

Xpand 350 Field of View Expander Quick Start Guide



2024 April 24

Revision: 24.2.0.2

Precautions

To reduce the risk of injury or equipment damage, observe the following precautions when you install the Cognex product:

- This product is intended for industrial use in automated manufacturing or similar applications.
- The safety of any system incorporating this product is the responsibility of the assembler of the system.
- Do not install Cognex products where they are exposed to environmental hazards such as excessive heat, dust, moisture, humidity, impact, vibration, corrosive substances, flammable substances, or static electricity.
- Route cables and wires away from high-current wiring or high-voltage power sources to reduce the risk of damage or malfunction from the following causes: over-voltage, line noise, electrostatic discharge (ESD), power surges, or other irregularities in the power supply.
- This product does not contain user-serviceable parts. Do not make electrical or mechanical modifications to product components. Unauthorized modifications can void your warranty.
- Changes or modifications not expressly approved by the party responsible for regulatory compliance could void the user's authority to operate the equipment.
- Include service loops with cable connections.
- Ensure that the cable bend radius begins at least six inches from the connector. Cable shielding can be degraded or cables can be damaged or wear out faster if a service loop or bend radius is tighter than 10X the cable diameter.

- This device should be used in accordance with the instructions in this manual.
- All specifications are for reference purposes only and can change without notice.



WARNING: Do not detach Xpand 350 from the reader. Doing so results in the loss of warranty.

Symbols

The following symbols indicate safety precautions and supplemental information:



WARNING: This symbol indicates a hazard that could cause death, serious personal injury or electrical shock.



CAUTION: This symbol indicates a hazard that could result in property damage.



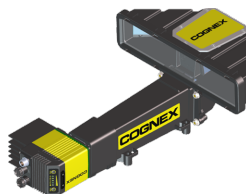
Note: This symbol indicates additional information about a subject.




Tip: This symbol indicates suggestions and shortcuts that might not otherwise be apparent.

About Xpand 350

Xpand 350™ is a field of view expander (FOVE) accessory that can be used in front of a camera to increase the field of view in width direction. Xpand 350 splits the field of view in vertical direction and redirects the partial fields of view side by side.



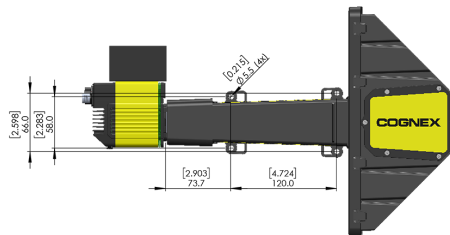
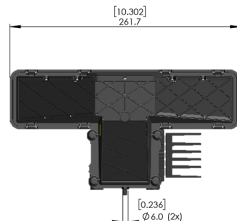
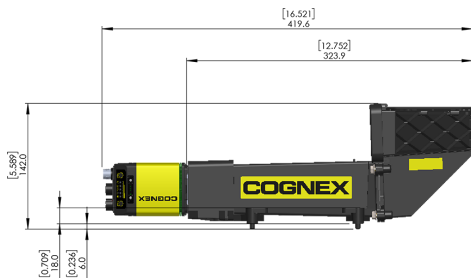
Xpand 350 Accessories

| Accessory | Product ID | Image |
|--------------|----------------|---|
| Mounting kit | DMBK-XP350-000 |  |

Dimensions

Observe the following dimensions when mounting Xpand 350.

Xpand 350 with DataMan 470 Reader

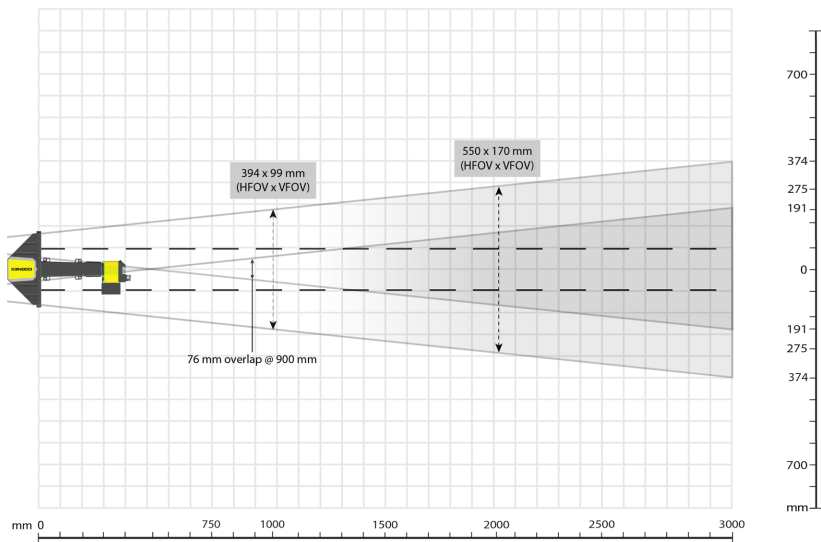


Field of View

i Note: Do not change the focus to avoid breaking system alignment.

DM475 with 50 mm lens on Xpand 350:

| 1D module size | 1.2 ppm distance measured from front window | 2D module size | 2 ppm distance measured from front window |
|----------------|--|----------------|--|
| 6 MIL | 1390 mm | 6 MIL | 650 mm |
| 8 MIL | 2000 mm | 8 MIL | 1020 mm |
| 10 MIL | 2620 mm | 10 MIL | 1390 mm |
| 13 MIL | 3540 mm | 13 MIL | 1940 mm |
| 15 MIL | 4150 mm | 15 MIL | 2310 mm |
| 20 MIL | 5680 mm | 20 MIL | 3230 mm |

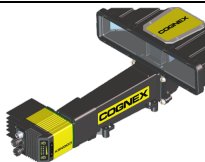



| Distance from front window | HFOV | VFOV | Overlap Data |
|----------------------------|--------|--------|--------------|
| 1000 mm | 381 mm | 99 mm | 91 mm |
| 2000 mm | 550 mm | 170 mm | 260 mm |
| 3000 mm | 747 mm | 225 mm | 457 mm |

Compatible Readers

Xpand 350 is compatible with the following DataMan 470 systems and lenses:

| Kit | Product ID |
|-------------------------|------------------------|
| DM475QL-M + 50 mm XP350 | DM475QL-M-100015000000 |
| DM475X-M + 50 mm XP350 | DM475X-M-100015000000 |



| Reader | DataMan 475 |
|----------------|---|
| Image |  |
| Supported lens | 50 mm |

For European Community Users

Cognex complies with Directive 2012/19/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 on waste electrical and electronic equipment (WEEE).

This product has required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment, if not properly disposed.

In order to avoid the dissemination of those substances in our environment and to diminish the pressure on the natural resources, we encourage you to use the appropriate take-back systems for product disposal. Those systems will reuse or recycle most of the materials of the product you are disposing in a sound way.



The crossed out wheeled bin symbol informs you that the product should not be disposed of along with municipal waste and invites you to use the appropriate separate take-back systems for product disposal.

If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration.

You may also contact your supplier for more information on the environmental performance of this product.

China RoHS



| | Hazardous Substances 有害物质 | | | | | |
|---|---------------------------|-------------------|-------------------|--------------------------------------|--|--|
| Part Name 部件名称 | Lead (Pb) 铅 | Mercury (Hg) 汞 | Cadmium (Cd) 镉 | Hexavalent Chromium (Cr (VI)) 六价铬 | Polybrominated biphenyls (PBB) 多溴联苯 | Polybrominated diphenyl ethers (PBDE) 多溴二苯醚 |
| Regulatory Model xxxx | X | O | O | O | O | O |
| <p>This table is prepared in accordance with the provisions of SJ/T 11364. 这个标签是根据SJ/T 11364 的规定准备的。</p> <p>O: Indicates that said hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB / T26572 - 2011. 表示本部件所有均质材料中含有的有害物质低于GB / T26572 - 2011 的限量要求。</p> <p>X: Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB / T26572 - 2011. 表示用于本部件的至少一种均质材料中所含的危害物质超过GB / T26572 - 2011 的限制要求。</p> | | | | | | |

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