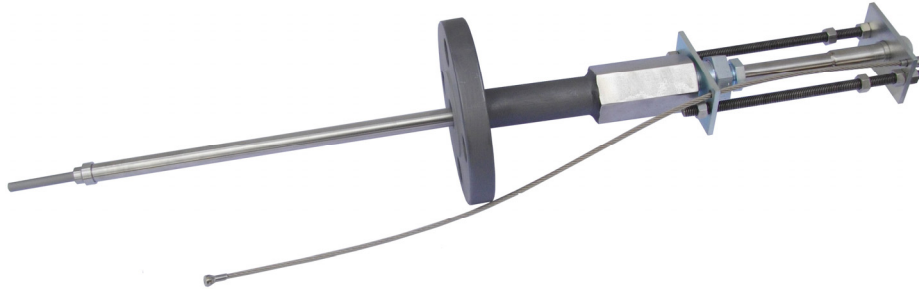


Electrical Resistance (ER) Probes

MODEL 3520/3520HT



Features

- **Cylindrical Element**
- **Mounting – 1” Full Port Valve Minimum**
- **Temperature Rating**
 - **Model 3520 - +500° F (+ 260° C)**
 - **Model 3520HT - +1000° F (+520° C)**
- **Pressure Rating**
 - **Model 3520 - 1500 PSI (10.3 MPa) subject to flange rating**
 - **Model 3520HT - 1000 PSI (6.9 MPa) subject to flange rating**
- **Seal Material — Element Seal all Welded**
- **Process Containment Seal - High pressure glass-metal seal Connector and Teflon packing**
- **Fill Material - Ceramic**
- **Body Material - 316SS or Hastelloy C276*****

Model 3520 retractable process electrical resistance probes are designed for particularly severe or toxic duty service, where fixed thread probes are not permitted by plant or other regulations. The all-welded construction of the cylindrical probe element provides the highest integrity for a corrosion measurement element. Only the material under evaluation is exposed to the process fluid. Even with any localized attack or physical damage to the

element, the back of the probe provides process containment with high pressure glass-to-metal seals. Probes are available in a wide range of alloys and are custom made to the flange size. Maximum pressure and temperature conditions are frequently limited by the standard flange rating rather than the ER probe construction.

MODEL 3520/3520HT

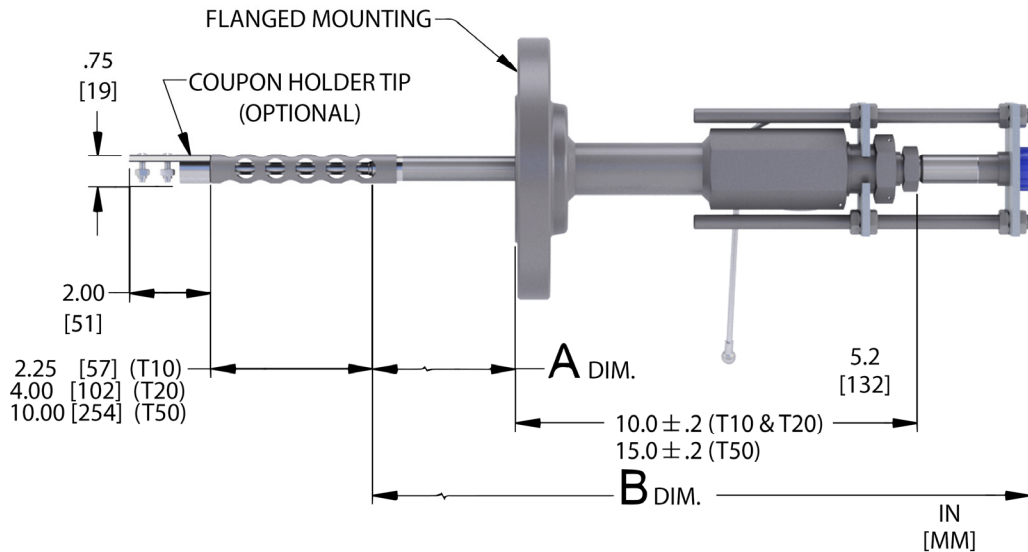
Element Availability

UNS Number	Alloy	T10	T20	T50	UNS Number	Alloy	T10	T20	T50
K03005	Pipe Grade Carbon Steel	•	•	•	N08020	CARP 20-Cb3	•	•	
K03006	A106 Gr. B/A33 Gr. 6	•	•		S50400	9% Cr 1% Mo	•	•	
S30400	304 S.S.	•	•	•	N04400	Monel 400	•	•	
S30403	304L S.S.	•	•		N06600	Inconel 600	•	•	
S31600	316 S.S.	•	•		N06625	Inconel 625	•	•	
S31603	316L S.S.	•	•		N08825	Incoloy 825	•	•	
S31703	317 S.S.	•	•	•	N10276	Hastelloy C-276	•	•	
S31803	2205 Duplex S.S.	•	•						
S32100	321 S.S.	•	•						
S41000	410 Stainless Steel	•	•						
S50200	502 S.S. (5% Cr ½% Mo)	•	•						
N08904	904L S.S.	•	•						
Inches		.005	.010	.025	Inches		.005	.010	.025
Useful Range (mm)		.127	.254	.635	Useful Range (mm)		.127	.254	.635

Table 1

Other element alloys or styles may be supplied subject to material availability.

Dimensions



Order Length	"A" Dimension		"B" Dimension	
	Inches	mm	Inches	mm
18	9.6	227	22.25	565
24	15.6	429	28.25	718
30	21.6	582	34.25	870
36	27.6	734	40.25	1022

MODEL 3520/3520HT

Ordering Information

Note: For high velocity process conditions it is recommended that Drag Force Calculations be performed – please contact Cosasco representative for further details.

Model	Fixed Flanged Mounting ER Probe Assembly																			
3520	Complete Probe Assembly with Stuffing Box																			
3520HT	High Temperature Probe Assembly up to 1000° F (520° C) ***																			
3501	Model 3520 Replacement Insert																			
3501HT	High Temperature Replacement Insert***																			
	Code Element Form: See Table 1 for availability																			
	T10 10 mil thickness (5 mil useful probe life)																			
	T20 20 mil thickness (10 mil useful probe life)																			
	T50 50 mil thickness (25 mil useful probe life)																			
	Code Element Alloy: See Table 1 for availability																			
	YYYYYY Enter UNS number																			
	Code Probe Length																			
	18 18 Inches																			
	24 24 Inches																			
	30 30 Inches																			
	36 36 Inches																			
	Code Flange Size																			
	1.5 Nominal 1.5 inch																			
	2.0 Nominal 2.0 inch																			
	S.S. Other Size (Specify)																			
	Code Flange/Rating Type																			
	71 ANSI 150# RF																			
	72 ANSI 300# RF																			
	73 ANSI 4/600# RF																			
	42 ANSI 4/600# RJ																			
	UU Other (Specify)																			
	Code Safety Clamp Option																			
	0 Not Included																			
	1 Safety Clamp Installed																			
	Code Shield Options																			
	0 Not included (liquids 8 ft/sec, gases 25 ft/sec)																			
	1 Standard (liquids 25 ft/sec, gases 75 ft/sec)																			
	2 High Velocity/Erosion (liquids 50 ft/sec, gases 150 ft/sec)																			
	3** Coupon Holding (liquids 25 ft/sec, gases 75 ft/sec)																			
	Code Stuffing Box Material (Not an Option for 3501 or 3501HT)																			
	0 Stainless Steel/Carbon Steel*																			
	1 Hastelloy C-276																			
	2 Same as element material																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;">3520</td> <td style="width: 5%; text-align: center;">—</td> <td style="width: 10%; text-align: center;">T10</td> <td style="width: 5%; text-align: center;">—</td> <td style="width: 15%; text-align: center;">K03005</td> <td style="width: 5%; text-align: center;">—</td> <td style="width: 10%; text-align: center;">18.00</td> <td style="width: 5%; text-align: center;">—</td> <td style="width: 10%; text-align: center;">1.5</td> <td style="width: 5%; text-align: center;">—</td> <td style="width: 10%; text-align: center;">71</td> <td style="width: 5%; text-align: center;">—</td> <td style="width: 10%; text-align: center;">1</td> <td style="width: 5%; text-align: center;">—</td> <td style="width: 10%; text-align: center;">0</td> <td style="width: 5%; text-align: center;">—</td> <td style="width: 10%; text-align: center;">0</td> <td style="width: 5%; text-align: center;">←</td> <td style="width: 10%; text-align: right;">Example</td> </tr> </table>		3520	—	T10	—	K03005	—	18.00	—	1.5	—	71	—	1	—	0	—	0	←	Example
3520	—	T10	—	K03005	—	18.00	—	1.5	—	71	—	1	—	0	—	0	←	Example		

*Carbon Steel for Carbon Steel Elements, Stainless Steel for all others.

**Coupon holding tip will extend 2" beyond order length coupon holding shields use CI-RS strip coupons.

***For High-Temp Carbon Steel Element Probes, the Probe Body will be 316L S.S. For other alloys the body will be Hastelloy C276. The stuffing box and shield will be 316SS

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