



G Series Precision Meters

The High Precision Meter line is the most accurate of the GPI Turbine Meters and includes a traditional design. These meters come in a variety of sizes and fitting options including BSP, ISO, NPT and ANSI Flange fittings. The GSCPS in this section carries the 3A Sanitary Rating.



Build-Your-Own G Series Meter

1) Select Your Turbine



Threaded Models



Sanitary Clamp Models



Flange Models



2) Select Your Sensor



**Local Pickup
Wire Lead**



3) Select Your Electronic Choice

For further details and selections see Section 6.

Remote Models

GA500	R700-R
GG500	R800-R
GX500	SC500

Local Models

GA510	R700-L
GG510	R800-L
GX510	SC510



4) Do You Want It Assembled?

GPI will assemble the components you choose into a single unit, configured to your request.

Contact the factory for details on Custom System Assembly.



G Series Meter Number Reference

Use this as a guide – sizes vary by fitting type.

Product Identifier

G = G Series Precision Turbine Meter

Fitting Type

- N** = NPT (Male)
- I** = ISO Taper (Male)
- B** = BSP (Male)
- F** = Flanged
- SC** = Sanitary Clamp

Meter Dimensions listed on pages 69-71.

Shaft / Sleeve Bearing / Thrust Bearing

- T-** = Tungsten Carbide / Tungsten Carbide
- P-** = Stainless Steel / PTFE / Stainless Steel

Turbine Size & Flowrate

- 050S** = 1/2 in. (0.6 - 6 GPM) Low Flow - Turbine Body Only♦
- 051S** = 1/2 in. (0.8 - 6 GPM) Standard - Uses Low Drag Standard Sensor 1
- 051H** = 1/2 in. (0.8 - 6 GPM) High Temp - Turbine Body Only♦
- 075S** = 3/4 in. (1.6 - 16 GPM) Standard - Uses Standard Sensor 2
- 075H** = 3/4 in. (1.6 - 16 GPM) High Temp - Turbine Body Only♦
- 075E** = 3/4 in. (2.32 - 23 GPM) Ext-Range - Uses Standard Sensor 2
- 75EH** = 3/4 in. (2.32 - 23 GPM) Ext-Range High Temp - Turbine Body Only♦
- 100S** = 1 in. (6.7 - 67 GPM) Standard - Uses Standard Sensor 2
- 100H** = 1 in. (6.7 - 67 GPM) High Temp - Turbine Body Only♦
- 150S** = 1-1/2 in. (17.7 - 177 GPM) Standard - Uses Standard Sensor 2
- 150H** = 1 in. (17.7 - 177 GPM) High Temp - Turbine Body Only♦
- 200S** = 2 in. (33 - 330 GPM) Standard - Uses Standard Sensor 2
- 200H** = 2 in. (33 - 330 GPM) High Temp - Turbine Body Only♦
- 300S** = 3 in. (60-600 GPM) Standard - Uses Standard Sensor 2

♦ Call GPI for Sensor & Electronics

Sensor Choice

- 1** = Low Drag Standard Sensor with 12 inch Lead Wires
- 2** = Standard Sensor with 12 inch Lead Wires
- X** = No Sensor - Turbine Body Only

Electronic Choice (Local)*

Turbine Mounted

- 5** = GG510 - Standard Display
- 6** = GX510 - 4-20 mA Transmitter with Display
- 7** = GA510 - 4-20 mA Transmitter
- 8** = SC510 - Scaled Pulse Output
- X** = No Electronics - Turbine Body Only

G + **I** + **T-** + **-075S** + **2** + **-6** ← (Sample Model Number)

* Electronic Choice not available on all models.

BUY SMART. BUY VALUE. BUY GPI



Precision Meters - GBT, GIT & GNT

Model GNT NPT Fitting



GNT shown here
with Local Display



ACCURACY: ± 0.5%

Select Your Meter Size:

1/2 inch	1 inch	2 inch
3/4 inch	1-1/2 inch	3 inch



For Your Special Application Needs:

Model GNT HT

For High Temperatures

(This model is not available in 3 inch)



Sensor Options:

- Low Drag Pickup (1/2 in. turbines)
- Standard Pickup (3/4 to 3 in. turbines)

Electronics Options:

- GG510 (Display with Pulse Output)
- GX510 (Display with 4-20 mA Output)
- GA510 (4-20 mA Output)
- SC510 (Scaled Pulse Output)

SPECIFICATIONS

Design Type:	Turbine		
Housing Material:	316 Stainless Steel		
Meter Sizes Available:			
For GNT: NPT Taper (Male)	1/2"	3/4"	1" 1-1/2" 2" 3"
For GBT: BSP (Male)	1/2"	3/4"	1" 1-1/2" 2" 3"
For GIT: ISO Taper (Male)	1/2"	3/4"	1" 1-1/2" 2" 3"
For High Temperature*:	1/2"	3/4"	1" 1-1/2" 2" —
Flow Range:	1/2" (051)	0.8 - 6.0 GPM (3.0 - 22 LPM)	
	3/4" (075)	1.6 - 16 GPM (6.0 - 60 LPM)	
	3/4" (075E)	2.3 - 23 GPM (8.7 - 87 LPM)	
	1" (100)	6.7 - 67 GPM (25.2 - 252 LPM)	
	1-1/2" (150)	17.7 - 177 GPM (67.0 - 670 LPM)	
	2" (200)	33 - 330 GPM (125.0 - 1250 LPM)	
	3" (300)	60 - 600 GPM (227.1 - 2271 LPM)	
Accuracy (Linearity):	± 0.5%		
Repeatability:	± 0.1%		
Pressure Rating:	1/2" to 2" = 5,000 PSI / 340 BAR 3" = 2,500 PSI / 170 BAR		
Operating Temperature Range:			
For Tungsten Carbide:	-100°F to +225°F (-74°C to +107°C)		
For High Temperature*:	-450°F to +800°F (-268°C to +426°C)		
Typical K-Factor:	1/2" (051)	10,000	
	3/4" (075)	3,750	
	3/4" (075E)	2,608	
	1" (100)	896	
	1-1/2" (150)	340	
	2" (200)	181	
	3" (300)	50	
Wetted Materials:			
Housing:	316 Stainless Steel		
Sleeve Bearings:	Tungsten Carbide		
Thrust Bearing:	Tungsten Carbide		
Shaft:	Tungsten Carbide		
Rotor:	CD4MCu Stainless Steel		
Rotor Supports:	316 Stainless Steel		
Recommended Strainer Size:			
	1/2"	40 mesh	
	3/4"	40 mesh	
	1"	40 mesh	
	1-1/2"	18 mesh	
	2"	14 mesh	
	3"	14 mesh	
Frequency Output:	1/2" (051)	125 - 1000 Hz	
	3/4" (075)	100 - 1000 Hz	
	3/4" (075E)	100 - 1000 Hz	
	1" (100)	100 - 1000 Hz	
	1-1/2" (150)	100 - 1000 Hz	
	2" (200)	100 - 1000 Hz	
	3" (300)	50 - 500 Hz	

* Requires High Temp Pickup.

BUY SMART. BUY VALUE. BUY



Precision Meters - GBP, GIP & GNP



**Model GNP
NPT Fitting**

*GNP shown here
with Local Display*



ACCURACY: ± 0.5%

Select Your Meter Size:

1/2 inch 1 inch 2 inch
3/4 inch 1-1/2 inch



Sensor Options:

- Low Drag Pickup (1/2 in. turbines)
- Standard Pickup (3/4 to 3 in. turbines)

Electronics Options:

- GG510 (Display with Pulse Output)
- GX510 (Display with 4-20 mA Output)
- GA510 (4-20 mA Output)
- SC510 (Scaled Pulse Output)

SPECIFICATIONS

Design Type:	Turbine			
Housing Material:	316 Stainless Steel			
Meter Sizes Available:				
For GNP: NPT (Male)	1/2"	3/4"	1"	1-1/2" 2"
For GBP: BSP (Male)	1/2"	3/4"	1"	1-1/2" 2"
For GIP: ISO Taper (Male)	1/2"	3/4"	1"	1-1/2" 2"
Flow Range:	1/2" (050)*	0.6 - 6.0 GPM (2.2 - 22 LPM)		
	1/2" (051)	0.8 - 6.0 GPM (3.0 - 22 LPM)		
	3/4" (075)	1.6 - 16 GPM (6.0 - 60 LPM)		
	3/4" (075E)	2.3 - 23 GPM (8.7 - 87 LPM)		
	1" (100)	6.7 - 67 GPM (25.2 - 252 LPM)		
	1-1/2" (150)	17.7 - 177 GPM (67.0 - 670 LPM)		
	2" (200)	33 - 330 GPM (125.0 - 1250 LPM)		
Accuracy (Linearity):	± 0.5%			
Repeatability:	± 0.1%			
Pressure Rating:	1/2" to 2" = 5,000 PSI / 340 BAR			
Operating Temperature Range:	-100°F to +185°F (-74°C to +85°C)			
Typical K-Factor:	1/2" (050)*	10,000		
	1/2" (051)	10,000		
	3/4" (075)	3,750		
	3/4" (075E)	2,608		
	1" (100)	896		
	1-1/2" (150)	340		
	2" (200)	181		
Wetted Materials:				
Housing:	316 Stainless Steel			
Sleeve Bearings:	PTFE			
Thrust Bearing:	440C Stainless Steel			
Shaft:	316 Stainless Steel			
Rotor:	CD4MCu Stainless Steel			
Rotor Supports:	316 Stainless Steel			
Recommended Strainer Size:				
	1/2"	40 mesh		
	3/4"	40 mesh		
	1"	40 mesh		
	1-1/2"	18 mesh		
	2"	14 mesh		
Frequency Output:	1/2" (051)*	125 - 1000 Hz		
	3/4" (075)	100 - 1000 Hz		
	3/4" (075E)	100 - 1000 Hz		
	1" (100)	100 - 1000 Hz		
	1-1/2" (150)	100 - 1000 Hz		
	2" (200)	100 - 1000 Hz		

* 1/2 in. (050) requires RF Pickup.



Precision Meters - ANSI Flange

Model GFT 150# RF ANSI Flange Fitting



GFT shown here
with Local Display



ACCURACY: ± 0.5%

Select Your Meter Size:

3/4 inch 1-1/2 inch 3 inch
1 inch 2 inch



For Your Special Application Needs:

Model GFP
For Chemicals
(These models not available in 3 inch)

Model GFT HT
For High Temperatures



Sensor:

- Standard Pickup (3/4 to 3 inch turbines)

Electronics Options:

- GG510 (Display with Pulse Output)
- GX510 (Display with 4-20 mA Output)
- GA510 (4-20 mA Output)
- SC510 (Scaled Pulse Output)

MODEL GFT - SPECIFICATIONS

Design Type:	Turbine	
Housing Material:	316 Stainless Steel	
Meter Sizes Available:		
For GFT:	3/4" 1" 1-1/2" 2" 3"	
For GFP:	3/4" 1" 1-1/2" 2" —	
For High Temperature:	3/4" 1" 1-1/2" 2" —	
Flow Range:	3/4" (075)	1.6 - 16 GPM (6.0 - 60 LPM)
	3/4" (075E)	2.3 - 23 GPM (8.7 - 87 LPM)
	1" (100)	6.7 - 67 GPM (25.2 - 252 LPM)
	1-1/2" (150)	17.7 - 177 GPM (67.0 - 670 LPM)
	2" (200)	33 - 330 GPM (125.0 - 1250 LPM)
	3" (300)	60 - 600 GPM (227.1 - 2271 LPM)
Accuracy (Linearity):	± 0.5%	
Repeatability:	± 0.1%	
Pressure Rating:	Flange Rule	
Operating Temperature Range:		
For Tungsten Carbide:	-100°F to +225°F (-74°C to +107°C)	
For SS/PTFE:	-100°F to +185°F (-74°C to +85°C)	
For High Temperature*:	-450°F to +800°F (-268°C to +426°C)	
Typical K-Factor:	3/4" (075)	3,750
	3/4" (075E)	2,608
	1" (100)	896
	1-1/2" (150)	340
	2" (200)	181
	3" (300)	50
Wetted Materials (GFT):		
Housing:	316 Stainless Steel	
Sleeve Bearings:	Tungsten Carbide	
Thrust Bearing:	Tungsten Carbide	
Shaft:	Tungsten Carbide	
Rotor:	CD4MCu Stainless Steel	
Rotor Supports:	316 Stainless Steel	
Wetted Materials (GFP):		
Housing:	316 Stainless Steel	
Sleeve Bearings:	PTFE	
Thrust Bearing:	440C Stainless Steel	
Shaft:	316 Stainless Steel	
Rotor:	CD4MCu Stainless Steel	
Rotor Supports:	316 Stainless Steel	
Recommended Strainer Size:		
	3/4"	40 mesh
	1"	40 mesh
	1-1/2"	18 mesh
	2"	14 mesh
	3"	14 mesh
Frequency Output:	3/4" (075)	100 - 1000 Hz
	3/4" (075E)	100 - 1000 Hz
	1" (100)	100 - 1000 Hz
	1-1/2" (150)	100 - 1000 Hz
	2" (200)	100 - 1000 Hz
	3" (300)	50 - 500 Hz

* Requires High Temp Pickup.

BUY SMART . BUY VALUE . BUY



Precision Meters - Sanitary Clamp



Model GSCPS
Standard Sanitary Clamp



Model GSCPS
Low Profile Sanitary Clamp

ACCURACY: ± 0.5%

*GSCPS Stainless Steel
Precision Turbine Meter*



Select Your Meter Size:

- 1 inch Meter with 1-1/2 inch Fitting
- 1-1/2 inch Meter with 1-1/2 inch Fitting
- 2 inch Meter with 2 inch Fitting

MODEL GSCPS – SPECIFICATIONS

Design Type:	Turbine	
Housing Material:	316 Stainless Steel	
Meter Sizes Available (ID):	1" 1-1/2" 2"	
Meter ID:	1"	1-1/2" Fitting
	1-1/2"	1-1/2" Fitting
	2"	2" Fitting
Flow Range:	1" (100)	6.7 - 67 GPM (25.2 - 252 LPM)
	1-1/2" (150)	17.7 - 177 GPM (67.0 - 670 LPM)
	2" (200)	33 - 330 GPM (125.0 - 1250 LPM)
Accuracy (Linearity):	± 0.5%	
Repeatability:	± 0.1%	
Pressure Rating:	Limited by fitting size, clamp size & temp.	
Operating Temperature Range:		
For GSCPS:	-100°F to +225°F (-74°C to +107°C)	
SIP (up to 1 hour):	+285°F (+140°C)	
Typical K-Factor:	1" (100)	896
	1-1/2" (150)	340
	2" (200)	181
Wetted Materials (SIP):		
Housing:	316 Stainless Steel	
Sleeve Bearings:	PEEK	
Thrust Bearing:	PEEK	
Shaft:	316 Stainless Steel	
Rotor:	CD4MCu Stainless Steel	
Rotor Supports:	316 Stainless Steel	
Recommended Strainer Size:		
	1"	40 mesh
	1-1/2"	18 mesh
	2"	14 mesh
Frequency Output:	1" (100)	100 - 1000 Hz
	1-1/2" (150)	100 - 1000 Hz
	2" (200)	100 - 1000 Hz

APPROVALS

GSCPS & "L" Option Meters carry a



Sanitary Rating.

Flowmeters for milk and milk products, Number 28-03.



This meter meets the strict 3-A Sanitary Standards using the new "Third Party Verification" (TPV) program. Our methods of design, construction and traceability of components have been reviewed and approved.

The internals of this meter are machined or polished to meet 3-A self-draining and cleaning requirements (Ra 32). The GSCPS Meter meets Clean in Place (CIP), Steam in Place (SIP) and Clean Out of Place (COP) requirements.

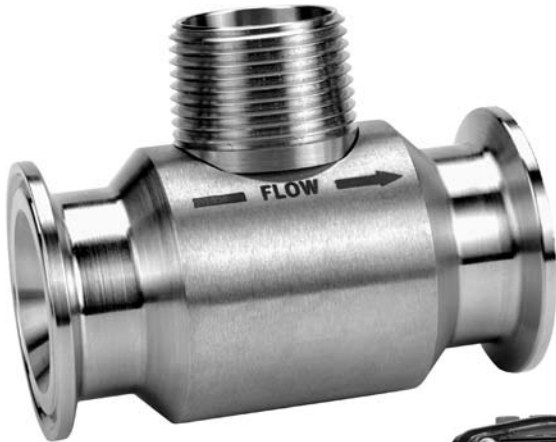
BUY SMART. BUY VALUE. BUY



Precision Meters - Sanitary Clamp

Use this meter in pre-process applications where high accuracy is required without 3-A Approval.

Model GSCP Tri-Clover® Clamp



GSCP shown here with Local Display



ACCURACY: ± 0.5%

Select Your Meter Size:

- 1/2 inch Meter with 3/4 or 1 inch Fitting
- 3/4 inch Meter with 1-1/2 inch Fitting
- 1 inch Meter with 1-1/2 inch Fitting
- 1-1/2 inch Meter with 1-1/2 inch Fitting
- 2 inch Meter with 2 inch Fitting



Sensor Options:

- Low Drag Pickup (1/2 in. turbines)
- Standard Pickup (3/4 to 2 in. turbines)

Electronics Options:

- GG510 (Display with Pulse Output)
- GX510 (Display with 4-20 mA Output)
- GA510 (4-20 mA Output)
- SC510 (Scaled Pulse Output)

MODEL GSCP – SPECIFICATIONS

Design Type:	Turbine				
Housing Material:	316 Stainless Steel				
Meter Sizes Available (ID):	1/2"	3/4"	1"	1-1/2"	2"
Meter ID:	1/2"	3/4" Fitting			
	1/2"	1" Fitting			
	3/4"	1-1/2" Fitting			
	1"	1-1/2" Fitting			
	1-1/2"	1-1/2" Fitting			
	2"	2" Fitting			
Flow Range:	1/2" (050) [†]	0.6 - 6 GPM	(2.2 - 22 LPM)		
	1/2" (051)	0.8 - 6 GPM	(3.0 - 22 LPM)		
	3/4" (075)	1.6 - 16 GPM	(6.0 - 60 LPM)		
	3/4" (075E)	2.3 - 23 GPM	(8.7 - 87 LPM)		
	1" (100)	6.7 - 67 GPM	(25.2 - 252 LPM)		
	1-1/2" (150)	17.7 - 177 GPM	(67.0 - 670 LPM)		
	2" (200)	33 - 330 GPM	(125.0 - 1250 LPM)		
Accuracy (Linearity):	± 0.5%				
Repeatability:	± 0.1%				
Pressure Rating:	Limited by fitting size, clamp size & temp.				
Operating Temperature Range:	-100°F to +185°F (-74°C to +85°C)				
Typical K-Factor:	1/2" (050) [†]	10,000			
	1/2" (051)	10,000			
	3/4" (075)	3,750			
	3/4" (075E)	2,608			
	1" (100)	896			
	1-1/2" (150)	340			
	2" (200)	181			
Wetted Materials:					
Housing:	316 Stainless Steel				
Sleeve Bearings:	PTFE				
Thrust Bearing:	440C Stainless Steel				
Shaft:	316 Stainless Steel				
Rotor:	CD4MCu Stainless Steel				
Rotor Supports:	316 Stainless Steel				
Recommended Strainer Size:					
	1/2"	40 mesh			
	3/4"	40 mesh			
	1"	40 mesh			
	1-1/2"	18 mesh			
	2"	14 mesh			
Frequency Output:	1/2" (050)	100 - 1000 Hz			
	1/2" (051)	125 - 1000 Hz			
	3/4" (075)	100 - 1000 Hz			
	3/4" (075E)	100 - 1000 Hz			
	1" (100)	100 - 1000 Hz			
	1-1/2" (150)	100 - 1000 Hz			
	2" (200)	100 - 1000 Hz			

[†] GSCP-050 requires RF Pickup.

BUY SMART. BUY VALUE. BUY GPI



G Series Precision Accessories

Magnetic Pickups



Standard

When choosing a magnetic pickup, the turbine meter and electronics are generally already known. Electronics can be either Local or Remote. Remote electronics include GPI Remote Displays or output to customer supplied equipment. Follow these 3 steps when choosing a magnetic pickup then see the Specification Table for further details.



1
Select your size:
1/2 inch or
3/4 to 3 inch



2
Choose: Local or Remote/Output
Local uses a wire lead pickup.
Remote/Output requires a connector.



3
What's your signal type:
Sine Wave or Square Wave
Sine Wave - has no sensor power, can be used with battery powered displays.
Square Wave - sensor power is required.

1/2 inch Meter Sizes

Magnetic Pickups work with...

Description	Part Number	Sensor Power	Temperature Range	Cable Type	Connector Required	Cable Length	Thread Size	Local	Remote	Battery Pwr Display
Wire Lead Low Drag	81006001	None	-100°F - +250°F (-73°C - +121°C)	None	None	12 in.	5/8" - 18	X		Yes
Low Drag	81006000	None	-450°F - +450°F (-268°C - +232°C)	S	80001200	N/A	5/8" - 18		X	Yes
High Temp., Low Drag (10 ft. cable)	81007001	None	-450°F - +800°F (-268°C - +426°C)	None	None	10 ft.	5/8" - 18		X	Yes
* RF (required for GNP-050, GTP-050 & GSCP-050)	81005002	7-30 VDC	-40°F - +248°F (-29°C - +120°C)	D	80001202	N/A	5/8" - 18		X	No

3/4 to 3 inch Meter Sizes

Wire Lead Standard	81003000	None	-100°F - +250°F (-73°C - +121°C)	None	None	12 in.	5/8" - 18	X		Yes
Standard	81001000	None	-100°F - +250°F (-73°C - +121°C)	S	80001200	N/A	5/8" - 18		X	Yes
Herm / High Temperature	81002000	None	-450°F - +258°F (-268°C - +125°C)	S	80001200	N/A	5/8" - 18		X	Yes
High Temperature, Standard	81007000	None	-450°F - +800°F (-268°C - +426°C)	None	None	3 ft.	5/8" - 18		X	Yes
* Digital (Di-Mag)	81004000	5-32 VDC	-40°F - +248°F (-29°C - +120°C)	D	80001202	N/A	5/8" - 18		X	No

* Externally powered pickups for pulse output only.

Pickup Enclosures



Pickup Enclosures are optional on G Series Meters. Choose from four pickup enclosures. Models N4A and N4S are weatherproof enclosures. For explosion-proof enclosures, choose N7A for the enclosure without terminal strip or the N7AT with terminal strip.

Description	Part Number
N4AWP - Weatherproof magnetic pickup steel enclosure	80001101
N4SWP - Weatherproof magnetic pickup 316 S.S. enclosure	80001105
N7AXP - Explosion-proof pickup enclosure (NEMA 7D)	80001100
N7ATXP - Explosion-proof pickup enclosure w/terminal strip (NEMA 7D)	80001102
Optional Spacer	42825524

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G Series Precision Accessories

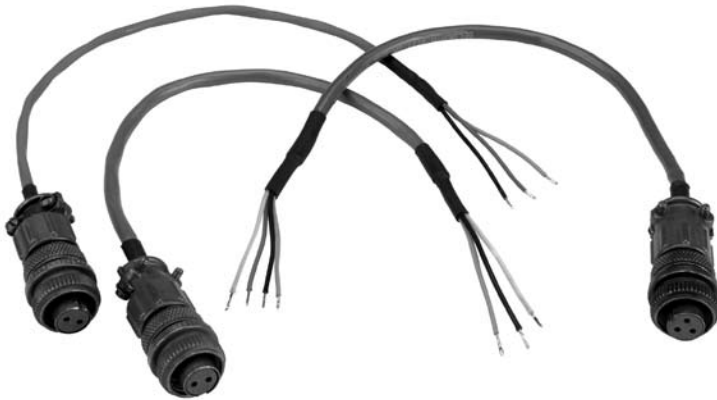
Connectors



Connectors are included with cable assemblies from GPI. If you need replacement connectors, choose from the following:

Description	Part Number
Standard mating connector (2 pin) used on Type S and T cable assemblies	80001200
Water resistant connector (2 pin) used on Type H cable assembly	80001201
Di-Mag connector (3 pin) used on Type D cable assembly	80001202

Cable Assemblies



GPI Cable Assemblies include the connector.

Type "S" Standard Cable (2 Conductor)		Type "H" Water Resistant (2 Conductor)	
Cable Length	Part No.	Cable Length	Part No.
8 inch	83001001	8 inch	83003001
5 feet	83001005	5 feet	83003005
10 feet	83001010	10 feet	83003010
15 feet	83001015	15 feet	83003015
20 feet	83001020	20 feet	83003020
25 feet	83001025	25 feet	83003025
30 feet	83001030	30 feet	83003030
40 feet	83001040	40 feet	83003040
50 feet	83001050	50 feet	83003050
75 feet	83001075	75 feet	83003075
100 feet	83001100		
125 feet	83001125		

Type "D" Di-Mag or RF (3 Conductor)		Type "T" High Temperature (2 Conductor)	
Cable Length	Part No.	Cable Length	Part No.
8 inch	83002001	8 inch	83004001
5 feet	83002005	5 feet	83004005
10 feet	83002010	10 feet	83004010
15 feet	83002015	15 feet	83004015
20 feet	83002020	20 feet	83004020
25 feet	83002025	25 feet	83004025
30 feet	83002030	30 feet	83004030
40 feet	83002040	40 feet	83004040
50 feet	83002050	50 feet	83004050
75 feet	83002075	75 feet	83004075

BUY SMART. BUY VALUE. BUY