

Overview



EchoMax XPS transducers use ultrasonic technology to measure level in a wide range of liquids and solids.

Benefits

- Integral temperature compensation
- Low ringing effect reduces blanking distance
- Optional foam facing for dusty applications
- Self-cleaning and low-maintenance
- Chemically resistant
- Hermetically sealed

Application

XPS transducers can be fully immersed, are resistant to steam and corrosive chemicals, and can be installed without flanges.

The XPS series offers versions for various measuring ranges up to 30 m (100 ft) and up to a max. temperature of 95 °C (203 °F).

During operation, the EchoMax transducers emit acoustic pulses in a narrow beam. The level monitor measures the propagation time between pulse emission and its reflection (echo) to calculate the distance.

EchoMax XPS

Selection and ordering data

| EchoMax XPS-10 Ultrasonic level transducer Continuous, non-contact, 10 m (32.81 ft) range, for liquids and solids. | | Article No. 7ML1115- ● ● ● ● 0 | | | | |
|---|---|-----------------------------------|---|---|---|--|
| Click on the Article No. for the online configuration in the PIA Life Cycle Portal. | | | | | | |
| Mounting thread and facing | | | | | | |
| 1" NPT [(Taper), ASME B1.20.1] | 0 | | | | | |
| 1" NPT [(Taper), ASME B1.20.1] with foam facing ¹⁾ | 1 | | | | | |
| 1" NPT [(Taper), ASME B1.20.1] with PTFE facing ²⁾ | 2 | | | | | |
| R 1" [(BSPT), EN 10226] | 3 | | | | | |
| R 1" [(BSPT), EN 10226] with foam facing ¹⁾ | 4 | | | | | |
| R 1" [(BSPT), EN 10226] with PTFE facing ²⁾ | 5 | | | | | |
| Cable length | | | | | | |
| 5 m (16.40 ft) | | | B | | | |
| 10 m (32.81 ft) | | | C | | | |
| 30 m (98.43 ft) | | | E | | | |
| 50 m (164.04 ft) | | | F | | | |
| 100 m (328.08 ft) | | | K | | | |
| Mounting flange | | | | | | |
| None | | | | A | | |
| 3" ASME, 150 lb, flat faced | | | | C | | |
| 4" ASME, 150 lb, flat faced | | | | D | | |
| 6" ASME, 150 lb, flat faced | | | | E | | |
| 8" ASME, 150 lb, flat faced | | | | F | | |
| DN 80, PN 10/16, Type A, flat faced | | | | G | | |
| DN 100, PN 10/16, Type A, flat faced | | | | J | | |
| DN 150, PN 10/16, Type A, flat faced | | | | L | | |
| JIS10K3B Style | | | | M | | |
| JIS10K4B Style | | | | P | | |
| JIS10K6B Style | | | | R | | |
| (Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1, or JIS B 2220 standard.) | | | | | | |
| Approvals | | | | | | |
| ATEX II 2GD Ex mb IIC T4 Gb, ATEX II 2GD Ex tb IIIC T135°C Db, Ta = -40°C to +95°C; UKEX II 2GD Ex mb IIC T4 Gb, UKEX II 2GD Ex tb IIIC T135°C Db, Ta = -40°C to +95°C; IECEX SIR 13.0009X Ex mb IIC T4 Gb, IECEX SIR 13.0009X Ex tb IIIC T135°C Db, Ta = -40°C to +95°C; FM Class I, Div. 2, Groups A, B, C, D; FM Class II, Div. 1, Groups E, F, G; FM Class III INMETRO Ex mb IIC T4 Gb, Ex tb IIIC T135°C Db NEPSI Ex mb IIC T4 Gb, Ex tD A20 IP6X T135°C EAC Ex CE KCC RCM UKCA CSA Class I, Div. 1, Groups A, B, C, D, Class II, Div. 1, Groups E, F, G, Class III ³⁾ | | | | | 3 | |
| | | | | | 4 | |

1) Not available with flanged versions.

2) Available with flanged versions only.

3) Valid with mounting thread and facing options 0 ... 2 only.

| Selection and Ordering data | Order code |
|--|------------|
| Further designs | |
| Please add "-Z" to Article No. and specify Order code(s). | |
| <u>Stainless steel tag [69 mm x 50 mm (2.71 x 1.97 inch)]</u> | |
| Tag (device parameters, max. 27 characters), plate, stainless steel 304/1.4301 | Y15 |

Selection and ordering data (continued)

| Selection and ordering data | Article No. | Selection and ordering data | Article No. |
|--|-------------|---|-------------|
| Operating Instructions All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation | | Easy Aimer 304, with M20 adapter and 1" and 1½" BSPT 304 stainless steel couplings | 7ML1830-1GN |
| Accessories | | Universal box bracket, mounting kit | 7ML1830-1BK |
| Tag, stainless steel with hole, 12 x 45 mm (0.47 x 1.77 inch), one text line for fastening on sensors | 7ML1930-1BJ | Channel bracket, wall mount | 7ML1830-1BL |
| Submergence shield kit | 7ML1830-1BH | Extended channel bracket, wall mount | 7ML1830-1BM |
| Easy Aimer 2, aluminum, NPT with ¾" x 1" PVC coupling | 7ML1830-1AQ | Channel bracket, floor mount | 7ML1830-1BN |
| Easy Aimer 2, aluminum with M20 adapter and 1" and 1½" BSPT aluminum couplings | 7ML1830-1AX | Extended channel bracket, floor mount | 7ML1830-1BP |
| Easy Aimer 304, NPT with 1" stainless steel coupling | 7ML1830-1AU | Bridge channel bracket, floor mount (see Mounting Brackets catalog page for more information) | 7ML1830-1BQ |
| | | 1" NPT locknut, plastic | 7ML1830-1DS |
| | | 1" BSP locknut, plastic | 7ML1830-1DR |
| | | 1" BSP locknut, flanged, plastic | 7ML1830-1DN |
| | | Plastic adapter 1" BSP - 20 mm | 7ML1830-1EA |
| | | Plastic adapter 1" NPT | 7ML1930-1FX |
| | | Plastic adapter 1" NPT/M20 | 7ML1830-1EF |

| Selection and ordering data | Article No. |
|---|--------------------|
| EchoMax XPS-10C Ultrasonic level transducer Continuous, non-contact, 0.3 ... 10 m (0.98 ... 32.81 ft) range, for liquids and solids. Includes integral temperature sensor | 7ML1121- ● ● ● ● 0 |
| Click on the Article No. for the online configuration in the PIA Life Cycle Portal. | |
| Mounting thread and facing | |
| 1" NPT [(Taper), ASME B1.20.1] | 0 |
| 1" NPT [(Taper), ASME B1.20.1] with foam facing ¹⁾ | 1 |
| 1" NPT [(Taper), ASME B1.20.1] with PTFE facing ²⁾ | 2 |
| Cable length | |
| 5 m (16.40 ft) | B |
| 10 m (32.81 ft) | C |
| 30 m (98.43 ft) | E |
| 50 m (164.04 ft) | F |
| 100 m (328.08 ft) | K |
| Mounting flange | |
| None | A |
| 3" ASME, 150 lb, flat faced | C |
| 4" ASME, 150 lb, flat faced | D |
| 6" ASME, 150 lb, flat faced | E |
| 8" ASME, 150 lb, flat faced | F |
| (Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 standard) | |
| Approvals | |
| CSA Class I, Div. 2 | 5 |

1) Not available with flanged versions.

2) Available only with flanged versions.

| Selection and Ordering data | Order code |
|--|------------|
| Further designs Please add "-Z" to Article No. and specify Order code(s). Stainless steel tag [69 mm x 50 mm (2.71 x 1.97 inch)] | |
| Tag (device parameters, max. 27 characters), plate, stainless steel 304/1.4301 | Y15 |

| Selection and ordering data | Article No. |
|--|-------------|
| Operating Instructions All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation | |
| Accessories | |
| Tag, stainless steel with hole, 12 x 45 mm (0.47 x 1.77 inch), one text line for fastening on sensors | 7ML1930-1BJ |
| Submergence shield kit | 7ML1830-1BH |
| Easy Aimer 2, aluminum, NPT with ¾" x 1" PVC coupling | 7ML1830-1AQ |
| Easy Aimer 2, aluminum with M20 adapter and 1" and 1½" BSPT aluminum couplings | 7ML1830-1AX |
| Easy Aimer 304, NPT with 1" stainless steel coupling | 7ML1830-1AU |

EchoMax XPS

Selection and ordering data (continued)

| Selection and ordering data | Article No. |
|---|-------------|
| Easy Aimer 304, with M20 adapter and 1" and 1½" BSPT 304 stainless steel couplings | 7ML1830-1GN |
| Universal box bracket, mounting kit | 7ML1830-1BK |
| Channel bracket, wall mount | 7ML1830-1BL |
| Extended channel bracket, wall mount | 7ML1830-1BM |
| Channel bracket, floor mount | 7ML1830-1BN |
| Extended channel bracket, floor mount | 7ML1830-1BP |
| Bridge channel bracket, floor mount (see Mounting Brackets catalog page for more information) | 7ML1830-1BQ |
| 1" NPT locknut, plastic | 7ML1830-1DS |
| 1" BSP locknut, plastic | 7ML1830-1DR |

| EchoMax XPS-15 Ultrasonic level transducer Continuous, non-contact, 15 m (49.21 ft) range, for liquids and solids. | Article No. | | | | | |
|--|-------------|---|---|---|---|---|
| | 7ML1118- | ● | ● | ● | ● | 0 |
| Click on the Article No. for the online configuration in the PIA Life Cycle Portal. | | | | | | |
| Mounting thread and facing | | | | | | |
| 1" NPT [(Taper), ASME B1.20.1] | 0 | | | | | |
| 1" NPT [(Taper), ASME B1.20.1] with foam facing ¹⁾ | 1 | | | | | |
| 1" NPT [(Taper), ASME B1.20.1] with PTFE facing ²⁾ | 2 | | | | | |
| R 1" [(BSPT), EN 10226] | 3 | | | | | |
| R 1" [(BSPT), EN 10226] with foam facing ¹⁾ | 4 | | | | | |
| R 1" [(BSPT), EN 10226] with PTFE facing ²⁾ | 5 | | | | | |
| Cable length | | | | | | |
| 5 m (16.40 ft) | | | B | | | |
| 10 m (32.81 ft) | | | C | | | |
| 30 m (98.43 ft) | | | E | | | |
| 50 m (164.04 ft) | | | F | | | |
| 100 m (328.08 ft) | | | K | | | |
| Mounting flange | | | | | | |
| None | | | | A | | |
| 6" ASME, 150 lb, flat faced | | | | D | | |
| 8" ASME, 150 lb, flat faced | | | | E | | |
| DN 150, PN 10/16, Type A, flat faced | | | | J | | |
| DN 200, PN 10, Type A, flat faced | | | | K | | |
| JIS10K 6B | | | | N | | |
| JIS10K 8B | | | | P | | |
| (Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1, or JIS B 2220 standard.) | | | | | | |
| Approvals | | | | | | |
| ATEX II 2GD Ex mb IIC T4 Gb, ATEX II 2GD Ex tb IIIC T135°C Db, Ta = -40°C to +95°C; UKEX II 2GD Ex mb IIC T4 Gb, UKEX II 2GD Ex tb IIIC T135°C Db, Ta = -40°C to +95°C; IECEx SIR 13.0009X Ex mb IIC T4 Gb IECEx SIR 13.0009X Ex tb IIIC T135°C Db, Ta = -40°C to +95°C; INMETRO Ex mb IIC T4 Gb, Ex tb IIIC T135°C Db NEPSI Ex mb IIC T4 Gb, Ex tD A20 IP6X T135°C EAC Ex CE KCC RCM UKCA FM Class I, Div. 2, Groups A, B, C, D; FM Class II, Div. 1, Groups E, F, G; FM Class III CSA Class I, Div. 1, Groups A, B, C, D, Class II, Div. 1, Groups E, F, G, Class III ³⁾ | | | | | 3 | |
| | | | | | | 4 |

1) Not available with flanged versions.

2) Available with flanged versions only.

3) Available with mounting options 0 ... 2 only.

Selection and ordering data (continued)

| Selection and Ordering data | Order code |
|---|------------|
| Further designs | |
| Please add "-Z" to Article No. and specify Order code(s). <u>Stainless steel tag [69 mm x 50 mm (2.71 x 1.97 inch)]</u> | |
| Tag (device parameters, max. 27 characters), plate, stainless steel 304/1.4301 | Y15 |

| Selection and ordering data | Article No. |
|--|-------------|
| Operating Instructions | |
| All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation | |
| Accessories | |
| Tag, stainless steel with hole, 12 x 45 mm (0.47 x 1.77 inch), one text line for fastening on sensors | 7ML1930-1BJ |
| Submergence shield kit | 7ML1830-1BJ |
| Universal box bracket, mounting kit | 7ML1830-1BK |
| Channel bracket, wall mount | 7ML1830-1BL |
| Extended channel bracket, wall mount | 7ML1830-1BM |

| Selection and ordering data | Article No. |
|---|-------------|
| Channel bracket, floor mount | 7ML1830-1BN |
| Extended channel bracket, floor mount | 7ML1830-1BP |
| Bridge channel bracket, floor mount (see Mounting Brackets catalog page for more information) | 7ML1830-1BQ |
| 1" NPT locknut, plastic | 7ML1830-1DS |
| 1" BSP locknut, plastic | 7ML1830-1DR |
| 1" BSP locknut, flanged, plastic | 7ML1830-1DN |
| Easy Aimer 2, aluminum, NPT with ¾" x 1" PVC coupling | 7ML1830-1AQ |
| Easy Aimer 2, aluminum with M20 adapter and 1" and 1½" BSPT aluminum couplings | 7ML1830-1AX |
| Easy Aimer 304, NPT with 1" stainless steel coupling | 7ML1830-1AU |
| Easy Aimer 304, with M20 adapter and 1" and 1½" BSPT 304 stainless steel couplings | 7ML1830-1GN |
| Plastic adapter 1" BSP - 20 mm | 7ML1830-1EA |
| Plastic adapter 1" NPT | 7ML1930-1FX |
| Plastic adapter 1" NPT/M20 | 7ML1830-1EF |

| | Article No. |
|--|--------------------|
| EchoMax XPS-15F Ultrasonic level transducer Continuous, non-contact, 15 m (49.21 ft) range, for liquids and solids. | 7ML1171- ● ● ● ● 0 |
| Click on the Article No. for the online configuration in the PIA Life Cycle Portal. | |
| Mounting thread and facing | |
| 1" NPT [(Taper), ASME B1.20.1] | 1 |
| Cable length | |
| 5 m (16.40 ft) | B |
| 10 m (32.81 ft) | C |
| 30 m (98.43 ft) | D |
| 50 m (164.04 ft) | E |
| 100 m (328.08 ft) | F |
| Mounting flange, flush mount | |
| None | A |
| 6" ASME, 150 lb, flat faced | B |
| 8" ASME, 150 lb, flat faced | C |
| (Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5, or EN 1092-1, or JIS B 2220 standard.) | |
| Approvals | |
| FM Class I, Div. 1, Groups A, B, C, and D, Class II Div. 1, Groups E, F, and G, Class III | 1 |

| Selection and Ordering data | Order code |
|---|------------|
| Further designs | |
| Please add "-Z" to Article No. and specify Order code(s). <u>Stainless steel tag [69 mm x 50 mm (2.71 x 1.97 inch)]</u> | |
| Tag (device parameters, max. 27 characters), plate, stainless steel 304/1.4301 | Y15 |

| Selection and ordering data | Article No. |
|--|-------------|
| Operating Instructions | |
| All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation | |
| Accessories | |
| Tag, stainless steel with hole, 12 x 45 mm (0.47 x 1.77 inch), one text line for fastening on sensors | 7ML1930-1BJ |
| Submergence shield kit | 7ML1830-1BJ |
| Universal box bracket, mounting kit | 7ML1830-1BK |
| Channel bracket, wall mount | 7ML1830-1BL |
| Extended channel bracket, wall mount | 7ML1830-1BM |

EchoMax XPS

Selection and ordering data (continued)

| Selection and ordering data | Article No. |
|---|-------------|
| Channel bracket, floor mount | 7ML1830-1BN |
| Extended channel bracket, floor mount | 7ML1830-1BP |
| Bridge channel bracket, floor mount (see Mounting Brackets catalog page for more information) | 7ML1830-1BQ |
| 1" NPT locknut, plastic | 7ML1830-1DS |
| Easy Aimer 2, aluminum, NPT with ¾" x 1" PVC coupling | 7ML1830-1AQ |
| Easy Aimer 304, NPT with 1" stainless steel coupling | 7ML1830-1AU |

| EchoMax XPS-15C Ultrasonic level transducer Continuous, non-contact, 0.3 m ... 15 m (0.98 ... 49.21 ft) range, for liquids and solids. Includes integral temperature sensor. | Article No. | | | | | |
|---|-------------|---|---|---|---|---|
| | 7ML1124- | ● | ● | ● | ● | 0 |
| Click on the Article No. for the online configuration in the PIA Life Cycle Portal. | | | | | | |
| Mounting thread and facing | | | | | | |
| 1" NPT [(Taper), ASME B1.20.1] | 0 | | | | | |
| 1" NPT [(Taper), ASME B1.20.1] with foam facing ¹⁾ | 1 | | | | | |
| 1" NPT [(Taper), ASME B1.20.1] with PTFE facing ²⁾ | 2 | | | | | |
| Cable length | | | | | | |
| 5 m (16.40 ft) | | | B | | | |
| 10 m (32.81 ft) | | | C | | | |
| 30 m (98.43 ft) | | | E | | | |
| 50 m (164.04 ft) | | | F | | | |
| 100 m (328.08 ft) | | | K | | | |
| Mounting flange | | | | | | |
| None | | | | A | | |
| 6" ASME, 150 lb, flat faced | | | | D | | |
| 8" ASME, 150 lb, flat faced | | | | E | | |
| (Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 standard.) | | | | | | |
| Approvals | | | | | | |
| CSA Class I, Div. 2 | | | | | 5 | |

¹⁾ Not available with flanged versions.

²⁾ Available only with flanged versions.

| Selection and Ordering data | Order code |
|--|------------|
| Further designs | |
| Please add "-Z" to Article No. and specify Order code(s). | |
| Stainless steel tag [69 mm x 50 mm (2.71 x 1.97 inch)] | |
| Tag (device parameters, max. 27 characters), plate, stainless steel 304/1.4301 | Y15 |

| Selection and ordering data | Article No. |
|---|-------------|
| Operating Instructions | |
| All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation | |
| Accessories | |
| Tag, stainless steel with hole, 12 x 45 mm (0.47 x 1.77 inch), one text line for fastening on sensors | 7ML1930-1BJ |
| Submergence shield kit | 7ML1830-1BJ |

| Selection and ordering data | Article No. |
|---|-------------|
| Universal box bracket, mounting kit | 7ML1830-1BK |
| Channel bracket, wall mount | 7ML1830-1BL |
| Extended channel bracket, wall mount | 7ML1830-1BM |
| Channel bracket, floor mount | 7ML1830-1BN |
| Extended channel bracket, floor mount | 7ML1830-1BP |
| Bridge channel bracket, floor mount (see Mounting Brackets catalog page for more information) | 7ML1830-1BQ |
| 1" NPT locknut, plastic | 7ML1830-1DS |
| Easy Aimer 2, aluminum, NPT with ¾" x 1" PVC coupling | 7ML1830-1AQ |
| Easy Aimer 304, NPT with 1" stainless steel coupling | 7ML1830-1AU |
| Easy Aimer 2, aluminum with M20 adapter and 1" and 1½" BSPT aluminum couplings | 7ML1830-1AX |
| Easy Aimer 304, with M20 adapter and 1" and 1½" BSPT 304 stainless steel couplings | 7ML1830-1GN |
| 1" NPT locknut, plastic | 7ML1830-1DS |
| 1" BSP locknut, plastic | 7ML1830-1DR |

Selection and ordering data (continued)

| | Article No. | | | | | |
|--|-------------|---|---|---|---|---|
| EchoMax XPS-30 Ultrasonic level transducer Continuous, non-contact, 30 m (98.42 ft) range, for liquids and solids. | 7ML1123- | ● | ● | ● | ● | 0 |
| Click on the Article No. for the online configuration in the PIA Life Cycle Portal. | | | | | | |
| Mounting thread and facing | | | | | | |
| 1½" universal thread | | 0 | | | | |
| 1½" universal thread, foam facing ¹⁾ | | 1 | | | | |
| 1½" universal thread, PTFE facing ²⁾ | | 2 | | | | |
| Cable length | | | | | | |
| 5 m (16.40 ft) | | | B | | | |
| 10 m (32.81 ft) | | | C | | | |
| 30 m (98.43 ft) | | | E | | | |
| 50 m (164.04 ft) | | | F | | | |
| 100 m (328.08 ft) | | | K | | | |
| Mounting flange | | | | | | |
| None | | | | A | | |
| 6" ASME, 150 lb, flat faced | | | | D | | |
| 8" ASME, 150 lb, flat faced | | | | E | | |
| DN 150, PN 10/16, Type A, flat faced | | | | J | | |
| DN 200, PN 10, Type A, flat faced | | | | K | | |
| JIS10K 6B | | | | N | | |
| JIS10K 8B | | | | P | | |
| (Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1, or JIS B 2220 standard.) | | | | | | |
| Approvals | | | | | | 5 |
| ATEX II 1D, 2G Ex mb IIC T4 Gb, ATEX II 1D, 2G Ex tb IIIC T135°C Da, Ta = -40°C to +95°C; UKEX II 1D, 2G Ex mb IIC T4 Gb, UKEX II 1D, 2G Ex tb IIIC T135°C Da, Ta = -40°C to +95°C; IECEX SIR 13.0009X Ex mb IIC T4 Gb, IECEX SIR 13.0009X Ex tb IIIC T135°C Da, Ta = -40°C to +95°C; FM Class I, Div. 2, Groups A, B, C, D; FM Class II, Div. 1, Groups E, F, G; FM Class III INMETRO Ex mb IIC T4 Gb, Ex tb IIIC T135°C Db NEPSI Ex mb IIC T4 Gb, EX tD A21 IP6X T135°C EAC Ex CE KCC RCM UKCA | | | | | | |

¹⁾ Not available with flanged versions.

²⁾ Available with flanged versions only.

| Selection and Ordering data | Order code |
|---|------------|
| Further designs | |
| Please add "-Z" to Article No. and specify Order code(s). <u>Stainless steel tag [69 mm x 50 mm (2.71 x 1.97 inch)]</u> | |
| Tag (device parameters, max. 27 characters), plate, stainless steel 304/1.4301 | Y15 |

| Selection and ordering data | Article No. |
|--|-------------|
| Operating Instructions | |
| All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation | |
| Accessories | |
| Tag, stainless steel with hole, 12 x 45 mm (0.47 x 1.77 inch), one text line for fastening on sensors | 7ML1930-1BJ |
| 1½" BSPT locknut, plastic | 7ML1830-1DP |
| Easy Aimer 2, aluminum, NPT with 1½" galvanized coupling | 7ML1830-1AN |
| Easy Aimer 304, NPT with 1½" stainless steel coupling | 7ML1830-1AT |
| Easy Aimer 2, aluminum with M20 adapter and 1" and 1½" BSPT aluminum couplings | 7ML1830-1AX |
| Easy Aimer 304, with M20 adapter and 1" and 1½" BSPT 304 stainless steel couplings | 7ML1830-1GN |
| Adapter 1½" BSP | 7ML1830-1EB |

EchoMax XPS

Selection and ordering data (continued)

| | Article No. | | | | |
|---|-------------|---|---|---|-----|
| EchoMax XPS-30C Ultrasonic level transducer Continuous, non-contact, 30 m (98.42 ft) range, for liquids and solids. | 7ML1155- | ● | ● | ● | ● 1 |
| Click on the Article No. for the online configuration in the PIA Life Cycle Portal. | | | | | |
| Mounting thread and facing | | | | | |
| 1½" universal thread | 0 | | | | |
| 1½" universal thread, foam facing ¹⁾ | 1 | | | | |
| 1½" universal thread, PTFE facing ²⁾ | 2 | | | | |
| Cable length | | | | | |
| 5 m (16.40 ft) | | | B | | |
| 10 m (32.81 ft) | | | C | | |
| 30 m (98.43 ft) | | | E | | |
| 50 m (164.04 ft) | | | F | | |
| 100 m (328.08 ft) | | | K | | |
| Mounting flange | | | | | |
| None | | | | A | |
| 6" ASME, 150 lb, flat faced | | | | D | |
| 8" ASME, 150 lb, flat faced | | | | E | |
| DN 150, PN 10/16, Type A, flat faced | | | | J | |
| DN 200, PN 10, Type A, flat faced | | | | K | |
| JIS10K 6B | | | | N | |
| JIS10K 8B | | | | P | |
| (Note: Flange bolting patterns and facings dimensionally correspond to the applicable ASME B16.5 or EN 1092-1, or JIS B 2220 standard.) | | | | | |
| Approvals | | | | | |
| CSA, Class I, Div. 2, Groups A, B, C, D; Class II, Div. 1, Groups E, F, G; Class III | | | | | 4 |

¹⁾ Not available with flanged version.

²⁾ Available for flanged versions only.

| Selection and Ordering data | Order code |
|---|------------|
| Further designs | |
| Please add "-Z" to Article No. and specify Order code(s). <u>Stainless steel tag [69 mm x 50 mm (2.71 x 1.97 inch)]</u> | |
| Tag (device parameters, max. 27 characters), plate, stainless steel 304/1.4301 | Y15 |

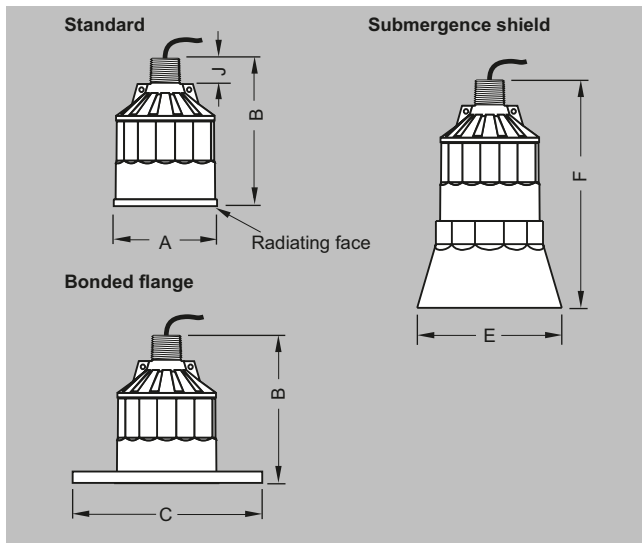
| Selection and ordering data | Article No. |
|---|-------------|
| Operating Instructions | |
| All literature is available to download for free, in a range of languages, at http://www.siemens.com/processinstrumentation/documentation | |
| Accessories | |
| Easy Aimer 2, aluminum, NPT with 1½" galvanized coupling | 7ML1830-1AN |
| Easy Aimer 304, NPT with 1½" stainless steel coupling | 7ML1830-1AT |
| 1½" BSPT locknut, plastic | 7ML1830-1DP |
| Adapter 1½" BSP | 7ML1830-1EB |

Technical specifications

| Input | XPS-10 | XPS-15 (standard and F models) | XPS-30 |
|-----------------------------------|---|--|---|
| Measuring range ¹⁾ | 0.3 ... 10 m (1 ... 33 ft) | <u>Standard:</u> 0.3 ... 15 m (1 ... 50 ft) <u>XPS-15F:</u> 0.45 ... 15 m (1.5 ... 50 ft) | 0.6 ... 30 m (2 ... 100 ft) |
| Output | | | |
| Frequency | 44 kHz | 44 kHz | 30 kHz |
| Beam angle | 12° | 6° | 6° |
| Environmental | | | |
| Location | Indoors/outdoors | Indoors/outdoors | Indoors/outdoors |
| Ambient temperature | -40 ... +95 °C (-40 ... +203 °F) | <u>Standard:</u> -40 ... +95 °C (-40 ... +203 °F) <u>XPS-15F:</u> -20 ... +95 °C (-4 ... +203 °F) | -40 ... +95 °C (-40 ... +203 °F) |
| Storage temperature | -40 ... +95 °C (-40 ... +203 °F) | <u>Standard:</u> -40 ... +95 °C (-40 ... +203 °F) <u>XPS-15F:</u> -20 ... +95 °C (-4 ... +203 °F) | -40 ... +95 °C (-40 ... +203 °F) |
| Pollution degree | 4 | 4 | 4 |
| Pressure | 8 bar g (120 psi g) Flanged: 0.5 bar g (7.25 psi g) | 8 bar g (120 psi g) Flanged: 0.5 bar g (7.25 psi g) | 0.5 bar g (7.25 psi g) Flanged: 0.5 bar g (7.25 psi g) |
| Design | | | |
| Weight | 0.8 kg (1.8 lb) | 1.3 kg (2.8 lb) Flanged: 2 kg (4.4 lb) | 4.3 kg (9.5 lb) |
| Power supply | Operation of transducer only with approved Siemens controllers | Operation of transducer only with approved Siemens controllers | Operation of transducer only with approved Siemens controllers |
| Material | <u>Standard:</u> PVDF <u>Flanged:</u> PVDF with CPVC flange <u>Option:</u> PTFE face with CPVC flange | <u>Standard:</u> PVDF <u>Flanged:</u> PVDF with CPVC flange <u>Option:</u> PTFE face with CPVC flange | <u>Standard:</u> PVDF <u>Flanged:</u> PVDF with CPVC flange <u>Option:</u> PTFE face with CPVC flange |
| Color | Blue | <u>Standard:</u> Blue <u>XPS-15F:</u> Gray | Blue |
| Process connection | 1" NPT or 1" BSPT | <u>Standard:</u> 1" NPT or 1" BSPT <u>XPS-15F:</u> 1" NPT | 1.5" universal thread (NPT or BSPT) |
| Degree of protection | IP66/68 | IP66/68 | IP66/68 |
| Cable | 2-wire twisted pair/braided and foil shielded 0.5 mm ² (20 AWG) PVC jacket | 2-wire twisted pair/braided and foil shielded 0.5 mm ² (20 AWG) PVC jacket | 2-wire twisted pair/braided and foil shielded 0.5 mm ² (20 AWG) PVC jacket |
| Separation | Max. 365 m (1 200 ft) | Max. 365 m (1 200 ft) | Max. 365 m (1 200 ft) |
| Certificates and approvals | <u>Standard:</u> CE, UKCA, CSA, FM, ATEX, UKEX, IEC Ex, NEPSI, CRN, VLAREM II | <u>Standard:</u> CE, UKCA, CSA, FM, ATEX, UKEX, IEC Ex, NEPSI, CRN, VLAREM II <u>XPS-15F:</u> FM Class I, Div. 1, Groups A, B, C, and D, Class II Div. 1, Groups E, F, and G, Class III, CRN, VLAREM II | CE, UKCA, CSA, FM, ATEX, UKEX, IEC Ex, NEPSI, VLAREM II |

EchoMax XPS

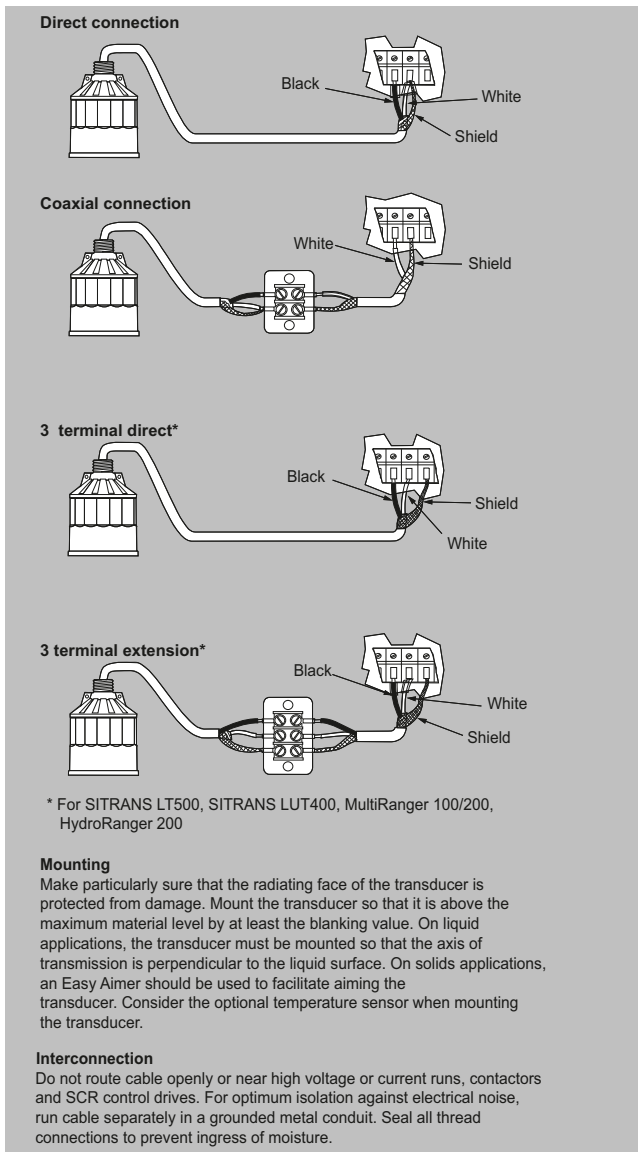
Dimensional drawings



XPS ultrasonic transducer

| Version | XPS-10 | XPS-15 | XPS-30 |
|------------------|---------------------------------|---------------------------------|---------------------------------|
| Dimension | | | |
| A | 88 mm (3.464 inch) | 121 mm (4.764 inch) | 175 mm (6.890 inch) |
| B | 122 mm (4.803 inch) | 132 mm (5.197 inch) | 198 mm (7.795 inch) |
| C | According to ASME, DIN, and JIS | According to ASME, DIN, and JIS | According to ASME, DIN, and JIS |
| E | 124 mm (4.882 inch) | 158 mm (6.220 inch) | n/a |
| F | 152 mm (5.984 inch) | 198 mm (7.795 inch) | n/a |
| J | 28 mm (1.1 inch) | 28 mm (1.1 inch) | 28 mm (1.1 inch) |

Circuit diagrams



XPS ultrasonic transducer connections