

Pointek CLS500

Overview



Pointek CLS500 is an inverse frequency shift capacitance level switch for detecting interfaces, solids, liquids, toxic, and aggressive chemicals in critical conditions of high temperature and pressure.

Benefits

- Patented Active-Shield technology so measurement is unaffected by material buildup in active shield section
- 2-wire loop powered with solid-state switch or 4 to 20/20 to 4 mA output
- Simple push-button calibration and integrated local display
- Full function diagnostics
- HART communications for remote commissioning and inspection

Application

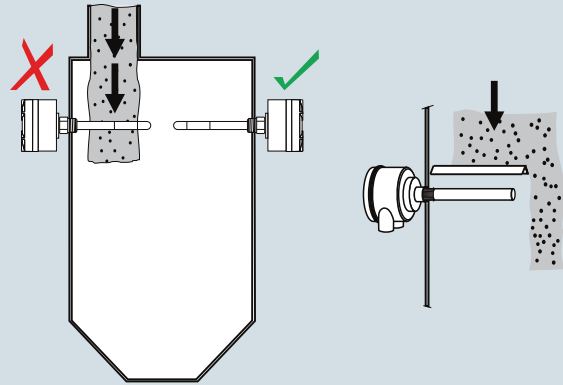
Patented Active-Shield technology ensures that measurement is unaffected by vapors, product deposits, dust and condensation. The unique mechanical probe design coupled with a high performance transmitter gives superior performance in a wide range of level detection applications.

Pointek CLS500's microprocessor-based electronics provide one-point calibration, making setup possible without shutting down your production process.

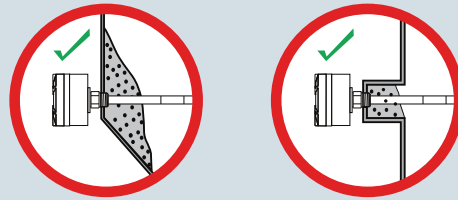
- Key Applications: foam or liquid/foam level, glycol regenerators, high-pressure coalescers, LNG applications

Configuration

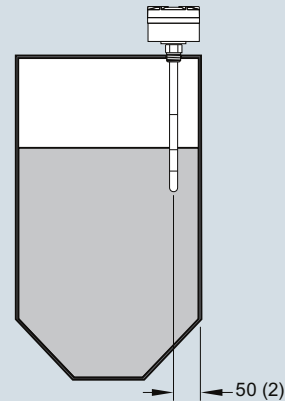
Installation



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



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



Install probe at least 50 (2) from tank wall.

Pointek CLS500 installation, dimensions in mm (inch)

Level Measurement

Point level measurement – Capacitance switches

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Technical specifications

Input		Design	
Measuring range	0 ... 330 pF	Material	
Span	Min. 1 pF	<ul style="list-style-type: none"> Wetted parts material - Standard rod Probe isolation (rod) 	316L stainless steel PFA
Output		Probe diameter	
<ul style="list-style-type: none"> Solid-state switch Output Protection Max. switching voltage Max. load current Voltage drop Time delay (pre or post switching) Current loop 	Galvanically isolated Against reversed polarity (bipolar) <ul style="list-style-type: none"> 30 V DC 30 V peak AC 82 mA < 1 V, typical at 50 mA 1 ... 60 s 4 ... 20 mA/20 ... 4 mA	<ul style="list-style-type: none"> Standard rod version (PFA) High temperature rod version (stainless steel) 	16 mm (0.63 inch) 19 mm (0.75 inch)
		Probe length	
		<ul style="list-style-type: none"> Standard rod version (PFA) High temperature rod version (stainless steel) 	Max. 1 000 mm (39.4 inch) with 16 mm (0.63 inch) diameter probe Max. measuring length 1 000 mm (39.4 inch) with 19 mm (0.75 inch) diameter probe
Accuracy (transmitter)		Process connection of probe	
Temperature stability	0.15 pF (0 pF) or < 0.25 % (typical < 0.1 %) of actual measurement value, whichever is greater over the full temperature range	<ul style="list-style-type: none"> Threaded mounting Flange mounting 	NPT [(Taper), ANSI/ASME B1.20.1] R [(BSPT), EN 10226/PT (JIS-T), JIS B 0203] G [(BSPP), EN ISO 228-1/PF (JIS-P), JIS B 0202] ASME, EN 1092-1
Non-linearity and repeatability	0.1 % of full scale and actual measurement respectively	Enclosure	
Accuracy	Deviation < 0.1 % of measured value	<ul style="list-style-type: none"> Material Cable inlet Degree of protection 	Aluminum, epoxy-coated (stainless steel option available). Contact ceg.smpi@siemens.com 2 x 1/2" NPT Type 4X/NEMA4X/IP65, IP68
Rated operating conditions ¹⁾		Power supply	
Installation conditions			Max. 33 V DC
- Location	Indoor/outdoor	Features	
Ambient conditions		Measurement current signaling	NAMUR NE 43
<ul style="list-style-type: none"> Ambient temperature (transmitter) Installation category Pollution degree 	-40 ... +85 °C (-40 ... +185 °F) ²⁾ I 4	Safety	<ul style="list-style-type: none"> Inputs/outputs fully galvanically isolated Polarity-insensitive current loop Fully potted Integrated safety barrier
Medium conditions		<ul style="list-style-type: none"> Diagnostics with fault alarm when: Function rotary switch SMART communication 	<ul style="list-style-type: none"> Primary variable (PV) out of limits, system failure in measurement circuit, deviation between A/D and D/A converter, check sum, watch dog and self-checking facility Positions 0 ... 9, A ... F Conforming to HART Communication Foundation (HCF)
<ul style="list-style-type: none"> Relative dielectric constant ϵ_r Process temperature 	Min. 1.5 Temperature ratings are pressure dependent. See Pressure/Temperature curves on page 4/74. -50 ... +200 °C (-58 ... +392 °F) -60 ... +400 °C (-76 ... +752 °F) -200 ... +200 °C (-328 ... +392 °F) Contact ceg.smpi@siemens.com for details.	Certificates and approvals	
- Standard (PFA)		<ul style="list-style-type: none"> General Purpose Non incensive/Non sparking Dust Ignition Proof Explosion Proof Marine 	CE, CSA/FM, C-TICK CSA/FM Class I, Div. 2, Groups A, B, C, D T4 ATEX II 3G 2D EEx n A [ib] IIC T6 to T4 T100 °C CSA/FM Class II and III, Div. 1, Groups E, F, G T4 ATEX II 1/2 GD EEx d [ia] T6 to T1 T100 °C FM Class 1, Div. 1, Groups A, B, C, D T4 ATEX II 1/2 GD EEx d [ia] IIC T6 to T1 T100 °C Lloyds Register of Shipping, Categories ENV1, ENV2, ENV3, ENV5, Bureau Veritas
- High temperature stainless steel version with thermal isolator			
- Cryogenic version			
Process pressure	Pressure rating of process seal is temperature dependent. See Pressure/Temperature curves on page 4/74.		
<ul style="list-style-type: none"> Standard (PFA) High temperature version (stainless steel) 	-1 ... +150 bar g (-14.6 ... +2 175 psi g) -1 ... +35 bar g (-14.6 ... +507.6 psi g)		

¹⁾ When operation is in areas classified as hazardous, observe restrictions according to relevant certificate.
See also Pressure/Temperature curves on page 4/74.

²⁾ Thermal isolator is used if process connection temperature exceeds 85 °C (185 °F)

Level Measurement

Point level measurement – Capacitance switches

Pointek CLS500

Pointek CLS500 probe version	Standard	HT Series
Process connection types	Standard (PFA) (7ML5601, 7ML5602, 7ML5603)	High Temperature (Enamel or stainless steel) (7ML5604)
Threaded	Available as standard	–
Flange	Available as standard	Available as standard
Process connection materials		
316L stainless steel	Available as standard	Available as standard
Probe insulation		
None	–	HT stainless: available as standard
PFA	Available as standard	–
Length parameters		
Max. rod length	1 000 mm (40 inch)	1 000 mm (40 inch)
Process conditions ¹⁾		
Max. process pressure	150 bar g (2 175 psi g)	Stainless steel: ²⁾ 35 bar g (507 psi g)
Max. process temperature	200 °C (392 °F)	400 °C (752 °F)

¹⁾ When operation is in areas classified as hazardous, observe restrictions according to relevant certificate. See also Pressure/Temperature curves on page 4/74. Pressure rating of process seal is temperature dependent. See Pressure/Temperature curves on page 4/74.

²⁾ Pressure rating of process seal is temperature dependent. See Pressure/Temperature curves on page 4/74.

– Not available as standard

Level Measurement

Point level measurement – Capacitance switches

Pointek CLS500

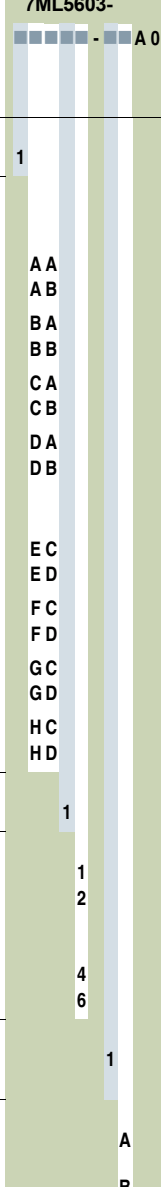
Selection and Ordering data	Article No.	Selection and Ordering data	Order code
Pointek CLS500, welded flange Inverse frequency shift capacitance level switch for detecting interfaces, solids, liquids, toxic and aggressive chemicals in critical conditions of extreme temperature and pressure.	7ML5602- 	Further designs Please add "-Z" to Article No. and specify Order code(s).	
Electronic transmitter MSP 2002-1 (330 pF)	1	Total insertion length: enter the total insertion length in plain text description Active Shield length - minimum length is 50 mm. Y02: to mm ¹⁾	Y01 Y02
Process connection and pressure rating <u>Welded flange, 316L stainless steel, raised face</u> 2" ASME, 150 lb 2" ASME, 300 lb 3" ASME, 150 lb 3" ASME, 300 lb ¹⁾ 4" ASME, 150 lb ¹⁾ 4" ASME, 300 lb ¹⁾ 6" ASME, 150 lb ¹⁾ 6" ASME, 300 lb ¹⁾ <u>Welded flange, 316L stainless steel, Type A flat faced</u> DN 50 PN 16 DN 50 PN 40 DN 80 PN 16 DN 80 PN 40 DN 100 PN 16 ¹⁾ DN 125 PN 16 ¹⁾ (Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1 standard.)	AA AB BA BB CA CB DA DB EC ED FC FD GC HC	Stainless steel tag [69 x 50 mm (2.71 x 1.97 inch)]: Measuring-point number/identification (max. 27 characters) specify in plain text Manufacturer's test certificate: M to DIN 55350, Part 18 and to ISO 9000 Inspection Certificate Type 3.1 per EN 10204	Y15 C11 C12
Probe insulation/material of process connection PFA insulation/316L stainless steel	1	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 DVD containing the ATEX Quick Start and manual library.	See page 4/73
Approvals General Purpose CSA/FM Class I, Div. 2, Groups A, B, C, D T4; ATEX II 3GD 2D EEx nA [ib] IIC T6 to T4 T100 °C; CSA/FM Class II and III Div. 1, Groups E, F, G T4 ATEX II 1/2 GD EEx d [ia] IIC T6 to T1 T100 °C FM Class I, Div. 1, Groups A, B, C, D T4	1 2 4 6	Pointek Specials	See page 4/82
Probe/electrode diameter 16 mm (0.63 inch) rigid rod, min. length 200 mm (7.9 inch), max. length 1 000 mm (39.4 inch)	1		
Thermal isolator Rigid thermal isolator [for process temperature over 85 °C (185 °F)] No thermal isolator	A B		

¹⁾ Custom shipping methods required. Contact factory for more details.

Level Measurement

Point level measurement – Capacitance switches

Pointek CLS500

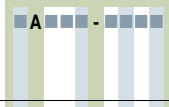
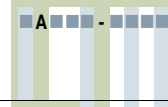
Selection and Ordering data	Article No.	Selection and Ordering data	Order code
Pointek CLS500, single piece flange Inverse frequency shift capacitance level switch for detecting interfaces, solids, liquids, toxic and aggressive chemicals in critical conditions of extreme temperature and pressure.	7ML5603- 	Further designs Please add "-Z" to Article No. and specify Order code(s). Total insertion length: enter the total insertion length in plain text description Active Shield length - minimum length is 50 mm. Y02: to mm ¹⁾ Stainless steel tag [69 x 50 mm (2.71 x 1.97 inch)]: Measuring-point number/identification (max. 27 characters) specify in plain text Manufacturer's test certificate: M to DIN 55350, Part 18 and to ISO 9000 Inspection Certificate Type 3.1 per EN 10204	
Electronic transmitter MSP 2002-1 (330 pF)	1		Y01 Y02 Y15
Process connection and pressure rating <u>Single piece flange, 316L stainless steel, raised face</u> 2" ASME, 150 lb 2" ASME, 300 lb 3" ASME, 150 lb 3" ASME, 300 lb ¹⁾ 4" ASME, 150 lb ¹⁾ 4" ASME, 300 lb ¹⁾ 6" ASME, 150 lb ¹⁾ 6" ASME, 300 lb ¹⁾ <u>Single piece flange, 316L stainless steel, Type B1 raised faced</u> DN 50 PN 16 DN 50 PN 25 DN 80 PN 16 DN 80 PN 25 DN 100 PN 16 ¹⁾ DN 100 PN 25 ¹⁾ DN 125 PN 16 ¹⁾ DN 125 PN 25 ¹⁾	AA AB BA BB CA CB DA DB EC ED FC FD GC GD HC HD		C11 C12
Probe insulation/material of process connection PFA insulation/316L stainless steel	1		
Approvals General Purpose: CE, CSA/FM, C-TICK CSA/FM Class I, Div. 2, Groups A, B, C, D T4; ATEX II 3GD 2D EEx nA [ib] IIC T6 to T4 T100 °C; CSA/FM Class II and III Div. 1, Groups E, F, G T4 ATEX II 1/2 GD EEx d [ia] IIC T6 to T1 T100 °C FM Class I, Div. 1, Groups A, B, C, D T4	1 2 4 6		
Probe/electrode diameter 16 mm (0.63 inch) rigid rod, maximum length 1 000 mm (39.4 inch) (Y01)	1		
Thermal isolator Rigid thermal isolator [for process connection temperature over 85 °C (185 °F)] No thermal isolator	A B		

¹⁾ Custom shipping methods required. Contact factory for more details

Level Measurement

Point level measurement – Capacitance switches

Pointek CLS500

Selection and Ordering data	Article No.	Selection and Ordering data	Article No.
Pointek CLS500 High temperature Inverse frequency shift capacitance level switch for detecting interfaces, solids, liquids, toxic and aggressive chemicals in critical conditions of extreme temperature and pressure.	7ML5604- 	Pointek CLS500 High temperature Inverse frequency shift capacitance level switch for detecting interfaces, solids, liquids, toxic and aggressive chemicals in critical conditions of extreme temperature and pressure.	7ML5604- 
Electronic transmitter MSP 2002-1 (330 pF)	1	Probe material of process connection No insulation/316L stainless steel ⁽³⁾⁽⁴⁾	1
Process connection and pressure rating <u>316L stainless steel, raised face¹⁾</u> 2" ASME, 150 lb 2" ASME, 300 lb 2" ASME, 600 lb 2" ASME, 900 lb 3" ASME, 150 lb 3" ASME, 300 lb ²⁾ 3" ASME, 600 lb ²⁾ 3" ASME, 900 lb ²⁾ 4" ASME, 150 lb ²⁾ 4" ASME, 300 lb ²⁾ 4" ASME, 600 lb ²⁾ 4" ASME, 900 lb ²⁾ 6" ASME, 150 lb ²⁾ 6" ASME, 300 lb ²⁾ 6" ASME, 600 lb ²⁾ 6" ASME, 900 lb ²⁾ <u>316L stainless steel, Type B1 flat faced</u> DN 50 PN 16 DN 50 PN 25 DN 50 PN 40 DN 50 PN 63 DN 80 PN 16 DN 80 PN 25 DN 80 PN 40 ²⁾ DN 80 PN 63 ²⁾ DN 100 PN 16 ²⁾ DN 100 PN 25 ²⁾ DN 100 PN 40 ²⁾ DN 100 PN 64 ²⁾ DN 125 PN 16 ²⁾ DN 125 PN 25 ²⁾ DN 125 PN 40 ²⁾ DN 125 PN 64 ²⁾ (Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1 standard.)	A 1 A 2 A 3 A 4 B 1 B 2 B 3 B 4 C 1 C 2 C 3 C 4 D 1 D 2 D 3 D 4 E 1 E 2 E 3 E 4 F 1 F 2 F 3 F 4 G 1 G 2 G 3 G 4 H 1 H 2 H 3 H 4	Stilling well No stilling well	0
		Approvals General Purpose CSA/FM Class I, Div. 2, Groups A, B, C, D T4; ATEX II 3GD 2D EEx nA [ib] IIC T6 to T4 T100 °C; CSA/FM Class II and III Div. 1, Groups E, F, G T4 ATEX II 1/2 GD EEx d [ia] IIC T6 to T1 T100 °C FM Class I, Div. 1, Groups A, B, C, D T4	A B D F
		Probe/electrode diameter Maximum length 1 000 mm (39.37 inch) ⁴⁾	A
		Thermal isolator Rigid thermal isolator [for process connection temperature over 85 °C (185 °F)]	1
		¹⁾ Welded flange for no insulation option only ²⁾ Custom shipping methods required ³⁾ Non-conductive material only, stainless steel non-insulated probe diameter 19 mm (0.75 inch) ⁴⁾ Add Order code Y01 and Y02 in plain text: "Insertion/active shield length to mm" Minimum insertion length depends on probe version selected. See dimensional drawings on page 4/74 for more details.	

Level Measurement

Point level measurement – Capacitance switches

Pointek CLS500

Selection and Ordering data	Order code
Further designs	
Please add "-Z" to Article No. and specify Order code(s).	
Total insertion length: enter the total insertion length in plain text description	Y01
Active Shield length - minimum length is 50 mm. Y02: to mm ¹⁾	Y02
Stainless steel tag [69 x 50 mm (2.71 x 1.97 inch)]: Measuring-point number/identification (max. 27 characters) specify in plain text	Y15
Manufacturer's test certificate: M to DIN 55350, Part 18 and to ISO 9000	C11
Inspection Certificate Type 3.1 per EN 10204	C12
Operating Instructions	
Article No.	
English	7ML1998-5GG03
German	7ML1998-5GG32
French	7ML1998-5GG11
Dutch	7ML1998-5GG41
Note: The Operating Instructions should be ordered as a separate line on the order. This device is shipped with the Siemens Milltronics manual DVD containing the ATEX Quick Start and Operating Instructions library. Quick Start manual, multi-language	A5E32243995
This device is shipped with the Siemens Milltronics manual DVD containing the ATEX Quick Start and Operating Instructions library.	
Accessories	
<u>General Purpose</u>	
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 inch)	7ML1830-1JA
M20x1.5 General Purpose Cable Entry IP68/IP69K NEMA6, -40 ... -100 °C (-40 ... -212 °F), cable size 7 ... 12 mm (0.275 ... 0.472 inch)	7ML1830-1JC
Transmitter, MSP 2002-1, 330 PF	7ML1830-1JP
<u>Hazardous Locations</u>	
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 inch)	7ML1830-1JB
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 inch)	7ML1830-1JD
Pointek Specials	See page 4/82

¹⁾ See dimensional drawings on page 4/74 for further explanation of Y02

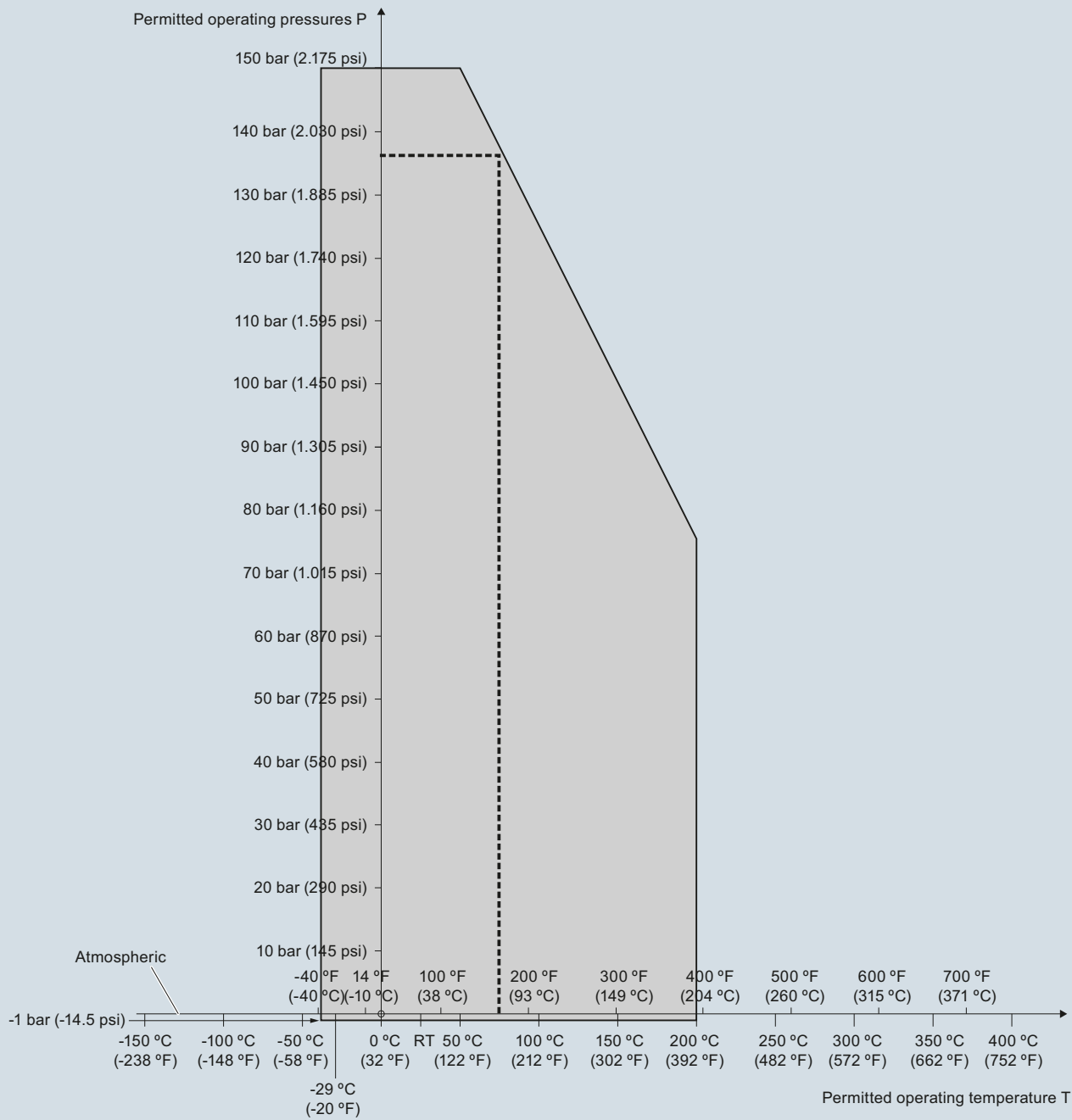
Level Measurement

Point level measurement – Capacitance switches

Pointek CLS500

Characteristic curves

Pressure/temperature curve
 CLS500 rod probes
 Threaded process connections
 (7ML5601)



--- Example:
 Permitted operating pressure = 137 bar (1988 psi) at 75 °C

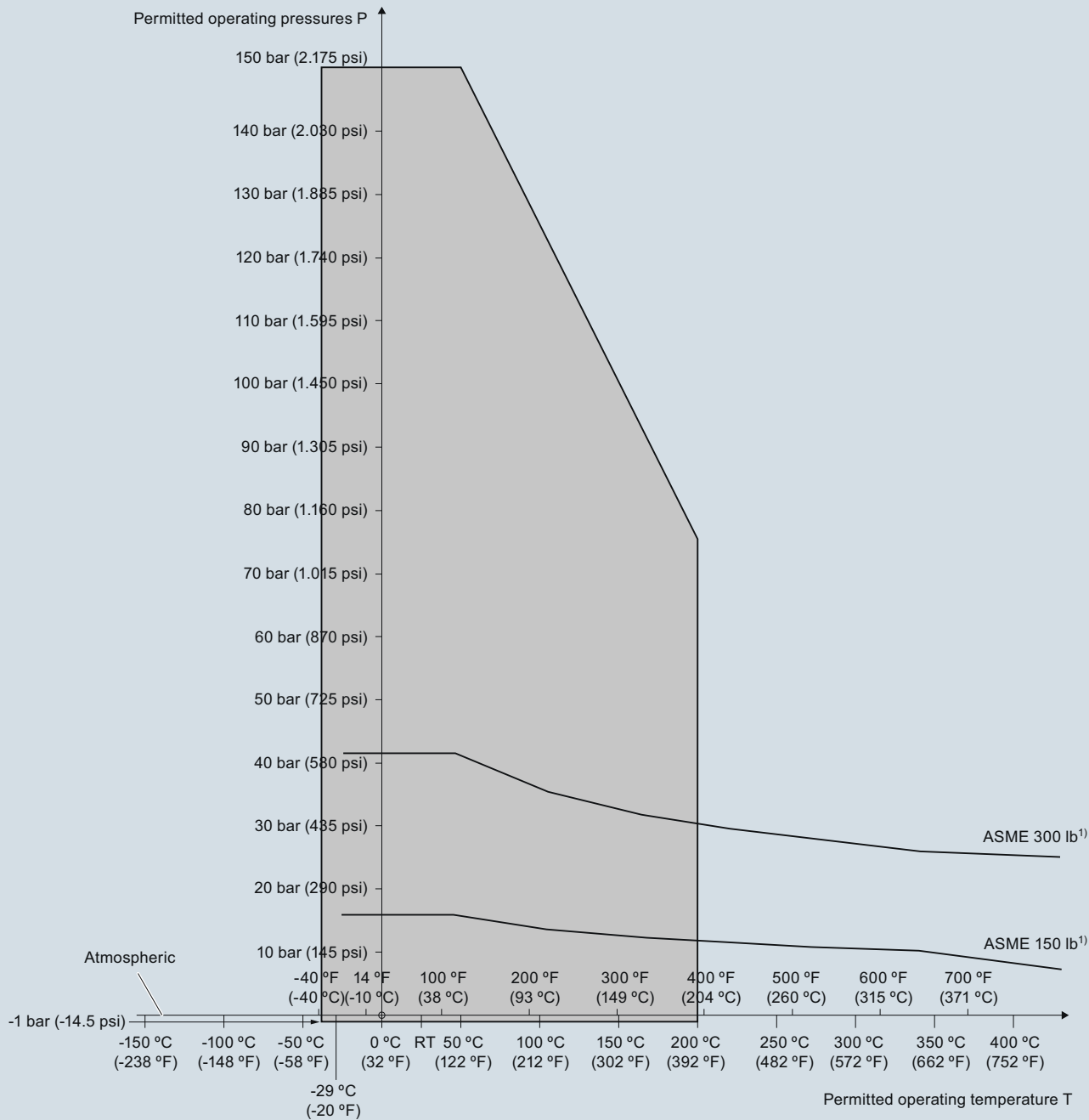
Pointek CLS500 Process Pressure/Temperature derating curves (7ML5601)

Level Measurement

Point level measurement – Capacitance switches

Pointek CLS500

Pressure/temperature curve
CLS500 rod probes
ASME flanged process connections
(7ML5602 and 7ML5603)



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

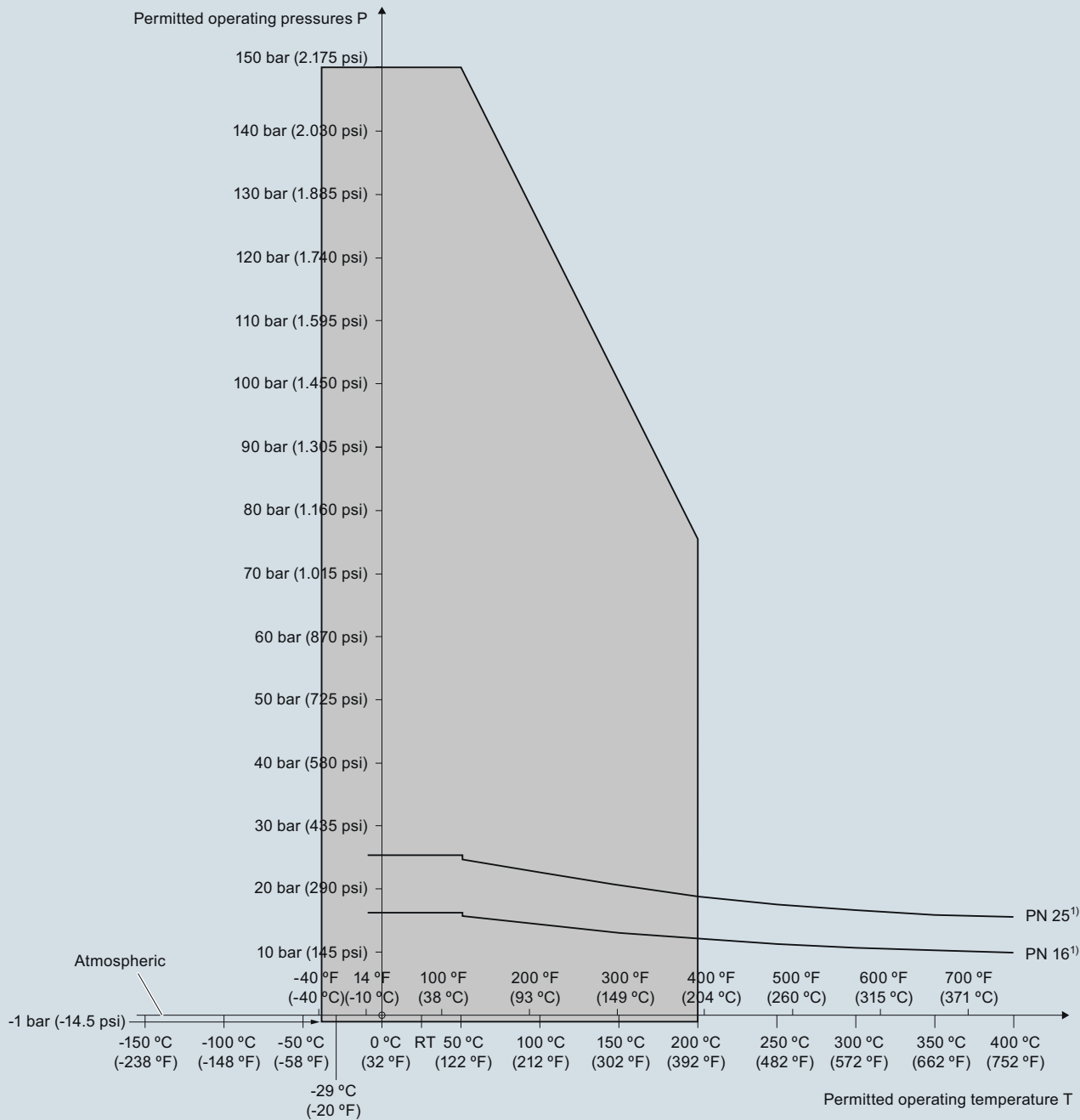
Pointek CLS500 Process Pressure/Temperature derating curves (7ML5602 and 7ML5603)

Level Measurement

Point level measurement – Capacitance switches

Pointek CLS500

Pressure/temperature curve
CLS500 rod probes
EN flanged process connections
(7ML5602 and 7ML5603)



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

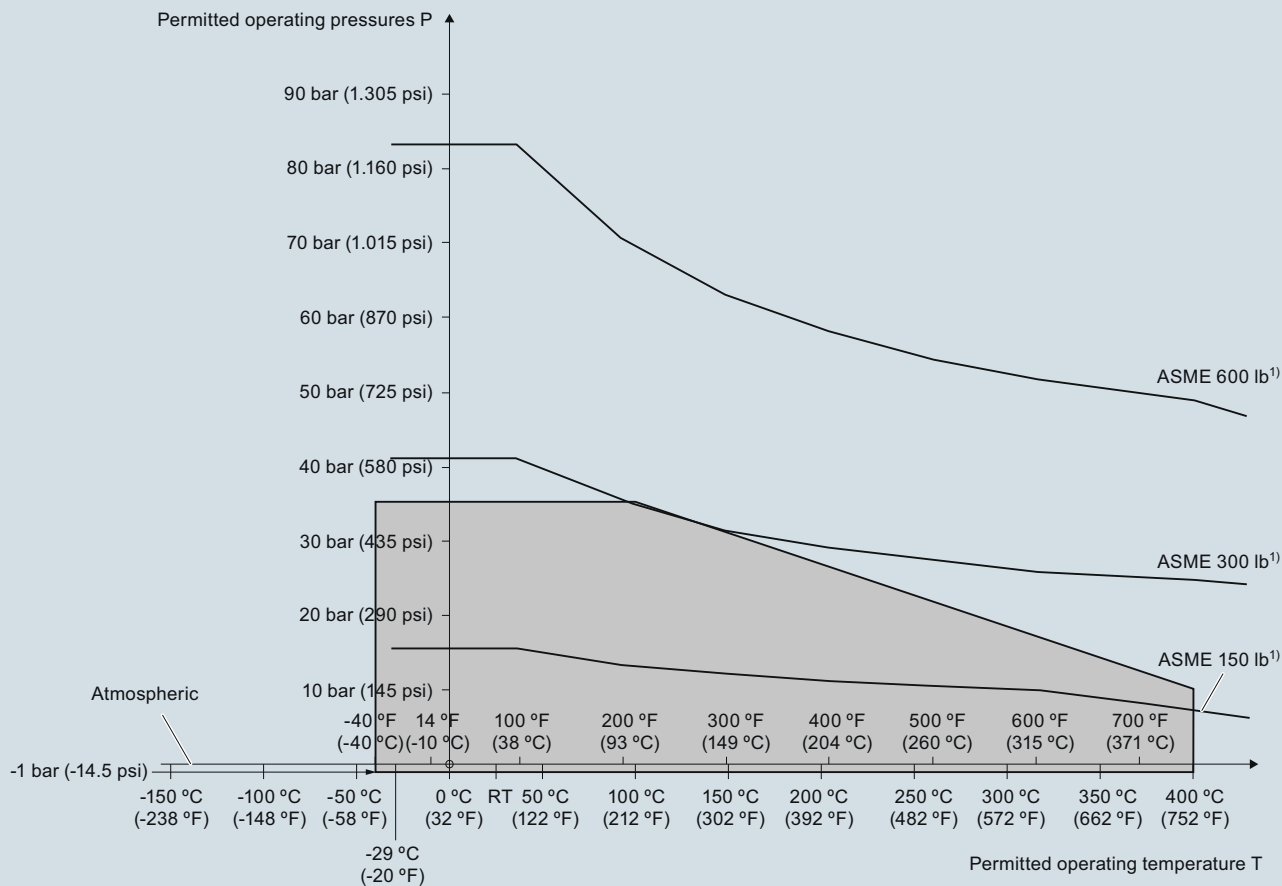
Pointek CLS500 Process Pressure/Temperature derating curves (7ML5602 and 7ML5603)

Level Measurement

Point level measurement – Capacitance switches

Pointek CLS500

Pressure/temperature curve
CLS500 high temperature (no insulation)
ASME flanged process connections
(7ML5604)



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

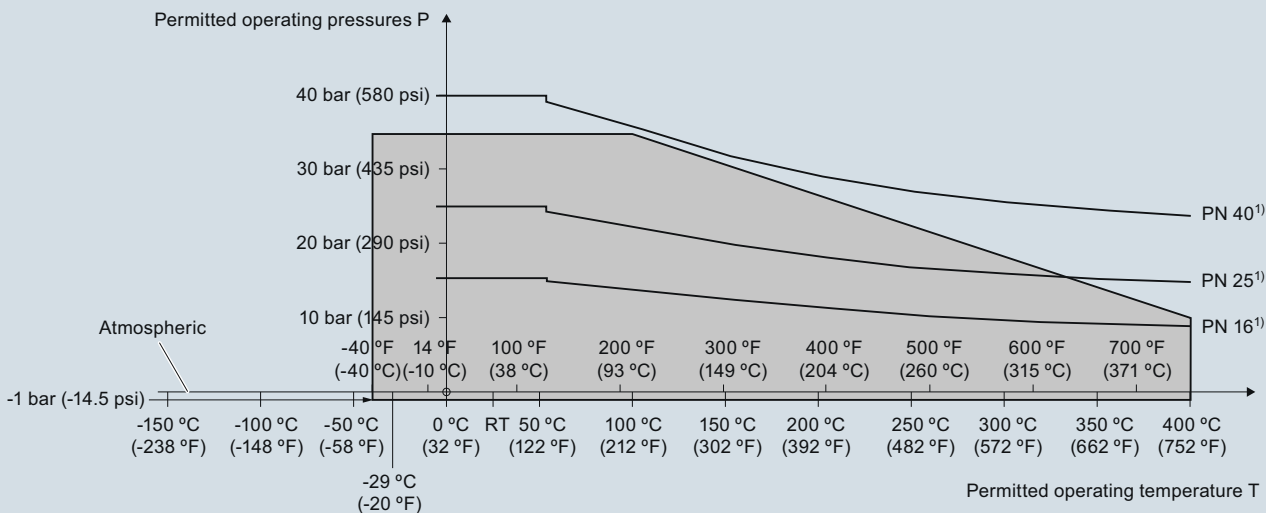
Pointek CLS500 Process Pressure/Temperature derating curves (7ML5604)

Level Measurement

Point level measurement – Capacitance switches

Pointek CLS500

Pressure/temperature curve
CLS500 high temperature (no insulation)
EN flanged process connections
(7ML5604)



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

Pointek CLS500 Process Pressure/Temperature derating curves (7ML5604)

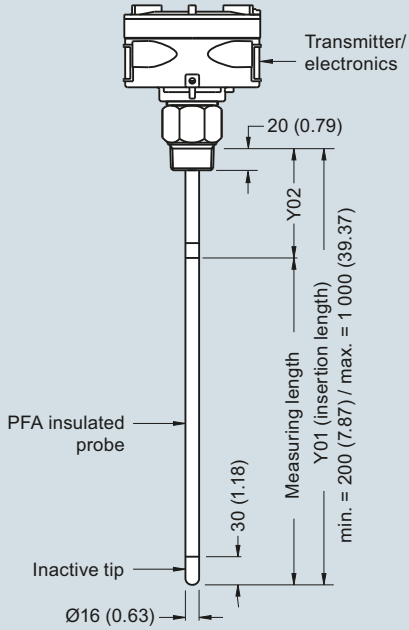
Level Measurement

Point level measurement – Capacitance switches

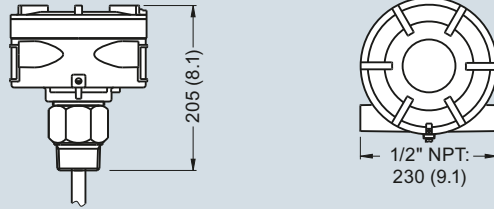
Pointek CLS500

Dimensional drawings

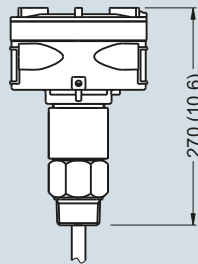
Standard rod version Threaded (7ML5601)



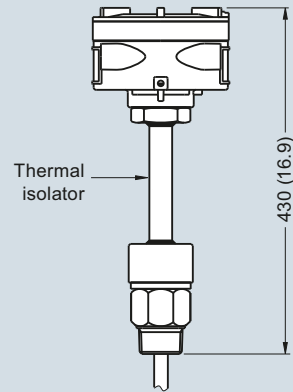
Standard configuration (7ML5601)



With explosion-proof seal option (all versions)



With thermal isolator option (all versions)



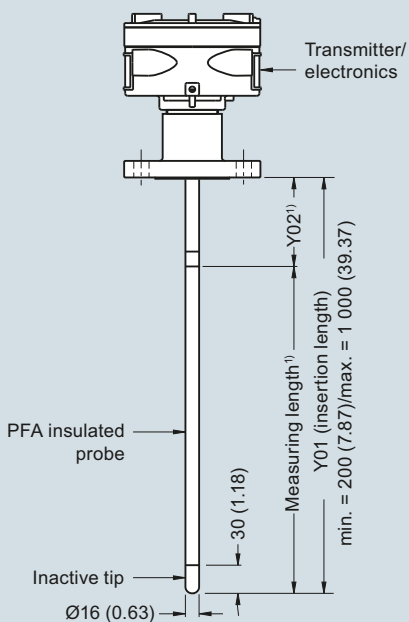
Pointek CLS500 - Threaded Process Connections, dimensions in mm (inch)

Level Measurement

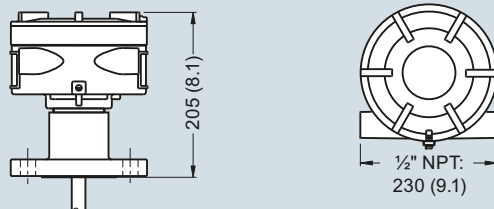
Point level measurement – Capacitance switches

Pointek CLS500

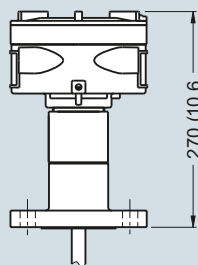
Standard Rod version
Welded Flange (7ML5602)
Single Piece Flange (7ML5603)



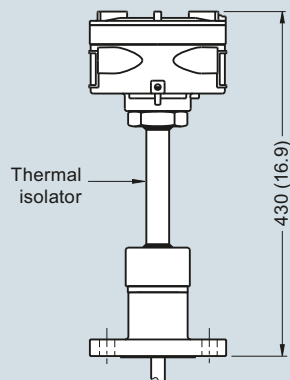
Standard configuration
(7ML5602, 7ML5603)



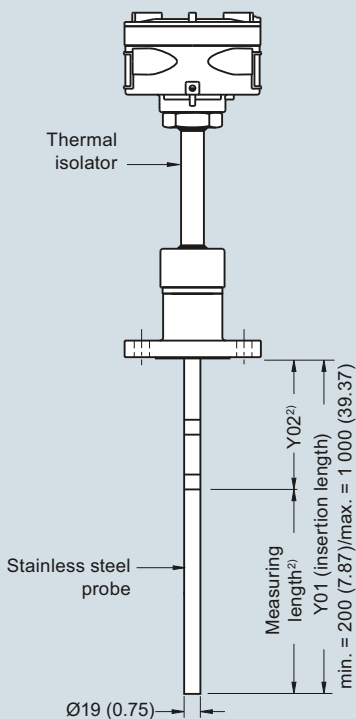
With explosion-proof seal option
(all versions)



With thermal isolator option
(all versions)



High temperature rod version
Welded Flange (7ML5604), Stainless steel rod⁴)



Flange Facing (raised face)	
Flange Class	Facing thickness
△ ASME 150/300	2 (0.08)
△ ASME 600/900	7 (0.28)
△ PN16/25/40/64	2 (0.08)

Notes:

- ¹) Min. Y02 (active shield length) = 50 (1.96)
- ²) Min. Y02 (active shield length) = 105 (4.13)
- ³) Min. Y02 (active shield length) = 100 (3.94)
- ⁴) Non conductive materials only

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

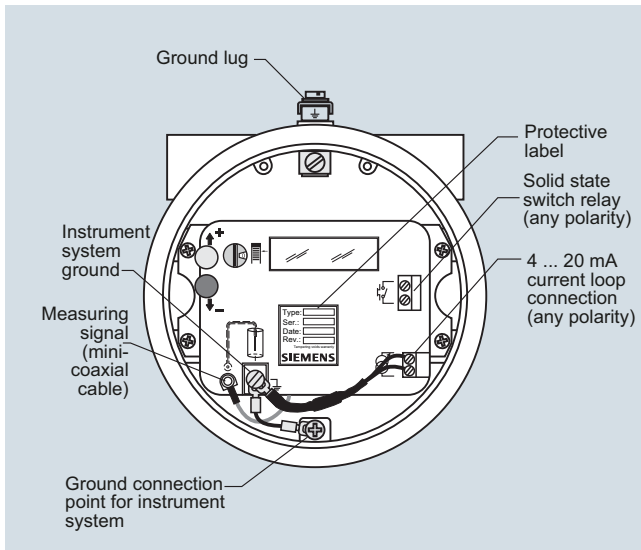
Pointek CLS500 - Flanged Process Connections, dimensions in mm (inch)

Level Measurement

Point level measurement – Capacitance switches

Pointek CLS500

Schematics



Pointek CLS500 connections

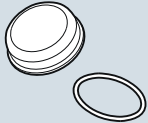
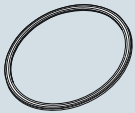
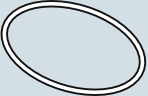
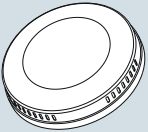
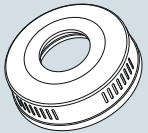

Level Measurement

Point level measurement – Capacitance switches

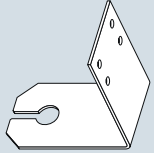


Pointek CLS Specials

Selection and ordering data

Pointek Specials¹⁾

	Article No.
CLS100 Polycarbonate Lid and Gasket, FKM	
	
Kit, Lid and gasket, CLS100 enclosure version	A5E01163671
CLS100 Miscellaneous Parts	
Custom length of cable is available only for 7ML5501-xxx1x and 7ML5501-xxx5x ²⁾	
CLS200 Gasket (IP65), Synprene	
	
Spare gasket, enclosure version (IP65 versions only)	A5E01163672
CLS200 Gasket (IP68), Silicone	
	
Spare gasket, enclosure version (IP68 versions)	A5E01163673
CLS200 Blind Lid	
	
Spare aluminum blind lid (for standard versions only)	A5E01163674
CLS200 Lid with window	
	
Spare aluminum lid with window	A5E01163676
CLS200 Sensor Kit for cable units	
	
Kit, Sensor for cable units, PPS, Standard, FKM	A5E01163677

Pointek Specials¹⁾




	Article No.
Kit, Sensor for cable units, PPS, Digital, FKM	A5E01163678
Kit, Sensor for cable units, PPS, Standard, FFKM	A5E01163679
Kit, Sensor for cable units, PPS, Digital, FFKM	A5E01163680
Kit, Sensor for cable units, PVDF, Standard, FKM	A5E01163681
Kit, Sensor for cable units, PVDF, Digital, FKM	A5E01163682
Kit, Sensor for cable units, PVDF, Standard, FFKM	A5E01163683
Kit, Sensor for cable units, PVDF, Digital, FFKM	A5E01163684
CLS200 Mounting Bracket, 316L stainless steel	
	
Spare mounting bracket	A5E01163685
CLS200 PROFIBUS Connector (IP65)	
	
Spare, PROFIBUS connector (IP65 versions only)	A5E01163686
CLS200 Miscellaneous Parts	
CLS200 with FFKM O-rings (any version) ²⁾	
CLS200 Electronics	
Test magnet, digital version	7ML1830-1JE
Amplifier/power supply kit, standard version	A5E03251681
Amplifier/power supply, digital version	7ML1830-1JF
LCD display, digital version	7ML1830-1JK
CLS300 Cable Extensions, 316L stainless steel	
	
Kit, stainless steel cable extension, 1 m, adjustable by customer	A5E01163688
Kit, stainless steel cable extension, 3 m, adjustable by customer	A5E01163689
Kit, stainless steel cable extension, 5 m, adjustable by customer	A5E01163690
Kit, stainless steel cable extension, 10 m, adjustable by customer	A5E01163691
Kit, stainless steel cable extension, 15 m, adjustable by customer	A5E01163693
Kit, stainless steel cable extension, 20 m, adjustable by customer	A5E01163695

Level Measurement

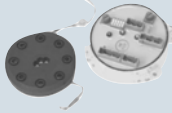
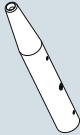

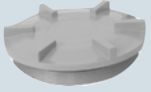
Point level measurement – Capacitance switches

Pointek CLS Specials

Pointek Specials¹⁾

	Article No.
CLS300 Cable Extensions, 316 stainless steel with PFA coating	
Kit, PFA cable extension, 1 m, adjustable by customer	A5E01163697
Kit, PFA cable extension, 3 m, adjustable by customer	A5E01163698
Kit, PFA cable extension, 5 m, adjustable by customer	A5E01163699
Kit, PFA cable extension, 10 m, adjustable by customer	A5E01163700
Kit, PFA cable extension, 15 m, adjustable by customer	A5E01163701
Kit, PFA cable extension, 20 m, adjustable by customer	A5E01163702
CLS300 Rod Kits, 316L stainless steel	
Kit, stainless steel rod 180 mm (7.09 inch) to be used with CLS300 units only (with standard active shield). Insertion length after installation is 350 mm (13.78 inch).	A5E01163719
Kit, stainless steel rod 330 mm (12.99 inch) to be used with CLS300 units only (with standard active shield). Insertion length after installation is 500 mm (19.69 inch).	A5E01163720
Kit, stainless steel rod 580 mm (22.83 inch) to be used with CLS300 units only (with standard active shield). Insertion length after installation is 750 mm (29.53 inch).	A5E01163721
Kit, stainless steel rod 830 mm (32.68 inch) to be used with CLS300 units only (with standard active shield). Insertion length after installation is 1 000 mm (39.37 inch).	A5E01163722
Kit, stainless steel rod 1 330 mm (52.36 inch) to be used with CLS300 units only (with standard active shield). Insertion length after installation is 1 500 mm (59.06 inch). ²⁾	
Kit, stainless steel rod 1 830 mm (72.05 inch) to be used with CLS300 units only (with standard active shield). Insertion length after installation is 2 000 mm (78.74 inch). ²⁾	
Kit, stainless steel rod customized length up to 1 m ²⁾	
Kit, stainless steel rod customized length up to 2 m ²⁾	
CLS300 Electronics Kits with drivers (for rod or cable versions)	
Kit, Electronics with driver, standard CLS300. To be used in rod or cable versions with length less than 5 m. ³⁾⁴⁾	A5E01163723
Kit, Electronics with driver, digital CLS300. To be used in rod or cable versions with length less than 5 m. ³⁾⁴⁾	A5E01163725

Pointek Specials¹⁾

	Article No.
CLS300 Electronics Kits with drivers (for cable versions)	
Kit, Electronics with driver, standard CLS300. To be used in cable versions with length greater than 5 m. ³⁾⁴⁾	A5E01163724
Kit, Electronics with driver, digital CLS300. To be used in cable versions with length greater than 5 m. ³⁾⁴⁾	A5E01163726
CLS300 Electronics	
Test magnet, digital version	7ML1830-1JE
Amplifier/power supply kit, standard version	A5E03251683
Amplifier/power supply, digital version	7ML1830-1JF
LCD display, digital version	7ML1830-1JK
CLS300 Weight Kit, 316L stainless steel	
Kit, Spare stainless steel weight. To be used in any cable version of CLS300	A5E01163727
CLS500 Gasket (IP65), Silicone	
Spare gasket, CLS500 enclosure version, IP65	A5E01163728
CLS500 Blind Lid	
Spare CLS500 aluminum blind lid	A5E01163729
CLS500 Electronics Kit	
Transmitter, MSP 2002-1, 330 PF	7ML1830-1JP

¹⁾ Special flange sizes and facings are available. Please contact ceg.smpi@siemens.com for part number and pricing. Submit Application Questionnaire found on page 4/11.

²⁾ Please contact ceg.smpi@siemens.com for part number and pricing.

³⁾ For General Purpose approvals only.

⁴⁾ To maintain approvals, qualified trained Siemens personnel required for part replacement.

Please contact ceg.smpi@siemens.com for special requests.