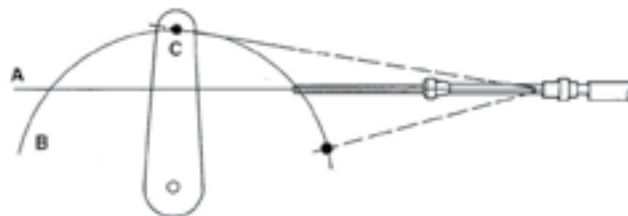


It is important to securely anchor the cable hubs. Looseness of the mounting bracket will be perceived as lost motion "sponginess" and will inhibit detent feel.

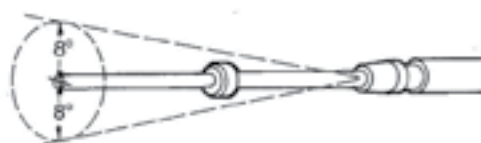
Also, clamping in the bend area may reduce bend radii under operating loads. Clamping at tangents to the bend is preferred.



For highest efficiency and long life in lever actuating operations, install the cable so that the highest loads are operated with tension (pulling), rather than compression (pushing).



Where the cable is connected to a lever, the cable will be mounted so that it lies on a plane (A) midway on the arc (B) described by the movement of the connection point on the lever (C).



All Felsted cables with rod and sleeve type end fittings have a built-in swivel to handle deflections up to 8°.





check » shift » accelerate » park

Markets

TRUCK



BUS



CONSTRUCTION



AGRICULTURE

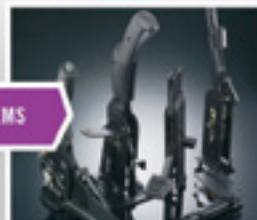


MILITARY



Products

PARK BRAKE SYSTEMS



MECHANICAL
CONTROL CABLES



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SHIFT CONTROL SYSTEMS



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