

## Level Measurement

Point level measurement  
RF Capacitance switches

### Pointek CLS300 - Digital

#### Overview



Pointek CLS300 (digital version) is an inverse frequency shift capacitance level and material detection switch with optional rod/cable choices and configurable output. It is ideal for detecting liquids, solids, slurries, foam, and interfaces in demanding conditions where high pressure and temperatures are present and has the ability to tune out buildup on the probe. The digital version includes PROFIBUS PA, an LCD display, and advanced diagnostic features.

#### Benefits

- Active-Shield technology so measurement is unaffected by material buildup or nozzle interference in active shield section
- Performs in extremely abrasive conditions because of solid rod construction
- Push-button calibration, full-function diagnostics
- High sensitivity allows installation in a wide range of liquids, solids or slurry applications
- Integral LCD display allows for easy menu-driven setup
- PROFIBUS PA communication (SIMATIC PDM compatible)

#### Application

Pointek CLS300 digital version provides an integral LCD display for stand-alone use, with PROFIBUS PA communication (Profile version 3.0, Class B) when required. Solid-state switch alarm is standard.

The robust design of CLS300 makes it specifically applicable for heavy solids applications where abrasive materials occur as in the mining industry.

The fully potted electronics are unaffected by condensation, dust or vibration.

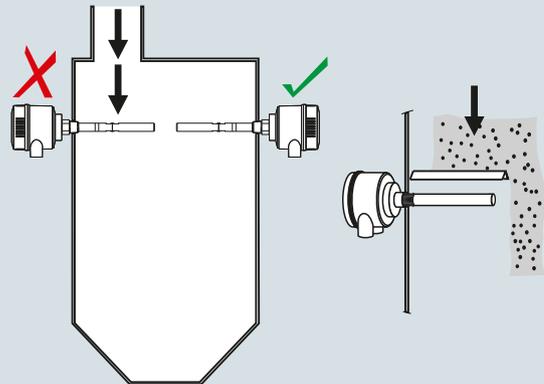
Wetted parts are made of stainless steel with a PFA shield for high chemical resistance, and of ceramic and stainless steel for high temperature version. Materials with low or high dielectric constants can be accurately detected. The unique Active Shield suppresses interference from material buildup or long installation nozzles.

The unique modular design of the Pointek CLS300 provides a wide range of configurations, process connections, extensions and approvals to meet the temperature and pressure requirements of specific applications. The modular design makes ordering easier and reduces stocking requirements. A wide range of probe configurations are available, including rod and cable versions.

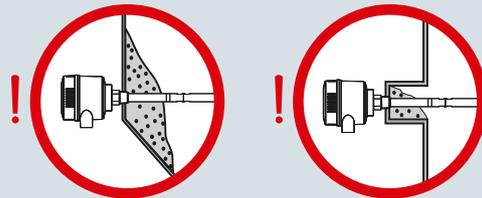
- Key Applications: liquids, slurries, bulk solids, relatively high pressure and temperature, hazardous areas, milling and mining applications

#### Configuration

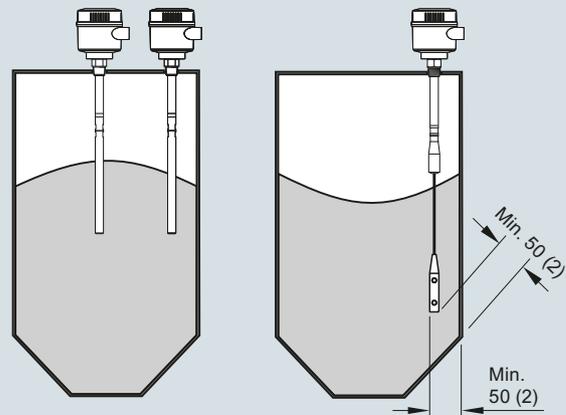
##### Installation



Keep unit out of path of falling material, or protect probe from falling material.



Build up of material in active shield area does not affect switch operation.



Install probe at least 50 (2) from tank wall.  
Note angle of repose and adjust accordingly.

Pointek CLS300 installation, dimensions in mm (inch)

#### Technical specifications

##### Mode of operation

Measuring principle	Inverse frequency shift capacitive level detection
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##### Input

Measured variable	Change in picoFarad (pF)
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##### Output

Solid-state output	
• Output	Galvanically isolated
• Protection	Against reversed polarity (bipolar)
• Max. switching voltage	<ul style="list-style-type: none"> <li>• 30 V (DC)</li> <li>• 30 V peak (AC)</li> </ul>
• Max. load current	82 mA
• Voltage drop	< 1 V, typical at 50 mA
• Time delay (pre or post switching)	Programmable by user (0 ... 100 s)
Fail-safe mode	Min. or max.
Connection	Removable terminal block

##### Accuracy

Resolution	
• Min. sensitivity (pF)	1 % change in actual capacitance
• Max. temperature error	0.2 % of actual capacitance value

##### Rated operating conditions<sup>1)</sup>

Installation conditions	
• Location	Indoor/outdoor
Ambient conditions	
• Ambient temperature	-40 ... +85 °C (-40 ... +185 °F) <sup>2)</sup>
Medium conditions	Liquids, bulk solids, slurries, interfaces, and applications with viscous materials
	Min. 1.5
• Relative dielectric constant $\epsilon_r$	
• Process temperature	
- Rod/Cable version	-40 ... +200 °C (-40 ... +392 °F) <sup>2)</sup>
- High Temperature version	-40 ... +400 °C (-40 ... +752 °F)
• Process pressure <sup>3)</sup>	-1 ... +35 bar g (-14.6 ... +511 psi g)

##### Design

Material (enclosure)	Powder-coated aluminum with gasket
Degree of protection	Standard: Type 4/NEMA 4/IP65 Optional: Type 4/NEMA 4/IP68
Cable inlet	2 x M20 x 1.5 thread (option: 2 x 1/2" NPT conduit entry including 1 plugged entry)

##### Controls and displays

Local display	LCD
Configuration	<ul style="list-style-type: none"> <li>• Locally, using 3 button keypad (for standalone operation)</li> <li>• Remotely, using SIMATIC PDM (for installation on a network)</li> </ul>

##### Power supply

Bus voltage (at process connection)	<ul style="list-style-type: none"> <li>• Standard: 12 ... 30 V DC</li> <li>• Intrinsically Safe: 12 ... 24 V DC</li> </ul>
Current consumption	12.5 mA

##### Certificates and approvals

General Purpose	CSA, FM, CE, RCM
Dust Ignition Proof	ATEX II 1/2 D, 2 D IP6X T100 °C
Flameproof Enclosure With IS Probe	ATEX II 1/2 G EEx d[ia] IIC T6 ... T4 ATEX II 1/2 D T100 °C
Dust Ignition Proof With IS Probe	CSA/FM Class II, Div. 1, Groups E, F, G CSA/FM Class III T4
Intrinsically Safe <sup>4)</sup>	ATEX II 1 G EEx ia IIC T6 ... T4 ATEX II 1/2 D, 2 D IP6X T100 °C CSA/FM Class I, Div. 1, Groups A, B, C, D CSA/FM Class II, Div. 1, Groups E, F, G CSA/FM Class III T4
Non-incendive	CSA/FM Class I, Div. 2, Groups A, B, C, D CSA/FM Class II, Div. 2, Groups F, G CSA/FM Class III T4 or T6
Explosion Proof with IS Probe	CSA/FM Class I, Div. 1, Groups A, B, C, D CSA/FM Class II, Div. 1, Groups E, F, G CSA/FM Class III T4
Marine	Lloyds Register of Shipping, Categories ENV1, ENV2, and ENV5
Others	Pattern Approval (China)

##### Communication

PROFIBUS PA (IEC 61158 CPF3 CP3/2)
Bus physical layer: IEC 61158-2 MBP-(IS)
Device profile: PROFIBUS PA profile for Process Control Devices Version 3.0, Class B
FISCO field device

- 1) When operation is in areas classified as hazardous, observe restrictions according to relevant certificate. See also Pressure/Temperature curves starting on page 4/55.
- 2) Thermal isolator is used if process connection temperature exceeds 85 °C (185 °F)
- 3) Pressure rating of process seal is temperature dependent. See Pressure/Temperature curves starting on page 4/55.
- 4) Barrier or Intrinsically Safe power supply required for Intrinsically Safe protection

#### Design: Probe

	Rod version	High Temperature version	Cable version
Length	Min. 250 mm (9.8 inch), max. 1 000 mm (40 inch)	Min. 250 mm (9.8 inch), max. 1 000 mm (40 inch)	Min. 1 000 mm (40 inch), max. 25 000 mm (984 inch)
Sensor wetted parts	PFA (no insulation on active probe), 316L stainless steel, PEEK isolators	Ceramic (ZrO <sub>2</sub> <sup>1)</sup> ) isolators (no insulation on active probe), 316L stainless steel	316 stainless steel, optional PFA, PEEK isolators
O-ring seal material	FKM (optional FFKM) <sup>2)</sup>	Graphite <sup>2)</sup>	FKM (optional FFKM) <sup>2)</sup>
Thermal isolator	Optional	Standard	Optional
Extension	User selectable length	User selectable length	User selectable cable length

<sup>1)</sup> Zirconium Oxide

<sup>2)</sup> For caustic materials, consult a local sales person for alternative O-rings. For more information, please visit [http://www.automation.siemens.com/aspa\\_app](http://www.automation.siemens.com/aspa_app).

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Selection and Ordering data	Article No.	Selection and Ordering data	Article No.
<b>Pointek CLS300 - Digital - Rod with Threaded or Flanged process connection</b> Inverse frequency shift capacitance level and material detection switch with optional rod/cable choices and configurable output. It is ideal for detecting liquids, solids, slurries, foam, and interfaces in demanding conditions where high pressure and temperatures are present and has the ability to tune out buildup on the probe. ↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.	<b>7ML5660-</b> 	<b>Pointek CLS300 - Digital - Rod with Threaded or Flanged process connection</b> Inverse frequency shift capacitance level and material detection switch with optional rod/cable choices and configurable output. It is ideal for detecting liquids, solids, slurries, foam, and interfaces in demanding conditions where high pressure and temperatures are present and has the ability to tune out buildup on the probe. Add Order code Y01 and plain text: "Insertion length ... mm"	<b>7ML5660-</b> 
<b>Process connection</b> Threaded, 316L stainless steel ¾" NPT [(Taper), ANSI/ASME B1.20.1] 1" NPT [(Taper), ANSI/ASME B1.20.1] 1¼" NPT [(Taper), ANSI/ASME B1.20.1] 1½" NPT [(Taper), ANSI/ASME B1.20.1] R ¾" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] R 1" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] R 1½" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] G ¾" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] G 1" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] G 1½" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202]	0 A 0 B 0 C 0 D 1 A 1 B 1 D 3 A 3 B 3 D	Extended rod, factory adjusted length 250 ... 499 mm (9.8 ... 19.65 inch) Extended rod, factory adjusted length 500 ... 749 mm (19.69 ... 29.49 inch) Extended rod, factory adjusted length 750 ... 999 mm (29.53 ... 39.3 inch)	E F G 0 1 0 1 0
<b>Thermal isolator</b> Without thermal isolator With thermal isolator [for process connection temperatures over 85 °C (185 °F)]	0 1	<b>Wetted seals</b> FKM FFKM [for process temperatures above -20 °C (-4 °F)]	0 1
<b>Probe material</b> 316L stainless steel with PFA lining and PEEK isolators	0	<b>Approvals</b> Dust Ignition Proof: CE, RCM, ATEX II 1/2 D, 2 D IP6X T100 °C Intrinsically Safe <sup>1)</sup> CE, RCM, ATEX II 1 G EEx ia IIC T6 ... T4, ATEX II 1/2 D, 2 D IP6X T100 °C Flameproof Enclosure with IS Probe: CE, RCM, ATEX II 1/2 G EEx d[ia] IIC T6 ... T4, ATEX II 1/2 D T100 °C Dust Ignition Proof with IS Probe: CSA/FM Class II, Div. 1, Groups E, F, G CSA/FM Class III T4 Intrinsically Safe <sup>1)</sup> CSA/FM Class I, Div. 1, Groups A, B, C, D CSA/FM Class II, Div. 1, Groups E, F, G CSA/FM Class III T4 Explosion Proof Enclosure with IS Probe: CSA/FM Class I, Div. 1, Groups A, B, C, D CSA/FM Class II, Div. 1, Groups E, F, G CSA/FM Class III T4 General Purpose (CSA, FM) General Purpose (CSA, FM, CE, RCM)	B C D E F G H J
<b>Welded flange, 316L stainless steel, raised face</b> 1" ASME, 150 lb 1" ASME, 300 lb 1" ASME, 600 lb 1½" ASME, 150 lb 1½" ASME, 300 lb 1½" ASME, 600 lb 2" ASME, 150 lb 2" ASME, 300 lb 2" ASME, 600 lb 3" ASME, 150 lb 3" ASME, 300 lb 3" ASME, 600 lb 4" ASME, 150 lb 4" ASME, 300 lb 4" ASME, 600 lb	5 A 5 B 5 C 5 D 5 E 5 F 5 G 5 H 5 J 5 K 5 L 5 M 5 N 5 P 5 Q		
<b>Welded flange, 316L stainless steel, Type A flat faced</b> DN 25, PN 16 DN 25, PN 40 DN 40, PN 16 DN 40, PN 40 DN 50, PN 16 DN 50, PN 40 DN 80, PN 16 DN 80, PN 40 DN 100, PN 16 DN 100, PN 40 (Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1 standard.)	6 A 6 B 6 C 6 D 6 E 6 F 6 G 6 H 6 J 6 K		
<b>Probe length</b> (length from flange face) (threaded lengths include process thread) Note: No Y01 needed in Order code for standard lengths Standard version, rod 350 mm (13.78 inch) Extended rod, length 500 mm (19.69 inch) Extended rod, length 750 mm (29.53 inch) Extended rod, length 1 000 mm (39.37 inch)	A B C D		

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Selection and Ordering data	Article No.
<b>Pointek CLS300 - Digital - Rod with Threaded or Flanged process connection</b> Inverse frequency shift capacitance level and material detection switch with optional rod/cable choices and configurable output. It is ideal for detecting liquids, solids, slurries, foam, and interfaces in demanding conditions where high pressure and temperatures are present and has the ability to tune out buildup on the probe.	<b>7ML5660-</b> 
<b>Enclosure and Lid</b> Aluminum epoxy coated 2 x 1/2" NPT via adapter - cable inlet, IP65 2 x M20 x 1.5 cable inlet, IP65 2 x 1/2" NPT via adapter - cable inlet, IP68 2 x M20 x 1.5 cable inlet, IP68	A B C D
<b>Active shield length</b> Standard length - (125 mm threaded, 105 mm flanged) Extended shield - (250 mm threaded, 230 mm flanged) <sup>2)</sup> Extended shield - (400 mm threaded, 380 mm flanged) <sup>3)</sup>	0 1 2
1) Barrier or Intrinsically Safe power supply required for Intrinsically Safe protection 2) Available with Probe version options B ... D, F, G only [≥ 500 mm (19.69 inch)] 3) Available with Probe version options C, D, and G only [≥ 750 mm (29.53 inch)]	

Selection and Ordering data	Order code
<b>Further designs</b> Please add " <b>-Z</b> " to Article No. and specify Order code(s).	
Total insertion length: enter the total insertion length in plain text description	<b>Y01</b>
Stainless steel tag [70 x 13 mm (2.75 x 0.5 inch)]: Measuring-point number/identification (max. 27 characters) specify in plain text	<b>Y15</b>
Manufacturer's test certificate: M to DIN 55350, Part 18 and to ISO 9000	<b>C11</b>
Material inspection Certificate Type 3.1 per EN 10204	<b>C12</b>
<b>Operating Instructions</b> All literature is available to download for free, in a range of languages, at <a href="http://www.siemens.com/processinstrumentation/documentation">http://www.siemens.com/processinstrumentation/documentation</a>	
<b>Accessories</b>	<b>See page 4/54</b>

Selection and Ordering data	Article No.
<b>Pointek CLS300 - Digital - Cable with Threaded or Flanged process connection</b> Inverse frequency shift capacitance level and material detection switch with optional rod/cable choices and configurable output. It is ideal for detecting liquids, solids, slurries, foam, and interfaces in demanding conditions where high pressure and temperatures are present and has the ability to tune out buildup on the probe.	<b>7ML5661-</b> 
↗ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.	
<b>Process connection</b> Threaded, 316L stainless steel 1/4" NPT [(Taper), ANSI/ASME B1.20.1] 1/2" NPT [(Taper), ANSI/ASME B1.20.1] R 1 1/2" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] G 1 1/2" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202]	0 C 0 D 1 D 3 D
Welded flange, 316L stainless steel, raised face 1 1/2" ASME, 150 lb 1 1/2" ASME, 300 lb 1 1/2" ASME, 600 lb 2" ASME, 150 lb 2" ASME, 300 lb 2" ASME, 600 lb 3" ASME, 150 lb 3" ASME, 300 lb 3" ASME, 600 lb 4" ASME, 150 lb 4" ASME, 300 lb 4" ASME, 600 lb	5 D 5 E 5 F 5 G 5 H 5 J 5 K 5 L 5 M 5 N 5 P 5 Q
Welded flange, 316L stainless steel, Type A flat faced DN 40, PN 16 DN 40, PN 40 DN 50, PN 16 DN 50, PN 40 DN 80, PN 16 DN 80, PN 40 DN 100, PN 16 DN 100, PN 40 (Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1 standard.)	6 C 6 D 6 E 6 F 6 G 6 H 6 J 6 K
<b>Probe length</b> (length from flange face) (threaded lengths include process thread) Note: No Y01 needed in Order code for standard lengths Extended cable, 3 000 mm (118.11 inch), length can be shortened by customer Extended cable, 6 000 mm (236.22 inch), length can be shortened by customer Add Order code Y01 and plain text: "Insertion length ... mm" Extended cable, 500 ... 1 000 mm (19.69 ... 39.37 inch) Extended cable, 1 001 ... 5 000 mm (39.41 ... 196.85 inch) Extended cable, 5 001 ... 10 000 mm (196.89 ... 393.70 inch) Extended cable, 10 001 ... 15 000 mm (393.74 ... 590.55 inch) Extended cable, 15 001 ... 20 000 mm (590.59 ... 787.40 inch) Extended cable, 20 001 ... 25 000 mm (787.44 ... 984.25 inch)	A B E F G H J K

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<b>Pointek CLS300 - Digital - Cable with Threaded or Flanged process connection</b> Inverse frequency shift capacitance level and material detection switch with optional rod/cable choices and configurable output. It is ideal for detecting liquids, solids, slurries, foam, and interfaces in demanding conditions where high pressure and temperatures are present and has the ability to tune out buildup on the probe.	<b>7ML5661-</b> 	<b>Further designs</b> Please add "-Z" to Article No. and specify Order code(s). Total insertion length: enter the total insertion length in plain text description Stainless steel tag [70 x 13 mm (2.75 x 0.5 inch)]: Measuring-point number/identification (max. 27 characters) specify in plain text Manufacturer's test certificate: M to DIN 55350, Part 18 and to ISO 9000 Material inspection Certificate Type 3.1 per EN 10204	 <b>Y01</b>  <b>Y15</b>  <b>C11</b>  <b>C12</b>
<b>Thermal isolator</b> Without thermal isolator With thermal isolator [for process connection temperatures over 85 °C (185 °F)]	0 1	<b>Operating Instructions</b> All literature is available to download for free, in a range of languages, at <a href="http://www.siemens.com/processinstrumentation/documentation">http://www.siemens.com/processinstrumentation/documentation</a>	
<b>Wetted seals</b> FKM FFKM [for process temperatures above -20 °C (-4 °F)]	0 1	<b>Accessories</b>	<b>See page 4/54</b>
<b>Probe material</b> Bare 316L stainless steel cable, PEEK isolators and 316L stainless steel cable weight PFA coated cable, PEEK isolators and 316L stainless steel cable weight	0 1		
<b>Approvals</b> Dust Ignition Proof: CE, RCM, ATEX II 1/2 D, 2 D IP6X T100 °C Intrinsically Safe <sup>1)</sup> CE, RCM, ATEX II 1 G EEx ia IIC T6 ... T4, ATEX II 1/2 D, 2 D IP6X T100 °C Flameproof Enclosure with IS Probe: CE, RCM, ATEX II 1/2 G EEx d[ia] IIC T6 ... T4, ATEX II 1/2 D T100 °C Intrinsically Safe <sup>1)</sup> CSA/FM Class I, Div. 1, Groups A, B, C, D CSA/FM Class II, Div. 1, Groups E, F, G CSA/FM Class III T4 Explosion Proof Enclosure with IS Probe: CSA/FM Class I, Div. 1, Groups A, B, C, D CSA/FM Class II, Div. 1, Groups E, F, G CSA/FM Class III T4 General Purpose (CSA, FM) General Purpose (CSA, FM, CE, RCM)	B C D F G H J		
<b>Enclosure and Lid</b> Aluminum epoxy coated 2 x 1/2" NPT via adapter - cable inlet, IP65 2 x M20 x 1.5 cable inlet, IP65 2 x 1/2" NPT via adapter - cable inlet, IP68 2 x M20 x 1.5 cable inlet, IP68	A B C D		
<b>Active shield length</b> Standard length - (125 mm threaded, 105 mm flanged) Extended shield - (250 mm threaded, 230 mm flanged) Extended shield - (400 mm threaded, 380 mm flanged) <sup>2)</sup>	0 1 2		

<sup>1)</sup> Barrier or Intrinsically Safe power supply required for Intrinsically Safe protection.

<sup>2)</sup> Available with Probe version options A, B, F ... K, only [≥ 1 000 mm (39.7 inch)].

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Selection and Ordering data	Article No.
<p><b>Pointek CLS300 - Digital - High Temperature Rod version with Threaded or Flanged process connection</b></p> <p>Inverse frequency shift capacitance level and material detection switch with optional rod/cable choices and configurable output. It is ideal for detecting liquids, solids, slurries, foam, and interfaces in demanding conditions where high pressure and temperatures are present and has the ability to tune out buildup on the probe.</p> <p>➤ Click on the Article No. for the online configuration in the PIA Life Cycle Portal.</p> <p><b>Process connection</b> Threaded, 316L stainless steel</p> <p>¾" NPT [(Taper), ANSI/ASME B1.20.1] 1" NPT [(Taper), ANSI/ASME B1.20.1] 1¼" NPT [(Taper), ANSI/ASME B1.20.1] 1½" NPT [(Taper), ANSI/ASME B1.20.1] R ¾" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] R 1" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] R 1½" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] G ¾" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] G 1" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] G 1½" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202]</p> <p><b>Welded flange, 316L stainless steel, raised face</b></p> <p>1" ASME, 150 lb 1" ASME, 300 lb 1" ASME, 600 lb 1½" ASME, 150 lb 1½" ASME, 300 lb 1½" ASME, 600 lb 2" ASME, 150 lb 2" ASME, 300 lb 2" ASME, 600 lb 3" ASME, 150 lb 3" ASME, 300 lb 3" ASME, 600 lb 4" ASME, 150 lb 4" ASME, 300 lb 4" ASME, 600 lb</p> <p><b>Welded flange, 316L stainless steel, Type A flat faced</b></p> <p>DN 25, PN 16 DN 25, PN 40 DN 40, PN 16 DN 40, PN 40 DN 50, PN 16 DN 50, PN 40 DN 80, PN 16 DN 80, PN 40 DN 100, PN 16 DN 100, PN 40</p> <p>(Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1 standard.)</p> <p><b>Probe length</b> (length from flange face) (threaded lengths include process thread)</p> <p><u>Note: No Y01 needed in Order code for standard lengths</u></p> <p>Standard version rod, 350 mm (13.78 inch) Extended rod, length 500 mm (19.69 inch) Extended rod, length 750 mm (29.53 inch) Extended rod, length 1 000 mm (39.37 inch)</p>	<p>7ML5662- 0 -</p> <p>0 A 0 B 0 C 0 D 1 A 1 B 1 D 3 A 3 B 3 D 5 A 5 B 5 C 5 D 5 E 5 F 5 G 5 H 5 J 5 K 5 L 5 M 5 N 5 P 5 Q 6 A 6 B 6 C 6 D 6 E 6 F 6 G 6 H 6 J 6 K A B C D</p>

Selection and Ordering data	Article No.
<p><b>Pointek CLS300 - Digital - High Temperature Rod version with Threaded or Flanged process connection</b></p> <p>Inverse frequency shift capacitance level and material detection switch with optional rod/cable choices and configurable output. It is ideal for detecting liquids, solids, slurries, foam, and interfaces in demanding conditions where high pressure and temperatures are present and has the ability to tune out buildup on the probe.</p> <p><u>Add Order code Y01 and plain text:</u> "Insertion length ... mm"</p> <p>Extended rod, factory adjusted length 250 ... 499 mm (9.8 ... 19.65 inch) Extended rod, factory adjusted length 500 ... 749 mm (19.69 ... 29.49 inch) Extended rod, factory adjusted length 750 ... 999 mm (29.53 ... 39.3 inch)</p> <p><b>Wetted seals</b> Graphite</p> <p><b>Probe material</b> 316L stainless steel with ceramic (ZrO<sub>2</sub>) isolators</p> <p><b>Approvals</b> Dust Ignition Proof: CE, RCM, ATEX II 1/2 D, 2 D IP6X T100 °C Intrinsically Safe<sup>1)</sup> CE, RCM, ATEX II 1 G EEx ia IIC T6 ... T4, ATEX II 1/2 D, 2 D IP6X T100 °C Flameproof Enclosure with IS Probe: CE, RCM, ATEX II 1/2 G EEx d[ia] IIC T6 ... T4, ATEX II 1/2 D T100 °C Intrinsically Safe<sup>1)</sup> CSA/FM Class I, Div. 1, Groups A, B, C, D CSA/FM Class II, Div. 1, Groups E, F, G CSA/FM Class III T4 Explosion Proof Enclosure with IS Probe: CSA/FM Class I, Div. 1, Groups A, B, C, D CSA/FM Class II, Div. 1, Groups E, F, G CSA/FM Class III T4 General Purpose (CSA, FM) General Purpose (CSA, FM, CE, RCM)</p> <p><b>Enclosure and Lid</b> Aluminum epoxy coated</p> <p>2 x ½" NPT via adapter - cable inlet, IP65 2 x M20 x 1.5 cable inlet, IP65 2 x ½" NPT via adapter - cable inlet, IP68 2 x M20 x 1.5 cable inlet, IP68</p> <p><b>Active shield length</b> Standard length - (125 mm threaded, 105 mm flanged) Extended shield - (250 mm threaded, 230 mm flanged)<sup>2)</sup> Extended shield - (400 mm threaded, 380 mm flanged)<sup>3)</sup></p> <p><sup>1)</sup> Barrier or Intrinsically Safe power supply required for Intrinsically Safe protection <sup>2)</sup> Available with Probe version options B ... D, F, G only [≥ 500 mm (19.69 inch)] <sup>3)</sup> Available with Probe version options C, D, and G only [≥ 750 mm (29.53 inch)]</p>	<p>7ML5662- 0 -</p> <p>E F G 0 0 B C D F G H J A B C D 0 1 2</p>