**UNIT\_TRANSPORT**

**1. Description  
The unit transport system carries products through various conveyor zones and interfaces with other subsystems (e.g., singulator, camera, sorter).**

**2. Functions**

* **Transport products from input to output.**
* **Interact with subsystems (singulator, camera, etc.) for sorting and identification.**

**3. I/O and Signals**

| **Signal Name** | **Type** | **Description** | **Panel** |
| --- | --- | --- | --- |
| **TRANSPORT\_START\_CMD** | **DO** | **Start transport** | **PANEL\_POWER\_PDP** |
| **TRANSPORT\_STOP\_CMD** | **DO** | **Stop transport** | **PANEL\_POWER\_PDP** |
| **TRANSPORT\_STATUS\_FB** | **DI** | **Transport system status** | **PANEL\_POWER\_PDP** |

**4. Interlocks & Safety**

* **Stop transport if jam detected (via PHOTO\_EYE\_JAM).**
* **Stop transport if no product detected at induct point (via PHOTO\_EYE\_INDUCT).**

**5. Dependencies**

* **Dependent on power supply (PANEL\_POWER\_PDP).**
* **Relies on PHOTO\_EYE\_INDUCT to trigger the start of transport.**

**6. Alarms**

| **Alarm ID** | **Condition** | **Message** |
| --- | --- | --- |
| **A\_TRANSPORT\_01** | **Transport failure** | **"Transport Error"** |

**7. HMI / Operator Interaction**

* **Displays transport status.**
* **Option to manually override start/stop commands.**