



Xport® Lubricant Application

Xport® Star Vario Long Range Lubrication System

New generation automatic lubrication systems with long range wireless connection and convenient operation via perma® Connect app

The Xport® Star Vario Long Range lubrication system offers a long-range, data-encrypted wireless connection and operates fully automatically, independent of temperature and pressure, ensuring highly precise discharge. The system consists of an electromechanical drive, a battery pack, and a lubrication cartridge (LC) with a lubricant volume of 60, 120, 250 or 500 cm (2.03, 4.06, 8.45 or 16.9 fl oz). It provides pressure buildup of 109 psi (7.5 bar).

The Xport® Star Vario Long Range lubrication system is used for single-point lubrication of a variety of equipment, including roller and sliding bearings, sliding guides, open gears, gear racks, spindles, shaft seals, and chains. With its extremely precise lubricant metering, it is also ideal for lubricating electric motors with specified lubricant quantities. Thanks to LoRaWAN® wireless technology, up to 2,000 lubrication systems in a facility can be conveniently managed via the perma Connect app and LoRa® Gateway at a distance up to 1.2 miles (2 km).

Applications

- Chains & sprockets
- Electric motors
- Open gears
- Roller bearings
- Shaft seals
- Sliding guide bearings

Typical Industries

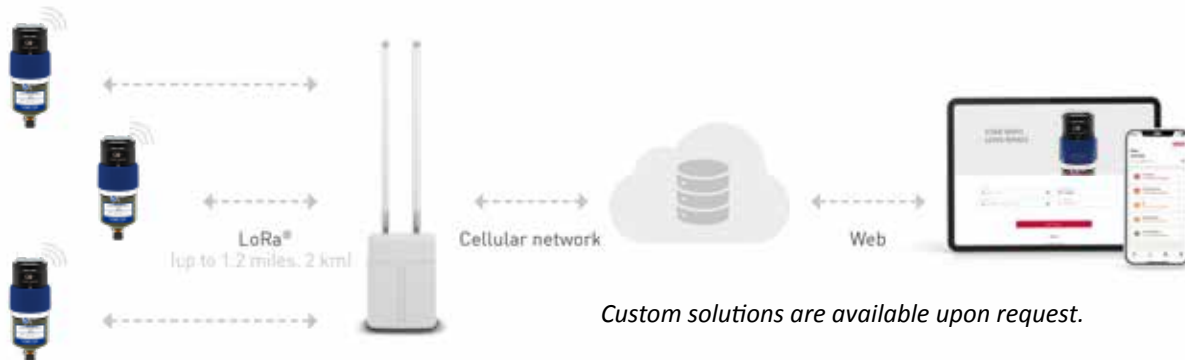
- Cement production
- Food and beverage
- Mining
- Oil and gas production
- Paper mills
- Pharmaceutical
- Power generation





Xport® Star Vario Long Range Lubrication System

Components



Star Vario Lubricator

- Backlit LCD display with pushbutton control shows operating status.
- Offers a broad range of weekly and monthly time-setting options for 60, 120, 250 and 500 cm.
- Enhances service planning flexibility.

LoRa Gateway

- Each Gateway receives data from up to eight lubricators simultaneously and supports up to a total of 2,000 lubricators.
- Relays status updates and control commands to and from lubricators up to a 1.2-mile (2-km)* radius.
- Uses 5G cellular network via the provided data SIM card.
- Uses 128-bit AES end-to-end encryption.

perma Connect

- Provides access to information about your lubrication points from the comfort of your workstation.

*LoRa® communication radius up to 1.2 miles (2 km) line-of-sight is dependent on several factors, including signal interference and density of obstructions, such as structures between the gateways and lubricators.

How Does It Work?

- Sends messages to perma Connect app via the LoRa Gateway
 - » Messages include status, timestamp, date, ambient temperature, and fill level percentage
 - » Messages are sent on every status change
- Receives messages from perma Connect via the LoRa Gateway
 - » Messages include actions such as turning devices on or off, changing settings, and running purge cycles
 - » Messages are received after a signal is sent
 - » Device checks for new commands at least once per hour
- Provides same functionality as LE's standard Xport Star Vario drive unit, with added LoRaWAN (Long Range Wide Area Network) communication features
- Compatible with all Star LC sizes (60, 120, 250 & 500cm)

Features & Benefits

- **Remote control & maintenance** – Provides detailed information on lubrication system status without requiring machinery shutdown or access restrictions.
- **Standard radio communication technology** – Ensures trouble-free operation.
- **Centralized management dashboard** – Provides quick overview and details on lubrication system status, enabling the management of numerous systems.
- **Time-saving** – Easily and reliably monitor all lubrication systems, allowing you to increase efficiency, save time, and boost productivity.
- **Complete service solution** – Easy registration of lubrication systems saves time and resources.
- **Workplace safety** – Configuration, control and maintenance can be done from a distance at a safe spot.

Technical Information



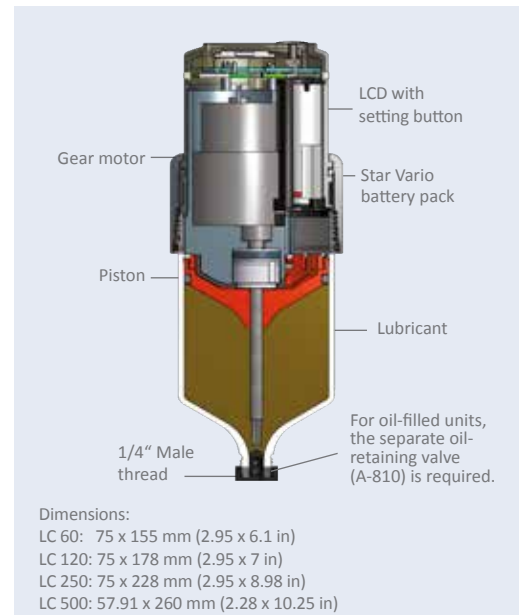
Xport® Star Vario Lubricator

Features & Benefits

<p>LCD with setting button displays discharge period, LC size & operating status</p> <p>Setting: 1-26 weeks for all LC sizes. LC 60: 1, 2, 3, ... 12, 15, 18, 21 & 24 months LC 120 & 250: 1, 2, 3, ... 12 months LC 500: 1, 2, 3, ... 6 months</p>	<ul style="list-style-type: none"> → Simple and self-explanatory operation → Precise settings according to requirements prevent under- and over-lubrication → Settings can be changed at any time → Can be turned off for extended equipment shutdowns 	<ul style="list-style-type: none"> Protection cap Star Vario drive unit (reusable) LCD with setting button (discharge period and function) Star Vario battery pack Star LC Support flange
<p>Reusable electromechanical drive with battery pack</p> <p>LED (red/green) visible all around signals functioning and any errors</p>	<ul style="list-style-type: none"> → Reliable, precise lubricant discharge independent of temperature and counter pressure → One-time acquisition costs for reusable drive → Quick function control via LED signals – saves time and relieves maintenance workers 	
<p>Pressure buildup up to 7.5 bar (109 psi) allows remote mounting up to 5 meters (5.5 yards)</p> <p>Purge: Counter pressure testing and manual additional discharge at the press of a button</p>	<ul style="list-style-type: none"> → Installation outside of dangerous areas or at easy-to-reach places increases workplace safety and saves time → Higher equipment availability because exchange during running operation is possible → Lubrication point can be purged to clear blockages 	

Technical Information

Drive (reusable)	Electromechanical function using battery pack
Discharge period	1, 2, 3, ..., 12 months 1, 2, 3, ... 26 weeks
Lubricant volume	60, 120, 250 or 500 cc (2.03, 4.06, 8.45 or 16.9 oz)
Operating temp.	-20 to 60°C (-4 to 140°F) Alkaline -40 to 60°C (-40 to 140°F) Lithium
Pressure buildup	Max. 7.5 bar (109 psi)
Protection class	IP 65 / IP 67
Lubricants	Oil and grease up to NLGI 2 (oil-filled unit comes with an oil-retaining valve and can be recognized by a red plug.)





Easy, Smart, Connected

Xport® Lubricators & perma® Connect



With perma Connect, you can easily, reliably and remotely monitor and manage your Xport single-point lubricators in hard-to-reach work areas and danger zones. This allows you to increase efficiency, save valuable time and boost the productivity of your business. perma Connect lets you design your own network and provides access to information about your lubrication points from the comfort and convenience of your workstation.

Let LE show you how it works!

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