

# Machine Vision Enclosures and Mounting Solutions

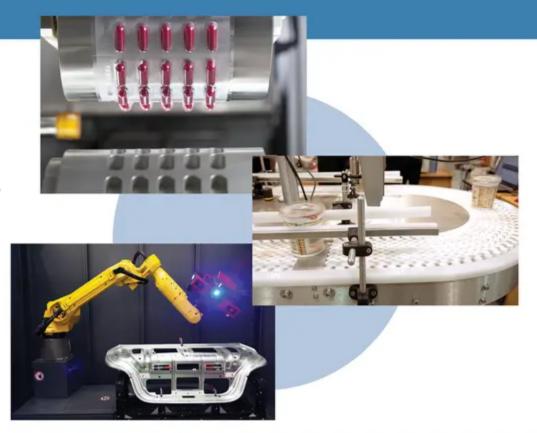




Design Engineering and Manufacturing Camera and Lighting Enclosures for Industrial Environments

**APG Vision** manufactures camera and lighting enclosures for harsh industrial environments. APG Vision supports cameras from most manufacturers, including: Allied Vision, Cognex, Datalogic, Keyence, Teledyne Dalsa, Vision Components, and Zebra. APG Vision offers housings for food and beverage, pharmaceutical, logistics, automotive, mining, security and gas industries. APG Vision also offers custom enclosures and OEM design solutions.

Our customers include such companies as: ABB Inc, Carnegie Robotics, Cognex, Kraft Heinz, Nestle, Omron, PPG Industries, Texas A&M, Tremco, Tyson Foods, Unilever, Wesco, and Zebra Technologies.



## **Basic Protection**



### 22C Series

- IP52 Protection
- · Anodized aluminum
- For cameras upto 30mm x 30mm
- Tool-less access to camera and lens
- Glass or plastic viewport
- · Standard and custom barrel lengths available
- · Split cable gland
- Options:

air cooling • air curtain • sun shield • pan & tilt mount



### **30D Series**

- IP64 Protection
- · Stainless steel and anodized aluminum
- For cameras up to 44mm x 30mm
- Simple access to camera and lens
- Glass or plastic viewport
- · Standard and custom enclosure lengths available
- Split cable gland
- Options:

air cooling • air curtain • sun shield • pan & tilt mount

pneumatic shutter • ring light mount



### L1 Series

- · IP65 Protection
- Stainless steel
- For upright cameras
- · Simple access to camera and lens
- · Glass or plastic viewport
- Standard and custom length lens tubes available
- Split cable gland
- Options:

air cooling • air curtain • heat shield • pan & tilt mount

## Increased Protection

### 24C Series

- IP68 Protection
- Anodized aluminum
- For cameras up to 44mm x 30mm
- Tool-less access to camera and lens
- Glass or plastic viewport
- Standard and custom barrel lengths available
- Split cable gland
- · Integrated air cooling/air curtain
- Options:

air shield • sun shield • ball mount • pan & tilt mount • pneumatic shutter • ring light mount



### **47C Series**

- IP68 Protection
- Anodized aluminum
- For cameras up to 70mm x 70mm
- Tool-less access to camera and lens
- Glass or plastic viewport
- · Standard and custom barrel lengths available
- Split cable gland
- · Integrated pan and tilt mount
- Options:

air shield • sun shield • pneumatic shutter

ring light mount • fixed mounting

### 35C Series

- IP68 Protection
- Anodized aluminum
- For cameras up to 58mm x 58mm
- Tool-less access to camera and lens
- Glass or plastic viewport
- Standard and custom barrel lengths available
- Split cable gland
- · Integrated pan and tilt mount
- Options:

air shield • sun shield • pneumatic shutter • ring light mount

# Cable Glands



### APG Vision Standard sizes: PG16, PG21, PG29, PG36

- No need to remove and reinstall connectors from cables for installation
- Creates a liquid tight seal around cables
- Body available in polycarbonate, nickel plated brass, or 316 stainless steel
- Cable gland insert available in TPE-V
- Sealing washer available in Polyethylene, Viton™, BUNA-N, or Silicone
- Protection rating: IP68; NEMA 4X If cable diameter = insert hole diameter
- · Protection rating: IP65; NEMA 3 If cable diameter is up to 10% less than insert hole diameter



## **Food Grade**

### 30S Series

- IP68 Protection
- · Stainless steel
- For cameras upto 44mm x 30mm
- Simple access to camera and lens
- · Plastic viewport
- · Standard and custom enclosure lengths available
- Split cable gland
- Options:

**IP69K** • pan & tilt mount • ring light mount • heater • thermostat





### L7 Series

- IP68 Protection
- · Stainless steel
- · For upright cameras
- Simple access to camera and lens
- Plastic viewport
- · Standard and custom length available
- Split cable gland
- Options:

**IP69K** • air cooling • air wipe • heater

· thermostat · pan & tilt mount

### **42S Series**

- IP68 Protection
- Stainless steel
- For cameras upto 80mm x 80mm
- Simple access to camera and lens
- Plastic viewport
- · Standard and custom enclosure lengths available
- Split cable gland
- · Options:

**IP69K** • pan & tilt mount • ring light mount • heater • thermostat



### **LD Series**

- IP68 Protection
- · Stainless steel
- · For upright cameras
- Fixed camera mounting
- Plastic viewport
- Standard and custom sizes available
- · Split cable gland
- Options:

IP69K · pan & tilt mount · air cooling

· air wipe · heater · thermostat

# **Pan & Tilt Mounts**

### **Pan & Tilt Series**

- Slip resistant mounting
- Stainless steel
- 2 axis (pan, tilt) mounting
- Tilt axis swings throughout 360 degrees of arc
- Designs available for:
- machine vision cameras barcode readers lighting monitors enclosures lasers 2D/3D vision sensors thermal cameras







412.487.8211

www.apgvision.com

# **Liquid Cooled**



### **CC Series**

- IP68 Protection
- · Stainless steel
- · Designs available for inline or upright cameras
- · Double wall liquid cooling
- Glass viewport
- · Standard and custom sizes available
- Split cable gland

# Lighting



### **SL Series**

- IP68 Protection
- Stainless steel
- For cameras and larger ring, dome, or back lighting
- · Adjustable camera and lens mounting
- Plastic viewport
- Standard and custom sizes available
- · Split cable gland
- Options

**IP69K** ⋅ diffused viewport ⋅ air cooling ⋅ heater

· thermostat · sun shield



#### **LA Series**

- IP68 Protection
- · Stainless steel
- · For larger lights
- Plastic viewport
- · Standard and custom sizes available
- · Split cable gland
- · Options:

**IP69K** • air cooling • heat sink

· pan & tilt mount



### **LL Series**

- IP68 Protection
- Stainless steel
- · Designed for larger linear or back lights
- Plastic viewport
- · Standard and custom sizes available
- Split cable gland
- Options:

**IP69K** • diffused viewport • air cooling • heater • thermost

# **Assemblies**

**APG Vision** offers several enclosures and mount assembly options for a variety of applications. It is extremely important that camera or light assemblies are protected against the elemeLightnts of any harsh environment. We have over 30 Years of Professional Grade Prototype camera and lighting assembly experience including component integration. Our technicians are committed to excellence, quality, and on time fulfillment. APG Vision is fully compliant with REACH and RoHS. APG enclosures are stocked in a variety of sizes and materials, or we can engineer a custom design to customer specifications.



# Intrinsically Safe



### **EX Series**

#### **Explosion and Flame Proof**

- IP68 Protection
- Cast aluminum
- · For cameras and lighting
- · Adjustable camera and lens mounting
- Glass viewport
- · Standard and custom sizes available
- · NPT cable entry
- N.E.C. Class 1, Division I, II Groups B,C, & D Class II, Division I, II Groups E, F, & G Class III
- NEMA 7 & 9
- Options: NEMA 3,4X

### **PPS Series**

**Compatible with Purge and Pressurization Systems** 

- IP68 Protection
- Stainless steel or Aluminum
- · For cameras and larger lighting
- Adjustable camera and lens mounting
- Glass viewport
- Standard and custom sizes available
- NPT cable entry
- Explosive gas, dust, or both
- ATEX Zone0/20, 1/21, or 2/22
- · Class I, II, and Division I, II



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# Custom



### **Custom OEM Solutions**

There are times when it is appropriate to modify our standard enclosures to meet particular and specific needs, or we might design an entirely new enclosure. Here at **APG Vision**, we make it easy for design engineers to get the enclosures they need for their particular application.

#### Modifications

Because of our modular designs, it is often possible to satisfy most camera and lighting packaging requirements with our standard parts. However, there might be a time when a specific requirement is needed. We are here to help.

Assistance can be as simple as planning the proper panel space and accessories or as complex as creating a new enclosure design. We provide services to modify our parts to meet your special requirements.

Our engineering staff is available to speak directly with you to answer your technical questions. Contact us.

#### **Industrial Design**

Our staff can provide a custom look for your product using industrial design techniques.

By starting with our standard enclosures and accessories and modifying particular features such as viewports, camera arms, and mounting plates, we can create any style of enclosure. Because we start with our standard products, we can retain important features such as anodization and plating needed for protection in harsh environments.

# **Industrial Stands**

APG Vision manufactures custom stands to accommodate cameras, lighting, sensors, barcode readers, monitors, lasers, machine vision inspection, and security. APG Vision stands are utilized in the following industries but not limited to: food and beverage, pharmaceuticals, robotics, security, steel, automobile, and tire manufacturing. Our stands and mounts can be designed and manufactured from carbon steel, aluminum, and stainless steel.



#### **APG Vision**

designs and manufactures
camera and lighting
enclosures for harsh
industrial environments.
We offer housings for
food (FDA) applications,
washdown, and explosive
environments. We also
produce custom and OEM
design solutions.



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#### REGULATORY COMPLIANCE

Our products are specifically designed to meet or exceed regulatory compliance. Food grade enclosures are produced, inspected, and found to be in compliance with food grade and food safe requirements set forth by the U.S. Food & Drug Administration Code of Federal Regulations. Additionally, many of our standard models can be rated up to NEMA 4X or IP69K. Our explosion proof and intrinsically safe enclosures meet Type 4, Type 7, or Type 9 of the National Electric Code.

#### WARRANTY AND RETURN POLICY

All APG Vision, LLC. products have a 1-year warranty. If you have difficulty with a product, please call us at 412.487.8211 and obtain a Return Materials Authorization (RMA) number. Products returned may be subject to a restocking fee of 15% per 60 days from original invoice (special order products are subject to this fee on receipt). Credit for custom enclosure returns will be handled on a per case basis.

Our goal is complete customer satisfaction.