

Level Measurement

Point level measurement – Capacitance switches

Pointek CLS500


Selection and Ordering data	Article No.	Selection and Ordering data	Order code
Pointek CLS500, threaded Inverse frequency shift capacitance level switch for detecting interfaces, solids, liquids, toxic and aggressive chemicals in critical conditions of extreme temperature and pressure.	7ML5601- 	Further designs Please add "-Z" to Article No. and specify Order code(s).	
Electronic transmitter No transmitter supplied MSP 2002-1 (330 pF)	0 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 ¾" 1" 1¼" 1½" 2"	A B C D E	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
Threaded connection and rating 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]	A B D	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
Probe insulation/material of process connection PFA insulation/316L stainless steel	1	Pointek Specials	See page 4/82
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	1) See dimension drawings on page 4/74 for further explanation of Y02	
Probe/electrode diameter 16 mm (0.63 inch) rigid rod, minimum insertion length 200 mm (7.9 inch), maximum insertion length 1 000 mm (39.4 inch) ¹⁾	1		
Thermal isolator/remote version Rigid thermal isolator [for process connection temperature over 85 °C (185 °F)] No thermal isolator	A B		

1) Add Order code Y01 and Y02 in plain text: "Insertion/active shield length to mm"

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Pointek CLS500

Selection and Ordering data	Article No.
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-  A 0
Electronic transmitter MSP 2002-1 (330 pF)	1
Process connection and pressure rating Single piece flange, 316L stainless steel, raised face 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⁾ Single piece flange, 316L stainless steel, Type B1 raised faced 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
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

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 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	Y01 Y02 Y15 C11 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 DVD containing the ATEX Quick Start and manual library.	See page 4/73
Accessories	See page 4/82

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

Level Measurement

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Pointek CLS500

Selection and Ordering data

Article No.

Pointek CLS500 High temperature

7ML5604-

Inverse frequency shift capacitance level switch for detecting interfaces, solids, liquids, toxic and aggressive chemicals in critical conditions of extreme temperature and pressure.

A -

Electronic transmitter

MSP 2002-1 (330 pF)

1

Process connection and pressure rating

316L stainless steel, raised face¹⁾

2" ASME, 150 lb

A 1

2" ASME, 300 lb

A 2

2" ASME, 600 lb

A 3

2" ASME, 900 lb

A 4

3" ASME, 150 lb

B 1

3" ASME, 300 lb²⁾

B 2

3" ASME, 600 lb²⁾

B 3

3" ASME, 900 lb²⁾

B 4

4" ASME, 150 lb²⁾

C 1

4" ASME, 300 lb²⁾

C 2

4" ASME, 600 lb²⁾

C 3

4" ASME, 900 lb²⁾

C 4

6" ASME, 150 lb²⁾

D 1

6" ASME, 300 lb²⁾

D 2

6" ASME, 600 lb²⁾

D 3

6" ASME, 900 lb²⁾

D 4

316L stainless steel, Type B1 flat faced

DN 50 PN 16

E 1

DN 50 PN 25

E 2

DN 50 PN 40

E 3

DN 50 PN 63

E 4

DN 80 PN 16

F 1

DN 80 PN 25

F 2

DN 80 PN 40²⁾

F 3

DN 80 PN 63²⁾

F 4

DN 100 PN 16²⁾

G 1

DN 100 PN 25²⁾

G 2

DN 100 PN 40²⁾

G 3

DN 100 PN 64²⁾

G 4

DN 125 PN 16²⁾

H 1

DN 125 PN 25²⁾

H 2

DN 125 PN 40²⁾

H 3

DN 125 PN 64²⁾

H 4

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

Selection and Ordering data

Article No.

Pointek CLS500 High temperature

7ML5604-

Inverse frequency shift capacitance level switch for detecting interfaces, solids, liquids, toxic and aggressive chemicals in critical conditions of extreme temperature and pressure.

A -

Probe material of process connection

No insulation/316L stainless steel³⁾⁴⁾

1

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

A

B

ATEX II 1/2 GD EEx d [ia] IIC T6 to T1 T100 °C

D

FM Class I, Div. 1, Groups A, B, C, D T4

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.

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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