ASL 40 Approach Sequence Flash Light with SFU 40 Pulse Generator.

Application.
The unidirectional approach sequence flash lights ASL 40 are designed for additional identification of the centre line approach lighting. The periodic flash sequence and the high output level significantly improve detection of the approach lighting in limited visibility conditions. The intensity of the flash light beams can be adapted to prevailing conditions by high, medium and low settings. The flash lights are usually installed in the first 600m zone of the approach spaced at 30m intervals. A complete 900m approach can also be equipped with approach lights. With this version, the last 300m can be switched off by a separate switch command. In addition, the flash lights can be used as threshold identification lights (RTIL Runway Threshold Identification Light-ICAO or REIL Runway End Identification Light-FAA) as an independent light or in combination with the sequence flash light chain. The lights in the chain can be switched off in both configurations so that the two RTIL-lights can be operated separately. Detailed tender specifications are available on CD-ROM.

Complies with Regulations.
- ICAO Annex 14, Volume I, Juli 1999

Features.
- Maintenance-free compact construction
- High light intensity
- Impulse generator with remote monitoring of individual lamps
- Controlled by means of power cable
- Robust stainless steel housing

Installation.
The approach sequence flash lights are designed for mounting on the ground (short columns with standard breakable coupling and base plate on a concrete foundation) and for attachment to GRP masts. They are connected to the power cable via a junction box or a T-connector by a 5 x 2,5mm² cable. When installed on the ground, power can be supplied via a 6-pole breakable electrical coupling. Separate interface devices are not required. When installed on masts the electrical connection corresponds to the installation on ground. On impact, the electrical connection is separated.
**Function.**
The approach sequence flash lights are controlled and powered from the station via a common power cable (NYCWY). The station comprises an SFU 40 pulse generator and the FTU 40 light connection unit. A separate control cable for adjusting the brightness and switching off the approach sequence flash lights when only the RTIL-lights are required or when the last 300m of a completely equipped 900m approach are to be switched off, is not necessary.

The DC supply needed for powering the low-voltage gas discharge lamp is generated inside the light. The flash capacitors are automatically discharged and short-circuited when the front cover is opened. The position of each light in the chain is identified by an integrated decoding electronic circuit to ensure that it flashes at the correct sequence in relation to the other approach lights.

The approach sequence flash lights are individually monitored for failure. Faults and their locations are signaled on the SFU 40 pulse generator and on an optional monitoring system. In case of one of the two runway threshold edge identification lights failing, the remaining light is also switched off for safety reasons. The lights are equipped with an adjustable thermostatically controlled heating system.

**Construction.**

The approach sequence flash light comprises an optical unit and control and power electronic. The housing is fitted with two standard clamps that enable it to be fitted to safety approach masts easily. In addition, the use of standard clamps enables the lights to be adjusted horizontally through approx. +/− 150° and vertically through approx. 0° − + 15°. Opening of the front cover operates a safety switch which automatically disconnects power to the light so that the lamp can be replaced safely.
### Consumables

<table>
<thead>
<tr>
<th>Order numbers</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>280.867.347</td>
<td>Flash tube</td>
</tr>
<tr>
<td>65.870.703</td>
<td>Capacitor board V 500</td>
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### Spare Parts

<table>
<thead>
<tr>
<th>Order numbers</th>
<th>Description</th>
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<tbody>
<tr>
<td>280.868.977</td>
<td>Rubber clamping profile</td>
</tr>
<tr>
<td>280.868.978</td>
<td>Rubber filler profile</td>
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<tr>
<td>280.868.979</td>
<td>Security glass</td>
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<tr>
<td>280.868.987</td>
<td>Reflector</td>
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<td>280.868.991</td>
<td>Socket</td>
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<tr>
<td>280.866.682</td>
<td>Lamp holder</td>
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<td>272.383.402</td>
<td>Heating</td>
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<tr>
<td>280.868.164</td>
<td>Control PCB</td>
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<tr>
<td>658.723.39</td>
<td>Mains transformer</td>
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<td>280.868.963</td>
<td>Resistor</td>
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<td>280.868.965</td>
<td>Micro switch</td>
</tr>
<tr>
<td>280.868.249</td>
<td>Temperature regulator</td>
</tr>
<tr>
<td>280.868.248</td>
<td>Hygrostat</td>
</tr>
</tbody>
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### Dimensions

![Dimensions](Fig. 6 Side view of ASL 40)

![Dimensions](Fig. 7 Front view of ASL 40)
### Technical Data ASL 40.

**Optics:**
- Reflector, glass cover

**Light source:**
- Xenon discharge lamp with 3-pin base 500 VDS, 40 WS, lifetime 2 x 10⁶ flashes

**Protection class:**
- IP 55

**Color (housing):**
- Aviation yellow RAL 1006

**Net weight:**
- Approx. 12 kg without column, breakable coupling and base plate

**Area exposed to wind:**
- Approx. 0.2 m²

**Type:**
- Type ASL 40 with heating system

**Input voltage:**
- 230 V/240 V

**Power consumption of 32 flash lights with brightness set on high intensity:**
- Flash lighting system
- Heating system (standard)
- Inrush current
- 2500 W, cos phi 0.95 (phase L1)
- 1600 W
- 3840 W

**Control voltage:**
- + 18 VDC <=U<= + 32 VDC (nominal + 24 VDC)

**Auxiliary voltage:**
- None, generated internally

**Operating temperature range:**
- -55°C (with heater switched on) - +55°C
- -40°C (with heater switched off) - +55°C

**Relative humidity:**
- 99% (non condensation)