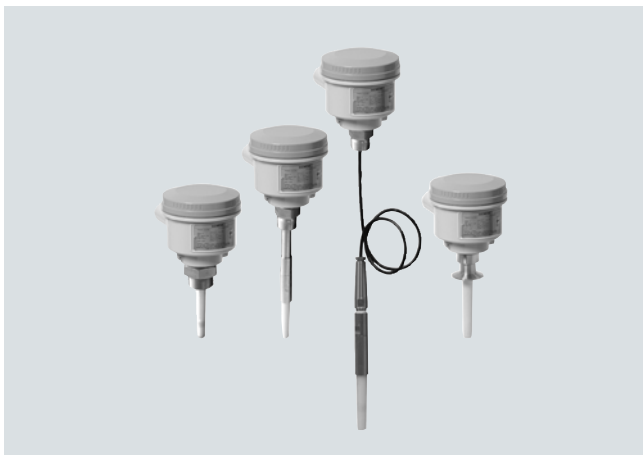


### Overview



Pointek CLS200 (standard version) is a versatile inverse frequency shift capacitance level switch with optional rod/cable choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces.

### Benefits

- Potted construction protects signal circuit from shock, vibration, humidity and/or condensation
- High chemical resistance
- Level detection independent of tank or pipe earth reference
- Insensitive to product buildup due to high frequency oscillation
- 3 LED indicators for sensor status, output status, and power

### Application

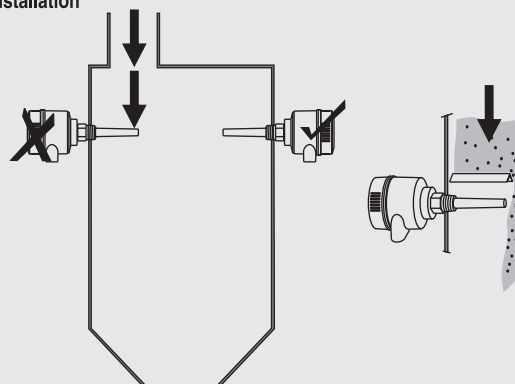
Pointek CLS200 standard version has 3 LED indicators with basic relay and solid-state switch alarms.

The power supply is galvanically isolated and accepts a wide range of voltages (12 to 250 V AC/DC). When used with thermal isolator, the stainless steel and PPS (PVDF optional) materials used in the probe construction provide a temperature rating up to +125 °C (+257 °F) on the process wetted portion of the probe. The switch responds to any material with a dielectric constant of 1.5 or more by detecting a change in oscillating frequency, and it can be set to detect before contact or on contact with the probe. The CLS200 operates independently of the tank wall or pipe so it does not require an external reference electrode for level detection in a non-conductive vessel such as concrete or plastic (EMC regulations applicable in some regions).

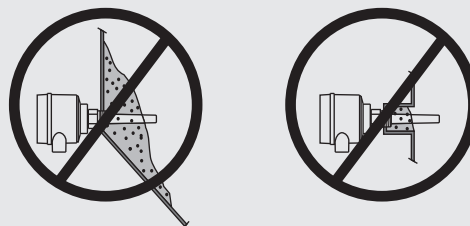
- Key Applications: liquids, slurries, powders, granules, pressurized applications, hazardous areas

### Configuration

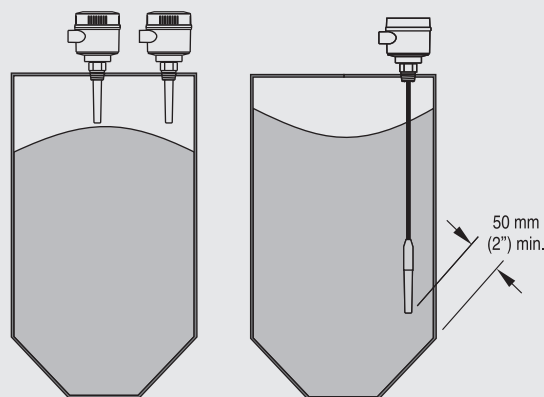
#### Installation



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



Avoid areas where material build up occurs.



Install probe at least 50 mm from tank wall.

Pointek CLS200 installation

## Pointek CLS200 - Standard

### Technical specifications

<b>Mode of operation</b>	
Measuring principle	Inverse frequency shift capacitive level detection
<b>Input</b>	
Measured variable	Change in picoFarad (pF)
<b>Output</b>	
<u>Output signal</u>	
• Relay output	1 SPDT Form C relay
- Max. contact voltage	<ul style="list-style-type: none"> <li>• 30 V DC</li> <li>• 250 V AC</li> </ul>
- Max. contact current	<ul style="list-style-type: none"> <li>• 5 A (DC)</li> <li>• 8 A (AC)</li> </ul>
- Max. switching capacity	150 W (DC) 2000 VA (AC)
- Time delay (ON and/or OFF)	1 to 60 s
• 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)	1 to 60 s
<b>Rated operating conditions<sup>1)</sup></b>	
<u>Installation conditions</u>	
• Location	Indoor/outdoor
<u>Ambient conditions</u>	
• Ambient temperature	-40 to +85 °C (-40 to +185 °F) <sup>2)</sup>
• Installation category	II
• Pollution degree	4
<u>Medium conditions</u>	
• Relative dielectric constant $\epsilon_r$	Min. 1.5
• Process temperature	
- Without thermal isolator	-40 to +85 °C (-40 to +185 °F) <sup>2)</sup>
- With thermal isolator	-40 to +125 °C (-40 to +257 °F)
• Process pressure (rod version)	-1 to +25 bar g (-14.6 to +365 psi g) (nominal)
• Process pressure (cable version) <sup>3)</sup>	-1 to +10 bar g (-14.6 to +150 psi g) (nominal)
• Process pressure (sliding coupling version)	-1 to +10 bar g (-14.6 to +150 psi g) (nominal)
<u>Electromagnetic Compatibility</u>	
To comply with CE EMC regulations (where applicable); the CLS200 should only be used under these conditions:	
<ul style="list-style-type: none"> <li>- Installed in a metallic vessel</li> <li>- Wired with shielded cable</li> <li>- Cable shields are terminated in suitable EMC rated cable glands at the device cable entry point.</li> </ul>	

<b>Design</b>	
• Material	Epoxy-coated aluminum with gasket
- Enclosure	
- Optional thermal isolator	316L stainless steel
• Connection	Removable terminal block, max. 2.5 mm <sup>2</sup>
• Degree of protection	IP65/Type 4/NEMA 4 (optional IP68)
• Cable inlet	2 x M20x1.5 thread (option: 2 x 1/2" NPT conduit entry including 1 plugged entry)
<b>Power supply</b>	
12 to 250 V AC/DC, 0 to 60 Hz max. 2 W	
<b>Certificates and approvals</b>	
• General Purpose	CSA, FM, CE, C-TICK
• Dust Ignition Proof	ATEX II 1/2 D T100°C
• Flameproof Enclosure with IS Probe	ATEX II 1 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, Gr. E, F, G CSA/FM Class III T4
• Explosion Proof Enclosure With IS Probe	CSA/FM Class I, Div. 1, Gr. A, B, C, D CSA/FM Class II, Div. 1, Gr. E, F, G CSA/FM Class III T4
• Marine	Lloyds Register of Shipping, Categories ENV1, ENV2 and ENV5
• Overfill Protection	WHG (Germany) VLAREM II
• Others	Pattern Approval (China)

<sup>1)</sup> When operation is in areas classified as hazardous, observe restrictions according to relevant certificate. See also Pressure/Temperature curves on page 5/25.

<sup>2)</sup> Thermal isolator is used if process connection temperature exceeds +85 °C (+185 °F)

<sup>3)</sup> Pressure rating of process seal is temperature dependent. See Pressure/Temperature curves on page 5/25.

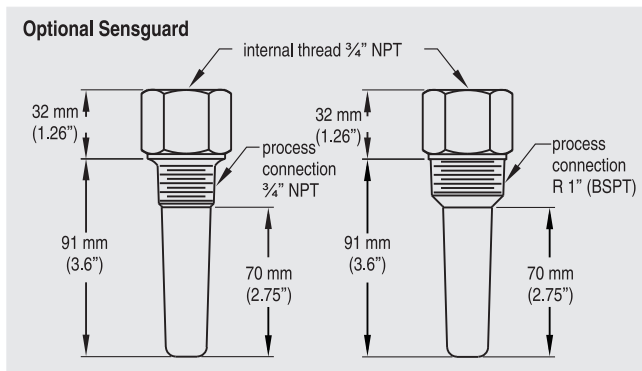
Design: Probe				
	Rod version	Sanitary version	Cable version	Sliding Coupling version
Max. length	5500 mm (216.53")	5500 mm (216.53")	30000 mm (1181.1") liquids and slurries 5000 mm (196.85") solids (under loads)	5500 mm (216.53")
Process connection	R ¾", 1", 1¼", 1½" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] ¾", 1", 1¼", 1½" NPT [(Taper), ANSI/ASME B1.20.1] G ¾", 1", 1½" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 316L stainless steel ASME/EN flange	1½", 2" sanitary fitting clamp 316L stainless steel	R ¾", 1", 1¼", 1½" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] ¾", 1", 1¼", 1½" NPT [(Taper), ANSI/ASME B1.20.1] G ¾", 1", 1½" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 316L stainless steel ASME/EN flange	R ¾", 1", 1¼", 1½" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] ¾", 1", 1¼", 1½" NPT [(Taper), ANSI/ASME B1.20.1] G ¾", 1", 1½" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202]
Extension material	316L stainless steel optional PFA coated <sup>1)</sup>	316L stainless steel	Fluoroethylene propylene (FEP) cable with stainless steel core	316L stainless steel
Sensor wetted parts	PPS (optional PVDF)	PPS (optional PVDF)	PPS (optional PVDF)	PPS (optional PVDF)
O-ring seal material	FKM (optional FFKM) <sup>2)</sup>	FKM (optional FFKM) <sup>2)</sup>	FKM (optional FFKM) <sup>2)</sup>	FKM (optional FFKM) <sup>2)</sup>
Thermal isolator <sup>3)</sup>	Optional	Optional	Optional	Optional
Extension	User selected length	User selected length	Cable extension	User selected length

<sup>1)</sup> PFA coating (7ML5634 and 7ML5644) has 120 micron thickness.

<sup>2)</sup> For Caustic Materials please contact [nacc.smpi@siemens.com](mailto:nacc.smpi@siemens.com) for alternative O-Rings

<sup>3)</sup> Thermal isolator is used if process connection temperature exceeds +85 °C (+185 °F).

### Options



Optional Sensguard dimensions

# Level instruments

## Pointek CLS200 - Standard

### Selection and Ordering data

Order No.

**Pointek CLS200 - Standard - Rod Version with Threaded or Flanged process connection** C) 7 M L 5 6 3 0 - 0

Versatile inverse frequency shift capacitance level switch with optional rod/cable choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces

#### Process Connection

Threaded, 316L stainless steel

¾" NPT [(Taper), ANSI/ASME B1.20.1] 0 A  
 1" NPT [(Taper), ANSI/ASME B1.20.1] 0 B  
 1¼" NPT [(Taper), ANSI/ASME B1.20.1] 0 C  
 1½" NPT [(Taper), ANSI/ASME B1.20.1] 0 D  
 R ¾" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] 1 A  
 R 1" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] 1 B  
 R 1½" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] 1 D  
 G ¾" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 3 A  
 G 1" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 3 B  
 G 1½" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 3 D

Welded flange, 316L stainless steel, raised face

1" ASME, 150 lb 5 A  
 1" ASME, 300 lb 5 B  
 1" ASME, 600 lb 5 C  
 1½" ASME, 150 lb 5 D  
 1½" ASME, 300 lb 5 E  
 1½" ASME, 600 lb 5 F  
 2" ASME, 150 lb 5 G  
 2" ASME, 300 lb 5 H  
 2" ASME, 600 lb 5 J  
 3" ASME, 150 lb 5 K  
 3" ASME, 300 lb 5 L  
 3" ASME, 600 lb 5 M  
 4" ASME, 150 lb 5 N  
 4" ASME, 300 lb 5 P  
 4" ASME, 600 lb 5 Q

Welded flange, 316L stainless steel, Type A flat faced

DN 25, PN 16 6 A  
 DN 25, PN 40 6 B  
 DN 40, PN 16 6 C  
 DN 40, PN 40 6 D  
 DN 50, PN 16 6 E  
 DN 50, PN 40 6 F  
 DN 80, PN 16 6 G  
 DN 80, PN 40 6 H  
 DN 100, PN 16 6 J  
 DN 100, PN 40 6 K

(Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1 standard.)

**Probe length (length from flange face)**  
 (threaded lengths include process thread)

Note: No Y01 needed in order code for standard lengths

Compact [threaded 120 mm (4.72"), Flanged 98 mm (3.86")] A  
 Extended rod, 250 mm (9.84") B  
 Extended rod, 350 mm (13.78") C  
 Extended rod, 500 mm (19.69") D  
 Extended rod, 750 mm (29.53") E  
 Extended rod, 1000 mm (39.37") F  
 Extended rod, 1250 mm (49.21") G  
 Extended rod, 1350 mm (53.15") H  
 Extended rod, 1500 mm (59.06") J  
 Extended rod, 1750 mm (68.90") K  
 Extended rod, 2000 mm (78.74") L

### Selection and Ordering data

Order No.

**Pointek CLS200 - Standard - Rod Version with Threaded or Flanged process connection** C) 7 M L 5 6 3 0 - 0

Versatile inverse frequency shift capacitance level switch with optional rod/cable choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces

Add order code Y01 and plain text:

"Insertion length ... mm"

Extended rod, 200 to 1000 mm (7.87 to 39.37") M  
 Extended rod, 1001 to 2000 mm (39.41 to 78.74") N  
 Extended rod, 2001 to 3000 mm (78.78 to 118.11") P  
 Extended rod, 3001 to 4000 mm (118.15 to 157.48") Q  
 Extended rod, 4001 to 5000 mm (157.52 to 196.85") R  
 Extended rod, 5001 to 5500 mm (196.89 to 216.53") S

#### Thermal Isolator

Without thermal isolator 0  
 With thermal isolator [for process connection temperatures over +85 °C (+185 °F)] 1

#### Remote mount electronics and mounting bracket

With 2 m (79") of cable 2  
 With 5 m (197") of cable 3

#### Wetted Seals

FKM 0  
 FFKM [for process temperatures above -20 °C (-4 °F)] 1

#### Probe Material

316L Stainless Steel with PPS probe body 0  
 316L Stainless Steel with PVDF probe body 1

#### Approvals

Dust Ignition Proof: CE, C-TICK, ATEX II 1/2 D T100 °C C  
 Flameproof Enclosure with IS Probe: CE, C-TICK, ATEX II 1 G EEx d[ia] IIC T6...T4, ATEX II 1/2 D T100 °C D  
 Flameproof Enclosure with IS Probe, with WHG approval: CE, C-TICK, ATEX II 1/2 G EEx d[ia] IIC T6...T4, ATEX II 1/2 D T100 °C E  
 Dust Ignition Proof with IS Probe: CSA/FM Class II, Div. 1, Gr. E, F, G F  
 CSA/FM Class III T4  
 Explosion Proof Enclosure with IS Probe: CSA/FM Class I, Div. 1, Gr. A, B, C, D G  
 CSA/FM Class II, Div. 1, Gr. E, F, G  
 CSA/FM Class III T4  
 General Purpose (CSA, FM) H  
 General Purpose (CE, C-TICK) J  
 General Purpose (CSA, FM, CE, C-TICK) with WHG approval K

#### Enclosure and Lid

Aluminum epoxy coated

2 x ½" NPT via adapter - cable inlet, IP65 A  
 2 x M20 x 1.5 cable inlet IP65 B  
 2 x ½" NPT via adapter - cable inlet, IP68 C  
 2 x M20 x 1.5 cable inlet IP68 D

#### Further designs


Please add "-Z" to Order No. and specify Order code(s).

Total insertion length: enter the total insertion length in plain text description Y01

Stainless steel tag [69 x 50 mm (2.71 x 1.97")]: Measuring-point number/identification (max. 16 characters) specify in plain text Y15

Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and ISO 9000 C11

Inspection Certificate Type 3.1 per EN 10204 C12

Selection and Ordering data	Order No.
<p><b>Pointek CLS200 - Standard - Rod Version with Threaded or Flanged process connection</b></p> <p>Versatile inverse frequency shift capacitance level switch with optional rod/cable choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces</p>	<p>C) <b>7ML5630-</b>   <b>0</b></p>
<p><b>Operating Instructions</b></p> <p>Note: The Operating Instructions should be ordered as a separate line on the order.</p> <p>This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and manual library.</p>	<p><b>See page 5/24</b></p>
<p><b>Accessories</b></p>	<p><b>See page 5/24</b></p>

C) Subject to export regulations AL: N, ECCN: EAR99

# Level instruments

## Pointek CLS200 - Standard

### Selection and Ordering data

Order No.

**Pointek CLS200 - Standard - Cable Version with Threaded or Flanged process connection** 7 M L 5 6 3 1 - 0

Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces

#### Process Connection

Threaded, 316L stainless steel

3/4" NPT [(Taper), ANSI/ASME B1.20.1] 0 A  
 1" NPT [(Taper), ANSI/ASME B1.20.1] 0 B  
 1 1/4" NPT [(Taper), ANSI/ASME B1.20.1] 0 C  
 1 1/2" NPT [(Taper), ANSI/ASME B1.20.1] 0 D  
 R 3/4" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] 1 A  
 R 1" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] 1 B  
 R 1 1/2" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] 1 D  
 G 3/4" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 3 A  
 G 1" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 3 B  
 G 1 1/2" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 3 D

Welded flange, 316L stainless steel, raised face

1" ASME, 150 lb 5 A  
 1" ASME, 300 lb 5 B  
 1" ASME, 600 lb 5 C  
 1 1/2" ASME, 150 lb 5 D  
 1 1/2" ASME, 300 lb 5 E  
 1 1/2" ASME, 600 lb 5 F  
 2" ASME, 150 lb 5 G  
 2" ASME, 300 lb 5 H  
 2" ASME, 600 lb 5 J  
 3" ASME, 150 lb 5 K  
 3" ASME, 300 lb 5 L  
 3" ASME, 600 lb 5 M  
 4" ASME, 150 lb 5 N  
 4" ASME, 300 lb 5 P  
 4" ASME, 600 lb 5 Q

Welded flange, 316L stainless steel, Type A flat faced

DN 25, PN 16 6 A  
 DN 25, PN 40 6 B  
 DN 40, PN 16 6 C  
 DN 40, PN 40 6 D  
 DN 50, PN 16 6 E  
 DN 50, PN 40 6 F  
 DN 80, PN 16 6 G  
 DN 80, PN 40 6 H  
 DN 100, PN 16 6 J  
 DN 100, PN 40 6 K

(Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1 standard.)

**Probe length** (length from flange face) (threaded lengths include process thread)

Note: No Y01 needed in order code for standard lengths

Extended cable, 3000 mm (118.11"), length can be determined by customer on assembly A  
 Extended cable, 6000 mm (236.22"), length can be determined by customer on assembly B

Add order code Y01 and plain text: "Insertion length ... mm"

Extended cable, 500 to 5000 mm (19.69 to 196.85") C  
 Extended cable, 5001 to 10000 mm (196.89 to 393.70") D  
 Extended cable, 10001 to 15000 mm (393.74 to 590.55") E  
 Extended cable, 15001 to 20000 mm (590.59 to 787.4") F  
 Extended cable, 20001 to 25000 mm (787.44 to 984.25") G  
 Extended cable, 25001 to 30000 mm (984.29 to 1181.1") H

### Selection and Ordering data

Order No.

**Pointek CLS200 - Standard - Cable Version with Threaded or Flanged process connection** 7 M L 5 6 3 1 - 0

Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces

#### Thermal Isolator

Without thermal isolator 0  
 With thermal isolator [for process connection temperatures over +85 °C (+185 °F)] 1

#### Remote mount electronics and mounting bracket

With 2 m (79") of cable 2  
 With 5 m (197") of cable 3

#### Wetted Seals

FKM and PTFE 0  
 FFKM and PTFE [for process temperatures above -20 °C (-4 °F)] 1

#### Probe Material

FEP jacketed cable with PPS probe body 0  
 FEP jacketed cable with PVDF probe body 1

#### Approvals

Dust Ignition Proof: CE, C-TICK, ATEX II 1/2 D T100 °C C  
 Flameproof Enclosure with IS Probe: CE, C-TICK, ATEX II 1 G EEx d[ia] IIC T6...T4, ATEX II 1/2 D T100 °C D  
 Flameproof Enclosure with IS Probe, with WHG approval: CE, C-TICK, ATEX II 1/2 G EEx d[ia] IIC T6...T4, ATEX II 1/2 D T100 °C E  
 Dust Ignition Proof with IS Probe: CSA/FM Class II, Div. 1, Gr. E, F, G CSA/FM Class III T4 F  
 Explosion Proof Enclosure with IS Probe: CSA/FM Class I, Div. 1, Gr. A, B, C, D CSA/FM Class II, Div. 1, Gr. E, F, G CSA/FM Class III T4 G  
 General Purpose (CSA, FM) H  
 General Purpose (CE, C-TICK) J  
 General Purpose (CSA, FM, CE, C-TICK) with WHG approval K

#### Enclosure and Lid

Aluminum epoxy coated  
 2 x 1/2" NPT via adapter - cable inlet, IP65 A  
 2 x M20x1.5 cable inlet, IP65 B  
 2 x 1/2" NPT via adapter - cable inlet, IP68 C  
 2 x M20x1.5 cable inlet, IP68 D

#### Further designs

Please add "-Z" to Order No. and specify Order code(s) Order code

Total insertion length: enter the total insertion length in plain text description Y01

Stainless steel tag [69 x 50 mm (2.71 x 1.97")]: Y15

Measuring-point number/identification (max. 16 characters) specify in plain text C11

Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and ISO 9000 C12

Inspection Certificate Type 3.1 per EN 10204 C12

**Operating Instructions** See page 5/24

Note: The Operating Instructions should be ordered as a separate line on the order.

This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and Operating Instructions library.

**Accessories** See page 5/24

C)Subject to export regulations AL: N, ECCN: EAR99

Selection and Ordering data	Order No.
<b>Pointek CLS200 - Standard - Rod with Sanitary process connection</b> Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces	C) 7 M L 5 6 3 2 - 0
<b>Process Connection</b> Sanitary 316L stainless steel	
1" sanitary fitting clamp	8 A
1½" sanitary fitting clamp	8 B
2" sanitary fitting clamp	8 C
2½" sanitary fitting clamp	8 D
3" sanitary fitting clamp	8 E
(Note: Sanitary connection dimensionally corresponds to the applicable ISO 2852 standard)	
<b>Probe length</b> (length from process connection face)	
<u>Note: No Y01 needed in order code for standard lengths</u>	
Compact 98 mm (3.86")	A
Extended rod, 250 mm (9.84")	B
Extended rod, 350 mm (13.78")	C
Extended rod, 500 mm (19.69")	D
Extended rod, 750 mm (29.53")	E
Extended rod, 1000 mm (39.37")	F
Extended rod, 1250 mm (49.21")	G
Extended rod, 1350 mm (53.15")	H
Extended rod, 1500 mm (59.06")	J
Extended rod, 1750 mm (68.90")	K
Extended rod, 2000 mm (78.74")	L
Add order code Y01 and plain text: "Insertion length ... mm"	
Extended rod, 110 to 350 mm (4.3 to 13.78")	M
Extended rod, 351 to 1000 mm (13.82 to 39.33")	N
Extended rod, 1001 to 2000 mm (39.41 to 78.74")	P
Extended rod, 2001 to 3000 mm (78.78 to 118.11")	Q
Extended rod, 3001 to 4000 mm (118.15 to 157.48")	R
Extended rod, 4001 to 5000 mm (157.52 to 196.85")	S
Extended rod, 5001 to 5500 mm (196.89 to 216.53")	T
<b>Thermal Isolator</b>	
Without thermal isolator	0
With thermal isolator [for process connection temperatures over +85 °C (+185 °F)]	1
<b>Remote mount electronics and mounting bracket</b>	
Remote mount electronics with 2 m (79") of cable	2
Remote mount electronics with 5 m (197") of cable	3
<b>Wetted Seals</b>	
FKM	0
FFKM	1
[for process temperatures above -20°C (-4°F)]	
<b>Probe Material</b>	
316L Stainless Steel with PPS probe body	0
316L Stainless Steel with PVDF probe body	1

Selection and Ordering data	Order No.
<b>Pointek CLS200 - Standard - Rod with Sanitary process connection</b> Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces	C) 7 M L 5 6 3 2 - 0
<b>Approvals</b>	
Dust Ignition Proof: CE, C-TICK, ATEX II 1/2 D T100 °C	C
Flameproof Enclosure with IS Probe: CE, C-TICK, ATEX II 1 G EEx d[ia] IIC T6...T4, ATEX II 1/2 D T100 °C	D
Flameproof Enclosure with IS Probe, with WHG approval: CE, C-TICK, ATEX II 1/2 G EEx d[ia] IIC T6...T4, ATEX II 1/2 D T100 °C	E
Dust Ignition Proof with IS Probe: CSA/FM Class II, Div. 1, Gr. E, F, G CSA/FM Class III T4	F
Explosion Proof Enclosure with IS Probe: CSA/FM Class I, Div. 1, Gr. A, B, C, D CSA/FM Class II, Div. 1, Gr. E, F, G CSA/FM Class III T4	G
General Purpose (CSA, FM)	H
General Purpose (CE, C-TICK)	J
General Purpose (CSA, FM, CE, C-TICK) with WHG approval	K
<b>Enclosure and Lid</b> <u>Aluminum epoxy coated</u>	
2 x ½" NPT via adapter - cable inlet, IP65	A
2 x M20x1.5 cable inlet, IP65	B
2 x ½" NPT via adapter - cable inlet, IP68	C
2 x M20x1.5 cable inlet, IP68	D
<b>Further designs</b>	Order code
Please add "-Z" to Order No. and specify Order code(s).	
Total insertion length: enter the total insertion length in plain text description	Y01
Stainless steel tag [69 x 50 mm (2.71 x 1.97")]: Measuring-point number/identification (max. 16 characters) specify in plain text	Y15
Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and ISO 9000	C11
Inspection Certificate Type 3.1 per EN 10204	C12
<b>Operating Instructions</b> Note: The Operating Instructions should be ordered as a separate line on the order.	See page 5/24
This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and Operating Instructions library.	
<b>Accessories</b>	See page 5/24

C) Subject to export regulations AL: N, ECCN: EAR99

## Pointek CLS200 - Standard

### Selection and Ordering data

Order No.

**Pointek CLS200 - Standard - Sliding Coupling with Threaded process connection** C) 7 M L 5 6 3 3 - 0

Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces

#### Process Connection

Threaded, 316L stainless steel

3/4" NPT [(Taper), ANSI/ASME B1.20.1] 0 A  
 1" NPT [(Taper), ANSI/ASME B1.20.1] 0 B  
 1 1/4" NPT [(Taper), ANSI/ASME B1.20.1] 0 C  
 1 1/2" NPT [(Taper), ANSI/ASME B1.20.1] 0 D  
 R 3/4" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] 1 A  
 R 1" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] 1 B  
 R 1 1/2" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] 1 D  
 G 3/4" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 3 A  
 G 1" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 3 B  
 G 1 1/2" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 3 D

#### Probe length (length from flange face)

(threaded lengths include process thread)

Note: No Y01 needed in order code for standard lengths

Extended rod, 350 mm (13.78") C  
 Extended rod, 500 mm (19.69") D  
 Extended rod, 750 mm (29.53") E  
 Extended rod, 1000 mm (39.37") F  
 Extended rod, 1250 mm (49.21") G  
 Extended rod, 1350 mm (53.15") H  
 Extended rod, 1500 mm (59.06") J  
 Extended rod, 1750 mm (68.90") K  
 Extended rod, 2000 mm (78.74") L

#### Add order code Y01 and plain text:

"Insertion length ... mm"

Extended rod, 350 to 1000 mm (13.82 to 39.33") M  
 Extended rod, 1001 to 2000 mm (39.41 to 78.74") N  
 Extended rod, 2001 to 3000 mm (78.78 to 118.11") P  
 Extended rod, 3001 to 4000 mm (118.15 to 157.48") Q  
 Extended rod, 4001 to 5000 mm (157.52 to 196.85") R  
 Extended rod, 5001 to 5500 mm (196.89 to 216.53") S

#### Thermal Isolator

Without thermal isolator 0  
 With thermal isolator [for process connection temperatures over +85 °C (+185 °F)] 1

#### Remote mount electronics and mounting bracket

With 2 m (79") of cable 2  
 With 5 m (197") of cable 3

#### Wetted Seals

FKM and PTFE 0  
 FFKM and PTFE [for process temperatures above -20 °C (-4 °F)] 1

#### Probe Material

316L Stainless Steel with PPS probe body 0  
 316L Stainless Steel with PVDF probe body 1

### Selection and Ordering data

Order No.

**Pointek CLS200 - Standard - Sliding Coupling with Threaded process connection** C) 7 M L 5 6 3 3 - 0

Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces

#### Approvals

Dust Ignition Proof: C  
 CE, C-TICK, ATEX II 1/2 D T100 °C  
 Flameproof Enclosure with IS Probe: D  
 CE, C-TICK, ATEX II 1 G EEx d[ia] IIC T6...T4, ATEX II 1/2 D T100 °C  
 Flameproof Enclosure with IS Probe, with WHG approval: E  
 CE, C-TICK, ATEX II 1/2 G EEx d[ia] IIC T6...T4, ATEX II 1/2 D T100 °C

Dust Ignition Proof with IS Probe: F  
 CSA/FM Class II, Div. 1, Gr. E, F, G  
 CSA/FM Class III T4

Explosion Proof Enclosure with IS Probe: G  
 CSA/FM Class I, Div. 1, Gr. A, B, C, D  
 CSA/FM Class II, Div. 1, Gr. E, F, G  
 CSA/FM Class III T4

General Purpose (CSA, FM) H  
 General Purpose (CE, C-TICK) J  
 General Purpose (CSA, FM, CE, C-TICK) with WHG approval K

#### Enclosure and Lid

Aluminum epoxy coated

2 x 1/2" NPT via adapter - cable inlet, IP65 A  
 2 x M20x1.5 cable inlet, IP65 B  
 2 x 1/2" NPT via adapter - cable inlet, IP68 C  
 2 x M20x1.5 cable inlet, IP68 D

#### Further designs

Please add "-Z" to Order No. and specify Order code(s).

Total insertion length: enter the total insertion length in plain text description

Stainless steel tag [69 x 50 mm (2.71 x 1.97")]: Y01  
 Measuring-point number/identification (max. 16 characters) specify in plain text Y15  
 Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and ISO 9000 C11  
 Inspection Certificate Type 3.1 per EN 10204 C12

Operating Instructions

Note: The Operating Instructions should be ordered as a separate line on the order. See page 5/24

This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and Operating Instructions library.

#### Accessories

C) Subject to export regulations AL: N, ECCN: EAR99 See page 5/24

Selection and Ordering data	Order No.
<b>Pointek CLS200 - Standard - PFA Coated Rod with PFA Coated Flanged process connection</b>	C) 7 M L 5 6 3 4 - 0
Versatile inverse frequency shift capacitance level switch with optional rod/cable choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces	
<b>Process Connection</b>	
<u>Welded flange, 316L stainless steel, raised face</u>	
1" ASME, 150 lb	5 A
1" ASME, 300 lb	5 B
1" ASME, 600 lb	5 C
1½" ASME, 150 lb	5 D
1½" ASME, 300 lb	5 E
1½" ASME, 600 lb	5 F
2" ASME, 150 lb	5 G
2" ASME, 300 lb	5 H
2" ASME, 600 lb	5 J
3" ASME, 150 lb	5 K
3" ASME, 300 lb	5 L
3" ASME, 600 lb	5 M
4" ASME, 150 lb	5 N
4" ASME, 300 lb	5 P
4" ASME, 600 lb	5 Q
<u>Welded flange, 316L stainless steel, Type A flat faced</u>	
DN 25, PN 16	6 A
DN 25, PN 40	6 B
DN 40, PN 16	6 C
DN 40, PN 40	6 D
DN 50, PN 16	6 E
DN 50, PN 40	6 F
DN 80, PN 16	6 G
DN 80, PN 40	6 H
DN 100, PN 16	6 J
DN 100, PN 40	6 K
(Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1 standard.)	
<b>Probe length</b> (length from flange face) (threaded lengths include process thread)	
<u>Note: No Y01 needed in order code for standard lengths</u>	
Compact (Threaded 98 mm (3.86"))	A
Extended rod, 250 mm (9.84")	B
Extended rod, 350 mm (13.78")	C
Extended rod, 500 mm (19.69")	D
Extended rod, 750 mm (29.53")	E
Extended rod, 1000 mm (39.37")	F
Extended rod, 1250 mm (49.21")	G
Extended rod, 1350 mm (53.15")	H
Extended rod, 1500 mm (59.06")	J
Extended rod, 1750 mm (68.90")	K
Extended rod, 2000 mm (78.74")	L
<u>Add order code Y01 and plain text: "Insertion length ... mm"</u>	
Extended rod, 200 to 1000 mm (7.87 to 39.33")	M
Extended rod, 1001 to 2000 mm (39.41 to 78.74")	N
Extended rod, 2001 to 3000 mm (78.78 to 118.11")	P
Extended rod, 3001 to 4000 mm (118.15 to 157.48")	Q
Extended rod, 4001 to 5000 mm (157.52 to 196.85")	R
Extended rod, 5001 to 5500 mm (196.89 to 216.53")	S

Selection and Ordering data	Order No.
<b>Pointek CLS200 - Standard - PFA Coated Rod with PFA Coated Flanged process connection</b>	C) 7 M L 5 6 3 4 - 0
Versatile inverse frequency shift capacitance level switch with optional rod/cable choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces	
<b>Thermal Isolator</b>	
Without thermal isolator	0
With thermal isolator [for process connection temperatures over +85 °C (+185 °F)]	1
<b>Remote mount electronics and mounting bracket</b>	
With 2 m (79") of cable	2
With 5 m (197") of cable	3
<b>Wetted Seals</b>	
FKM	0
FFKM [for process temperatures above -20°C (-4°F)]	1
<b>Probe Material</b>	
PFA Coated 316L Stainless Steel with PPS probe body	0
PFA Coated 316L Stainless Steel with PVDF probe body	1
<b>Approvals</b>	
Dust Ignition Proof with IS Probe: CSA/FM Class II, Div. 1, Gr. E, F, G CSA/FM Class III T4	F
Explosion Proof Enclosure with IS Probe: CSA/FM Class I, Div. 1, Gr. A, B, C, D CSA/FM Class II, Div. 1, Gr. E, F, G CSA/FM Class III T4	G
General Purpose (CSA, FM)	H
<b>Enclosure and Lid</b>	
<u>Aluminum epoxy coated</u>	
2 x ½" NPT via adapter - cable inlet, IP65	A
2 x M20x1.5 cable inlet, IP65	B
2 x ½" NPT via adapter - cable inlet, IP68	C
2 x M20x1.5 cable inlet, IP68	D
<b>Further designs</b>	Order code
Please add "-Z" to Order No. and specify Order code(s).	
Total insertion length: enter the total insertion length in plain text description	Y01
Stainless steel tag [69 x 50 mm (2.71 x 1.97")]: Measuring-point number/identification (max. 16 characters) specify in plain text	Y15
Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and ISO 9000	C11
Inspection Certificate Type 3.1 per EN 10204	C12
<b>Operating Instructions</b>	See page 5/24
Note: The Operating Instructions should be ordered as a separate line on the order.	
This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and Operating Instructions library.	
<b>Accessories</b>	See page 5/24

C) Subject to export regulations AL: N, ECCN: EAR99

## Pointek CLS200 - Digital

### Overview



Pointek CLS200 (digital version) is a versatile inverse frequency shift capacitance level switch with optional rod/cable choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces. The digital version includes PROFIBUS PA, an LCD display, and advanced diagnostic features.

### Benefits

- Potted construction protects signal circuit from shock, vibration, humidity and/or condensation
- High chemical resistance
- Level detection independent of tank or pipe earth reference
- Insensitive to product buildup due to high frequency oscillation
- 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 CLS200 digital version provides an integral LCD display for stand-alone use, and also provides PROFIBUS PA communication (Profile version 3.0, Class B) for connection to a network.

The power supply is galvanically isolated and accepts a wide range of voltages (12 to 30 V DC). When used with thermal isolator, the stainless steel and PPS (PVDF optional) materials used in the probe construction provide a temperature rating up to +125 °C (+257 °F) on the process wetted portion of the probe. The switch responds to any material with a dielectric constant of 1.5 or more by detecting a change in oscillating frequency, and it can be set to detect before contact or on contact with the probe. The menu-driven setup allows precise control of the switch point signal damping and alarm functions.

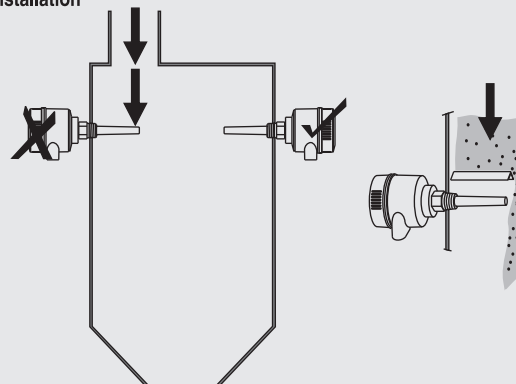
When connected to the PROFIBUS network, advanced diagnostics and set up using SIMATIC PDM are possible.

The CLS200 operates independently of the tank wall or pipe so it does not require an external reference electrode for level detection in a non-conductive vessel such as concrete or plastic.

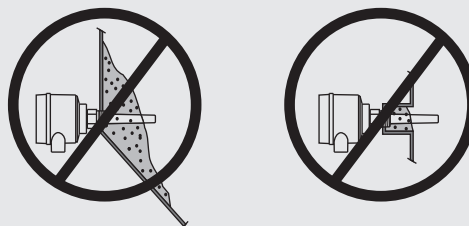
- Key Applications: liquids, slurries, powders, granules, pressurized applications, hazardous areas

### Configuration

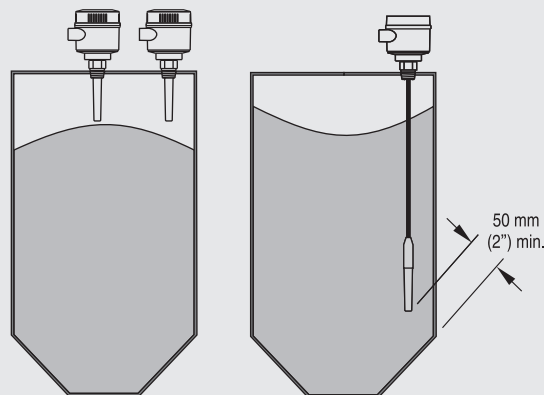
#### Installation



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



Avoid areas where material build up occurs.



Install probe at least 50 mm from tank wall.

Pointek CLS200 installation

### Technical specifications

<b>Mode of operation</b>	
Measuring principle	Inverse frequency shift capacitive level detection
<b>Input</b>	
Measured variable	Change in picoFarad (pF)
<b>Output</b>	
<u>Output signal</u>	
<ul style="list-style-type: none"> <li>• Solid-state output                             <ul style="list-style-type: none"> <li>- Output</li> <li>- Protection</li> <li>- Max. switching voltage</li> </ul> </li> <li>- Max. load current</li> <li>- Voltage drop</li> <li>- Time delay (ON and/or OFF)</li> </ul>	Galvanically isolated Against reversed polarity (bipolar) <ul style="list-style-type: none"> <li>• 30 V (DC)</li> <li>• 30 V peak (AC)</li> </ul> 82 mA < 1 V, typical at 50 mA Programmable by user (0 to 100 s)
<ul style="list-style-type: none"> <li>• Fail-safe mode</li> <li>• Connection</li> </ul>	Min. or max Removable terminal block
<b>Rated operating conditions</b> <sup>1)</sup>	
<u>Installation conditions</u>	
<ul style="list-style-type: none"> <li>• Location</li> </ul>	Indoor/outdoor
<u>Ambient conditions</u>	
<ul style="list-style-type: none"> <li>• Ambient temperature</li> <li>• Installation category</li> <li>• Pollution degree</li> </ul>	-40 to +85 °C (-40 to +185 °F) <sup>2)</sup> II 4
<u>Medium conditions</u>	
<ul style="list-style-type: none"> <li>• Relative dielectric constant <math>\epsilon_r</math></li> <li>• Process temperature                             <ul style="list-style-type: none"> <li>- Without thermal isolator</li> <li>- With thermal isolator</li> </ul> </li> <li>• Process pressure (rod version)</li> <li>• Process pressure (cable version)<sup>3)</sup></li> <li>• Process pressure (sliding coupling version)</li> </ul>	Liquids, bulk solids, slurries and interfaces Min. 1.5 -40 to +85 °C (-40 to +185 °F) <sup>2)</sup> -40 to +125 °C (-40 to +257 °F) -1 to +25 bar g (-14.6 to +365 psi g) (nominal) -1 to +10 bar g (-14.6 to +150 psi g) (nominal) -1 to +10 bar g (-14.6 to +150 psi g) (nominal)
<b>Design</b>	
Material	
<ul style="list-style-type: none"> <li>- Enclosure</li> <li>- Optional thermal isolator</li> </ul>	Epoxy-coated aluminum with gasket 316L stainless steel
<ul style="list-style-type: none"> <li>• Connection</li> </ul>	Removable terminal block, max. 2.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• Degree of protection</li> </ul>	IP65/Type 4/NEMA 4 (optional IP68)
<ul style="list-style-type: none"> <li>• Cable inlet</li> </ul>	2 x M20x1.5 thread (option: 2 x 1/2" NPT conduit entry including 1 plugged entry)

<b>Power supply</b>	
<ul style="list-style-type: none"> <li>• Bus voltage</li> <li>• Current consumption</li> </ul>	Standard: 12 to 30 V DC Intrinsically Safe: 12 to 24 V DC 12.5 mA
<b>Certificates and approvals</b>	
<ul style="list-style-type: none"> <li>• General Purpose</li> <li>• Dust Ignition Proof with IS Probe</li> <li>• Explosion Proof with IS Probe</li> <li>• Intrinsically Safe</li> <li>• Non-incendive</li> <li>• Marine</li> <li>• Others</li> </ul>	CSA, FM, CE, C-TICK CSA/FM Class II, Div. 1, Gr. E, F, G CSA/FM Class III T4 CSA/FM Class I, Div. 1, Gr. A, B, C, D CSA/FM Class II, Div. 1, Gr. E, F, G CSA/FM Class III T4 CSA/FM Class I, Div. 1, Gr. A, B, C, D CSA/FM Class II, Div. 1, Gr. E, F, G CSA/FM Class III T4 CSA/FM Class I, Div. 2, Gr. A, B, C, D CSA/FM Class II, Div. 2, Gr. F, G CSA/FM Class III T4 or T6 Lloyds Register of Shipping, Categories ENV1, ENV2 and ENV5 Pattern Approval (China)
<b>Communication</b>	
	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 on page 5/25.
- 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 on page 5/25.

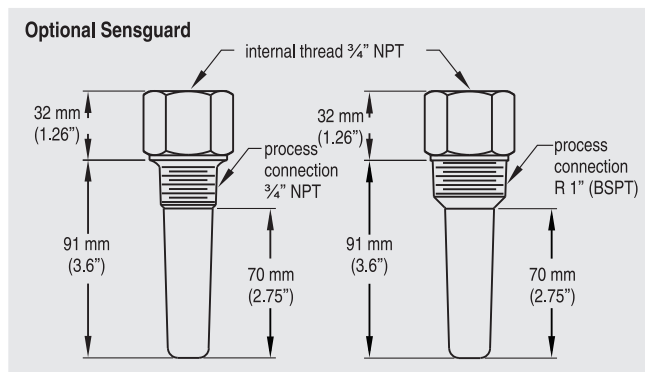
# Level instruments

## Pointek CLS200 - Digital

Design: Probe				
	Rod version	Sanitary version	Cable version	Sliding Coupling version
Max. length	5500 mm (216.53")	5500 mm (216.53")	30000 mm (1181.1") liquids and slurries 5000 mm (196.85") solids (under loads)	5500 mm (216.53")
Process connection	R ¾", 1", 1¼", 1½" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] ¾", 1", 1¼", 1½" NPT [(Taper), ANSI/ASME B1.20.1] G ¾", 1", 1½" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 316L stainless steel ASME/EN flange	1½", 2" sanitary fitting clamp 316L stainless steel	R ¾", 1", 1¼", 1½" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] ¾", 1", 1¼", 1½" NPT [(Taper), ANSI/ASME B1.20.1] G ¾", 1", 1½" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 316L stainless steel ASME/EN flange	R ¾", 1", 1¼", 1½" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] ¾", 1", 1¼", 1½" NPT [(Taper), ANSI/ASME B1.20.1] G ¾", 1", 1½" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202]
Extension material	316L stainless steel optional PFA coated <sup>1)</sup>	316L stainless steel	Fluoroethylene propylene (FEP) cable with stainless steel core	316L stainless steel
Sensor wetted parts	PPS (optional PVDF)	PPS (optional PVDF)	PPS (optional PVDF)	PPS (optional PVDF)
O-ring seal material	FKM (optional FFKM) <sup>2)</sup>	FKM (optional FFKM) <sup>2)</sup>	FKM (optional FFKM) <sup>2)</sup>	FKM (optional FFKM) <sup>2)</sup>
Thermal isolator <sup>3)</sup>	Optional	Optional	Optional	Optional
Extension	User selected length	User selected length	Cable extension	User selected length

- 1) PFA coating (7ML5634 and 7ML5644) has 120 micron thickness
- 2) For Caustic Materials please contact [nacc.smpi@siemens.com](mailto:nacc.smpi@siemens.com) for alternative O-Rings
- 3) Thermal isolator is used if process connection temperature exceeds +85 °C (+185 °F).

### Options



Sensguard dimensions

Selection and Ordering data	Order No.
<b>Pointek CLS200 - Digital - Rod with Threaded or C) Flanged process connection</b>	<b>7 M L 5 6 4 0 - 0</b>
Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces	
<b>Process Connection</b>	
<u>Threaded, 316L stainless steel</u>	
¾" NPT [(Taper), ANSI/ASME B1.20.1]	<b>0 A</b>
1" NPT [(Taper), ANSI/ASME B1.20.1]	<b>0 B</b>
1¼" NPT [(Taper), ANSI/ASME B1.20.1]	<b>0 C</b>
1½" NPT [(Taper), ANSI/ASME B1.20.1]	<b>0 D</b>
R ¾" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203]	<b>1 A</b>
R 1" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203]	<b>1 B</b>
R 1½" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203]	<b>1 D</b>
G ¾" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202]	<b>3 A</b>
G 1" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202]	<b>3 B</b>
G 1½" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202]	<b>3 D</b>
<u>Welded flange, 316L stainless steel, raised face</u>	
1" ASME, 150 lb	<b>5 A</b>
1" ASME, 300 lb	<b>5 B</b>
1" ASME, 600 lb	<b>5 C</b>
1½" ASME, 150 lb	<b>5 D</b>
1½" ASME, 300 lb	<b>5 E</b>
1½" ASME, 600 lb	<b>5 F</b>
2" ASME, 150 lb	<b>5 G</b>
2" ASME, 300 lb	<b>5 H</b>
2" ASME, 600 lb	<b>5 J</b>
3" ASME, 150 lb	<b>5 K</b>
3" ASME, 300 lb	<b>5 L</b>
3" ASME, 600 lb	<b>5 M</b>
4" ASME, 150 lb	<b>5 N</b>
4" ASME, 300 lb	<b>5 P</b>
4" ASME, 600 lb	<b>5 Q</b>
<u>Welded flange, 316L stainless steel, Type A flat faced</u>	
DN 25, PN 16	<b>6 A</b>
DN 25, PN 40	<b>6 B</b>
DN 40, PN 16	<b>6 C</b>
DN 40, PN 40	<b>6 D</b>
DN 50, PN 16	<b>6 E</b>
DN 50, PN 40	<b>6 F</b>
DN 80, PN 16	<b>6 G</b>
DN 80, PN 40	<b>6 H</b>
DN 100, PN 16	<b>6 J</b>
DN 100, PN 40	<b>6 K</b>
(Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1 standard.)	
<b>Probe length (length from flange face) (threaded lengths include process thread)</b>	
<u>Note: No Y01 needed in order code for standard lengths</u>	
Compact [threaded 120 mm (4.72"), Flanged 98 mm (3.86")]	<b>A</b>
Extended rod, 250 mm (9.84")	<b>B</b>
Extended rod, 350 mm (13.78")	<b>C</b>
Extended rod, 500 mm (19.69")	<b>D</b>
Extended rod, 750 mm (29.53")	<b>E</b>
Extended rod, 1000 mm (39.37")	<b>F</b>
Extended rod, 1250 mm (49.21")	<b>G</b>
Extended rod, 1350 mm (53.15")	<b>H</b>
Extended rod, 1500 mm (59.06")	<b>J</b>
Extended rod, 1750 mm (68.90")	<b>K</b>
Extended rod, 2000 mm (78.74")	<b>L</b>

Selection and Ordering data	Order No.
<b>Pointek CLS200 - Digital - Rod with Threaded or C) Flanged process connection</b>	<b>7 M L 5 6 4 0 - 0</b>
Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces	
<u>Add order code Y01 and plain text: "Insertion length ... mm"</u>	
Extended rod, 200 to 1000 mm (7.87 to 39.37")	<b>M</b>
Extended rod, 1001 to 2000 mm (39.41 to 78.74")	<b>N</b>
Extended rod, 2001 to 3000 mm (78.78 to 118.11")	<b>P</b>
Extended rod, 3001 to 4000 mm (118.15 to 157.48")	<b>Q</b>
Extended rod, 4001 to 5000 mm (157.52 to 196.85")	<b>R</b>
Extended rod, 5001 to 5500 mm (196.89 to 216.53")	<b>S</b>
<b>Thermal Isolator</b>	
Without thermal isolator	<b>0</b>
With thermal isolator [for process connection temperatures over +85 °C (+185 °F)]	<b>1</b>
<b>Remote mount electronics and mounting bracket</b>	
With 2 m (79") of cable	<b>2</b>
With 5 m (197") of cable	<b>3</b>
<b>Wetted Seals</b>	
FKM	<b>0</b>
FFKM [for process temperatures above -20 °C (-4 °F)]	<b>1</b>
<b>Probe Material</b>	
316L Stainless Steel with PPS probe body	<b>0</b>
316L Stainless Steel with PVDF probe body	<b>1</b>
<b>Approvals</b>	
Non-incendive:	
CSA/FM Class I, Div. 2, Gr. A, B, C, D	<b>F</b>
CSA/FM Class II, Div. 2, Gr. F, G	
CSA/FM Class III T4 or T6	
Dust Ignition Proof with IS Probe:	
CSA/FM Class II, Div. 1, Gr. E, F, G	<b>G</b>
CSA/FM Class III T4	
Intrinsically Safe: <sup>1)</sup>	
CSA/FM Class I, Div. 1, Gr. A, B, C, D	<b>H</b>
CSA/FM Class II, Div. 1, Gr. E, F, G	
CSA/FM Class III T4	
Explosion Proof with IS Probe:	
CSA/FM Class I, Div. 1, Gr. A, B, C, D	<b>J</b>
CSA/FM Class II, Div. 1, Gr. E, F, G	
CSA/FM Class III T4	
General Purpose (CSA, FM)	<b>K</b>
<b>Enclosure and Lid</b>	
<u>Aluminum epoxy coated</u>	
2 x ½" NPT via adapter - cable inlet, IP65	<b>A</b>
2 x M20x1.5 cable inlet, IP65	<b>B</b>
2 x ½" NPT via adapter - cable inlet, IP68	<b>C</b>
2 x M20x1.5 cable inlet, IP68	<b>D</b>
<b>Further designs</b>	Order code
Please add <b>"-Z"</b> to Order No. and specify Order code(s).	
Total insertion length: enter the total insertion length in plain text description	<b>Y01</b>
Stainless steel tag [69 x 50 mm (2.71 x 1.97")]: Measuring-point number/identification (max. 16 characters) specify in plain text	<b>Y15</b>
Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and ISO 9000	<b>C11</b>
Inspection Certificate Type 3.1 per EN 10204	<b>C12</b>
<b>Operating Instructions</b>	<b>See page 5/24</b>
Note: The Operating Instructions should be ordered as a separate line on the order.	
<b>Accessories</b>	<b>See page 5/24</b>

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

C) Subject to export regulations AL: N, ECCN: EAR99

## Pointek CLS200 - Digital

### Selection and Ordering data

Order No.

**Pointek CLS200 - Digital - Cable with Threaded or Flanged process connection** C) **7 M L 5 6 4 1 -**

0

Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces

#### Process Connection

Threaded, 316L stainless steel

¾" NPT [(Taper), ANSI/ASME B1.20.1] **0 A**  
 1" NPT [(Taper), ANSI/ASME B1.20.1] **0 B**  
 1¼" NPT [(Taper), ANSI/ASME B1.20.1] **0 C**  
 1½" NPT [(Taper), ANSI/ASME B1.20.1] **0 D**  
 R ¾" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] **1 A**  
 R 1" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] **1 B**  
 R 1½" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] **1 D**  
 G ¾" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] **3 A**  
 G 1" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] **3 B**  
 G 1½" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] **3 D**

Welded flange, 316L stainless steel, raised face

1" ASME, 150 lb **5 A**  
 1" ASME, 300 lb **5 B**  
 1" ASME, 600 lb **5 C**  
 1½" ASME, 150 lb **5 D**  
 1½" ASME, 300 lb **5 E**  
 1½" ASME, 600 lb **5 F**  
 2" ASME, 150 lb **5 G**  
 2" ASME, 300 lb **5 H**  
 2" ASME, 600 lb **5 J**  
 3" ASME, 150 lb **5 K**  
 3" ASME, 300 lb **5 L**  
 3" ASME, 600 lb **5 M**  
 4" ASME, 150 lb **5 N**  
 4" ASME, 300 lb **5 P**  
 4" ASME, 600 lb **5 Q**

Welded flange, 316L stainless steel, Type A flat faced

DN 25, PN 16 **6 A**  
 DN 25, PN 40 **6 B**  
 DN 40, PN 16 **6 C**  
 DN 40, PN 40 **6 D**  
 DN 50, PN 16 **6 E**  
 DN 50, PN 40 **6 F**  
 DN 80, PN 16 **6 G**  
 DN 80, PN 40 **6 H**  
 DN 100, PN 16 **6 J**  
 DN 100, PN 40 **6 K**

(Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1 standard.)

**Probe length** (length from flange face) (threaded lengths include process thread)

Note: No Y01 needed in order code for standard lengths

Extended cable, 3000 mm (118.11"), length can be determined by customer on assembly **A**  
 Extended cable, 6000 mm (236.22"), length can be determined by customer on assembly **B**

Add order code Y01 and plain text: "Insertion length ... mm"

Extended cable, 500 to 5000 mm (19.69 to 196.85") **C**  
 Extended cable, 5001 to 10000 mm (196.89 to 393.70") **D**  
 Extended cable, 10001 to 15000 mm (393.74 to 590.55") **E**  
 Extended cable, 15001 to 20000 mm (590.59 to 787.4") **F**  
 Extended cable, 20001 to 25000 mm (787.44 to 984.25") **G**  
 Extended cable, 25001 to 30000 mm (984.29 to 1181.1") **H**

### Selection and Ordering data

Order No.

**Pointek CLS200 - Digital - Cable with Threaded or Flanged process connection** C) **7 M L 5 6 4 1 -**

0

Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces

#### Thermal Isolator

Without thermal isolator **0**  
 With thermal isolator [for process connection temperatures over +85 °C (+185 °F)] **1**

#### Remote mount electronics and mounting bracket

With 2 m (79") of cable **2**  
 With 5 m (197") of cable **3**

#### Wetted Seals

FKM and PTFE **0**  
 FFKM and PTFE [for process temperatures above -20°C (-4°F)] **1**

#### Probe Material

FEP jacketed cable with PPS probe body **0**  
 FEP jacketed cable with PVDF probe body **1**

#### Approvals

Non-incendive:  
 CSA/FM Class I, Div. 2, Gr. A, B, C, D  
 CSA/FM Class II, Div. 2, Gr. F, G  
 CSA/FM Class III T4 or T6 **F**

Dust Ignition Proof with IS Probe:  
 CSA/FM Class II, Div. 1, Gr. E, F, G  
 CSA/FM Class III T4 **G**

Intrinsically Safe:<sup>1)</sup>  
 CSA/FM Class I, Div. 1, Gr. A, B, C, D  
 CSA/FM Class II, Div. 1, Gr. E, F, G  
 CSA/FM Class III T4 **H**

Explosion Proof with IS Probe:  
 CSA/FM Class I, Div. 1, Gr. A, B, C, D  
 CSA/FM Class II, Div. 1, Gr. E, F, G  
 CSA/FM Class III T4 **J**

General Purpose (CSA, FM) **K**

#### Enclosure and Lid

Aluminum epoxy coated

2 x ½" NPT via adapter - cable inlet, IP65 **A**  
 2 x M20x1.5 cable inlet, IP65 **B**  
 2 x ½" NPT via adapter - cable inlet, IP68 **C**  
 2 x M20x1.5 cable inlet, IP68 **D**

#### Further designs

Please add **"-Z"** to Order No. and specify Order code(s).

Total insertion length: enter the total insertion length in plain text description **Y01**

Stainless steel tag [69 x 50 mm (2.71 x 1.97")]: Measuring-point number/identification (max. 16 characters) specify in plain text **Y15**

Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and ISO 9000 **C11**

Inspection Certificate Type 3.1 per EN 10204 **C12**

#### Operating Instructions

Note: The Operating Instructions should be ordered as a separate line on the order.

This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and Operating Instructions library.

#### Accessories

**See page 5/24**

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

C) Subject to export regulations AL: N, ECCN: EAR99

Selection and Ordering data	Order No.
<b>Pointek CLS200 - Digital - Rod with Sanitary process connection</b> Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces	C) 7 M L 5 6 4 2 - 0
<b>Process Connection</b> Sanitary 316L stainless steel	
1" sanitary fitting clamp	8 A
1½" sanitary fitting clamp	8 B
2" sanitary fitting clamp	8 C
2½" sanitary fitting clamp	8 D
3" sanitary fitting clamp	8 E
(Note: Sanitary connection dimensionally corresponds to the applicable ISO 2852 standard)	
<b>Probe length (length from process connection face)</b> Note: No Y01 needed in order code for standard lengths	
Compact 98 mm (3.86")	A
Extended rod, 250 mm (9.84")	B
Extended rod, 350 mm (13.78")	C
Extended rod, 500 mm (19.69")	D
Extended rod, 750 mm (29.53")	E
Extended rod, 1000 mm (39.37")	F
Extended rod, 1250 mm (49.21")	G
Extended rod, 1350 mm (53.15")	H
Extended rod, 1500 mm (59.06")	J
Extended rod, 1750 mm (68.90")	K
Extended rod, 2000 mm (78.74")	L
Add order code Y01 and plain text: "Insertion length ... mm"	
Extended rod, 110 to 350 mm (4.3 to 13.78")	M
Extended rod, 351 to 1000 mm (13.82 to 39.33")	N
Extended rod, 1001 to 2000 mm (39.41 to 78.74")	P
Extended rod, 2001 to 3000 mm (78.78 to 118.11")	Q
Extended rod, 3001 to 4000 mm (118.15 to 157.48")	R
Extended rod, 4001 to 5000 mm (157.52 to 196.85")	S
Extended rod, 5001 to 5500 mm (196.89 to 216.53")	T
<b>Thermal Isolator</b> Without thermal isolator	0
With thermal isolator [for process connection temperatures over +85 °C (+185 °F)]	1
<b>Remote mount electronics and mounting bracket</b> With 2 m (79") of cable	2
With 5 m (197") of cable	3
<b>Wetted Seals</b> FKM	0
FFKM [for process temperatures above -20°C (-4°F)]	1
<b>Probe Material</b> 316L Stainless Steel with PPS probe body	0
316L Stainless Steel with PVDF probe body	1
<b>Approvals</b> Non-incendive: CSA/FM Class I, Div. 2, Gr. A, B, C, D CSA/FM Class II, Div. 2, Gr. F, G CSA/FM Class III T4 or T6	F
Dust Ignition Proof with IS Probe: CSA/FM Class II, Div. 1, Gr. E, F, G CSA/FM Class III T4	G
Intrinsically Safe: <sup>1)</sup> CSA/FM Class I, Div. 1, Gr. A, B, C, D CSA/FM Class II, Div. 1, Gr. E, F, G CSA/FM Class III T4	H
Explosion Proof with IS Probe: CSA/FM Class I, Div. 1, Gr. A, B, C, D CSA/FM Class II, Div. 1, Gr. E, F, G CSA/FM Class III T4	J
General Purpose (CSA, FM)	K

Selection and Ordering data	Order No.
<b>Pointek CLS200 - Digital - Rod with Sanitary process connection</b> Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces	C) 7 M L 5 6 4 2 - 0
<b>Enclosure and Lid</b> Aluminum epoxy coated	
2 x ½" NPT via adapter - cable inlet, IP65	A
2 x M20x1.5 cable inlet, IP65	B
2 x ½" NPT via adapter - cable inlet, IP68	C
2 x M20x1.5 cable inlet, IP68	D
<b>Further designs</b>	Order code
Please add "-Z" to Order No. and specify Order code(s).	
Total insertion length: enter the total insertion length in plain text description	Y01
Stainless steel tag [69 x 50 mm (2.71 x 1.97")]: Measuring-point number/identification (max. 16 characters) specify in plain text	Y15
Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and ISO 9000	C11
Inspection Certificate Type 3.1 per EN 10204	C12
<b>Accessories</b>	See page 5/24

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

C) Subject to export regulations AL: N, ECCN: EAR99

# Level instruments

## Pointek CLS200 - Digital

### Selection and Ordering data

Order No.

#### Pointek CLS200 - Digital - Rod with Sliding coupling with Threaded process connection

C) 7 M L 5 6 4 3 - 0

Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces

#### Process Connection

Threaded, 316L stainless steel

¾" NPT [(Taper), ANSI/ASME B1.20.1] 0 A  
 1" NPT [(Taper), ANSI/ASME B1.20.1] 0 B  
 1¼" NPT [(Taper), ANSI/ASME B1.20.1] 0 C  
 1½" NPT [(Taper), ANSI/ASME B1.20.1] 0 D  
 R ¾" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] 1 A  
 R 1" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] 1 B  
 R 1½" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] 1 D  
 G ¾" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 3 A  
 G 1" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 3 B  
 G 1½" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] 3 D

**Probe length** (length from flange face)  
 (threaded lengths include process thread)

Note: No Y01 needed in order code for standard lengths

Extended rod, 350 mm (13.78")  
 Extended rod, 500 mm (19.69")  
 Extended rod, 750 mm (29.53")  
 Extended rod, 1000 mm (39.37")  
 Extended rod, 1250 mm (49.21")  
 Extended rod, 1350 mm (53.15")  
 Extended rod, 1500 mm (59.06")  
 Extended rod, 1750 mm (68.90")  
 Extended rod, 2000 mm (78.74")

C  
D  
E  
F  
G  
H  
J  
K  
L

Add order code Y01 and plain text:  
 "Insertion length ... mm"

Extended rod, 350 to 1000 mm (13.82 to 39.33")  
 Extended rod, 1001 to 2000 mm (39.41 to 78.74")  
 Extended rod, 2001 to 3000 mm (78.78 to 118.11")  
 Extended rod, 3001 to 4000 mm (118.15 to 157.48")  
 Extended rod, 4001 to 5000 mm (157.52 to 196.85")  
 Extended rod, 5001 to 5500 mm (196.89 to 216.53")

M  
N  
P  
Q  
R  
S

#### Thermal Isolator

Without thermal isolator 0  
 With thermal isolator [for process connection temperatures over +85 °C (+185 °F)] 1

#### Remote mount electronics and mounting bracket

With 2 m (79") of cable 2  
 With 5 m (197") of cable 3

#### Wetted Seals

FKM and PTFE 0  
 FFKM and PTFE [for process temperatures above -20°C (-4°F)] 1

#### Probe Material

316L Stainless Steel with PPS probe body 0  
 316L Stainless Steel with PVDF probe body 1

#### Approvals

Non-incendive:  
 CSA/FM Class I, Div. 2, Gr. A, B, C, D F  
 CSA/FM Class II, Div. 2, Gr. F, G  
 CSA/FM Class III T4 or T6  
 Dust Ignition Proof with IS Probe:  
 CSA/FM Class II, Div. 1, Gr. E, F, G G  
 CSA/FM Class III T4  
 Intrinsically Safe:<sup>1)</sup>  
 CSA/FM Class I, Div. 1, Gr. A, B, C, D H  
 CSA/FM Class II, Div. 1, Gr. E, F, G  
 CSA/FM Class III T4  
 Explosion Proof with IS Probe:  
 CSA/FM Class I, Div. 1, Gr. A, B, C, D J  
 CSA/FM Class II, Div. 1, Gr. E, F, G  
 CSA/FM Class III T4  
 General Purpose (CSA, FM) K

### Selection and Ordering data

Order No.

#### Pointek CLS200 - Digital - Rod with Sliding coupling with Threaded process connection

C) 7 M L 5 6 4 3 - 0

Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces

#### Enclosure and Lid

Aluminum epoxy coated

2 x ½" NPT via adapter - cable inlet, IP65 A  
 2 x M20x1.5 cable inlet, IP65 B  
 2 x ½" NPT via adapter - cable inlet, IP68 C  
 2 x M20x1.5 cable inlet, IP68 D

#### Further designs

Please add "-Z" to Order No. and specify Order code(s).

Total insertion length: enter the total insertion length in plain text description

Stainless steel tag [69 x 50 mm (2.71 x 1.97")]:  
 Measuring-point number/identification (max. 16 characters) specify in plain text Y15  
 Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and ISO 9000 C11  
 Inspection Certificate Type 3.1 per EN 10204 C12

#### Operating Instructions

Note: The Operating Instructions should be ordered as a separate line on the order.

This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and Operating Instructions library.

#### Accessories

Order code

Y01

Y15

C11

C12

See page 5/24

See page 5/24

1) Barrier or Intrinsically safe power supply required for Intrinsically Safe protection

C) Subject to export regulations AL: N, ECCN: EAR99

Selection and Ordering data	Order No.
<b>Pointek CLS200 - Digital - PFA Rod with PFA Flanged process connection</b>	C) 7 M L 5 6 4 4 - 0
Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces	
<b>Process Connection</b>	
<u>Welded flange, PFA coated, 316L stainless steel, raised face</u>	
1" ASME, 150 lb	5 A
1" ASME, 300 lb	5 B
1" ASME, 600 lb	5 C
1½" ASME, 150 lb	5 D
1½" ASME, 300 lb	5 E
1½" ASME, 600 lb	5 F
2" ASME, 150 lb	5 G
2" ASME, 300 lb	5 H
2" ASME, 600 lb	5 J
3" ASME, 150 lb	5 K
3" ASME, 300 lb	5 L
3" ASME, 600 lb	5 M
4" ASME, 150 lb	5 N
4" ASME, 300 lb	5 P
4" ASME, 600 lb	5 Q
<u>Welded flange, PFA coated, 316L stainless steel, Type A flat faced</u>	
DN 25, PN 16	6 A
DN 25, PN 40	6 B
DN 40, PN 16	6 C
DN 40, PN 40	6 D
DN 50, PN 16	6 E
DN 50, PN 40	6 F
DN 80, PN 16	6 G
DN 80, PN 40	6 H
DN 100, PN 16	6 J
DN 100, PN 40	6 K
(Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1 standard.)	
<b>Probe length (length from process connection face)</b>	
<u>Note: No Y01 needed in order code for standard lengths</u>	
Compact (Threaded 98 mm (3.86"))	A
Extended rod, 250 mm (9.84")	B
Extended rod, 350 mm (13.78")	C
Extended rod, 500 mm (19.69")	D
Extended rod, 750 mm (29.53")	E
Extended rod, 1000 mm (39.37")	F
Extended rod, 1250 mm (49.21")	G
Extended rod, 1350 mm (53.15")	H
Extended rod, 1500 mm (59.06")	J
Extended rod, 1750 mm (68.90")	K
Extended rod, 2000 mm (78.74")	L
Add order code Y01 and plain text: "Insertion length ... mm"	
Extended rod, 200 to 1000 mm (7.87 to 39.33")	M
Extended rod, 1001 to 2000 mm (39.41 to 78.74")	N
Extended rod, 2001 to 3000 mm (78.78 to 118.11")	P
Extended rod, 3001 to 4000 mm (118.15 to 157.48")	Q
Extended rod, 4001 to 5000 mm (157.52 to 196.85")	R
Extended rod, 5001 to 5500 mm (196.89 to 216.53")	S
<b>Thermal Isolator</b>	
Without thermal isolator	0
With thermal isolator [for process connection temperatures over +85 °C (+185 °F)]	1
<b>Remote mount electronics and mounting bracket</b>	
With 2 m (79") of cable	2
With 5 m (197") of cable	3

Selection and Ordering data	Order No.
<b>Pointek CLS200 - Digital - PFA Rod with PFA Flanged process connection</b>	C) 7 M L 5 6 4 4 - 0
Versatile inverse frequency shift capacitance level switch with optional process connection choices and configurable output, ideal for detection of liquids, solids, slurries, foam and interfaces	
<b>Wetted Seals</b>	
FKM	0
FFKM [for process temperatures above -20°C (-4°F)]	1
<b>Probe Material</b>	
PFA Coated 316L Stainless Steel with PPS probe body	0
PFA Coated 316L Stainless Steel with PVDF probe body	1
<b>Approvals</b>	
Non-incendive:	
CSA/FM Class I, Div. 2, Gr. A, B, C, D	F
CSA/FM Class II, Div. 2, Gr. F, G	
CSA/FM Class III T4 or T6	
Dust Ignition Proof with IS Probe:	
CSA/FM Class II, Div. 1, Gr. E, F, G	G
CSA/FM Class III T4	
Intrinsically Safe: <sup>1)</sup>	
CSA/FM Class I, Div. 1, Gr. A, B, C, D	H
CSA/FM Class II, Div. 1, Gr. E, F, G	
CSA/FM Class III T4	
Explosion Proof with IS Probe:	
CSA/FM Class I, Div. 1, Gr. A, B, C, D	J
CSA/FM Class II, Div. 1, Gr. E, F, G	
CSA/FM Class III T4	
General Purpose (CSA, FM)	K
<b>Enclosure and Lid</b>	
<u>Aluminum epoxy coated</u>	
2 x ½" NPT via adapter - cable inlet, IP65	A
2 x M20x1.5 cable inlet, IP65	B
2 x ½" NPT via adapter - cable inlet, IP68	C
2 x M20x1.5 cable inlet, IP68	D
<b>Further designs</b>	Order code
Please add "-Z" to Order No. and specify Order code(s).	
Total insertion length: enter the total insertion length in plain text description	Y01
Stainless steel tag [69 x 50 mm (2.71 x 1.97")]:	Y15
Measuring-point number/identification (max. 16 characters) specify in plain text	
Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and ISO 9000	C11
Inspection Certificate Type 3.1 per EN 10204	C12
<b>Operating Instructions</b>	See page 5/24
Note: The Operating Instructions should be ordered as a separate line on the order.	
This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and Operating Instructions library.	
<b>Accessories</b>	See page 5/24

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

C) Subject to export regulations AL: N, ECCN: EAR99

## Pointek CLS200

### Selection and Ordering data Order No.

#### Operating Instructions - Standard

English	C) <b>7ML1998-5JH02</b>
German	C) <b>7ML1998-5JH32</b>
Note: The Operating Instructions should be ordered as a separate line on the order.	
Quick Start manual, multi-language	C) <b>7ML1998-5QY82</b>
This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and Operating Instructions library.	

#### Operating Instructions - Digital

English	C) <b>7ML1998-5JJ01</b>
German	C) <b>7ML1998-5JJ31</b>
Note: The Operating Instructions should be ordered as a separate line on the order.	
Quick Start manual, multi-language	C) <b>7ML1998-5XA81</b>
This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and Operating Instructions library.	

#### Accessories

Sensguard, 3/4" NPT (PPS) Only available for CLS200 with 3/4" NPT thread	<b>7ML1830-1DL</b>
Sensguard, R 1" (BSPT) (PPS) Only available for CLS200 with 3/4" NPT thread	<b>7ML1830-1DM</b>
One metallic cable gland M20x1.5, -40 to +80 °C (-40 to +176 °F) with integrated shield connection (available for PROFIBUS PA)	<b>7ML1930-1AQ</b>

#### General Purpose

1/2" NPT General Purpose Cable Entry IP68/IP69K NEMA6, -40 ... -100 °C (-40 ... -212 °F), cable size 6 ... 12 mm (0.236 ... 0.472")	<b>A5E03252530</b>
M20x1.5 General Purpose Cable Entry IP68/IP69K NEMA6,-40 ... -100 °C (-40 ... -212 °F), cable size 7 ... 12 mm (0.275 ... 0.472")	<b>A5E03252531</b>

#### Hazardous Locations

1/2" NPT EMC rated Cable Gland: Dust Ignition Proof, Flameproof Exd, and Increased Safety ATEX II 2 GD ExtD A21 (Zone 1, Zone 2, Zone 21, Zone 22, and in Gas Groups IIA, IIB and IIC) -60 ... +80 °C IP66, IP67, IP68, NEMA4X, cable sizes 5.5 ... 12 mm (0.216 ... 0.472")	<b>A5E03252527</b>
M20 EMC rated Cable Gland: Dust Ignition Proof, Flameproof Exd, and Increased Safety ATEX II 2 GD ExtD A21 (Zone 1, Zone 2, Zone 21, Zone 22 and in Gas Groups IIA, IIB and IIC) -60 ... +80 °C IP66, IP67, IP68, NEMA4X, cable sizes 5.5 ... 12 mm (0.216 ... 0.472")	<b>A5E03252528</b>

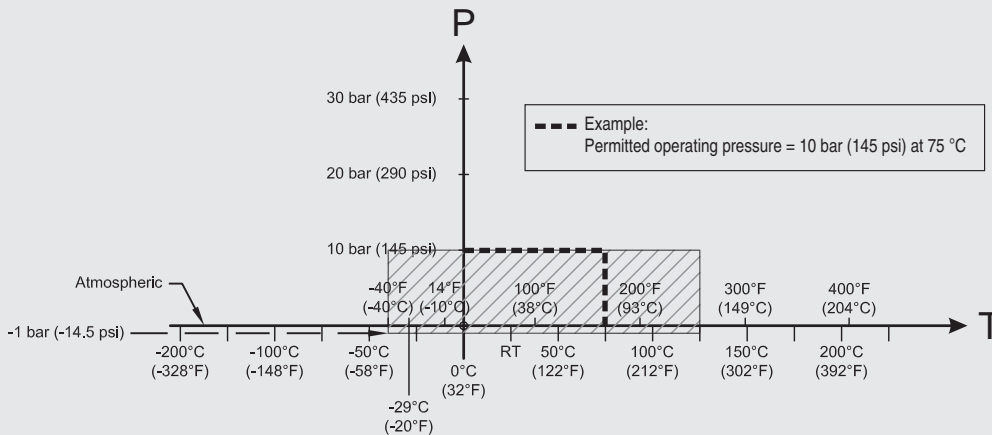
**Blind threaded flanges are available. Please contact [nacc.smpi@siemens.com](mailto:nacc.smpi@siemens.com) with a completed application data sheet on page 5/9**

#### Spare parts See page 5/76

C) Subject to export regulations AL: N, ECCN: EAR99

L) Subject to export regulations AL: N, ECCN: 3A991X

Characteristic curves

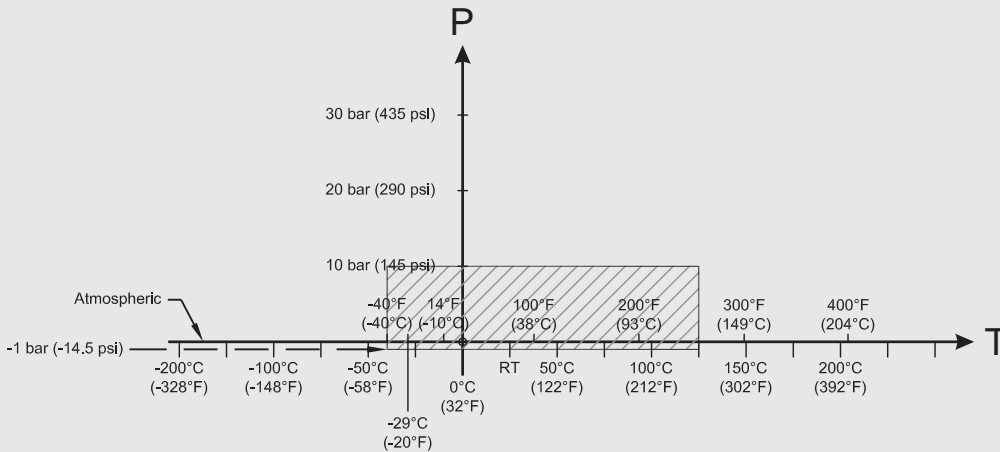


**Pressure/Temperature Curve  
CLS200 Sliding Coupling  
Threaded Process Connections  
(7ML5633 and 7ML5643)**

P = Permitted Operating Pressures  
T = Permitted Operating Temperature

5

Pointek CLS200 Process Pressure/Temperature derating curves (7ML5633 and 7ML5643)

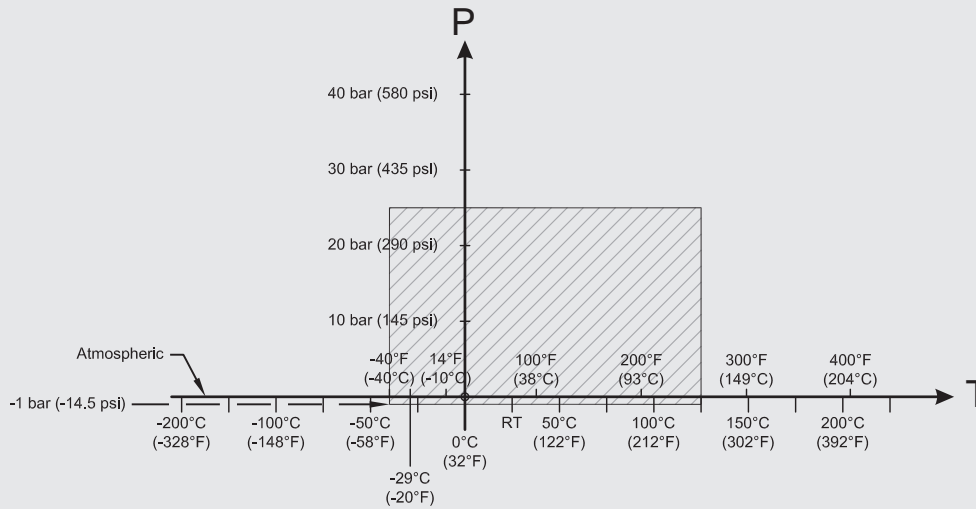


**Pressure/Temperature Curve  
CLS200 Cable  
Threaded Process Connections  
(7ML5631 and 7ML5641)**

P = Permitted Operating Pressures  
T = Permitted Operating Temperature

Pointek CLS200 Process Pressure/Temperature derating curves (7ML5631 and 7ML5641)

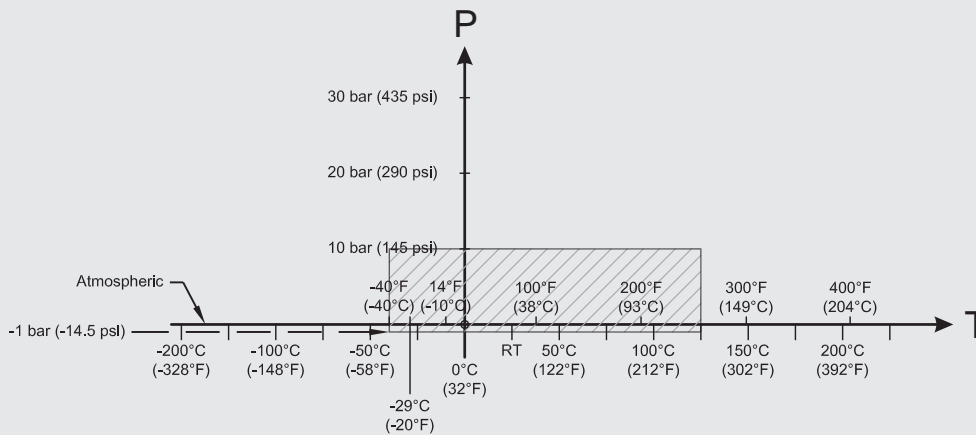
## Pointek CLS200



### Pressure/Temperature Curve CLS200 Compact and Extended Rod Threaded Process Connections (7ML5630 and 7ML5640)

P = Permitted Operating Pressures  
T = Permitted Operating Temperature

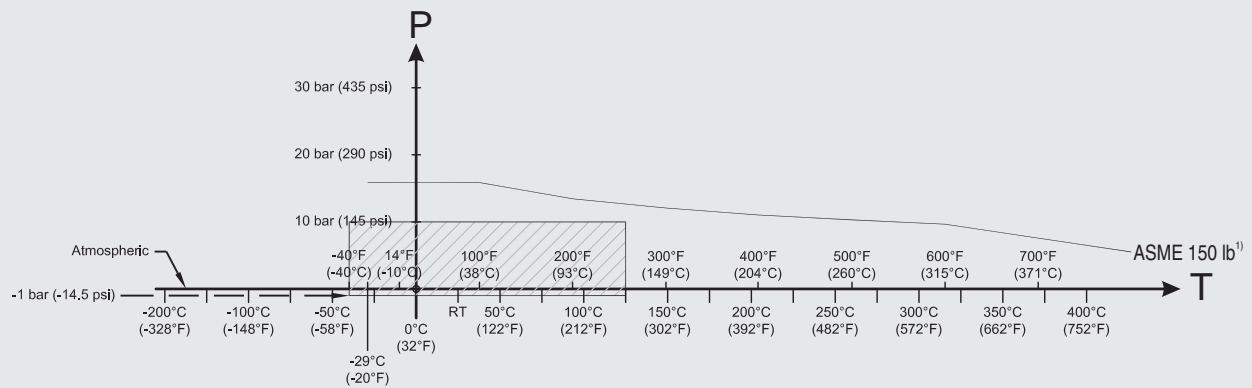
Pointek CLS200 Process Pressure/Temperature derating curves (7ML5630 or 7ML5640)



### Pressure/Temperature Curve CLS200 Compact and Extended Sanitary Type Sanitary Process Connections (7ML5632 and 7ML5642)

P = Permitted Operating Pressures  
T = Permitted Operating Temperature

Pointek CLS200 Process Pressure/Temperature derating curves (7ML5632 and 7ML5642)

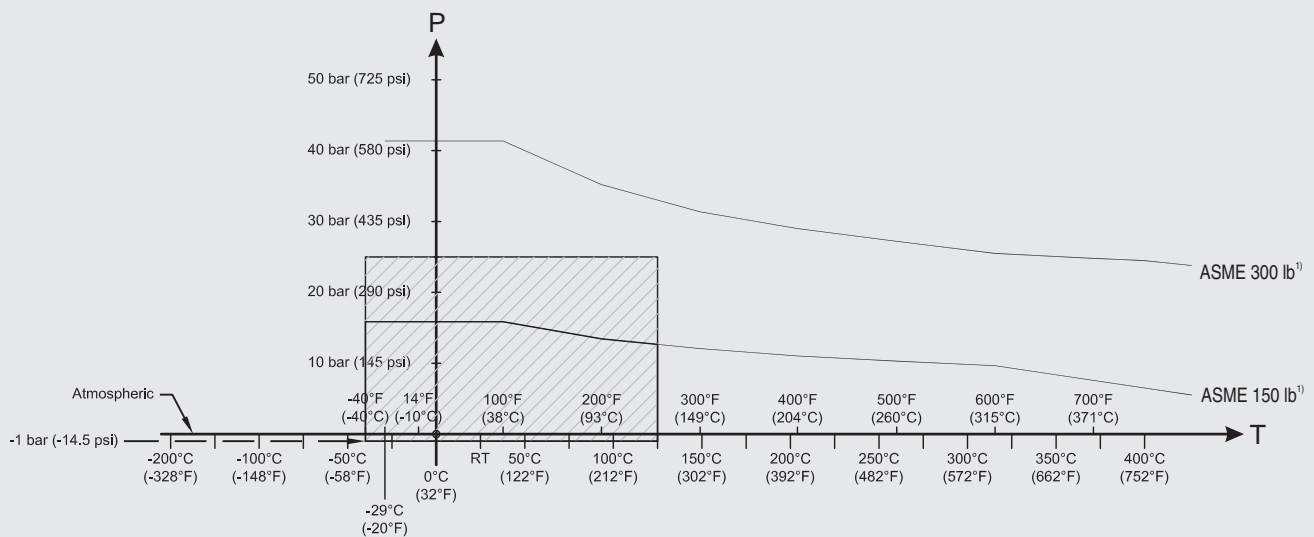


## Pressure/Temperature Curve CLS200 Cable ASME Flanged Process Connections (7ML5631 and 7ML5641)

P = Permitted Operating Pressures  
T = Permitted Operating Temperature

1) The curve denotes the minimum allowable flange class for the shaded area below.

Pointek CLS200 Process Pressure/Temperature derating curves (7ML5631 and 7ML5641)



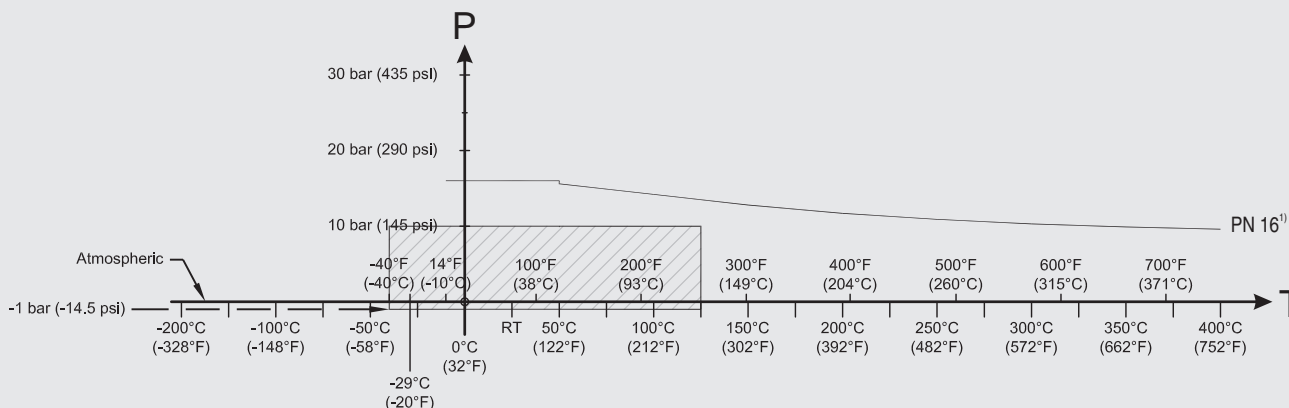
## Pressure/Temperature Curve CLS200 Compact and Extended Rod ASME Flanged Process Connections (7ML5630 and 7ML5640)

P = Permitted Operating Pressures  
T = Permitted Operating Temperature

1) The curve denotes the minimum allowable flange class for the shaded area below.

Pointek CLS200 Process Pressure/Temperature derating curves (7ML5630 and 7ML5640)

## Pointek CLS200

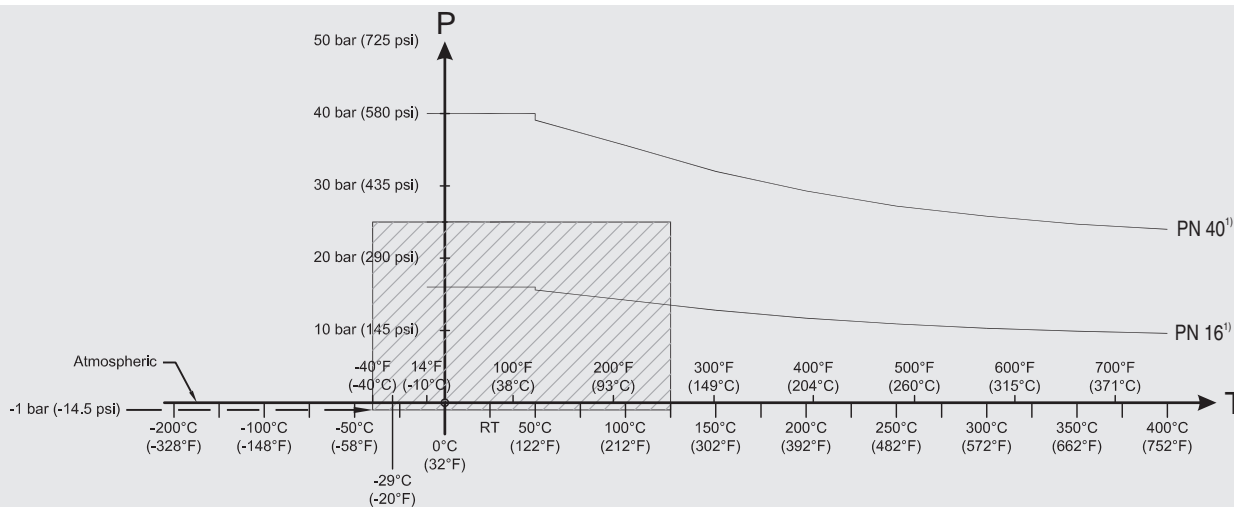


### Pressure/Temperature Curve CLS200 Cable EN Flanged Process Connections (7ML5631 and 7ML5641)

P = Permitted Operating Pressures  
T = Permitted Operating Temperature

1) The curve denotes the minimum allowable flange class for the shaded area below.

Pointek CLS200 Process Pressure/Temperature derating curves (7ML5631 and 7ML5641)



### Pressure/Temperature Curve CLS200 Compact and Extended Rod EN Flanged Process Connections (7ML5630 and 7ML5640)

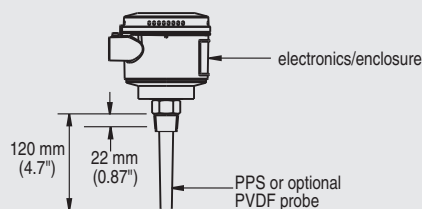
P = Permitted Operating Pressures  
T = Permitted Operating Temperature

1) The curve denotes the minimum allowable flange class for the shaded area below.

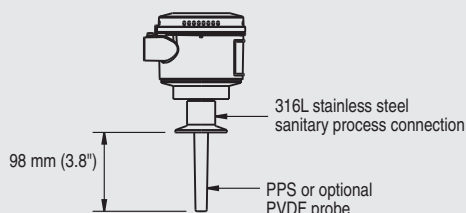
Pointek CLS200 Process Pressure/Temperature derating curves (7ML5630 and 7ML5640)

### Dimensional drawings

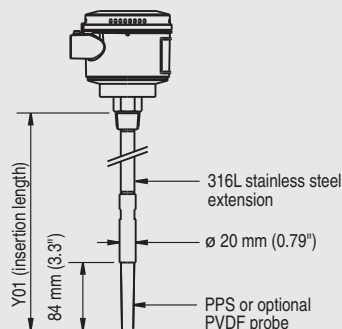
**Compact version  
Threaded  
(7ML5630 and 7ML5640)**



**Sanitary compact version  
Sanitary fitting (7ML5632 and 7ML5642)**

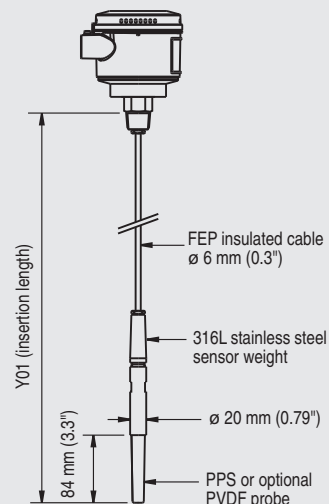


**Extended rod version  
Threaded  
(7ML5630 and 7ML5640)**

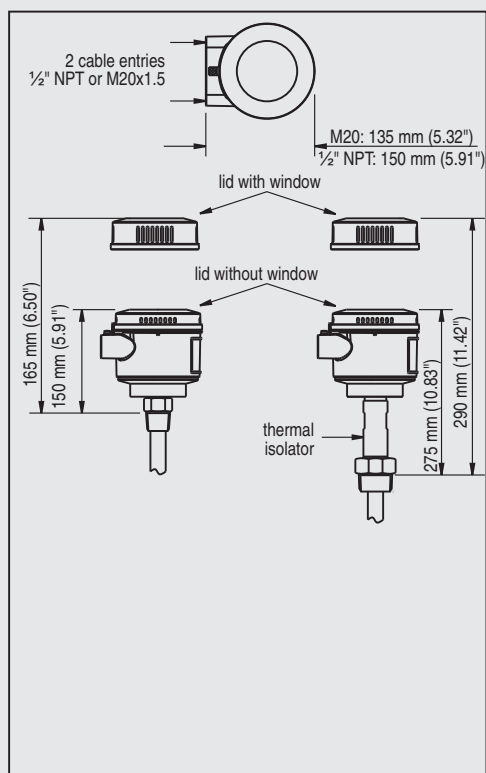


Min. insertion length = 200 mm (7.87")  
Max. insertion length = 5500 mm (216")

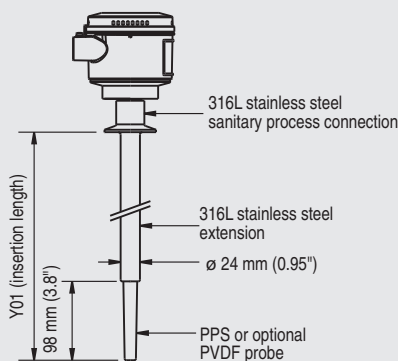
**Extended cable version  
Threaded  
(7ML5631 and 7ML5641)**



Min. insertion length = 500 mm (19.69")  
Max. insertion length = 30000 mm (1181")  
Applicable for liquids and solids applications.  
Cable can be shortened on site.

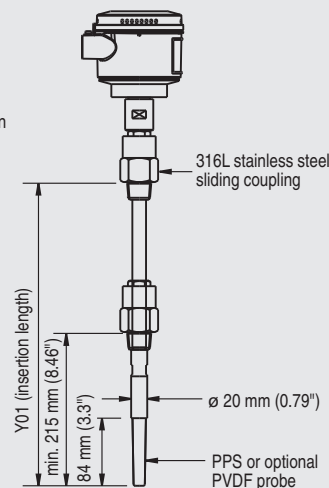


**Sanitary extended version  
Sanitary fitting (7ML5632 and 7ML5642)**



Min. insertion length = 110 mm (4.3")  
Max. insertion length = 5500 mm (216")

**Sliding coupling version  
Threaded (7ML5633 and 7ML5643)**



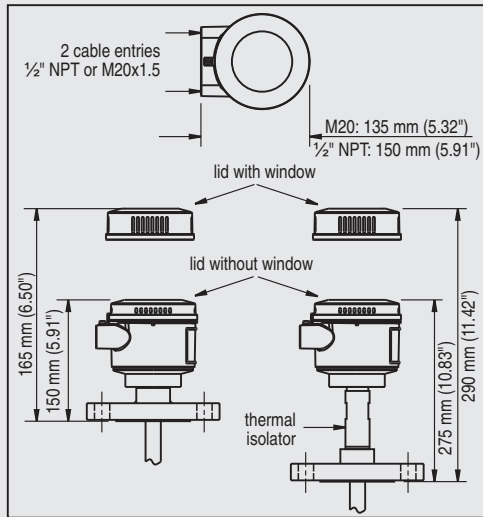
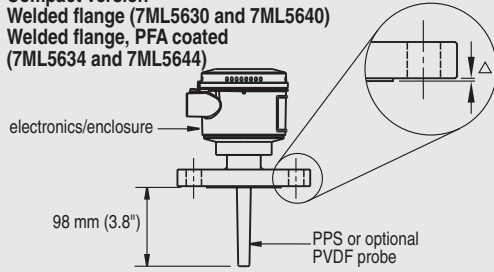
Min. insertion length = 350 mm (13.82")  
Max. insertion length = 5500 mm (216")

Pointek CLS200 dimensions - Threaded/Sanitary Process Connections

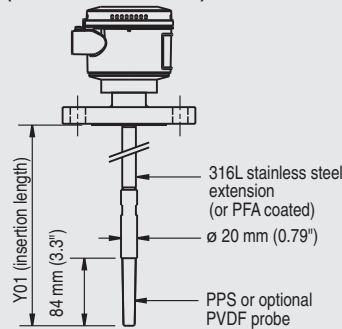
# Level instruments

## Pointek CLS200

**Compact version**  
**Welded flange (7ML5630 and 7ML5640)**  
**Welded flange, PFA coated**  
**(7ML5634 and 7ML5644)**

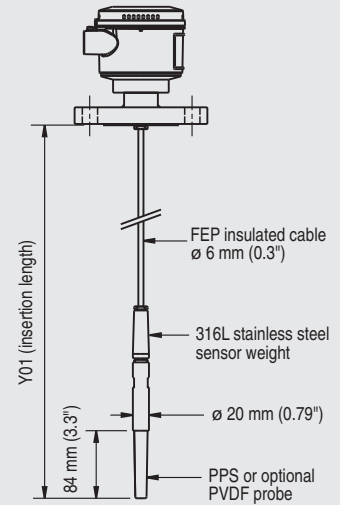


**Extended rod version**  
**Welded flange (7ML5630 and 7ML5640)**  
**Welded flange, PFA coated**  
**(7ML5634 and 7ML5644)**



Min. insertion length = 200 mm (7.87")  
 Max. insertion length = 5500 mm (216.53")

**Extended cable version**  
**Welded flange**  
**(7ML5631 and 7ML5641)**



Min. insertion length = 500 mm (19.69")  
 Max. insertion length = 30000 mm (1181")  
 Applicable for liquids and solids applications.  
 Cable can be shortened on site.

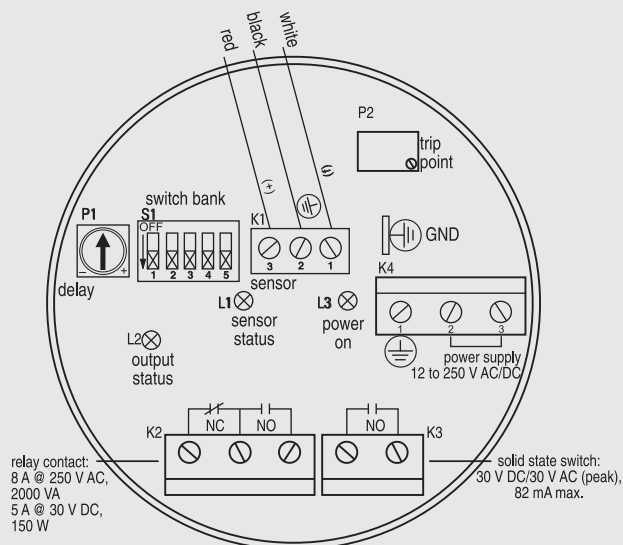
Flange Facing (raised face)	
Flange Class	Facing thickness
△ ASME 150/300	2 mm (0.08")
△ ASME 600/900	7 mm (0.28")
△ PN16/40	2 mm (0.08")

Insertion length does not include any raised face/gasket face dimension (see Flange Facing table above).

Pointek CLS200 dimensions - Flanged Process Connections

### Schematics

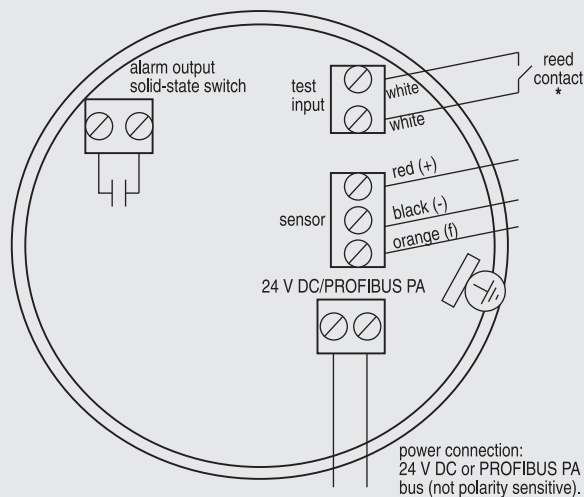
#### Wiring: Pointek CLS200 Standard



#### Notes:

- Identification label is on underside of lid. Switch and Potentiometer settings are for illustration purposes only (Refer to Operation/Setup in manual).
- All field wiring must have insulation suitable for at least 250 V.
- Relay contact terminals are for use with equipment having no accessible live parts and wiring having insulation suitable for at least 250 V.
- Maximum working voltage between adjacent relay contacts shall be 250 V.
- Refer to the Instruction Manual or contact a Siemens representative for detailed wiring information.

#### Wiring: Pointek CLS200 Digital



#### Notes:

Refer to the Instruction Manual or contact a Siemens representative for detailed wiring information.

#### \*Magnet Activated Sensor Test

A magnet can be used to test the sensor without opening the lid of the Pointek CLS200 Digital version. Bring the magnet close to the test area indicated on the enclosure. The sensor test starts and finishes automatically after 10 seconds.

