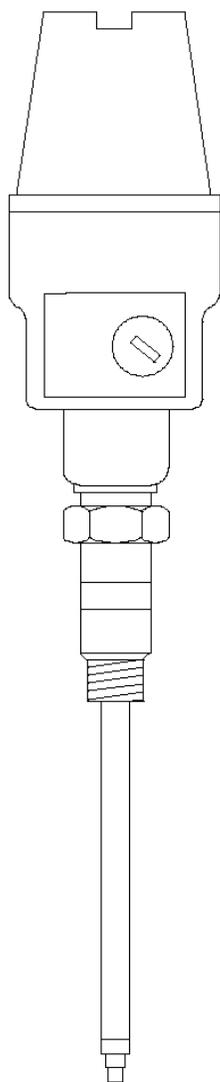


# 21000, 24701, and 164818 Proximity Probe Housing Assemblies

Datasheet

**Cordant™**

141600 Rev. AB



## Description

To externally mount proximity probes, use one of these all-metal Proximity Probe Housing Assemblies:

- 21000 aluminum probe housing assembly
- 24701 stainless steel probe housing assembly

The 21000, 24701, and 164818 Proximity Probe Housing Assemblies consist of the following parts:

- A dome cover that screws into the body of the housing
- Threaded ports for conduit connections
- A probe sleeve of optional length
- O-rings
- A reverse mount proximity probe
- A thread seal
- Optional conduit fittings
- An optional standoff adapter



A newer 31000/32000 proximity probe housing assembly is available with more flexible mounting options, better environmental resistance, and other improved features. We recommend this proximity probe housing assembly for installations where an explosion proof housing is not required. See 31000 and 32000 Proximity Probe Housings product datasheet (document 141610).

The 21000, 24701, and 164818 Proximity Probe Housing Assemblies are available with Canadian Standards Association (CSA) approvals. They are rated explosion proof for hazardous areas.



**Examples**

3.7 in (94 mm) = **037**

22.4 in (569 mm) = **224**



Probe P/N and S/N may be displayed on a flag label for some combinations of the C plus D options where only a small section of the probe cable is visible.



For probe penetration lengths between 1.0 and 2.0 inches, it may be necessary to counter bore the machine case to reduce probe side view or rear view effects.



If you select a probe penetration length (C plus D) greater than 300 mm (12 in), you must add sleeve support near the probe to prevent resonance from occurring. Adjustment range of probe penetration option D is 13 mm (± 0.5 in). For the maximum value of C plus D, [see 21000/CA21000 Dimensions on page 1](#).

**E: Fittings**

<b>00</b>	Without fittings
<b>01</b>	One 3/4-14 NPT explosion-proof fitting One 3/4-14 NPT plug
<b>02</b>	Two 3/4-14 NPT explosion-proof fittings
<b>03</b>	One 3/4-14 NPT plug One 3/4-14 to 1/2-14 NPT reducer  One cable seal grip with grommets for the following cable sizes: <ul style="list-style-type: none"> <li>• 1/8 to 3/16 inches</li> <li>• 1/4 to 5/16 inches</li> <li>• 5/16 to 3/8 inches</li> </ul>
<b>04</b>	One 3/4-14 NPT plug only



Although explosion-proof fittings are available for all housings, only CA versions of the housing are rated as explosion-proof by CSA when ordered with the **E:00**, **E:01**, **E:02**, or **E:04** options.

**F: Mounting Thread**

<b>01</b>	As cast without threads
<b>02</b>	3/4-14 NPT  Must be ordered if Standoff Adapter Length option is <b>not 00</b> .
<b>04</b>	1/2-14 BSP

**24701-AA-BB-CC-DDD-EE-FF**

**A: Probe with Connector**

<b>00</b>	Probe not required
<b>14</b>	420 nuclear
<b>16</b>	3300 XL 8mm probe
<b>26</b>	3300 XL NSv probe
<b>27</b>	3300 XL NSv probe, with approval option
<b>28</b>	3300 XL 8mm, with approval option
<b>29</b>	3300 XL 11mm
<b>30</b>	3300 XL 11mm, with approval option
<b>31</b>	3300 XL NSv with connector protector
<b>32</b>	3300 XL NSv with connector protector and approval option
<b>33</b>	3300 XL 8mm with connector protector
<b>34</b>	3300 XL 8mm with connector protector and approval option

<b>35</b>	3300 XL 11mm with connector protector
<b>36</b>	3300 XL 11mm with connector protector and approval option
<b>37</b>	3300 XL 8mm ETR, with approval option

**B: Probe Cable Length**

<b>00</b>	Probe cable not required
<b>05</b>	20 in (0.5 m)
<b>10</b>	39 in (1.0 m)
<b>12</b>	12.0 ft (3.6 m)
<b>18</b>	18.0 ft (3.6 m)
<b>24</b>	24.0 ft (7.3 m)
<b>30</b>	24.0 ft (7.3 m)
<b>36</b>	36.0 ft (10.9 m)

**C: Standoff Adapter (Option C Dimension)**

<b>15</b>	Minimum length 1.5 in (38 mm)
<b>75</b>	Maximum length 7.5 in (191 mm)

**Examples**

1.5 in (38 mm) = **15**  
 No standoff adapter = **00**

**Recommendation**

Order in increments of 0.5 in (13 mm)

**D: Probe Penetration (Option D Dimension)**

<b>010</b>	Minimum length 1.0 in (25.4 mm)
<b>Other</b>	<a href="#">See 21000/CA21000 Dimensions on page 1.</a>

**Example**

3.7 in (94 mm) = **037**  
 22.4 in (569 mm) = **224**

**Recommendation**

Order in increments of 0.1 in (3 mm)



Probe P/N and S/N may be displayed on a flag label for some combinations of the C plus D options where only a small section of the probe cable is visible.



For probe penetration lengths between 1.0 and 2.0 inches, it may be necessary to counter bore the machine case to reduce probe side view or rear view effects.



If you select a probe penetration length (C plus D) greater than 300 mm (12 in), you must add sleeve support near the probe to prevent resonance from occurring. Adjustment range of probe penetration option D is 13 mm (± 0.5 in). For the maximum value of C plus D, [see 21000/CA21000 Dimensions on page 1.](#)

**E: Fittings**

<b>00</b>	Without fittings
<b>01</b>	One 3/4-14 NPT explosion-proof fitting One 3/4-14 NPT plug
<b>02</b>	Two 3/4-14 NPT explosion-proof fittings

<b>03</b>	<p>One 3/4-14 NPT plug          One 3/4-14 to 1/2-14 NPT reducer</p> <p>One cable seal grip with grommets for the following cable sizes:</p> <ul style="list-style-type: none"> <li>• 1/8 to 3/16 inches</li> <li>• 1/4 to 5/16 inches</li> <li>• 5/16 to 3/8 inches</li> </ul>
<b>04</b>	One 3/4-14 NPT plug only

 Although explosion-proof fittings are available for all housings, only CA versions of the housing are rated as explosion-proof by CSA when ordered with the **E:00**, **E:01**, **E:02**, or **E:04** options.

**F: Mounting Thread**

<b>01</b>	As cast without threads
<b>02</b>	<p>3/4-14 NPT (see note [1] below)</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p> Must be ordered if Standoff Adapter Length Option is <b>not</b> 00.</p> </div>
<b>03</b>	1-11 1/2 NPT (see note [1] below)
<b>04</b>	1/2-14 BSP
<b>05</b>	7/8-14 UNF-2A

 (1) For CA21000 housing, option F must be 02. Options 02 and 03 for mounting threads have more threads than standard NPT threads. They have been machined to have approximately 5 - 7 full threads to increase mounting strength and stiffness.

**Explosion-Proof Housing Assemblies**

 For CA21000 housing, option F must be 02. Options 02 and 03 for mounting threads have more threads than standard NPT threads. They have been machined to have approximately 5 - 7 full threads to increase mounting strength and stiffness.

**CA21000-AA-BB-CC-DDD-EE-F02**

 Options **A:00** and **B:00** are linked. If you choose **A:00**, you must also select **B:00**.

**A: Probe with Connector**

<b>00</b>	Probe not required
<b>01</b>	190 series, CSA, BNPS connector
<b>02</b>	190 series, CSA, API connector
<b>27</b>	3300 XL NSv, multiple approval
<b>28</b>	3300 XL 8mm, multiple approval
<b>30</b>	3300 XL 11mm, multiple approval
<b>32</b>	3300 XL NSv with connector protector, multiple approval
<b>34</b>	3300 XL 8mm with connector protector, multiple approval
<b>36</b>	3300 XL 11mm with connector protector, multiple approval

**B: Probe Cable Length**

<b>05</b>	0.5 meter (20 inches)
<b>10</b>	1.0 meter (39 inches)

**C: Standoff Adapter (Option C Dimension)**

<b>15</b>	Minimum length 1.5 in (38 mm)
-----------	-------------------------------

<b>75</b>	Maximum length 7.5 in (191 mm)
	<b>Example</b> 1.5 in (38 mm) = <b>15</b> No Standoff adapter = <b>00</b>
	<b>Recommendation</b> Order in increments of 0.5 in (13 mm)

**D: Probe Penetration (Option D Dimension)**

<b>010</b>	Minimum length 1.0 in (25.4 mm)
<b>Other</b>	<a href="#">See 21000/CA21000 Proximity Probe Housing Assembly on page 16.</a>
	<b>Example</b> 3.7 in (94 mm) = <b>037</b> 22.4 in (569 mm) = <b>224</b>
	<b>Recommendation</b> Order in increments of 0.1 in (3 mm)

 Probe P/N and S/N may be displayed on a flag label for some combinations of the C plus D options where only a small section of the probe cable is visible.

 For probe penetration lengths between 1.0 and 2.0 inches, it may be necessary to counter bore the machine case to reduce probe side view or rear view effects.

 If you select a probe penetration length (C plus D) greater than 300 mm (12 in), you must add sleeve support near the probe to prevent resonance from occurring. Adjustment range of probe penetration option D is 13 mm ( $\pm 0.5$  in). For the maximum value of C plus D, [see 21000/CA21000 Dimensions on page 1.](#)

**E: Fittings**

<b>00</b>	Without fittings
<b>01</b>	One 3/4-14 NPT explosion-proof fitting One 3/4-14 NPT plug
<b>02</b>	Two 3/4-14 NPT explosion-proof fittings
<b>03</b>	One 3/4-14 NPT plug One 3/4-14 to 1/2-14 NPT reducer  One cable seal grip with grommets for the following cable sizes:  <ul style="list-style-type: none"> <li>• 1/8 to 3/16 inches</li> <li>• 1/4 to 5/16 inches</li> <li>• 5/16 to 3/8 inches</li> </ul>
<b>04</b>	One 3/4-14 NPT plug only