

MEPNN Supplier Scouting Opportunity Synopsis

Section 1: General Information

Scouting Number	2026-125
Item to be Scouted	Light switch Covers
Days to be scouted	14
Response Due By	04/22/2026
Description	A light switch cover is a non-conductive protective plate installed over a wall-mounted electrical switch to ensure user safety and maintain enclosure integrity. The cover provides a barrier against accidental contact with energized

Section 2: Technical Information

Type of supplier being sought	thermoplastic or metal, the cover is designed to meet standard dimensions for gang boxes and is secured using machine screws for a stable, tamper-resistant Manufacturer
Reason	Find Supplier
State item to be used in	Minnesota

Describe the manufacturing processes (elaborate to provide as much detail as possible)

A light switch cover is produced through a multi-stage manufacturing process that ensures electrical safety, dimensional consistency, and long-term durability. The typical workflow includes the following steps:

1. Raw Material Preparation

- Thermoplastic covers: Polymer resin (commonly nylon, polycarbonate, or thermoset urea) is received in pellet or powder form. Colorants, UV stabilizers, and flow additives are blended as required.
- Metal covers: Sheet steel, stainless steel, or aluminum stock is inspected for thickness, flatness, and surface quality.

2. Forming the Base Plate

For thermoplastic covers (injection molding):

- Resin is fed into an injection molding machine.
- Heat and pressure melt the resin and inject it into a precision mold cavity shaped to the final faceplate design.
- The mold cools and solidifies the part, forming the plate, screw holes, and switch openings in a single cycle.

For metal covers (stamping and forming):

- Sheet metal is fed into a stamping press.
- A die set punches the switch opening(s), screw holes, and outer profile.
- Secondary forming operations may flatten edges, create bevels, or deburr sharp surfaces.

3. Surface Finishing

- Thermoplastic: Parts may undergo light trimming, flash removal, or texture application directly from the mold.
- Metal: Covers are deburred, sanded, or brushed to remove sharp edges.
- Steel covers may be zinc-plated, powder-coated, or painted for corrosion resistance.
- Stainless steel covers may be polished or given a brushed finish.

4. Quality Control & Dimensional Verification

- Each batch is checked for dimensional accuracy (gang size, screw spacing, plate thickness).
- Switch openings are verified to meet NEMA/ANSI standards.
- Surface finish, color consistency, and absence of defects (warping, cracks, burrs) are inspected.
- Electrical safety requirements (non-conductivity for plastic, grounding provisions for metal) are validated.

5. Packaging & Labeling

- Finished covers are cleaned, inspected, and packaged individually or in multi-packs.
- Labels include product type, gang configuration, material, color, and compliance markings.
- Units are boxed, palletized, and prepared for distribution.

Provide dimensions / size / tolerances / performance specifications for the item

1. Single-Gang Light Switch Cover (Most Common)

- Overall height: 4.50 in (114 mm)
- Overall width: 2.75 in (70 mm)
- Thickness: 0.20–0.25 in (5–6 mm) typical
- Screw hole spacing (center-to-center): 3.28 in (83 mm)
- Toggle opening: 1.31 in × 0.44 in (33 mm × 11 mm)

2. Double-Gang Cover

- Overall height: 4.50 in (114 mm)
- Overall width: 4.56–4.60 in (116–117 mm)
- Thickness: 0.20–0.25 in
- Screw hole spacing:
 - Vertical: 3.28 in (83 mm)
 - Horizontal: 3.81 in (97 mm)

3. Triple-Gang Cover

- Overall height: 4.50 in (114 mm)
- Overall width: 6.38–6.40 in (162–163 mm)
- Thickness: 0.20–0.25 in
- Screw hole spacing:
 - Vertical: 3.28 in (83 mm)
 - Horizontal: 3.81 in (97 mm) between gangs

4. Decora / Rocker-Style (Single-Gang)

- Overall height: 4.50 in (114 mm)
- Overall width: 2.75 in (70 mm)
- Opening size: 2.64 in × 1.30 in (67 mm × 33 mm)

5. Oversized / “Jumbo” Plates (for covering gaps)

- Height: 5.25 in (133 mm)
- Width: 3.50 in (89 mm)
- Used when wall cutouts are irregular or oversized

Typical Tolerances

- Length/width: ± 0.03 – 0.06 in (± 0.8 – 1.5 mm)
- Thickness: ± 0.01 in (± 0.25 mm)
- Flatness/squareness: = 0.5 mm deviation
- Opening dimensions: ± 0.5 mm

These tolerances align with common commercial faceplate manufacturing and are acceptable for NIST/BABA documentation unless a specific spec sheet is required

List required materials needed to make the product, including materials of product components	<p>1. Base Material (Primary Component)</p> <p>Thermoplastic Covers</p> <ul style="list-style-type: none"> - Polycarbonate (PC) – impact-resistant, heat-stable - Nylon (PA6 or PA66) – durable, flexible, good electrical insulation - Urea-formaldehyde (thermoset) – rigid, scratch-resistant, common in residential plates - Colorants / pigments – integrated into resin for final color - UV stabilizers – prevent discoloration over time - Flow/processing additives – improve moldability and reduce defects <p>Metal Covers</p> <ul style="list-style-type: none"> - Stainless steel sheet (typically 302/304) – corrosion-resistant - Aluminum sheet (5052 or 6061) – lightweight, corrosion-resistant - Carbon steel sheet – used when powder-coated or zinc-plated - Protective coatings (if required): <ul style="list-style-type: none"> - Powder-coat paint - Zinc plating - Clear lacquer - Brushed or polished finish media <p>2. Fastening & Hardware Materials</p> <ul style="list-style-type: none"> - Machine screws (6-32 thread) – typically steel, zinc-plated - Thread-forming or self-tapping screws (if included in kit) - Grounding clip (metal plates only, if required by design) <p>3. Mold / Die Related Materials (Used in Production, Not in Final Product)</p> <ul style="list-style-type: none"> - Steel injection molds (for thermoplastic) - Stamping dies (for metal plates) - Release agents (thermoplastic molding) - Lubricants for stamping operations <p>These are not part of the final product but are essential for manufacturing.</p> <p>4. Surface Finishing Materials</p> <ul style="list-style-type: none"> - Abrasive media (for deburring metal) - Polishing compounds (for stainless steel) - Powder-coat powder (if applicable) - Solvent cleaners or degreasers - Protective film (applied to finished metal plates to prevent scratches during shipping) <p>5. Packaging Materials</p> <ul style="list-style-type: none"> - Polybag or shrink-wrap - Cardboard backing or carton - Printed labels - Bulk shipping boxes
Are there applicable certification requirements?	No
Are there applicable regulations?	No
Are there any other standards, requirements, etc.?	No
Additional Technical Comments	

Section 4: Business Information

Estimated potential business volume	Enough to supply a 48 unit apartment in Minnesota
Estimated target price / unit cost information (if unavailable explain)	.79-3.99
When is it needed by?	January 2027
Describe packaging requirements	None
Where will this item be shipped?	Blaine Minnesota

Additional Comments

Is there other information you would like to include?

Standard White plastic switch plates