

Selection and Ordering data		Order No.
Pointek CLS200, threaded/sanitary version		7 M L 5 5 0 2 -
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		
Note: To select Standard or Digital CLS200 (with PROFIBUS PA), see final place holder under Electronics/output.		
Probe version		
(Threaded lengths include process thread.)		
Compact, 120 mm (4.72") ¹⁾	0 X	
Extended rod, 250 mm (9.84") ¹⁾	1 A	
Extended rod, 350 mm (13.78") ²⁾	1 B	
Extended rod, 500 mm (19.69") ²⁾	1 C	
Extended rod, 750 mm (29.53") ²⁾	1 D	
Extended rod, 1000 mm (39.37") ²⁾	1 E	
<u>Add order code Y01 and plain text: "Insertion length ... mm"</u>		
- Extended rod, 200 to 999 mm (7.87 to 39.33") ³⁾	1 F	
- Extended rod, 1001 to 2000 mm (39.41 to 78.74") ²⁾	1 G	
- Extended rod, 2001 to 3000 mm (78.78 to 118.11") ²⁾ and 4)	1 H	
- Extended rod, 3001 to 4000 mm (118.15 to 157.48") ²⁾ and 4)	1 J	
- Extended rod, 4001 to 5000 mm (157.52 to 196.85") ²⁾ and 4)	1 K	
- Extended rod, 5001 to 5500 mm (196.89 to 216.53") ²⁾ and 4)	1 L	
Extended cable, 3000 mm (118.11"), length adjustable by customer ¹⁾	2 A	
Extended cable, 6000 mm (236.22"), length adjustable by customer ¹⁾	2 B	
<u>Add order code Y01 and plain text: "Insertion length ... mm"</u>		
- Extended cable, 500 to 4999 mm (19.69 to 196.81") ¹⁾	2 C	
- Extended cable, 5000 to 9999 mm (196.85 to 393.66") ¹⁾	2 D	
- Extended cable, 10000 to 14999 mm (393.7 to 590.5") ¹⁾	2 E	
- Extended cable, 15000 to 19999 mm (590.6 to 787.4") ¹⁾	2 F	
- Extended cable, 20000 to 24999 mm (787.4 to 894.3") ¹⁾	2 G	
- Extended cable, 25000 to 29999 mm (984.3 to 1181.1") ¹⁾	2 H	
Sanitary compact, 98 mm (3.8") ¹⁾ and 5)	3 A	
<u>Add order code Y01 and plain text: "Insertion length ... mm"</u>		
- Sanitary extended, 110 to 999 mm (4.3 to 39.3") ¹⁾ and 5)	3 B	
- Sanitary extended, 1001 to 2000 mm (39.4 to 78.7") ¹⁾ and 5)	3 C	
- Sanitary extended, 2001 to 3000 mm (78.8 to 118.1") ¹⁾ 4) and 5)	3 D	
- Sanitary extended, 3001 to 4000 mm (118.1 to 157.5") ¹⁾ 4) and 5)	3 E	
- Sanitary extended, 4001 to 5000 mm (157.5 to 196.9") ¹⁾ 4) and 5)	3 F	
- Sanitary extended, 5001 to 5500 mm (196.9 to 216.5") ¹⁾ 4) and 5)	3 G	

Selection and Ordering data		Order No.
Pointek CLS200, threaded/sanitary version		7 M L 5 5 0 2 -
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		
¾" NPT [(Taper), ANSI/ASME B1.20.1]	A	
1" NPT [(Taper), ANSI/ASME B1.20.1]	B	
1½" NPT [(Taper), ANSI/ASME B1.20.1]	C	
R ¾" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203]	D	
R 1" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203]	E	
R 1½" [(BSPT), EN 10226/PT (JIS-T), JIS B 0203]	F	
1¼" NPT [(Taper), ANSI/ASME B1.20.1]	K	
G ¾" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202]	L	
G 1" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202]	M	
G 1½" [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202]	N	
1" sanitary fitting clamp ⁶⁾ and 7)	R	
1½" sanitary fitting clamp ⁶⁾ and 7)	S	
2" sanitary fitting clamp ⁶⁾ and 7)	T	
2½" sanitary fitting clamp ⁶⁾ and 7)	V	
3" sanitary fitting clamp ⁶⁾ and 7)	W	
Approvals		
General Purpose		1
CSA/FM Class II and III Div. 1, Groups E, F, G ⁸⁾		2
FM Class I Div. 1, Groups A, B, C, D T4 ⁸⁾		3
CSA Class I, Div. 1, Groups A, B, C, D T4 ⁸⁾		4
ATEX II 1/2 D T 100 °C ⁸⁾		5
ATEX II 1/2 G EEx d [ia] IIC T6 to T4 ⁸⁾		6
CSA/FM Class I, Div 2, Groups A, B, C, D T4;		7
CSA/FM Class II and III, Div. 2, Groups F, G;		
ATEX II 3G 2D EEx n A IIC T6 to T4 T100 °C ⁹⁾		
CSA/FM Class I, II and III, Div 1, Groups A, B, C, D, E, F, G T4; ATEX II 1G 1/2D EEx ia IIC T6 to T4 T100 °C ⁹⁾ and 10)		8
CSA/FM Class I, II and III, Div. 1, Groups A, B, C, D, E, F, G T4; ATEX II 1/2 GD EEx d [ia] IIC T6 to T4 T100 °C ⁹⁾		0
Enclosure (see also option A01)		
<u>Aluminum epoxy coated</u>		
• 2 x ½" NPT via adapter, cable inlet, IP65		0
• 2 x M20x1.5 cable inlet, IP65		1
• 2 x ½" NPT via adapter, cable inlet, IP68		2
• 2 x M20x1.5 cable inlet, IP68		3
Additional options		
Standard version		A
With thermal isolator		B
With PVDF probe body		C
With thermal isolator and PVDF probe body		D
With sliding coupling		E
With thermal isolator and sliding coupling		F
With sliding coupling and PVDF probe body		G
With thermal isolator, sliding coupling and PVDF probe body		H
WHG approval, German overfill protection		
Not required		A
Required ⁸⁾		B
Electronics/output		
Standard version without display,		0
12 to 230 V AC/DC, solid-state and relay output ¹¹⁾		
Digital version with display, 24 V DC, solid-state output and PROFIBUS PA ¹¹⁾ and 12)		1

Selection and Ordering data		Order No.	
Pointek CLS200, welded flange		7 M L 5 5 0 4 -	
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.			
Note: To select Standard or Digital CLS200 (with PROFIBUS PA), see final place holder under Electronics/output.			
Probe version (length from flange face)			
Compact, 98 mm (3.86")	0 X		
Extended rod, 250 mm (9.84")	1 A		
Extended rod, 350 mm (13.78")	1 B		
Extended rod, 500 mm (19.69")	1 C		
Extended rod, 750 mm (29.53")	1 D		
Extended rod, 1000 mm (39.37")	1 E		
<u>Add order code Y01 and plain text: "Insertion length ... mm"</u>			
- Extended rod, 200 to 999 mm (7.87 to 39.33")	1 F		
- Extended rod, 1001 to 2000 mm (39.41 to 78.74")	1 G		
- Extended rod, 2001 to 3000 mm (78.78 to 118.11") ¹⁾	1 H		
- Extended rod, 3001 to 4000 mm (118.15 to 157.48") ¹⁾	1 J		
- Extended rod, 4001 to 5000 mm (157.52 to 196.85") ¹⁾	1 K		
- Extended rod, 5001 to 5500 mm (196.89 to 216.53") ¹⁾	1 L		
Extended cable, 3000 mm (118.1"), length adjustable by customer	2 A		
Extended cable, 6000 mm (236.2"), length adjustable by customer	2 B		
<u>Add order code Y01 and plain text: "Insertion length ... mm"</u>			
- Extended cable, 500 to 4999 mm (19.69 to 196.81")	2 C		
- Extended cable, 5000 to 9999 mm (196.85 to 393.66")	2 D		
- Extended cable, 10000 to 14999 mm (393.7 to 590.5")	2 E		
- Extended cable, 15000 to 19999 mm (590.6 to 787.4")	2 F		
- Extended cable, 20000 to 24999 mm (787.4 to 894.3")	2 G		
- Extended cable, 25000 to 29999 mm (984.3 to 1181.1")	2 H		
Process connection			
<u>Welded flange, 316L stainless steel, raised face</u>			
1" ASME, 150 lb	A 1		
1" ASME, 300 lb	A 2		
1" ASME, 600 lb	A 3		
1½" ASME, 150 lb	B 1		
1½" ASME, 300 lb	B 2		
1½" ASME, 600 lb	B 3		
2" ASME, 150 lb	C 1		
2" ASME, 300 lb	C 2		
2" ASME, 600 lb	C 3		
3" ASME, 150 lb	D 1		
3" ASME, 300 lb ¹⁾	D 2		
3" ASME, 600 lb ¹⁾	D 3		
4" ASME, 150 lb ¹⁾	E 1		
4" ASME, 300 lb ¹⁾	E 2		
4" ASME, 600 lb ¹⁾	E 3		

Selection and Ordering data		Order No.		
Pointek CLS200, welded flange		7 M L 5 5 0 4 -		
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.				
<u>Welded flange, 316L stainless steel, Type A flat faced</u>				
DN 25, PN 16	J 4			
DN 25, PN 40	J 6			
DN 40, PN 16	K 4			
DN 40, PN 40	K 6			
DN 50, PN 16	L 4			
DN 50, PN 40	L 6			
DN 80, PN 16	M 4			
DN 80, PN 40 ¹⁾	M 6			
DN 100, PN 16 ¹⁾	N 4			
DN 100, PN 40 ¹⁾	N 6			
(Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5, or EN 1092-1 standard.)				
Approvals				
General Purpose		1		
CSA/FM Class II and III Div. 1, Groups E, F, G ²⁾		2		
FM Class I Div. 1, Groups A, B, C, D T4 ²⁾		3		
CSA Class I, Div. 1, Groups A, B, C, D T4 ²⁾		4		
ATEX II 1/2 D T100 °C ²⁾		5		
ATEX II 1/2 G EEx d [ia] IIC T6 to T4 ²⁾		6		
CSA/FM Class I, Div 2, Groups A, B, C, D T4;		7		
CSA/FM Class II and III, Div 2, Groups F, G; ATEX II 3G 2D EEx n A IIC T6 to T4 T100 °C ³⁾		8		
CSA/FM Class I, II and III, Div. 1, Groups A, B, C, D, E, F, G T4; ATEX II 1G 1/2D EEx ia IIC T6 to T4 T100 °C ³⁾ and 4)		0		
CSA/FM Class I, II and III, Div. 1, Groups A, B, C, D, E, F, G, T4; ATEX II 1/2 GD EEx d [ia] IIC T6 to T4 T100 °C ³⁾				
Enclosure (see also option A01)				
<u>Aluminum epoxy coated</u>				
• 2 x ½" NPT via adapter - cable inlet, IP65		0		
• 2 x M20x1.5 cable inlet, IP65		1		
• 2 x ½" NPT via adapter - cable inlet, IP68		2		
• 2 x M20x1.5 cable inlet, IP68		3		
Additional options				
Standard version		A		
With thermal isolator		B		
With PVDF probe body		C		
With thermal isolator and PVDF probe body		D		
WHG approval, German overfill protection				
Not required		A		
Required ²⁾		B		
Electronics/output				
Standard version without display,		0		
12 to 230 V AC/DC, solid-state and relay output ⁵⁾				
Digital version with display, 24 V DC, solid-state output and PROFIBUS PA ⁵⁾ and 6)		1		

Selection and Ordering data		Order No.
Pointek CLS200, welded flange, PFA coated		7 ML 5 5 0 5 -
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.		
Note: To select Standard or Digital CLS200 (with PROFIBUS PA), see final place holder under Electronics/output.		
Probe version (length from flange face)		
Compact, 98 mm (3.86")	0 X	
Extended rod, 250 mm (9.84")	1 A	
Extended rod, 350 mm (13.78")	1 B	
Extended rod, 500 mm (19.69")	1 C	
Extended rod, 750 mm (29.53")	1 D	
Extended rod, 1000 mm (39.37")	1 E	
<u>Add order code Y01 and plain text: "Insertion length ... mm"</u>		
- Extended rod, 200 to 999 mm (7.87 to 39.33")	1 F	
- Extended rod, 1001 to 2000 mm (39.41 to 78.74")	1 G	
- Extended rod, 2001 to 3000 mm (78.78 to 118.11") ¹⁾	1 H	
- Extended rod, 3001 to 4000 mm (118.15 to 157.48") ¹⁾	1 J	
- Extended rod, 4001 to 5000 mm (157.52 to 196.85") ¹⁾	1 K	
- Extended rod, 5001 to 5500 mm (196.89 to 216.53") ¹⁾	1 L	
Process connection		
<u>Welded flange, 316L stainless steel, raised face, PFA coated</u>		
1" ASME, 150 lb	A 1	
1" ASME, 300 lb	A 2	
1" ASME, 600 lb	A 3	
1½" ASME, 150 lb	B 1	
1½" ASME, 300 lb	B 2	
1½" ASME, 600 lb	B 3	
2" ASME, 150 lb	C 1	
2" ASME, 300 lb	C 2	
2" ASME, 600 lb	C 3	
3" ASME, 150 lb	D 1	
3" ASME, 300 lb ¹⁾	D 2	
3" ASME, 600 lb ¹⁾	D 3	
4" ASME, 150 lb ¹⁾	E 1	
4" ASME, 300 lb ¹⁾	E 2	
4" ASME, 600 lb ¹⁾	E 3	
<u>Welded flange, 316L stainless steel, Type A flat faced, PFA coated</u>		
DN 25, PN 16	J 4	
DN 25, PN 40	J 6	
DN 40, PN 16	K 4	
DN 40, PN 40	K 6	
DN 50, PN 16	L 4	
DN 50, PN 40	L 6	
DN 80, PN 16	M 4	
DN 80, PN 40 ¹⁾	M 6	
DN 100, PN 16 ¹⁾	N 4	
DN 100, PN 40 ¹⁾	N 6	
(Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1 standard.)		

Selection and Ordering data		Order No.
Pointek CLS200, welded flange, PFA coated		7 ML 5 5 0 5 -
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.		
Approvals		
General Purpose	1	
CSA/FM Class II and III Div. 1, Groups E, F, G ²⁾	2	
FM Class I Div. 1, Groups A, B, C, D T4 ²⁾	3	
CSA Class I, Div. 1, Groups A, B, C, D T4 ²⁾	4	
ATEX II 1/2 D T100 °C ²⁾	5	
ATEX II 1/2 G EEx d [ia] IIC T6 to T4 ²⁾	6	
CSA/FM Class I, Div 2, Groups A, B, C, D T4; CSA/FM Class II and III, Div 2, Groups F, G; ATEX II 3G 2D EEx n A IIC T6 to T4 T100 °C ³⁾	7	
CSA/FM Class I, II and III, Div. 1, Groups A, B, C, D, E, F, G T4; ATEX II 1G 1/2D EEx ia IIC T6 to T4 T100 °C ³⁾ and 4)	8	
CSA/FM Class I, II and III, Div. 1, Groups A, B, C, D, E, F, G, T4; ATEX II 1/2 GD EEx d [ia] IIC T6 to T4 T100 °C ³⁾	0	
Enclosure (see also option A01)		
<u>Aluminum epoxy coated</u>		
• 2 x ½" NPT via adapter - cable inlet, IP65	0	
• 2 x M20x1.5 cable inlet, IP65	1	
• 2 x ½" NPT via adapter - cable inlet, IP68	2	
• 2 x M20x1.5 cable inlet, IP68	3	
Additional options		
Standard version		A
With thermal isolator		B
With PVDF probe body		C
With thermal isolator and PVDF probe body		D
WHG approval, German overfill protection		
Not required		A
Required ²⁾		B
Electronics/output		
Standard version without display, 12 to 230 V AC/DC, solid-state and relay output ⁵⁾		0
Digital version with display, 24 V DC, solid-state output and PROFIBUS PA ⁵⁾ and 6)		1
Further designs		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 38 mm (2.7 x 1.5")]: Measuring-point number/identification (max. 20 characters); specify in plain text	Y15	
Electrical connection/cable inlet: PROFIBUS connector M12 ³⁾ and 7)	A01	
Optional enclosure lid: Lid with glass window instead of closed lid without window ⁵⁾	A04	
Acceptance test certificate: Manufacturer's test certificate M to DIN 55350, Part 18 and ISO 9000 Inspection Certificate Type 3.1 per EN 10204	C11	
	C12	
SIL/IEC61508 Declaration of Conformity [SIL 2 (overspill)] ²⁾	C20	
<u>Remote Electronics</u>		
• Remote mounted electronics with 2 m (79") cable	A05	
• Remote mounted electronics with 5 m (197") cable	A06	
• Mounting bracket (including mounting kit) for remote electronics	A09	

Selection and Ordering data	Order No.
Pointek CLS200, welded flange, PFA coated 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.	7 ML 5 5 0 5 - 
Instruction manual Note: The instruction manual 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 instruction manual library.	See page 5/23
Accessories	See page 5/23
- Custom shipping methods required. Contact factory for more details. - Available with electronics option 0 only - Available with electronics option 1 only - Barrier required for Intrinsically Safe protection. - Version with electronics option 0 has a standard closed lid without window as default; version with electronics option 1 has a standard lid with glass window as default. - An M12 PROFIBUS connector can be selected separately with wildcard option (A01). - Available only with enclosure option 1	

Selection and Ordering data	Order No.
Instruction manual English French German Note: The instruction manual should be ordered as a separate line on the order.	7ML1998-5AR02 7ML1998-5AR12 7ML1998-5AR32
Additional instruction manual Quick Start manual, multi-language Note: Due to ATEX regulations, one Quick Start manual is included with every product.	7ML1998-5QE81
This device is shipped with the Siemens Milltronics manual CD containing the complete ATEX Quick Start and instruction manual library.	
Accessories Sensguard, ¾" NPT (PPS) Only available for CLS200 with ¾" NPT thread Sensguard, R 1" (BSPT) (PPS) Only available for CLS200 with ¾" NPT thread ½" NPT cable gland, nickel plated brass, fits cable F) diameter 6 to 12 mm (0.24 to 0.47") -40 to +100 °C (-40 to +212 °F), IP68 (General Purpose)	7ML1830-1DL 7ML1830-1DM 7ML1830-1JA
½" NPT cable gland, brass, ATEX II 2GD EEx d IIC F) and EEx e II, fits cable diameter 6.5 to 14 mm (0.26 to 0.55"), -60 to +130 °C (-76 to +266 °F), IP68 (Explosion Proof)	7ML1830-1JB
M20x1.5 cable gland, PA polyamide, ATEX II 2G F) EEx e II, fits cable diameter 7 to 12 mm (0.28 to 0.47"), -20 to +70 °C (-4 to +158 °F), IP68 (General Purpose)	7ML1830-1JC
M20x1.5 cable gland, brass, ATEX II 2GD EEx d IIC F) and EEx e II, fits cable diameter 10.5 to 15.9 mm (0.41 to 0.63"), under armour cable diameter 6.1 to 11.5 mm (0.24 to 0.45"), -60 to +130 °C (-76 to +266 °F), IP68 (Explosion Proof)	7ML1830-1JD
One metallic cable gland M20x1.5, -40 to +80 °C (-40 to +176 °F)	7ML1930-1AP
One metallic cable gland M20x1.5, -40 to +80 °C (-40 to +176 °F) with integrated shield connection (available for PROFIBUS PA)	7ML1930-1AQ
Blind threaded flanges are available. Please contact nacc.smpi@siemens.com with a completed application data sheet on page 5/8.	
Spare parts Test magnet (digital version) Amplifier/power supply, standard version Amplifier/power supply, digital version LCD display (digital version)	7ML1830-1JE 7ML1830-1DJ 7ML1830-1JF 7ML1830-1JK
C) Subject to export regulations AL: N, ECCN: EAR99 F) Subject to export regulations AL: 91999, ECCN: N	