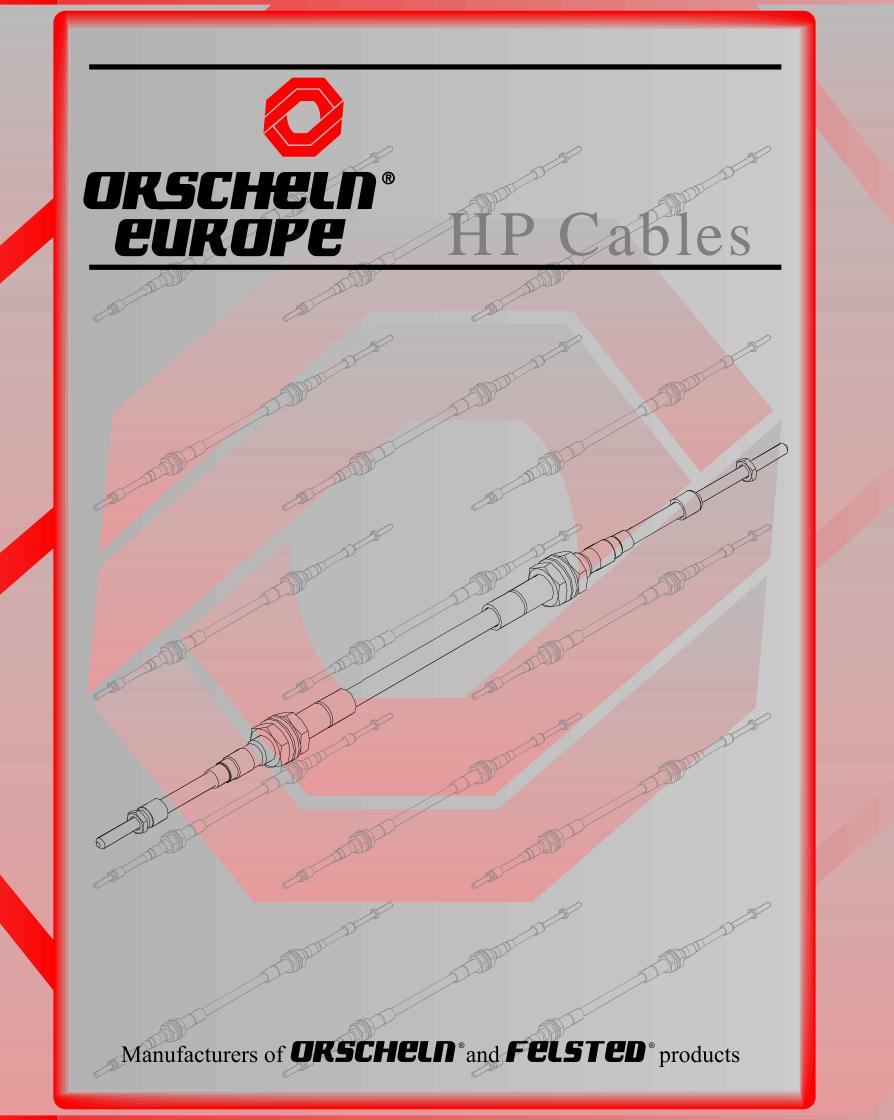
HP Push Pull Cables **HP Tension Cables HP Universal Cables** Positive Lock Cables Quick Disconnect Cables PTO Cables Shifter Controls **Transmission Modulators** Light/Heavy Duty levers Valve Control Levers Mechanical Pedals Electronic Cables Fluid Level Indicators

PBT Tension Cables



HP Push Pull Cables **HP Tension Cables HP Universal Cables** Positive Lock Cables Quick Disconnect Cables PTO Cables Shifter Controls **Transmission Modulators** Light/Heavy Duty levers Valve Control Levers Mechanical Pedals **Electronic Cables** Fluid Level Indicators

PBT Tension Cables







Contents:

- 4. Features and Construction Data.
- 5. 3 Series Push Pull Cables.
- 6. 4 Series Push Pull Cables.
- 7. 4 Series Adjustable Cables.
- 8. 6 Series Push Pull Cables.
- 9. 8 Series Push Pull Cables.
- 10. Knobs and T-Handles
- 11. 3 Series Light Duty (LD) Universal cables.
- 12. 3 Series HeavyDuty (HD) Universal cables.
- 13. 4 Series Universal Cables.
- 14. 6 Series Universal Cables.
- 15. 3 Series LD Positive Lock Cables.
- 16. 3 Series HD Positive Lock Cables.
- 17. 4 Series Positive Lock Cables.
- 18. 3 Series Quick Disconnect LD Vernier Cables.
- 19. 3 Series Quick Disconnect HD Vernier Cables.
- 20. 4 Series Quick Disconnect Vernier Cables.

- 21. 3 Series HP Tension Cables.
- 22. 4 Series HP Tension Cables.
- 23. 6 Series HP Tension Cables.
- 24. PTO Cables.
- 25. RVO Cables.
- 26. RVC Cables.
- 27. Special Valve Control Cables.
- 28. Hardware: Ball Joints, Clevises.
- 29. Hardware: Pivots, Terminals etc.
- 30. Hardware: Stop Collars, Clamps/Shims
- 31. Hardware: Slip links, Field Hub kits.
- 32. Specifications.
- 33. Routing/Measuring.
- 34. Installation Information
- 35. Notes and How to Contact Us.





Features & Construction

CoreConstructions:

Hi-Performance (HP) 1x7 coated core is available in 3,4 and 6 series cables. HP Core utilizes a unique coating over 1x7 wire rope. This construction offers iamplroved flexibility higherputstanloardsor core construction.

Solid stainless steel core is available in 3 series push-pull, universal, positive lock and PTO cables. Tension cables Utilize a 1x19 HP coated core, whilst 8 series push-pull retains the armor construction.

Liners:

All Felsted brand cables utilize partyamaebrleiners standard HcBrCsatbuletion with a temperature spec Of -54 to +107°C (-65 to + 225 °F) and Heft 2 high temperature variant that can withstand temperatures from -54 to +149°C (-65 to +300°F). Factory lubrication provides optimum core performance without requiring further service.

Note: With quickdisconnect control head cables, though the conduit/core may be rated to +107°C or +149°C, the control head itself is not intended for these temperature ranges.

StrandedConduit

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 minimal Deflections during cable operation, assuring precise controlling action to the operator.

ConduitJacket

Heavy duty, thick-walled polymer jackets are extruded onto the stranded liner for maximum cable strength. Standard

HP Cable material is a HDPE molded to a dark maroon colour. HEFT 2 Jacket, used in high temperature applications, uses a NYLON based material and is moulded into a gloss black colour. Prior to HP Cables, standard jacket colours were black and HEFT was silver in colour.

EndFittings

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 aluminium. The 8 series fittings are plated Steel.

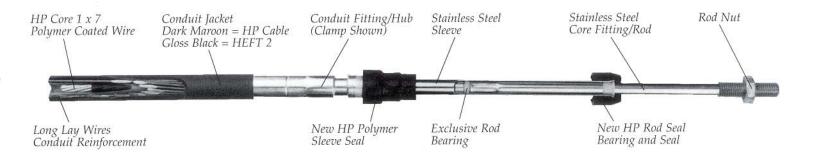
Seals & Boots

High Performance seals are standard on all our HP cables. Durable custom compounded seals are used to prevent moisture and contaminants from entering the cable. The HP seals operate in all temperature extremes, while offering improved performance and efficiency.

Rod & Sleeve Bearing

An exclusive polymer rod and sleeve bearing is used to improve efficiency, sealing and cable life by preventing metal

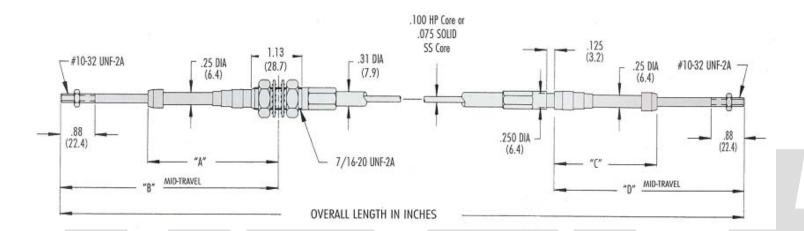
to metal contact between the rod and sleeve. They also accurately align the rod with the seal to insure superior sealing and a long cable life.







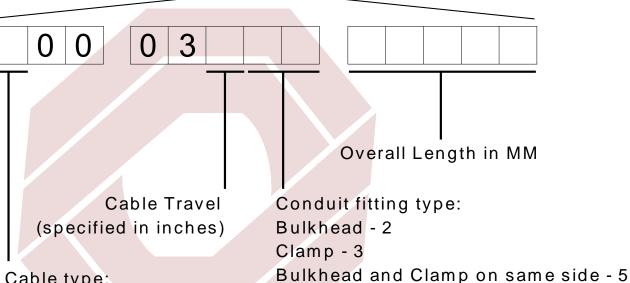
- HP Core or Solid Core available.
- 10-32 Rod Thread (M5 available)
- 76mm (3") Bend Radii (HP)
- 152mm (6") Bend Radii (Solid Core)
- Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- Low Backlash
- High Efficiency
- Conduit Colour: Dark Maroon - HP Cable Std. Gloss Black - HEFT2



SPECIFICATIONS

Travel	Bulkhead End		Clam	p End	Operatin	g Loads
	DIM "A"	DIM "B"	DIM "C"	DIM "D"	Push	Pull
MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	Kg./(N)	Kg./(N)
25.4 (1)	76.2 (3)	112.8 (4.44)	58.7 (2.31)	95.3 (3.75)	36.3 (356)	54.4 (534)
50.8 (2)	101.6 (4)	150.9 (5.94)	84.1 (3.31)	133.4 (5.25)	36.3 (356)	54.4 (534)
76.2 (3)	127.0 (5)	189.0 (7.44)	109.5 (4.31)	171.5 (6.75)	31.7 (311)	54.4 (534)
101.6 (4)	152.4 (6)	227.1 (8.94)	134.9 (5.31)	209.6 (8.25)	27.2 (267)	54.4 (534)
127.0 (5)	177.8 (7)	265.2 (10.44)	160.3 (6.31)	247.7 (9.75)	20.4 (200)	54.4 (534)
152.4 (6)	203.2 (8)	303.3 (11.94)	185.6 (7.31)	285.7(11.25)	15.9 (155.8)	54.4 (534)
177.8 (7)	228.6 (9)	341.4 (13.44)	211.0 (8.31)	323.8 (12.75)	11.4 (111.3)	54.4 (534)

Building a Part Number



Cable type:

0 = Solid Core

1 = Hi-Performance

2 = Marine (303 st/st fittings + Hardware)

3 = HEFT2 (High performance & High Temperature)

4 = Marine HEFT2

Notes:

Fitting and hardware material for a 100.03XXX.LENGTH cable.

Conduit fittings:

Bulkhead = Aluminum

Clamp = Stainless Steel 303

Hardware (Nuts/Washers): Steel with Zinc plate

Fitting and hardware material for a 200.03XXX.LENGTH cable.

Conduit fittings:

Bulkhead = Stainless Steel (303)

= Stainless Steel (303)

Hardware (Nuts/Washers): Stainless Steel

All rods ends are Stainless Steel (303) for both marine and std cables.

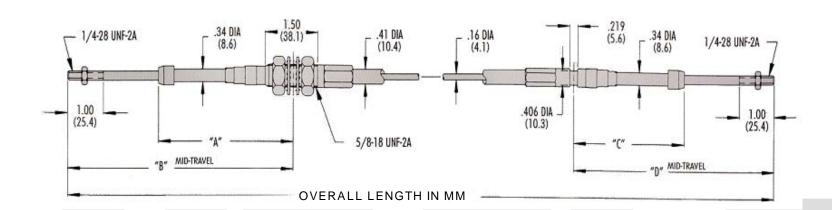




- & HP Core
- & 1/4-28 Rod Thread (M6 available)
- & 127mm (5") Bend Radii (HP)

- & Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- & Low Backlash
- High Efficiency
 Conduit Colour:
- Dark Maroon HP Cable Std.

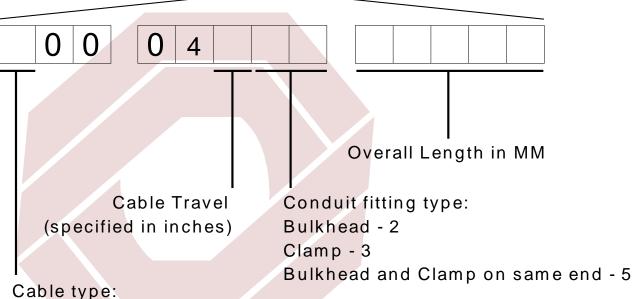
Gloss Black - HEFT2



SPECIFICATIONS

Travel	Bulkhead End		Clam	p End	Operatin	ig Loads
	DIM "A"	DIM "A" DIM "B"		DIM "D"	Push	Pull
MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	Kg./(N)	Kg./(N)
25.4 (1)	79.5 (3.13)	119.1 (4.69)	63.5 (2.50)	103.1 (4.06)	67.9 (667)	104.3 (1023)
50.8 (2)	140.9 (4.13)	157.2 (6.19)	88.9 (3.50)	141.2 (5.56)	67.9 (667)	104.3 (1023)
76.2 (3)	130.3 (5.13)	195.3 (7.69)	114.3 (4.50)	179.3 (7.06)	56.7 (556)	104.3 (1023)
101.6 (4)	155.7 (6.13)	233.4 (9.19)	139.7 (5.50)	217.4 (8.56)	45.4 (445)	104.3 (1023)
127.0 (5)	181.1 (7.13)	271.5 (10.69)	165.1 (6.50)	255.5 (10.06)	34 (334)	104.3 (1023)
152.4 (6)	206.5 (8.13)	309.6 (12.19)	190.5 (7.50)	293.6 (11.56)	24.9 (244.8)	104.3 (1023)
177.8 (7)	231.9 (9.13)	347.7 (13.6)	215.9 (8.50)	331.7 (13.06)	20.4 (200.3)	104.3 (1023)

Building a Part Number



Cable type.

- 1 = Hi-Performance
- 2 = Marine (303 st/st fittings + Hardware)
- 3 = HEFT2 (High Performance & High Temperature)
- 4 = Marine HEFT2

Notes:

Fitting and hardware material for a 100.04XXX.LENGTH cable.

Conduit fittings:

Bulkhead = Aluminium Clamp = Aluminium

Hardware (Nuts/Washers): Steel with Zinc plate

Fitting and hardware material for a 200.04XXX.LENGTH cable.

Conduit fittings:

Bulkhead = Stainless Steel (303) Clamp = Stainless Steel (303)

Hardware (Nuts/Washers): Stainless Steel

All rods ends are Stainless Steel (303) for both marine and std cables.



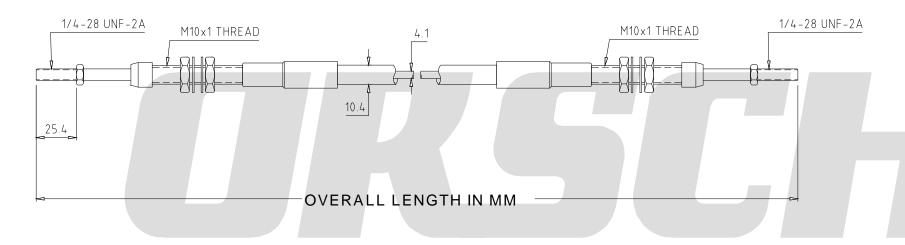


4 Adjustable SERIES

- & Adjustable Hubs
- & 127 (5") Bend Radii (HP)
- & 1/4" UNF Threaded Rods (M6 available)
- & Applications: where extended adjustment is required.
- & Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- & HP=Low Backlash, High Efficiency,
- Best Flexibility.
 & Conduit Colour:

Dark Maroon - HP Cable Std.

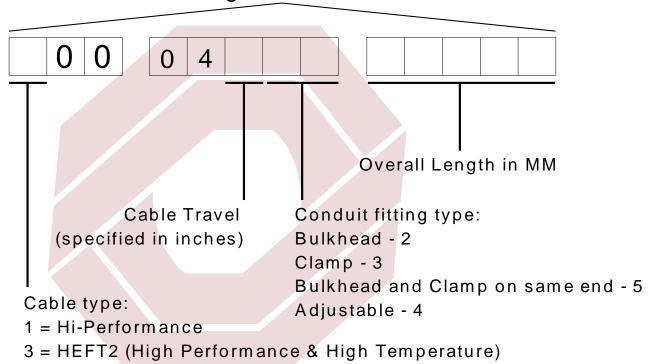
Gloss Black - HEFT2



Operating Loads are as per 4series Push Pull Cables.

Adjustable Cables are also available in 3 and 6 series: Please call for details.

Building a Part Number



Notes:

Fitting and hardware material for a 100.04XXX.LENGTH cable.

Conduit fittings:

Bulkhead = Aluminium

Clamp = Aluminium

Adjustable = Steel with Zinc plate

- Hardware (Nuts/Washers): Steel with Zinc plate
- All rods ends are Stainless Steel (303).
- Deflection:

Unlike our standard HP Push Pull Cables, adjustable cable sleeves do not swivel 8° about the center line. Instead, the deflection is provided by using swivel assemblies, which are fitted to the adjustable barrel. Please call for details.



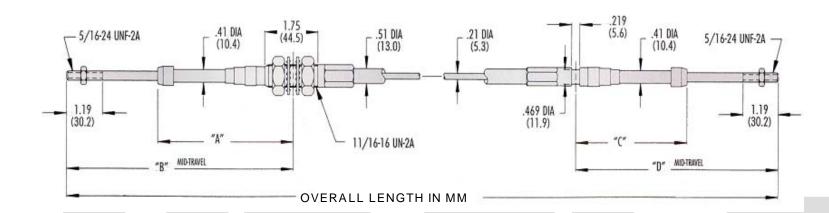


- & HP Core
- & 5/16-24 Rod Thread (M8 available)
- & 177.8mm (7") Bend Radii (HP)

- & Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- & Low Backlash
- & High Efficiency

Conduit Colour: Dark Maroon - HP Cable Std.

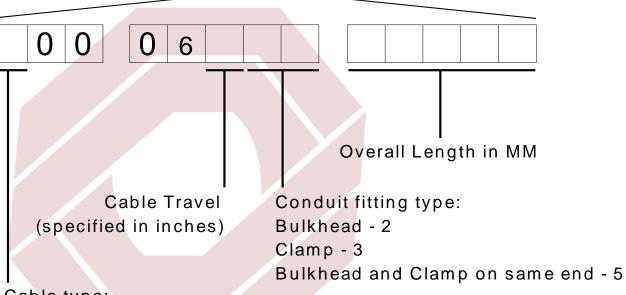
Gloss Black - HEFT2



SPECIFICATIONS

Travel	Bulkhead End		Clam	p End	Operatin	g Loads
	DIM "A"	DIM "B"	DIM "C"	DIM "D"	Push	Pull
MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	Kg./(N)	Kg./(N)
25.4 (1)	82.6 (3.25)	127.0 (5.00)	65.0 (2.56)	109.5 (4.31)	113.5 (1112)	181.4 (1779)
50.8 (2)	108.0 (4.25)	165.1 (6.50)	90.4 (3.56)	147.6 (5.81)	113.5 (1112)	181.4 (1779)
76.2 (3)	133.4 (5.25)	203.2 (8.00)	115.8 (4.56)	185.7 (7.31)	95.3 (935)	181.4 (1779)
101.6 (4)	158.8 (6.25)	241.3 (9.50)	141.2 (5.56)	223.8 (8.81)	77.1 (756.5)	181.4 (1779)
127.0 (5)	184.2 (7.25)	279.4 (11.00)	166.6 (6.56)	261.9 (10.31)	58.9 (578.5)	181.4 (1779)
152.4 (6)	209.6 (8.25)	317.5 (12.50)	192.0 (7.56)	299.9 (11.81)	40.8 (400.5)	181.4 (1779)
177.8 (7)	235.0 (9.25)	355.6 (14.00)	217.4 (8.56)	338.0 (13.31)	27.2 (266.9)	181.4 (1779)

Building a Part Number



Cable type:

- 1 = Hi-Performance
- 2 = Marine (303 st/st fittings + Hardware)
- 3 = HEFT2 (High Performance & High Temperature)
- 4 = Marine HEFT2

Notes:

Fitting and hardware material for a 100.06XXX.LENGTH cable.

Conduit fittings:

Bulkhead = Aluminium
Clamp = Aluminium

Hardware (Nuts/Washers): Steel with Zinc plate

Fitting and hardware material for a 200.06XXX.LENGTH cable.

Conduit fittings:

Bulkhead = Stainless Steel (303) Clamp = Stainless Steel (303)

Hardware (Nuts/Washers): Stainless Steel

All rods ends are Stainless Steel (303) for both marine and std cables.



HP Core

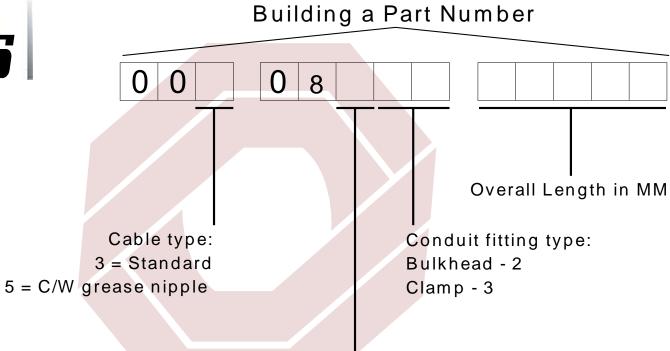
3/8-24 Rod Thread

254mm (10") Bend Radii (Armour)



- Temperature Range:
- -54 to +107°C Std. Low Backlash
- High Efficiency

Conduit Colour: Dark Maroon .313 (8.0) .56 DIA (14.2) 3/8-24 UNF-2A



.56 DIA (14.2) .63 DIA (16.0) .25 DIA (6.4) 3/8-24 UNF-2A .500 DIA (12.7) 1.38 (35.1) 1.38 (35.1) 7/8-14 UNF-2A OVERALL LENGTH IN MM

SPECIFICATIONS

Travel	Bulkhead End		Clam	p End	Operatin	g Loads
	DIM "A" DIM "B"		DIM "C"	DIM "D"	Push	Pull
MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	Kg./(N)	Kg./(N)
25.4 (1)	93.7 (3.69)	141.2 (5.56)	81.0 (3.19)	128.5 (5.06)	317.5 (3114)	453.6 (4449)
50.8 (2)	119.1 (4.69)	179.3 (7.06)	106.4 (4.19)	166.6 (6.56)	317.5 (3114)	453.6 (4449)
76.2 (3)	144.5 (5.69)	217.4 (8.56)	131.8 (5.19)	204.7 (8.06)	272.2 (2669)	453.6 (4449)
101.6 (4)	169.9 (6.69)	255.5 (10.06)	157.2 (6.19)	242.8 (9.56)	226.7 (2224)	453.6 (4449)
127.0 (5)	195.3 (7.69)	293.6 (11.56)	182.6 (7.19)	280.9 (11.06)	181.4 (1779)	453.6 (4449)
152.4 (6)	220.7 (8.69)	331.7 (13.06)	208.0 (8.19)	319.0 (12.56)	124.7 (1223)	453.6 (4449)
177.8 (7)	246.1 (9.69)	369.8 (14.56)	233.4 (9.19)	357.1 (14.06)	68.0 (667.5)	453.6 (4449)

Notes:

Fitting and hardware material for a 003.08XXX.LENGTH cable.

Conduit fittings:

Bulkhead = Aluminium Clamp = Aluminium

Hardware (Nuts/Washers): Steel with Zinc plate

Cable Travel

(specified in inches)

Rod Ends: Steel with Zinc plate

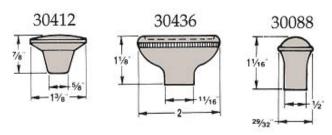
Note: Marine 8srs also available upon request.

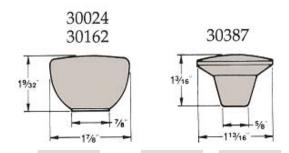




Knobs & T-Handles

Knobs Rugged Phenolic Material

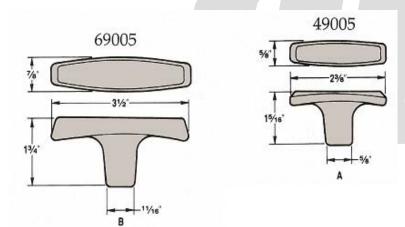




Base Part No.:	Colour	Legend I.D.	Thread Size
30024-0	Black	01	1
30088-1	Black	01	1
30088-2	Red	01	1
30162-0	Red	06	1
30387-1	Black	01	1
30387-2	Red	01	1
30412-0	Black	01	1
30436-0	Black	01	1

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

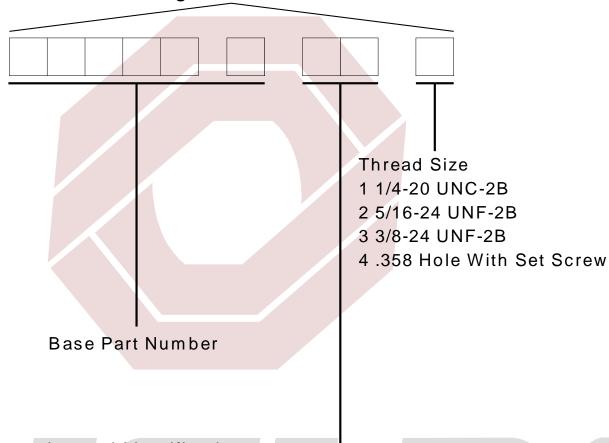
T-Handles Tough Nylon Material



Base	Part No	С	olour		
49	005-1		В	lack	
49	005-2		Red		
69	005-1		В	lack	
69	005-2			Red	

Refer to "Building a Part Number" at right.

Building a Part Number



Legend Identification ·

- 01 Plain11 Cold Start19 Overdrive
- 02 Stop12 Pump20 Aux. Release
- 03 Shut-Off13 Chute [LOCK]
- 04 Throttle14 Fire21 Rear Door
- 05 Choke15 Start [LOCK]
- 06 PTO16 Hood22 Throttle
- 07 Emergency Stop17 Emergency Fuel [LOCK]
- 08 Engine Stop Shut-Off 23 Hatch
- 09 (LOCK) [LOCK]
- 10 Disconnect

Notes:

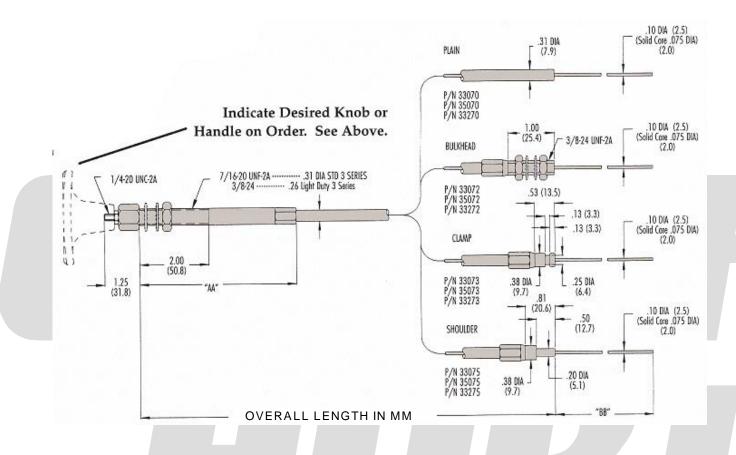
- For additional legend or international symbols please contact us on +44 1788 561400.
- To order Positive Lock Spare Handle 49005-1094 with set screw please use part number 30073.





- Light Duty &
- Exposed core &
- & 76mm (3") Bend Radii (HP)
- 152mm (6") Bend Radii (Solid Core) &
- Order handle/knob separately &
- Non-metallic liners

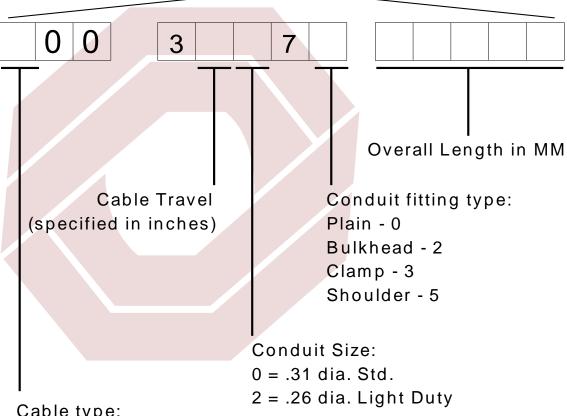
- Applications: Throttle, Choke, Engine stop, Fuel shut-off & Latches.
- Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
 - Low Backlash
- High Efficiency
- Conduit Colour:



SPECIFICATIONS

Travel Inch/(MM)	DIM "AA" Inch/(MM)	DIM "BB" Inch/(MM)
76.2 (3.00)	76.2 (3.00)	76.2 (3.00)
127.0 (5.0)	165.1 (6.50)	203.2 (8.00)

Building a Part Number



Cable type:

- 0 = Solid Core
- 1 = Hi-Performance
- 3 = HEFT2 (High performance & High Temperature)

Notes:

Fitting and hardware material for a 100.3XX7X.LENGTH cable.

Conduit fittings:

Utility (DIM "AA") = Aluminium

Bulkhead = Aluminum

Clamp = Stainless Steel 303

Shoulder = Steel with Zinc plate

Hardware (Nuts/Washers): Steel with Zinc plate

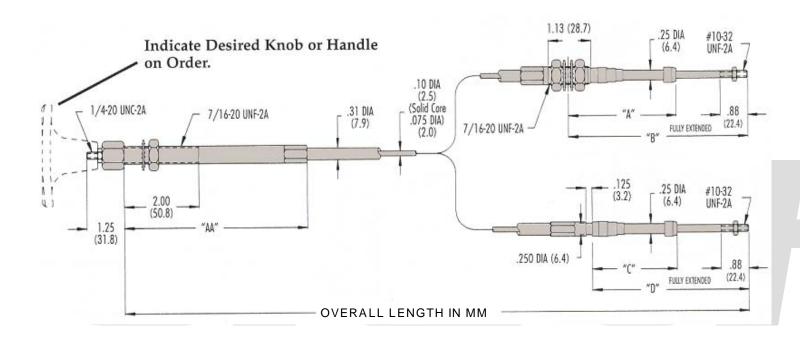
Rods: Stainless Steel 303





- & Heavy Duty
- & 10-32 Rod Thread (M5 available)
- & 76mm (3") Bend Radii (HP)
- & 152mm (6") Bend Radii (Solid Core)
- & Applications: throttle, choke, engine stop, fuel shut-off, latches.
- & Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- Low Backlash
- & High Efficiency
 - Conduit Colour: Dark Maroon - HP Cable Std.

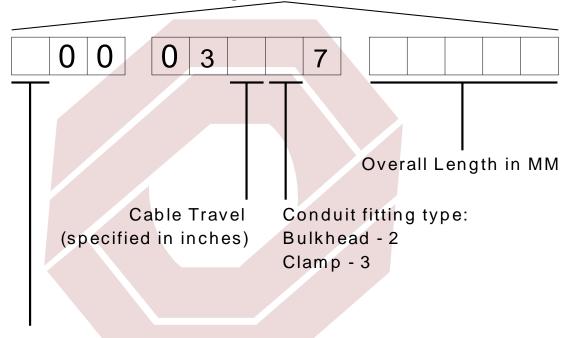
Gloss Black - HEFT2



SPECIFICATIONS

Travel		Bulkh	ead End	Clam	ip End	Operatin	g Loads
	DIM "AA'	DIM AA	DIM "B"	DIM "C"	DIM "D"	Push	Pull
MM/(Inch)	MM/(Inch	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	Kg./(N)	Kg./(N)
25.4 (1)	114.3 (4.50)	76.2 (3.00)	125.5 (4.94)	58.7 (2.31)	108.0 (4.25)	27.2 (266.9)	27.2 (266.9)
50.8 (2)	114.3 (4.50)	101.6 (4.00)	176.3 (6.94)	84.1 (3.31)	158.8 (6.25)	27.2 (266.9)	27.2 (266.9)
76.2 (3)	114.3 (4.50)	127.0 (5.00)	227.1 (8.94)	109.5 (4.31)	209.6 (8.25)	22.7 (222.5)	27.2 (266.9)
101.6 (4)	165.1 (6.50)	152.4 (6.00)	277.9 (10.94)	134.9 (5.31)	260.4 (10.25)	18.1 (177.9)	27.2 (266.9)
127.0 (5)	165.1 (6.50)	177.8 (7.00)	328.7 (12.94)	160.3 (6.31)	311.2(12.25)	13.6 (133.5)	27.2 (266.9)

Building a Part Number



Cable type:

0 = Solid Core

1 = Hi-Performance

3 = HEFT2 (High performance & High Temperature)

Notes:

Fitting and hardware material for a 100.03XX7.LENGTH cable.

Conduit fittings:

Universal = Aluminium (used on all variants)

Bulkhead = Aluminium

Clamp = Stainless Steel 303

Hardware (Nuts/Washers): Steel with Zinc plate

Rods: Stainless Steel 303



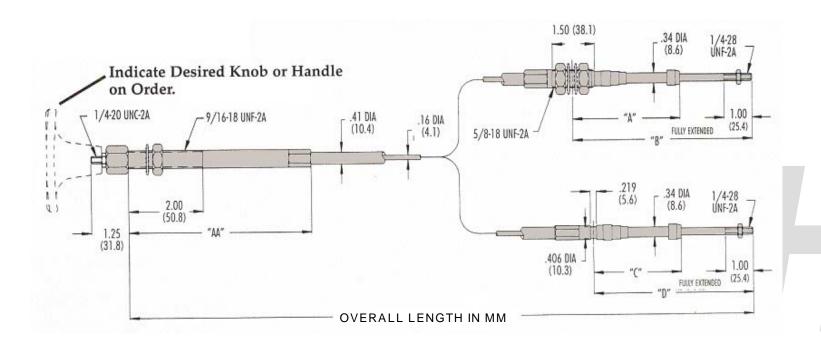


- & Heavy Duty
- & 1/4-28 Rod Thread (M6 available)
- & 127mm (5") Bend Radii (HP)
- & Applications:

- & Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- & Low Backlash
- & High Efficiency
- Conduit Colour:

 Dark Maroon HP Cable Std.

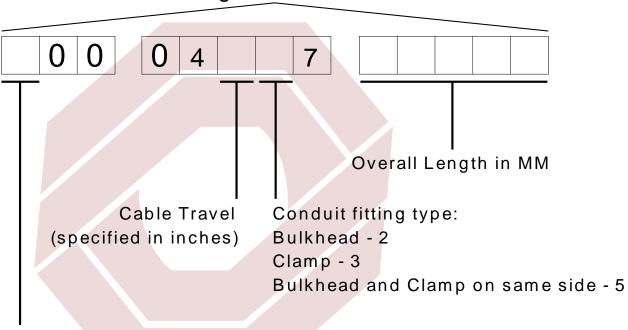
 Gloss Black HEFT2



SPECIFICATIONS

Travel		Bulkh	ead End	Clam	np End	Operatin	g Loads
	DIM "AA'	DIM AA	DIM "B"	DIM "C"	DIM "D"	Push	Pull
MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	Kg./(N)	Kg./(N)
25.4 (1)	131.8 (5.19)	79.5 (3.13)	131.8 (5.19)	63.5 (2.50)	115.8 (4.56)	54.4 (533.9)	54.4 (533.9)
50.8 (2)	131.8 (5.19)	104.9 (4.00)	182.6 (7.19)	88.9 (3.50)	166.6 (6.56)	54.4 (533.9)	54.4 (533.9)
76.2 (3)	131.8 (5.19)	130.3 (5.13)	233.4 (9.19)	114.3 (4.50)	217.4 (8.56)	45.4 (444.9)	54.4 (533.9)
101.6 (4)	182.6 (7.19)	155.7 (6.13)	284.2 (11.19)	139.7 (5.50)	268.2 (10.56)	36.3 (355.9)	54.4 (533.9)
127.0 (5)	182.6 (7.19)	181.1 (7.13)	335.0 (13.19)	165.1 (6.50)	319.0 (12.56)	27.2 (266.9)	54.4 (533.9)

Building a Part Number



Cable type:

1 = Hi-Performance

3 = HEFT2 (High performance & High Temperature)

Notes:

Fitting and hardware material for a 100.04XX7.LENGTH cable.

Conduit fittings:

Universal = Aluminium
Bulkhead = Aluminum
Clamp = Aluminum

Hardware (Nuts/Washers): Steel with Zinc plate

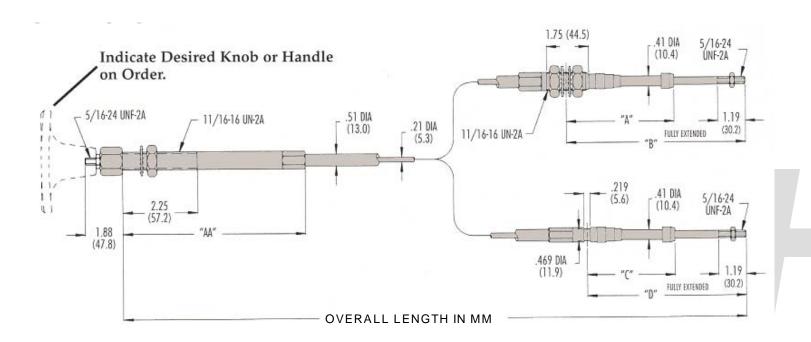
Rods: Stainless Steel 303





- & Heavy Duty
- & 5/16-24 Rod Thread (M8 available)
- & 177.8mm (7") Bend Radii (HP)

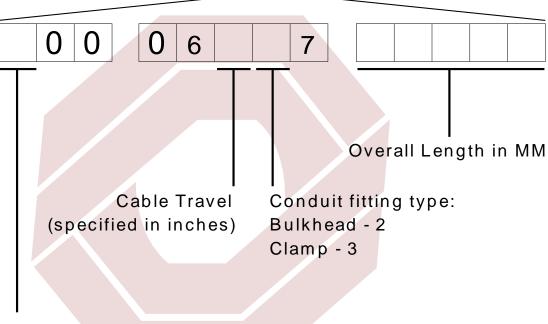
- & Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- & Low Backlash
- & High Efficiency
- & Conduit Colour: Dark Maroon - HP Cable Std. Gloss Black - HEFT2



SPECIFICATIONS

Travel		Bulkh	ead End	Clam	p End	Operatin	g Loads
	DIM "AA'	DIM AA	DIM "B"	DIM "C"	DIM "D"	Push	Pull
MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	Kg./(N)	Kg./(N)
25.4 (1)	131.8 (5.19)	82.6 (3.25)	139.7 (5.50)	65.0 (2.56)	122.2 (4.81)	102.1 (1001)	102.1 (1001)
50.8 (2)	131.8 (5.19)	108.0 (4.25)	190.5 (7.50)	90.4 (3.56)	173.0 (6.81)	102.1 (1001)	102.1 (1001)
76.2 (3)	131.8 (5.19)	133.4 (5.25)	241.3 (9.50)	115.8 (4.56)	223.8 (8.81)	90.7(889.9)	102.1 (1001)
101.6 (4)	182.6 (7.19)	158.8 (6.25)	292.1 (11.50)	141.2 (5.56)	274.6 (10.81)	79.4 (778.7)	102.1 (1001)
127.0 (5)	182.6 (7.19)	184.2 (7.25)	342.9 (13.50)	166.6 (6.56)	299.9 (11.81)	68.0 (667.5)	102.1 (1001)

Building a Part Number



Cable type:

1 = Hi-Performance

3 = HEFT2 (High performance & High Temperature)

Notes:

Fitting and hardware material for a 100.06XX7.LENGTH cable.

Conduit fittings:

Bulkhead = Aluminum

Clamp = Aluminum

Hardware (Nuts/Washers): Steel with Zinc plate

Rods: Stainless Steel 303

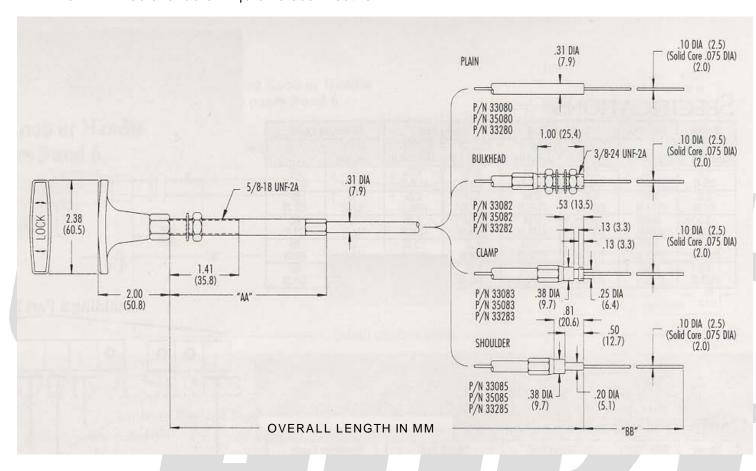




- Light Duty &
- & **Exposed Core**
- 76mm (3") Bend Radii (HP)
- 152mm (6") Bend Radii (Solid Core)
- T-Handle locks in any direction
- Applications: Throttle, choke, engine Stop, fuel shut-off, latches.
- Also available in quick disconnect form.

- Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- Low Backlash
- High Efficiency
- Conduit Colour: Dark Maroon - HP Cable Std.

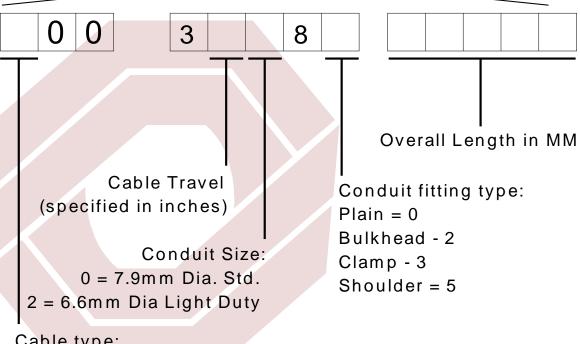
Gloss Black - HEFT2



SPECIFICATIONS

Travel	DIM "AA"	DIM "BB"
MM/(Inch)	MM/(Inch)	MM/(Inch)
76.2	133.4	127.0
(3.00)	(5.25)	(5.00)
127.0	184.2	203.2
(5.00)	(7.25)	(8.00)

Building a Part Number



Cable type:

- 0 = Solid Core
- 1 = Hi-Performance
- 2 = Marine
- 3 = HEFT2 (High performance & High Temperature)
- 4 = Marine HEFT2

Notes:

Fitting and hardware material for a 100.3XX8X.LENGTH cable.

Conduit fittings:

Universal = Aluminium

Bulkhead = Aluminium

Clamp = Stainless Steel 303

Shoulder = Steel with Zinc plate

Hardware (Nuts/Washers): Steel with Zinc plate

Fitting and hardware material for a 200.3XX8X.LENGTH cable.

Conduit fittings:

Universal = Stainless Steel 303

Bulkhead = Stainless Steel 303

Clamp = Stainless Steel 303

Shoulder = Stainless Steel 303

Hardware (Nuts/Washers): Stainless Steel





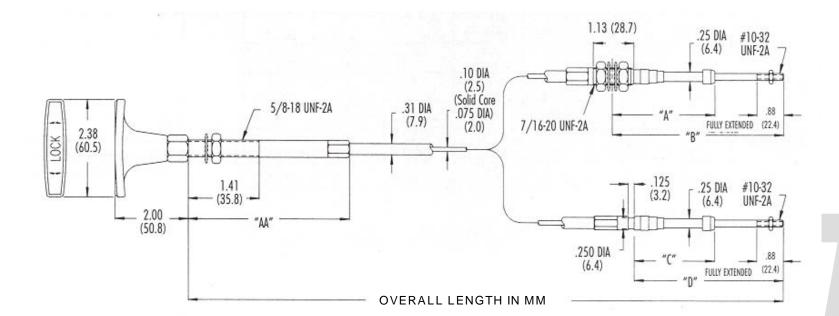
3 Positive Lock HD SERIES

- & Heavy Duty
- & Exposed Core
- & 76mm (3") Bend Radii (HP)
- & 152mm (6") Bend Radii (Solid Core)
- & 10-32 Rod Thread (M5 available)
- & T-Handle locks in any direction
- & Applications: Throttle, choke, engine Stop, fuel shut-off, latches.

- & Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- & Low Backlash
- & High Efficiency
- Conduit Colour:

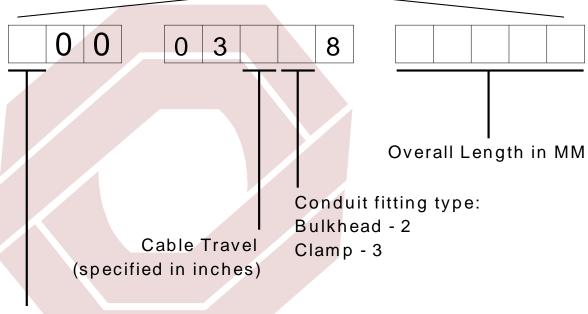
 Dark Maroon HP Cable Std.

 Gloss Black HEFT2



Travel		Bulkh	ead End	Clam	p End	Operatin	g Loads
	DIM "AA'	DIM AA	DIM "B"	DIM "C"	DIM "D"	Push	Pull
MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	Kg./(N)	Kg./(N)
25.4 (1)	133.4 (5.25)	76.2 (3.00)	125.5 (4.94)	58.7 (2.31)	108.0 (4.25)	27.2 (266.9)	27.2 (266.9)
50.8 (2)	133.4 (5.25)	101.6 (4.00)	176.3 (6.94)	84.1 (3.31)	158.8 (6.25)	27.2 (266.9)	27.2 (266.9)
76.2 (3)	133.4 (5.25)	127.0 (5.00)	227.1 (8.94)	109.5 (4.31)	209.6 (8.25)	22.7 (222.5)	27.2 (266.9)
101.6 (4)	184.2 (7.25)	152.4 (6.00)	277.9 (10.94)	134.9 (5.31)	260.4 (10.25)	18.1 (177.9)	27.2 (266.9)
127.0 (5)	184.2 (7.25)	177.8 (7.00)	328.7 (12.94)	160.3 (6.31)	311.2(12.25)	13.6 (133.5)	27.2 (266.9)

Building a Part Number



Cable type:

0 = Solid Core

1 = Hi-Performance

3 = HEFT2 (High performance & High Temperature)

Notes:

Fitting and hardware material for a 100.03XX8.LENGTH cable.

Conduit fittings:

Bulkhead = Aluminum

Clamp = Stainless Steel 303

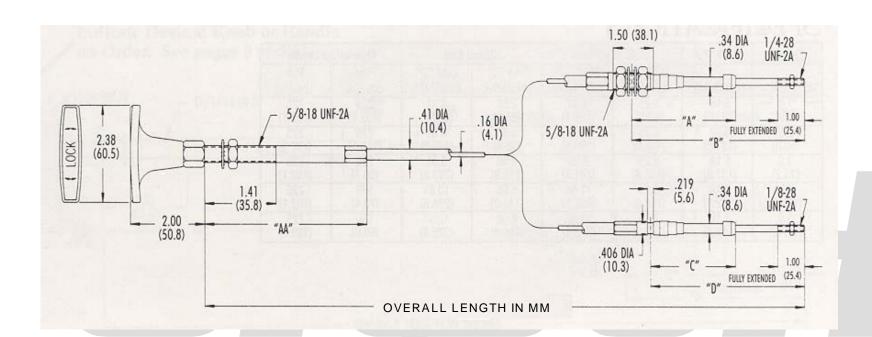
Hardware (Nuts/Washers): Steel with Zinc plate

Rods: Stainless Steel 303



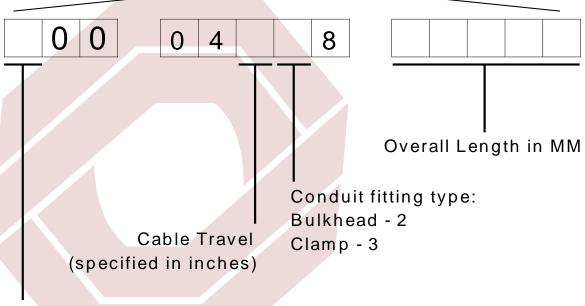


- & Heavy Duty
- & 127mm (5") Bend Radii (HP)
- & 1/4-28 Rod Thread (M6 available)
- & T-Handle locks in any direction
- & Applications: Throttle, choke, engine Stop, fuel shut-off, latches.
- & Also available in quick disconnect form.
- & Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- & Low Backlash
- & High Efficiency
 - Conduit Colour: Dark Maroon - HP Cable Std. Gloss Black - HEFT2



Travel		Bulkhead End		Clamp End		Operating Loads	
	DIM "AA'	DIM AA	DIM "B"	DIM "C"	DIM "D"	Push	Pull
MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	Kg./(N)	Kg./(N)
25.4 (1)	133.4 (5.25)	79.5 (3.13)	131.8 (5.19)	63.5 (2.50)	115.8 (4.56)	54.4 (534.4)	54.4 (534.4)
50.8 (2)	133.4 (5.25)	104.9 (4.13)	182.6 (7.19)	88.9 (3.50)	166.6 (6.56)	54.4 (534.4)	54.4 (534.4)
76.2 (3)	133.4 (5.25)	130.3 (5.13)	233.4 (9.19)	114.3 (4.50)	217.4 (8.56)	45.4 (445.4)	54.4 (534.4)
101.6 (4)	184.2 (7.25)	155.7 (6.13)	284.2 (11.19)	139.7 (5.50)	268.2 (10.56)	36.32 (356.3)	54.4 (534.4)
127.0 (5)	184.2 (7.25)	181.1 (7.13)	335.0 (13.19)	165.1 (6.50)	319.0(12.56)	27.2 (267.2)	54.4 (534.4)

Building a Part Number



Cable type:

0 = Solid Core

1 = Hi-Performance

3 = HEFT2 (High performance & High Temperature)

Notes:

Fitting and hardware material for a 100.04XX8.LENGTH cable.

Conduit fittings:

Bulkhead = Aluminium Clamp = Aluminium

Hardware (Nuts/Washers): Steel with Zinc plate

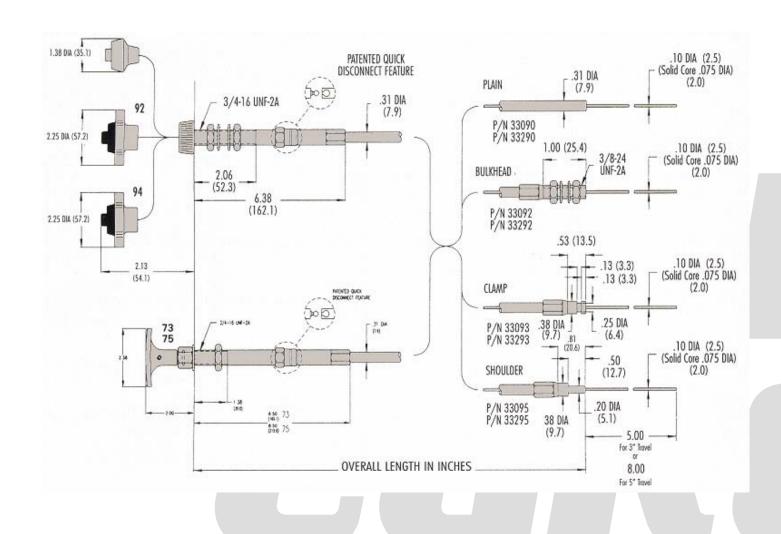
Rods: Stainless Steel 303





3 SERIES

- & Light Duty
- & Exposed Core
- & 76mm (3") Bend Radii (HP)
- & 152mm (6") Bend Radii (Solid Core)
- & Applications: engine RPM, or where coarse or fine adjustments are needed.
- R Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- & HP Core=Low Backlash, High Efficiency,
 - Best Flexibility.
- & Conduit Colour:
 - Dark Maroon HP Cable Std.
 - Gloss Black HEFT2



Load Rating: Maximum 20lbs. Is recommended.

Building a Part Number 0 0 3 3 9 Overall Length in MM Conduit Fitting Type: 0 = Plain2 = Bulkhead3 = ClampHead Type: 5 = Shoulder00 None - Cable Only 90 Vernier - Black Button - Black Knob 92 Vernier - Black Button - Black Knob 94 Vernier - Red Button - Black Knob 73 Positive Lock - 3" Travel Conduit Size: 75 Positive Lock - 5" Travel $0 = 7.84(.31^{\circ})$ dia. Std. Cable type: $2 = 6.60(.26^{\circ})$ dia. Light Duty 0 = Solid Core (3 Series only) 1 = Hi-Performance 2 = Marine3 = HEFT2 (High performance & High Temperature) 4 = Marine HEFT2 Notes:

Fitting and hardware material for a 100.33X9X.LENGTH cable.

- Conduit fittings:
 Disconnect Hub = Aluminium
 Bulkhead = Aluminum
 Clamp = Stainless Steel 303
 Shoulder = Steel with Zinc plate
- Hardware (Nuts/Washers): Steel with Zinc plate
- Rods: Stainless Steel 303
 - To Order Vernier and Positive Lock cable control heads may be ordered as acomplete assembly (head and cable attached) or separately. Order the desired control head using the two digit number 0,92,94,73 or 75 (Positive Lock head). 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 No. 94 and cable No. 33092, then combine to make the assembly part No.: X94-33092-length.

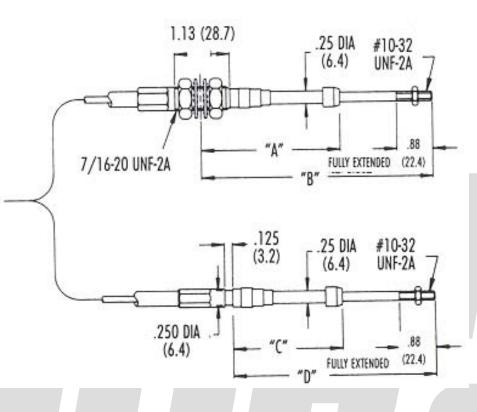




Quick Disconnect HD

- **Heavy Duty**
- & 76mm (3") Bend Radii (HP)
- 152mm (6") Bend Radii (Solid Core)
- Applications: engine RPM, or where coarse or fine adjustments are needed.
- Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- HP=Low Backlash, High Efficiency,
 - Best Flexibility.
 - Conduit Colour: Dark Maroon - HP Cable Std. Gloss Black - HEFT2

HEAD OPTIONS ARE AS 3SRS LIGHT DUTY (PREVIOUS PAGE).

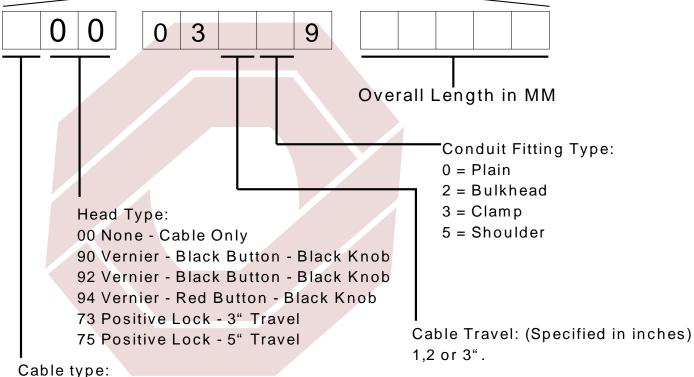


SPECIFICATIONS

Travel	Bulkhead End		Clam	p End
	DIM "A"	DIM "B"	DIM "C"	DIM "D"
MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)
25.4 (1)	76.2 (3)	125.5 (4.94)	58.7 (2.31)	108.0 (4.25)
50.8 (2)	101.6 (4)	176.3 (6.94)	84.1 (3.31)	158.8 (6.25)
76.2 (3)	127.0 (5)	227.1 (8.94)	109.5 (4.31)	209.6 (8.25)

Load Rating: Maximum 20lbs. Is recommended.

Building a Part Number



0 = Solid Core (3 Series only)

1 = Hi-Performance

3 = HEFT2 (High performance & High Temperature)

Notes:

Fitting and hardware material for a 100.33X9X.LENGTH cable.

- Conduit fittings: Disconnect Hub = Aluminium Bulkhead = Aluminum Clamp = Stainless Steel 303 Shoulder = Steel with Zinc plate
- Hardware (Nuts/Washers): Steel with Zinc plate
- Rods: Stainless Steel 303
- To Order

Vernier and Positive Lock cable control heads may be ordered as acomplete assembly (head and cable attached) or separately. Order the desired control head using the two digit number 0,92,94,73 or 75 (Positive Lock head). 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 No. 94 and cable No. 03339, then combine to make the assembly part No.: X94-33092-length.

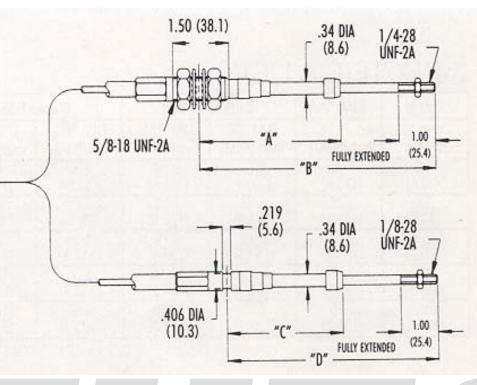




Quick Disconnect HD

- **Heavy Duty**
- & 127mm (5") Bend Radii
- Applications: engine RPM, or where coarse or fine adjustments are needed.
- Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- HP=Low Backlash, High Efficiency,
- Best Flexibility.
- Conduit Colour: Dark Maroon - HP Cable Std. Gloss Black - HEFT2

HEAD OPTIONS ARE AS 3SRS LIGHT DUTY

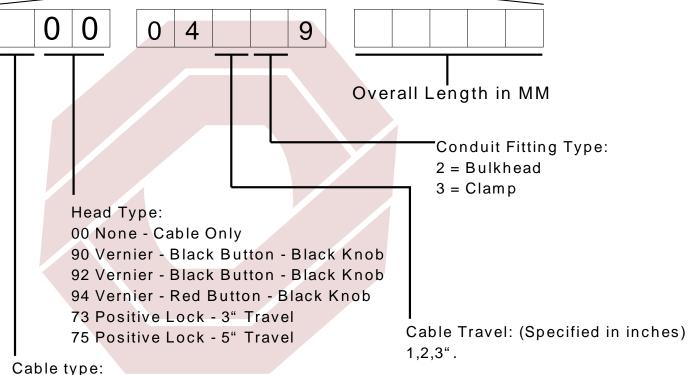


SPECIFICATIONS

Travel		Bulkhe	ad End	Clam	o End
		DIM "A"	DIM "B"	DIM "C"	DIM "D"
MM/(Inch	h)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)
25.4 (1)		79.5 (3.13)	131.8 (5.19)	63.5 (2.50)	115.8 (4.56)
50.8 (2)		104.9 (4.13)	182.6 (7.19)	88.9 (3.50)	166.6 (6.56)
76.2 (3)		130.3 (5.13)	233.4 (9.19)	114.3(4.50)	217.4 (8.56)

Load Rating: Maximum 20lbs. Is recommended.

Building a Part Number



1 = Hi-Performance

3 = HEFT2 (High performance & High Temperature)

Notes:

Fitting and hardware material for a 100.04xx9.LENGTH cable.

Conduit fittings: Disconnect Hub = Aluminium Bulkhead = Aluminum Clamp = Aluminum

Hardware (Nuts/Washers): Steel with Zinc plate

Rods: Stainless Steel 303

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 0,92,94,73 or 75 (Positive Lock head). 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 No. 94 and cable No. 04339, then combine to make the assembly part No.: X94-04339-length.



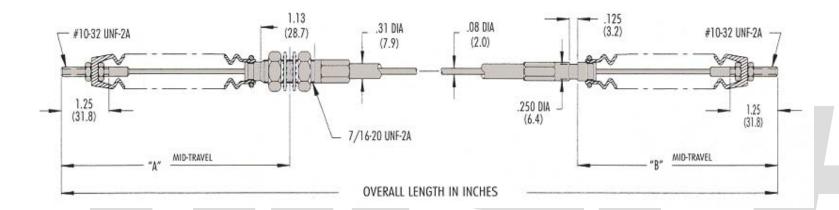


HP Tension

- 3,4 and 6 Series Available
- Improved Boot Seals.
- Tear Resistant Silicone Boots.
- 76mm (3") Bend Radii
- HP Polymer coated 1x19 Core.
- 10-32 Rod Threads (M5 available).

- Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- HP Coated Core and Polymer Liner.
- Conduit Colour:

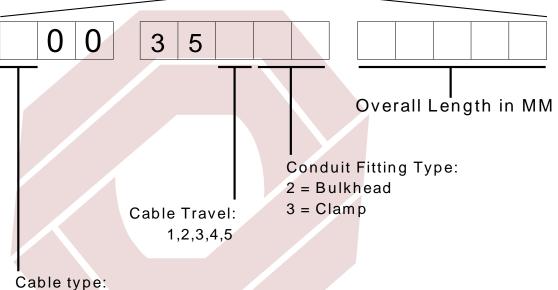
Gloss Black - HEFT2



Low Backlash

Dark Maroon - HP Cable Std.

Building a Part Number



1 = Hi-Performance

3 = HEFT2 (High performance & High Temperature)

Notes:

Fitting and hardware material for a 100.35XXX.LENGTH cable.

Conduit fittings:

Bulkhead = Aluminum

Clamp = Stainless Steel 303

Hardware (Nuts/Washers): Steel with Zinc plate

Rods: Stainless Steel 303

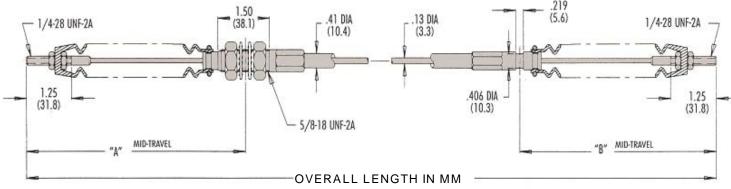
SPECIFICATIONS

Travel	Bulkhead End	Clamp End	Operatin	g Loads
	DIM "A"	DIM "B"	Push	Pull
MM/(Inch)	MM/(Inch)	MM/(Inch)	Kg/(N)	Kg/(N)
25.4 (1)	112.8 (4.44)	95.3 (3.75)	0	54.4 (533.9)
50.8 (2)	150.9(5.94)	133.4 (5.25)	0	54.4 (533.9)
76.2 (3)	189.0 (7.44)	171.5 (6.75)	0	54.4 (533.9)
101.6 (4)	227.1 (8.94)	209.6 (8.25)	0	54.4 (533.9)
127.0 (5)	265.2 (10.44)	247.7 (9.75)	0	54.4 (533.9)





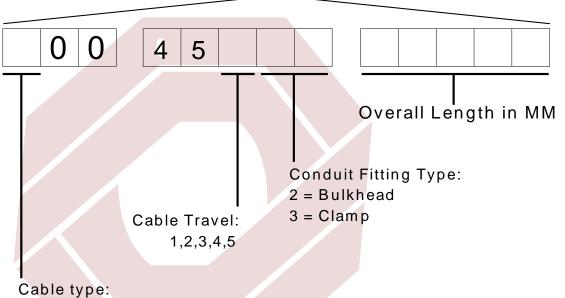
- 3,4 and 6 Series Available
- Improved Boot Seals.
- Tear Resistant Silicone Boots.
- 127mm (5") Bend Radii
- HP 1x19 Core.
- 1/4-28 UNF Rod Threads (M6 available).
- Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- Low Backlash
- Dark Maroon HP Cable Std.

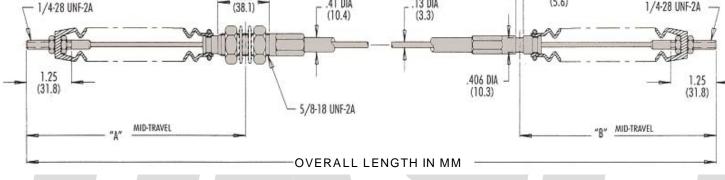


- Polymer Liner.
- Conduit Colour:

Gloss Black - HEFT2

Building a Part Number





Notes:

1 = Hi-Performance

Fitting and hardware material for a 100.45XXX.LENGTH cable.

Conduit fittings: Bulkhead = Aluminium Clamp = Aluminium

Hardware (Nuts/Washers): Steel with Zinc plate

3 = HEFT2 (High performance & High Temperature)

Rods: Stainless Steel 303

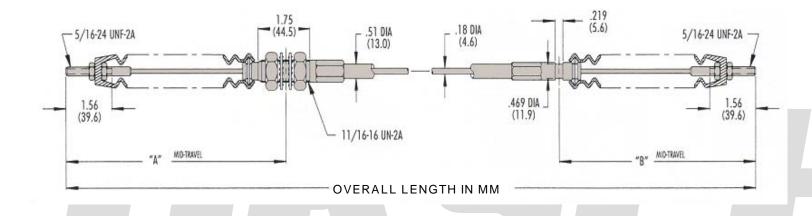
SPECIFICATIONS

Travel	Bulkhead End	Clamp End	Operating	g Loads
	DIM "A"	DIM "B"	Push	Pull
MM/(Inch)	MM/(Inch)	MM/(Inch)	Kg/(N)	Kg/(N)
25.4 (1)	119.1 (4.69)	103.1 (4.06)	0	104.3 (1023)
50.8 (2)	157.2 (6.19)	141.2 (5.56)	0	104.3 (1023)
76.2 (3)	195.3 (7.69)	179.3 (7.06)	0	104.3 (1023)
101.6 (4)	233.4 (9.19)	217.4 (8.56)	0	104.3 (1023)
127.0 (5)	271.5 (10.69)	255.5 (10.06)	0	104.3 (1023)





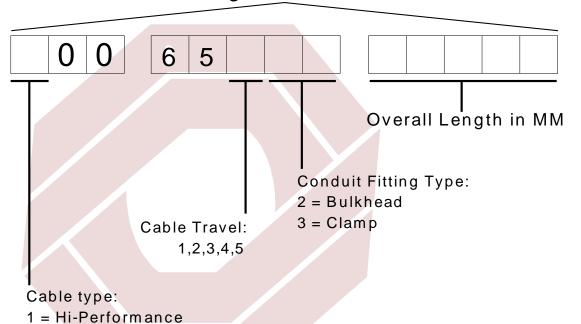
- & 3,4 and 6 Series Available
- & Improved Boot Seals.
- & Tear Resistant Silicone Boots.
- & 177.8mm (7") Bend Radii
- & HP 1x19 Core.
- & 5/16-24 UNF Rod Threads (M8 available).
- & Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- & Low Backlash
- & Polymer Liner.& Conduit Colour:
- Dark Maroon HP Cable Std. Gloss Black - HEFT2



Specifications

Travel	Bulkhead End	Clamp End	Operatin	g Loads
	DIM "A"	DIM "B"	Push	Pull
MM/(Inch)	MM/(Inch)	MM/(Inch)	Kg/(N)	Kg/(N)
25.4 (1)	130.3 (5.23)	112.8 (4.44)	0	181.4 (1779)
50.8 (2)	168.4 (6.63)	150.9 (5.94)	0	181.4 (1779)
76.2 (3)	206.5 (8.13)	189.0 (7.44)	0	181.4 (1779)
101.6 (4)	244.6 (9.63)	227.1(8.94)	0	181.4 (1779)
127.0 (5)	282.7 (11.13)	265.2 (10.44)	0	181.4 (1779)

Building a Part Number



3 = HEFT2 (High performance & High Temperature)

Notes:

Fitting and hardware material for a 100.65XXX.LENGTH cable.

Conduit fittings:
Bulkhead = Aluminium

Hardware (Nuts/Washers): Steel with Zinc plate

Rods: Stainless Steel 303

Clamp = Aluminium



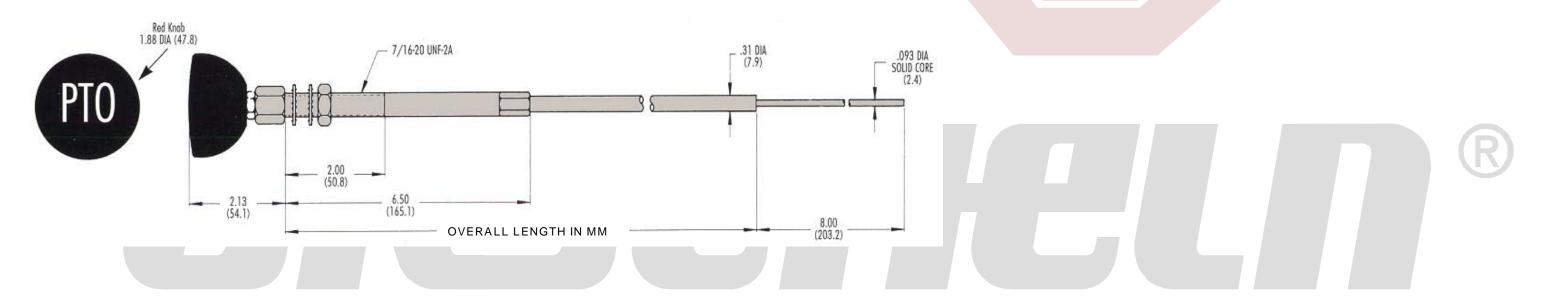


3 PTO Cables SERIES

Building a Part Number

- & Power Take Off Operation
- 2.3 (.093") Ø Stainless Steel Core
- & Full 127 (5") Travel
- & 152.4mm (6") Bend Radii

- Temperature Range:-54 to +107°C Std.
- & Polymer Liner.
- & Conduit Colour: Dark Maroon - HP Cable Std.



Notes:

Fitting and hardware material for a 000.35000.LENGTH cable.

Conduit fittings:
Universal = Aluminium

Hardware (Nuts/Washers): Steel with Zinc plate

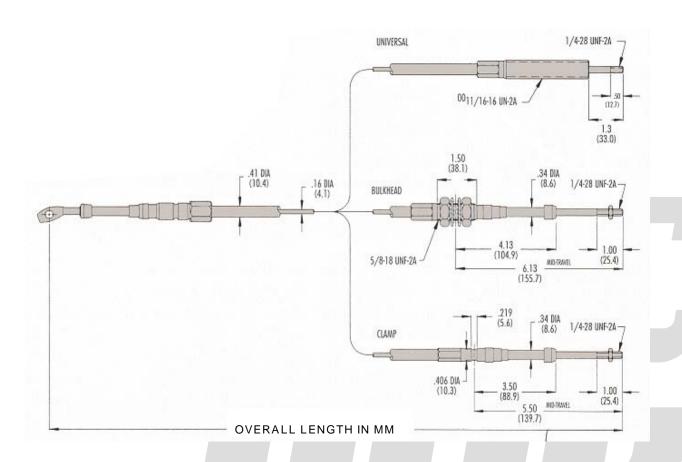




A RVO Cables **SERIES**

- & Remote Valve Control Operation (Felsted Levers Only)
- & HP Cable Construction
- & 127mm (5") Bend Radii
- & 1/4-28 UNF Rod Threads

- & Temperature Range:
 - -54 to +107°C Std. -54 to +149°C Heft2
- & Low Backlash
- & Polymer Liner.
- & Conduit Colour: Dark Maroon - HP Cable Std. Gloss Black - HEFT2



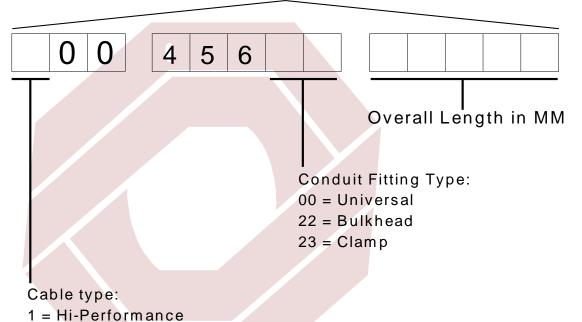
Connects to Felsted Brand Remote Valve controls:

55700

55709

55786-1

Building a Part Number



Notes:

Fitting and hardware material for a 100.456XX.LENGTH cable.

Conduit fittings:

Universal = Steel with Zinc plate

Bulkhead = Aluminium

Clamp = Aluminium

Hardware (Nuts/Washers): Steel with Zinc plate

3 = HEFT2 (High performance & High Temperature)

Rods: Stainless Steel 303

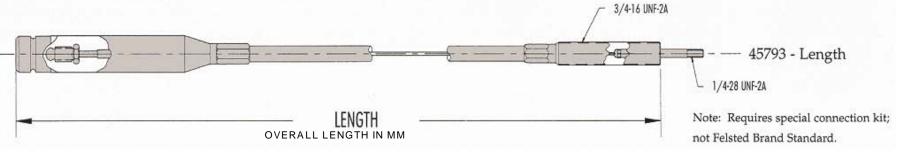




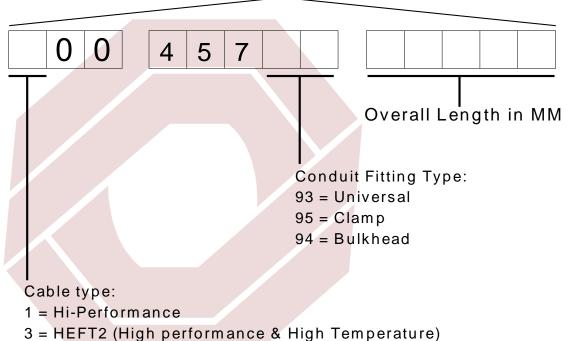
A RVC Cables **SERIES**

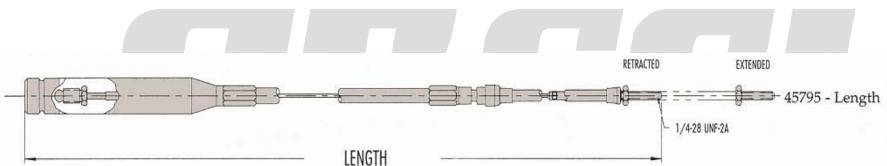
- & Remote Valve Control Operation
- & Fits Competitor RVC controls
- & HP Cable Construction
- & 127mm (5") Bend Radii
- & 1/4-28 UNF Rod Threads

- & Temperature Range:
 - -54 to +107°C Std.
 - -54 to +149°C Heft2
- & Low Backlash
- & Polymer Liner.
- & Conduit Colour: Dark Maroon - HP Cable Std. Gloss Black - HEFT2



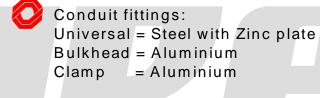
Building a Part Number





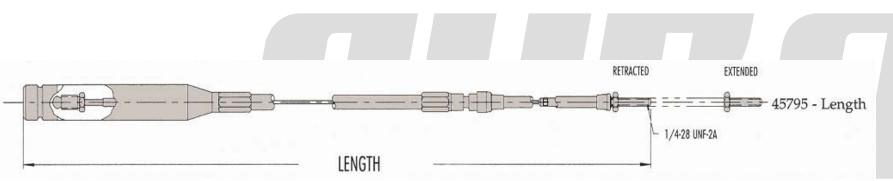


Fitting and hardware material for a 100.457XX.LENGTH cable.





Rods: Stainless Steel 303

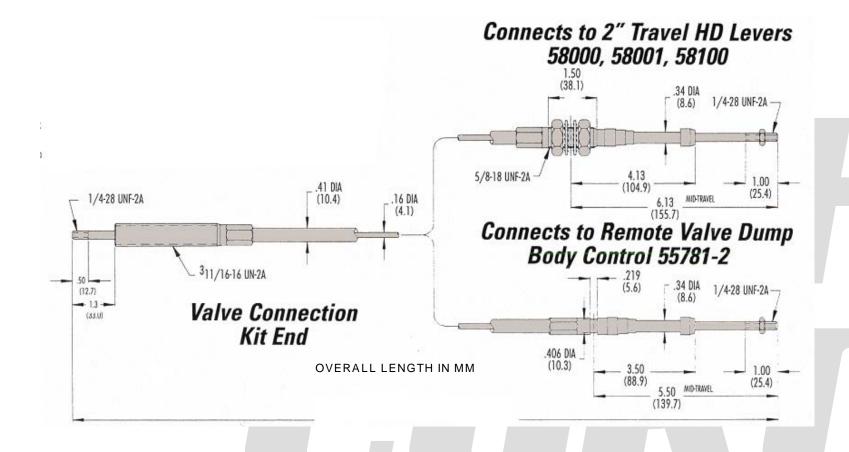




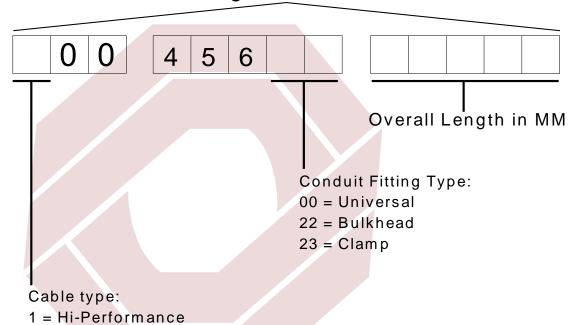


- & HD Lever Applications
- & Remote Valve Dump Body Control Use
- & HP Cable Construction
- & 127mm (5") Bend Radii
- & 1/4-28 UNF Rod Threads

- Temperature Range: -54 to +107°C Std.
 - -54 to +149°C Heft2
- & Low Backlash
- & Polymer Liner.
- & Conduit Colour: Dark Maroon - HP Cable Std. Gloss Black - HEFT2



Building a Part Number



3 = HEFT2 (High performance & High Temperature)

Notes:

Fitting and hardware material for a 100.456XX.LENGTH cable.

Conduit fittings:

Universal = Steel with Zinc plate

Bulkhead = Aluminium Clamp = Aluminium

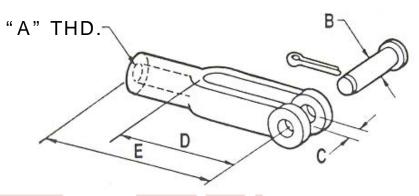
Hardware (Nuts/Washers): Steel with Zinc plate

Rods: Stainless Steel 303



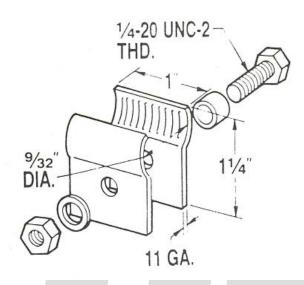


Clevises



Ball Joints

Conduit Clip:



T	У	p	е	В
	•	•		

Part No.: 36064-1

"A" THD.	E
TYPE A	D" THD.

D. (A)	Tuno	А	В	С	D	E
Part No.:	Type	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)
3 Series						
39006	Α	10-32 UNF-2B	11.9 (15/32)	14.3 (9/16)	1/4-28 UNF-2A	24.6 (31/32)
4 Series						
49006	A	1/4-28 UNF-2B	11.9 (15/32)	14.3 (9/16)	1/4-28 UNF-2A	24.6 (31/32)
49007	А	1/4-28 UNF-2B	11.9 (15/32)	22.2 (7/8)	5/16-24 UNF-2A	24.6 (31/32)
6 Series						
69007	A	5/19-24 UNF-2B	13.5 (17/32)	17.5 (11/16)	5/16-24 UNF-2A	28.5 (1-1/8)

Notes:

- The 3:9@0i3-1s made from a polymer and differs to the illustration shown.
- We offer a huge variety of other hardware not shown here, so if you're requirement is not listed please call!

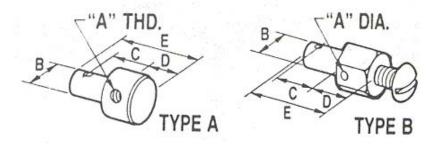
				I	
Part No.:	Α	В	С	D	E
		MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)
3 Series					
	10-32	4.8	5.6	25.4	39.7
39003-1	UNF-2B	(3/16)	(7/32)	(1)	(1-9/16)
	10-32	6.4	7.1	31.8	50.8
49003-2	UNF-2B	(1/4)	(9/32)	(1-1/4)	(2)
	10-32	7.9	8.7	36.5	57.2
69003-2	UNF-2B	(5/16)	(11/32)	(1-7/16)	(2-1/4)
4 Series					
40000 4	1/4-28	6.4	7.1	31.8	50.8
49003-1	UNF-2B	(1/4)	(9/32)	(1-1/4)	(2)
49044-1	1/4-28	12.7	14.3	47.6	76.2
49044-1	UNF-2B	(1/2)	(9/16)	(1-7/8)	(3)
00000	1/4-28	7.9	8.7	36.5	57.2
69003-3	UNF-2B	(5/16)	(11/32)	(1-7/16)	(2-1/4)
6 Series					
49003-3	5/16-24	6.4	7.1	31.8	50.8.
49003-3	UNF-2B	(1/4)	(9/32)	(1-1/4)	(2)
49044-2	5/16-24	12.7	14.3	47.6	76.2
43044-2	UNF-2B	(1/2)	(9/16)	(1-7/8)	(3)
69003-1	5/16-24	7.9	8.7	36.5	57.2
09003-1	UNF-2B	(5/16)	(11/32)	(1-7/16)	(2-1/4)
69034	5/16-24	11.1	12.7	47.6	73.1
09034	UNF-2B	(7/16)	(1/2)	(1-7/8)	(2-7/8)
89003-2	5/16-24	9.5	11.1	41.3	63.5
09003-2	UNF-2B	(3/8)	(7/16)	(1-5/8)	(2-1/2)
8 Series					
89003-1	3/8-24	9.5	11.1	41.3	63.5
000001	UNF-2B	(3/8)	(7/16)	(1-5/8)	(2-1/2)
Specials				T	T
49044-3	3/8-24	12.7	14.3	47.6	76.2
	UNF-2	(1/2)	(9/16)	(1-7/8)	(3)
49044-4	1/2-20	12.7	14.3	47.6	76.2
	UNF-2	(1/2)	(9/16)	(1-7/8)	(3)
69034-1	3/8-24	11.1	12.7	47.6	73.1
	UNF-2	(7/16)	(1/2)	(1-7/8)	(2-7/8)



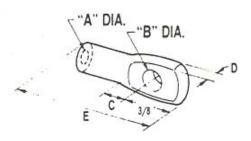


Hardware

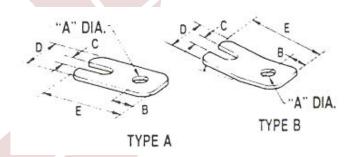
Pivots



Terminal Eyes



Clip	Bracket

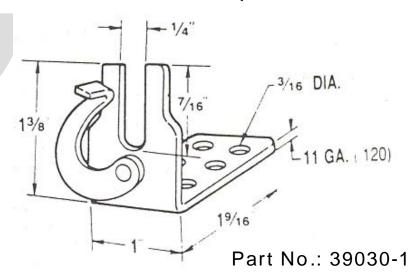


Part No.:	Type	A MM/(Inch)	B MM/(Inch)	C MM/(Inch)	D MM/(Inch)	E MM/(Inch)
3 Series						
39011-1	В	2.8 (7/64)	6.4 (1/4)	4 (5/32)	7.9 (5/16)	14.3 (9/16)
39011-2	В	2.8 (7/64)	6.4 (1/4)	7.5 (19/64)	7.9 (5/16)	17.5 (11/16)
36050-1	В	2.8 (7/64)	7.9 (5/16)	4.0 (5/32)	7.9 (5/16)	14.7 9/16
39050-2	В	2.8 (7/64)	7.9 (5/16)	7.5 (19/64)	7.9 (5/16)	17.5 (11/16)
39042	А	10-32 UNF-2B	6.4 (1/4)	5.2 (13/64)	8.3 (21/64)	15.9 (5/8)
39045	А	10-32 UNF-2B	7.9 (5/16)	9.5 (3/8)	9.5 (3/8)	23.8 (15/16)
4 Series						
49008	А	1/4-28 UNF-2B	6.4 (1/4)	10.3 (13/32)	12.7 (1/2)	27.0 (1-1/16)
49008-1	А	1/4-28 UNF-2B	6.4 (1/4)	7.9 (5/16)	12.7 (1/2)	24.6 (31/32)
49011	А	1/4-28 UNF-2B	6.4 (1/4)	5.2 (13/64)	11.1 (7/16)	19.1 (3/4)
50061-1	А	1/4-28 UNF-2B	7.9 (5/16)	4.8 (3/16)	14.3 (9/16)	21.4 (27/32)
6 Series						
50061-2	А	5/16-24 UNF-2B	7.9 (5/16)	4.8 (3/16)	14.3 (9/16)	21.4 (27/32)

Dant Na	Α	В	С	D	E		
Part No.:	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)		
3 Series	3 Series						
49004-4	10-32	3.2	15.9	9.5	47.6		
49004-4	UNF-2B	(1/8)	(5/8)	(3/8)	(1-7/8)		
4 Series		T	T				
49004-1	1/4-28	7.9	15.9	9.5	47.6		
43004 1	UNF-2B	(5/16)	(5/8)	(3/8)	(1-7/8)		
49004-2	1/4-28	12.7	15.9	9.5	47.6		
49004-2	UNF-2B	(1/2)	(5/8)	(3/8)	(1-7/8)		
49004-3	1/4-28	6.4	15.9	9.5	47.6		
49004-3	UNF-2B	(1/4)	(5/8)	(3/8)	(1-7/8)		
6 Series							
69004-1	5/16-24	9.5	15.9	9.5	47.6		
09004-1	UNF-2B	(3/8)	(5/8)	(3/8)	(1-7/8)		
69004-2	5/16-24	7.9	15.9	9.5	47.6		
09004-2	UNF-2B	(5/16)	(5/8)	(3/8)	(1-7/8)		
69004-3	5/16-24	12.7	15.9	9.5	47.6		
09004-3	UNF-2B	(1/2)	(5/8)	(3/8)	(1-7/8)		
60004.4	5/16-24	6.4	15.9	9.5	47.6		
69004-4	UNF-2B	(1/4)	(5/8)	(3/8)	(1-7/8)		

Part No.:	Type	A	В	С	D	E
i ait ivo	1,700	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)	MM/(Inch)
3 Series						
30121	В	7.5	9.5	6.4	15.9	30
30121	В	(9/32)	(3/8)	(1/4)	(5/8)	(1-7/32)
20200	0	7.5	9.5	6.4	15.9	30
30399	В	(9/32)	(3/8)	(1/4)	(5/8)	(1-7/32)
39004-1	^	7.5	9.5	6.4	15.9	33.3
(Stainless)	A	(9/32)	(3/8)	(1/4)	(5/8)	(1-5/16)
39004-2	^	7.5	9.5	6.4	15.9	33.3
(Plated steel)	Α	(9/32)	(3/8)	(1/4)	(5/8)	(1-5/16)
00040		7.5	9.5	6.4	15.9	58.7
39046	Α	(9/32)	(3/8)	(1/4)	(5/8)	(2-5/16)

Field Clamp

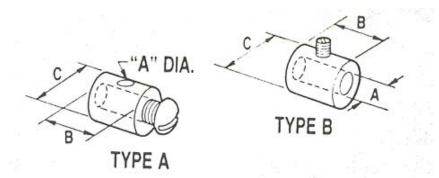


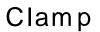


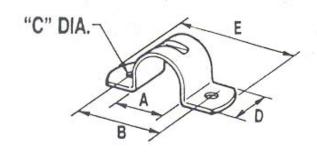


Hardware

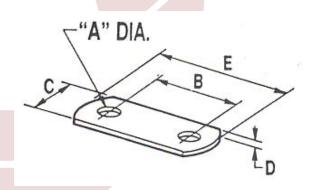
Stop Collars







Shim



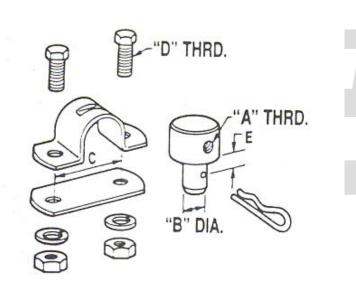
Part No.:	Туре	A MM/(Inch)	B MM/(Inch)	C MM/(Inch)	
3 Series					
30103	A	2.8 (7/64)	7.9 (5/16)	7.9 (5/16)	
4 Series					
40081	A	4.8 (3/16)	7.9 (5/16)	7.9 (5/16)	
49043	В	4.8 (3/16)	6.4 (1/4)	11.1 (7/16)	

Part No.:	A MM/(Inch)	B MM/(Inch)	C MM/(Inch)	D MM/(Inch)	E MM/(Inch)
3 Series					
39001	9.5 (3/8)	25.4 (1)	5.2 (13/64)	12.7 (1/2)	38.1 (1-1/2)
4 Series					
49001	12.7 (1/2)	25.4 (1)	5.6 (7/32)	12.7 (1/2)	38.1 (1-1/2)
6 Series					
69001	14.3 (9/16)	31.8 (1-1/4)	7.1 (9/32)	15.9 (5/8)	41.3 (1-5/8)

Part No.:	A MM/(Inch)	B MM/(Inch)	C MM/(Inch)	D MM/(Inch)	E MM/(Inch)
3 & 4 Serie					
39002	5.2 (13/64)	25.4 (1)	12.7 (1/2)	2.4 (3/32)	38.1 (1-1/2)
6 Series					
69002	7.5 (9/32)	31.8 (1-1/4)	15.9 (5/8)	2.0 (5/64)	44.5 (1-3/4)

Shifter Cable Connection Kits

Kit No.:	A THD.	B DIA.	C MM/(Inch)	D THD.	E
50030	1/4-28	7.9	12.7	10-32	3.2
	UNF-2B	(5/16)	(1/2)	UNF-2A	(1/8)
50035	5/16-24	7.9	31.8	1/4-20	3.2
	UNF-2B	(5/16)	(1-1/4)	UNC-2A	(1/8)
59033	10-32	7.9	25.4	10-32	3.2
	UNF-2B	(5/16)	(1)	UNF-2A	(1/8)

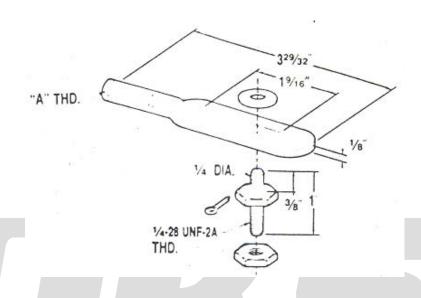






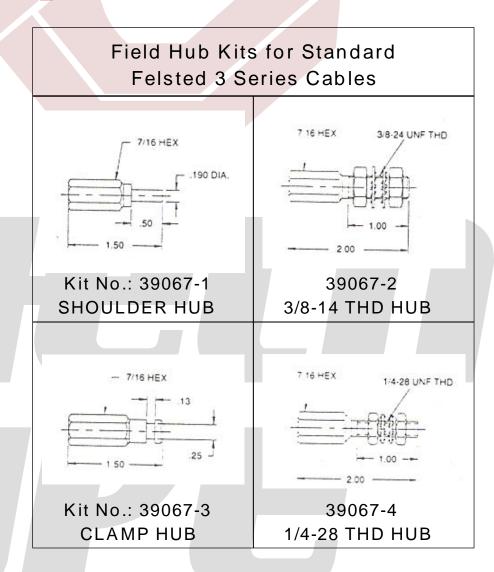
Hardware

Slip Link Kit



Kit N	"A" THD.	
Polymer	59049-1	10-32 UNF-2A
TOTYTHET	59049-2	1/4-28 UNF-2A
Metal	M00.59049-1	10-32 UNF-2A
	M00.59049-2	1/4-28 UNF-2A

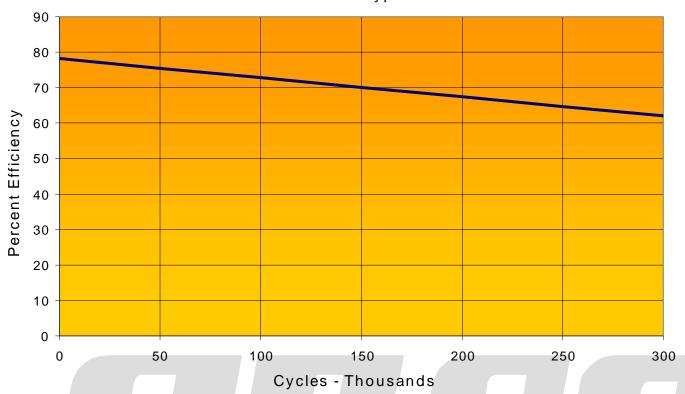
- Solid or HP Core
- Conduit Outside Diameter of 7.87mm (.31")







Felsted Pull HP Cables Typical Efficiencies



Severe Routing: 3" Travel, Assembly, 3.657M Overall Length, 510° Total Bend

Efficiency:

The efficiency factor of a cable system helps determine what series of cable to use in a given situation. Affected by the total degrees of bend in the cable, efficiency shows how much input force is needed to produce a desired output load. Use the following formula and tables to calculate.

INPUT FORCE=OUTPUT LOAD x EFFICIENCY FACTOR

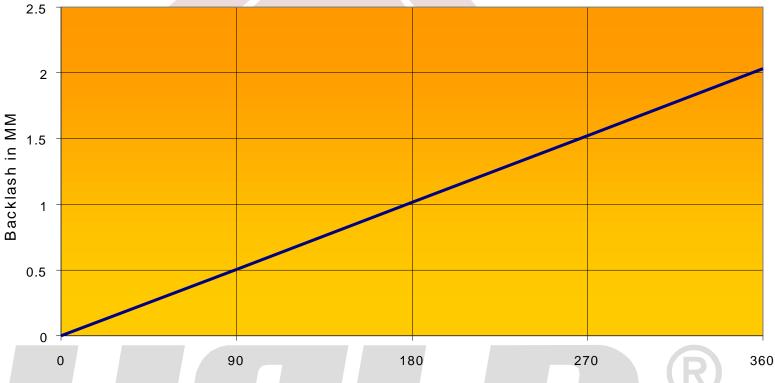
OUTPUT LOAD=OL= INPUT FORCE IF EFFICIENCY FACTOREF

For example, the application requires an output load of 18Kg and the cable follows a path totalling 315° bend. Select the correct efficiency factor from the Efficiency Graph (Right) (315° bend = 1.3 Efficiency Factor).

FORMULA:OUTPUT x EFFICIENCY FACTOR = INPUT REQUIRED SO: 18Kg x 1.3 = 23.4Kg Input Required.

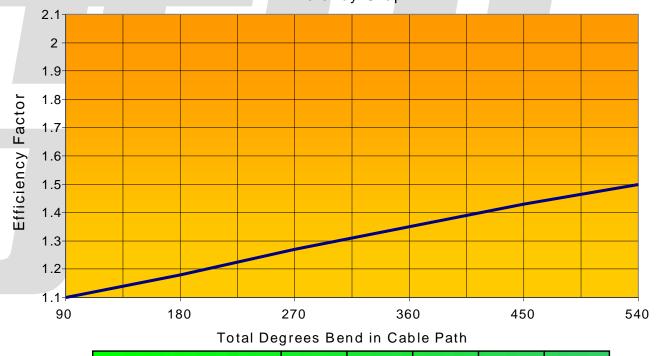
In the above example, the cable configuration with 315° total bend, 23.4Kg input force is needed to produce the required 18Kg output. Based on this data, a HP 3 series cable would be recommended.

Felsted Pull HP Cables Typical Backlash vs. Degrees Bend



Total Degrees Bend

Efficiency Graph



1.10

180

1.18

270

1.27

360

1.35

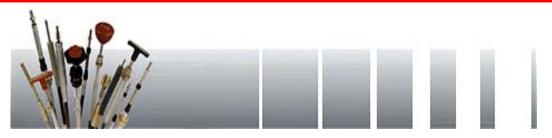
450

1.43

otal Degrees Bend in Cable Path

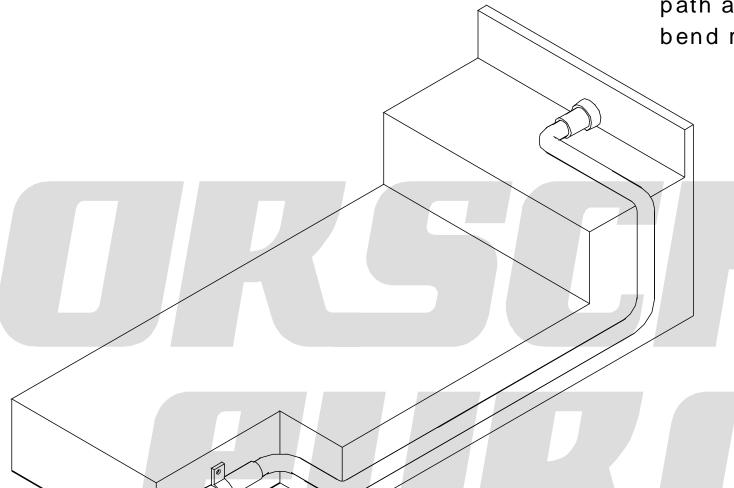
Efficiency Factors





Routing/Measuring

Measure the cabke 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*	76.2MM			
4	127.0MM			
6	177.8MM			
8	254.0MM			

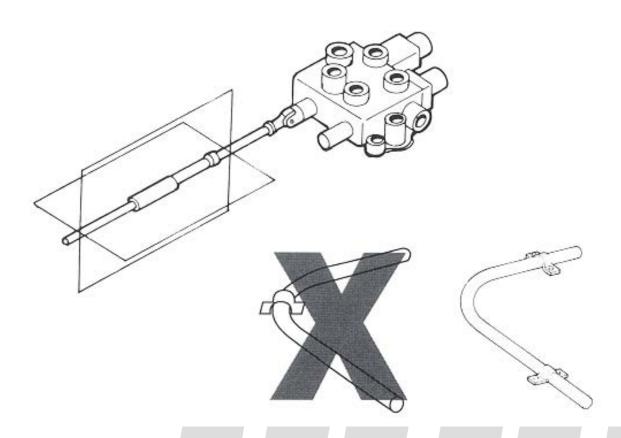
*HP Core: Solid Core has 152.4mm Bend Radii





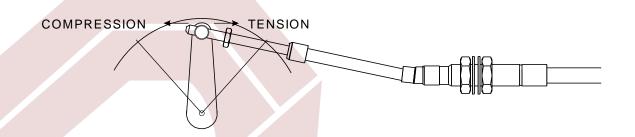
Installation Notes: Control & Work End

For the 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).

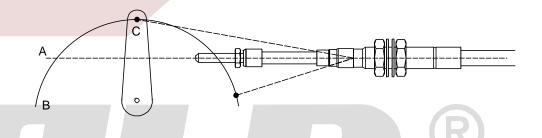


It is important to securely anchor the cable hubs. Looseness of the mounting bracket will be perceived as lost motion ("sponginess") and will inhibit the detent feel.

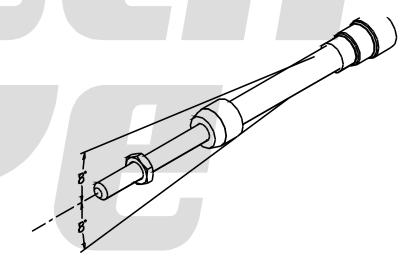
Also, clamping in the bend area may reduce bend radii under operating loads. Clamping at tangents to the bend is preferred.



For the 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).

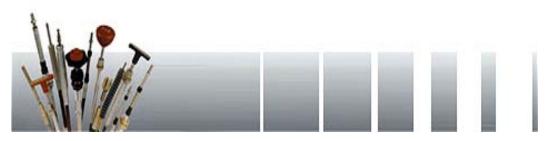


Where the cable is connected to a lever, the cable wil be mounted so that it lies on a plane (A) midway on the arc (B) described by the movement of the connection point on the lever (C).



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





In addition to the products listed in this catalogue, we also have available a wide range of cable assemblies, fittings and hardware. If you have a requirement that is not listed in this catalogue, please call us on +44 (0)1788 561400, or fax us on +44(0)1788 567555. We can also be reached via email on: sales@orscheln.co.uk.

If you are unsure of the solution to a particular application, we have a group of experienced engineers, who can provide technical assistance when needed.



Orscheln Europe
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Rugby
England CV21 2NP

Visit our Web Site at: www.orscheln.co.uk

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Assemblers and Distributors.