

perma STAR VARIO & perma STAR VARIO BLUETOOTH



DISCOVER THE NEXT GENERATION



Versatile lubrication system optionally with Bluetooth functionality

perma STAR VARIO operates fully automatically, independent of temperature and pressure with a very precise discharge. The system consists of an electromechanical drive, an LC with 60, 120, 250 or 500 cc / 2.03 oz, 4.06 oz, 8.45 oz or 16.91 oz of lubricant and a battery pack.

perma STAR VARIO provides pressure build-up of 7.5 bar / 109 psi and is used for single-point lubrication of roller and sliding bearings, sliding guides, open gears, gear racks, spindles, shaft seals and chains. Thanks to precise lubricant metering, perma STAR VARIO is ideal for lubrication of electric motors with specified lubricant quantities. The bluetooth-enabled version, perma STAR VARIO BLUETOOTH is optionally available. It can be conveniently operated via the perma CONNECT APP.



Applications



Industry: Recycling
Application: Electric motors



Industry: Quarrying industry
Application: Conveyors



Industry: Pulp & Paper
Application: Blowers & Fans



Industry: Power Generation
Application: Pumps

Product characteristics



Pressure build-up of 7.5 bar allows remote mounting up to 5 m / 14.4 ft

System operates reliably from **-40 °F** to +140 °F / -40 °C** to +60 °C**



LCD display with push button displays discharge period, LC size and operating status

Display with backlighting only STAR VARIO BLUETOOTH

Electromechanical, reusable drive with battery pack



Bluetooth functionality Only perma STAR VARIO BLUETOOTH

Allows simplified operation via perma **CONNECT APP**

Benefits

- Mounting outside of dangerous areas or at easy-to-reach locations increases workplace safety
- Higher equipment availability since LC can be easily exchanged during running operation
- Universal use at both low and higher temperatures

- Simple and self-explanatory operation
- Precise settings according to requirements prevent lubrication starvation and over-lubrication

- Settings can be changed at any time

- Reliable, precise lubricant discharge independent of temperature and counter pressure
- One-time acquisition costs for STAR VARIO Drive

- Configure, control and maintain remotely
- Increased workplace safety
- Real-time lubricator function and feedback

Technical data

Drive - reusable

Electromechanical drive
with Battery pack STAR VARIO /
with Battery pack STAR VARIO low temperature

Discharge period

1, 2, 3 ... 12 months / 1, 2, 3 ... 26 weeks
STAR LC 60: + 15, 18, 21, 24 months
STAR LC 500: max. 6 months

Lubricant volume

60 cm³, 120 cm³, 250 cm³ or 500 cm³
2.03 oz, 4.06 oz, 8.45 oz or 16.91 oz

Operating temperature*

-40 °F** to +140 °F / -40 °C** to +60 °C

Continuous pressure build-up

109 psi / 7.5 bar

Protection class

IP 67 / IP 65

Standard & special lubricants

Greases up to NLGI 2

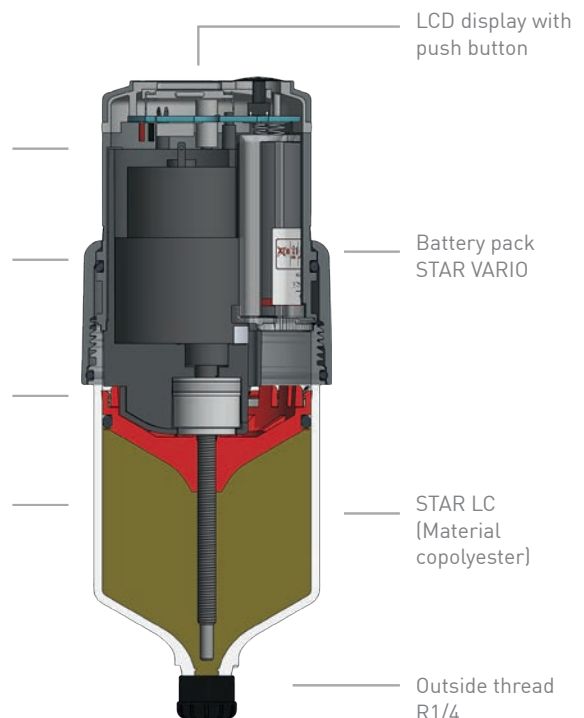
STAR VARIO Drive
(Material PA GF)

Gearmotor

Piston

Lubricant

Oil-filled units feature an integrated oil retaining valve





Dimensions

LC 60: Ø 75 x 155 mm / Ø 2.95 x 6.10 inch
LC 120: Ø 75 x 178 mm / Ø 2.95 x 7.01 inch
LC 250: Ø 75 x 228 mm / Ø 2.95 x 8.98 inch
LC 500: Ø 75 x 324 mm / Ø 2.95 x 12.76 inch

*To achieve functionality below -20° C / -4° F, Battery pack / Battery housing STAR VARIO low temperature (lithium) must be used.

**Only to be used with suitable low temperature lubricants!

perma STAR VARIO Components & Accessories

Drive	 perma STAR VARIO Drive Art. No. 117222	 perma STAR VARIO BLUETOOTH Drive Art. No. 117223		
Battery	 Battery pack STAR VARIO Art. No. 101351	 Battery pack STAR VARIO Art. No. 101351		
	 Battery housing STAR VARIO low temperature Art. No. 113404 → Requires 3 x battery AAA Li 1.5 V (procure locally)	or  Battery pack STAR VARIO BLUETOOTH low temperature Art. No. 116901		
LC (= Lubricant Cartridge)	 or	 or	 or	
	perma STAR LC 60 cm ³	perma STAR LC 120 cm ³	perma STAR LC 250 cm ³	perma STAR LC 500 cm ³

Greases				
perma Multipurpose grease SF01	104044	100724	104473	112410
perma Extreme pressure grease SF02	104048	100733	104480	112906
perma High temp. grease SF03	104051	100739	104485	112907
perma High performance grease SF04	104054	100744	104488	112908
perma High temp. / Extreme pressure grease SF05	104057	100750	104492	112909
perma Liquid grease SF06	104061	100755	104497	112041
perma High speed grease SF08	104063	100762	104500	112910
perma Multipurpose bio grease SF09	104065	100766	104502	112911
perma Food grade grease H1 SF10	104069	100770	104506	112859
Oils				
perma High performance oil S014	104180	101096	104685	117545
perma Multipurpose oil S032	104188	101117	104696	117546
perma Bio oil, low viscosity S064	104198	101137	104711	117547
perma Bio oil, high viscosity S069	104202	101145	104716	117548
perma Food grade oil H1 S070	104204	101148	104719	117549

Reorder



perma STAR LC can be filled with lubricants from other manufacturers upon request



For greater stability use Support flange STAR | Art. No. 109420



ACCESSORY KITS and INSTALLATION KITS STAR for remote mounting

When should you opt for remote mounting of a lubrication system:

- Is it difficult or dangerous to reach the lubrication point during plant operation?
- Is the lubrication point subject to strong vibrations or high temperatures which may impair or damage the lubrication system?
- Is access permission required to reach lubrication points in secured areas or at great heights?
- Is the lubrication point exposed to large quantities of water, pumped media, media from the manufacturing process or impact from solids?

If you answer yes to one of the questions, we recommend that you use indirect / remote mounting.



Benefits of perma ACCESSORY KITS and INSTALLATION KITS STAR



WORKPLACE SAFETY

- Remote mounting reduces the risk of accidents by up to 90 %
- Remote mounting reduces the time spent in hard-to-access dangerous areas
- Remote mounting components are subject to high safety standards



COSTS

- Economically best solution with cost advantage compared to individual purchase
- All parts from one source → less administrative effort



RELIABILITY

- All kits were developed based on many years of experience to meet the challenges of all common applications
- Particularly robust accessory parts to ensure long service life

ACCESSORY KITS and INSTALLATION KITS STAR

Standard and Heavy Duty

STANDARD DUTY KIT

These kits are very versatile and can be used in areas with normal ambient conditions.

HEAVY DUTY KIT

Heavy Duty kits have been specifically designed for use in operational areas with harsh ambient conditions which are subject to regular wash down and water impact, such as the conditions found in coal handling preparation plants.

INSTALLATION KITS

INSTALLATION KITS contain all necessary parts for the complete mounting of the lubrication system to the lubrication point: mounting bracket with mounting support, support flange, hose connectors, reducers and Heavy Duty hose.

ACCESSORY KITS

The only difference between the ACCESSORY KITS and the INSTALLATION KITS is that no hose is included.

BEAM CLAMP



MOUNTING BRACKET CAGE HANGER



Standard Duty



Heavy Duty



GREASE

DANGER
MOVING PARTS

perma
STAR

perma
STAR

DANGER
MOVING PARTS

ACCESSORY KITS and INSTALLATION KITS STAR Standard Duty

ACCESSORY KITS and INSTALLATION KITS STAR Standard Duty have been especially designed for operation under normal ambient conditions. The kits contain all necessary parts, including a reducer M10x1 and G1/8 per lubrication point. Unlike the ACCESSORY KITS, the INSTALLATION KITS do already contain the hose.

Beam clamp mount



INSTALLATION KIT STAR Standard Duty

1-point 65 mm beam clamp mount
incl. 3 m hose
Art. No. 116961

ACCESSORY KIT STAR Standard Duty

1-point 65 mm beam clamp mount
without hose | Art. No. 116951



INSTALLATION KIT STAR Standard Duty

2-point 65 mm beam clamp mount
incl. 5 m hose
Art. No. 116963

ACCESSORY KIT STAR Standard Duty

2-point 65 mm beam clamp mount
without hose | Art. No. 116953

Cage hanger mount



INSTALLATION KIT STAR Standard Duty

1-point cage hanger mount
incl. 3 m hose
Art. No. 116962

ACCESSORY KIT STAR Standard Duty

1-point cage hanger mount
without hose | Art. No. 116952



INSTALLATION KIT STAR Standard Duty

2-point cage hanger mount
incl. 5 m hose
Art. No. 116964

ACCESSORY KIT STAR Standard Duty

2-point cage hanger mount
without hose | Art. No. 116954

ACCESSORY KITS and INSTALLATION KITS STAR Heavy Duty

ACCESSORY KITS and INSTALLATION KITS STAR Heavy Duty have been specifically designed for use in operational areas with harsh ambient conditions. The kits contain all necessary parts, including a protection cap STAR Heavy Duty, a purge connection with manual valve and a reducer M10x1 and G1/8 per lubrication point. Unlike the ACCESSORY KITS, the INSTALLATION KITS do already contain the hose.

Beam clamp mount



INSTALLATION KIT STAR Heavy Duty

1-point 65 mm beam clamp mount
incl. 3 m hose
Art. No. 116965

ACCESSORY KIT STAR Heavy Duty

1-point 65 mm beam clamp mount
without hose | Art. No. 116955



INSTALLATION KIT STAR Heavy Duty

2-point 65 mm beam clamp mount
incl. 5 m hose
Art. No. 116967

ACCESSORY KIT STAR Heavy Duty

2-point 65 mm beam clamp mount
without hose | Art. No. 116957

Cage hanger mount



INSTALLATION KIT STAR Heavy Duty

1-point cage hanger mount
incl. 3 m hose
Art. No. 116966

ACCESSORY KIT STAR Heavy Duty

1-point cage hanger mount
without hose | Art. No. 116956



INSTALLATION KIT STAR Heavy Duty

2-point cage hanger mount
incl. 5 m hose
Art. No. 116968

ACCESSORY KIT STAR Heavy Duty

2-point cage hanger mount
without hose | Art. No. 116958

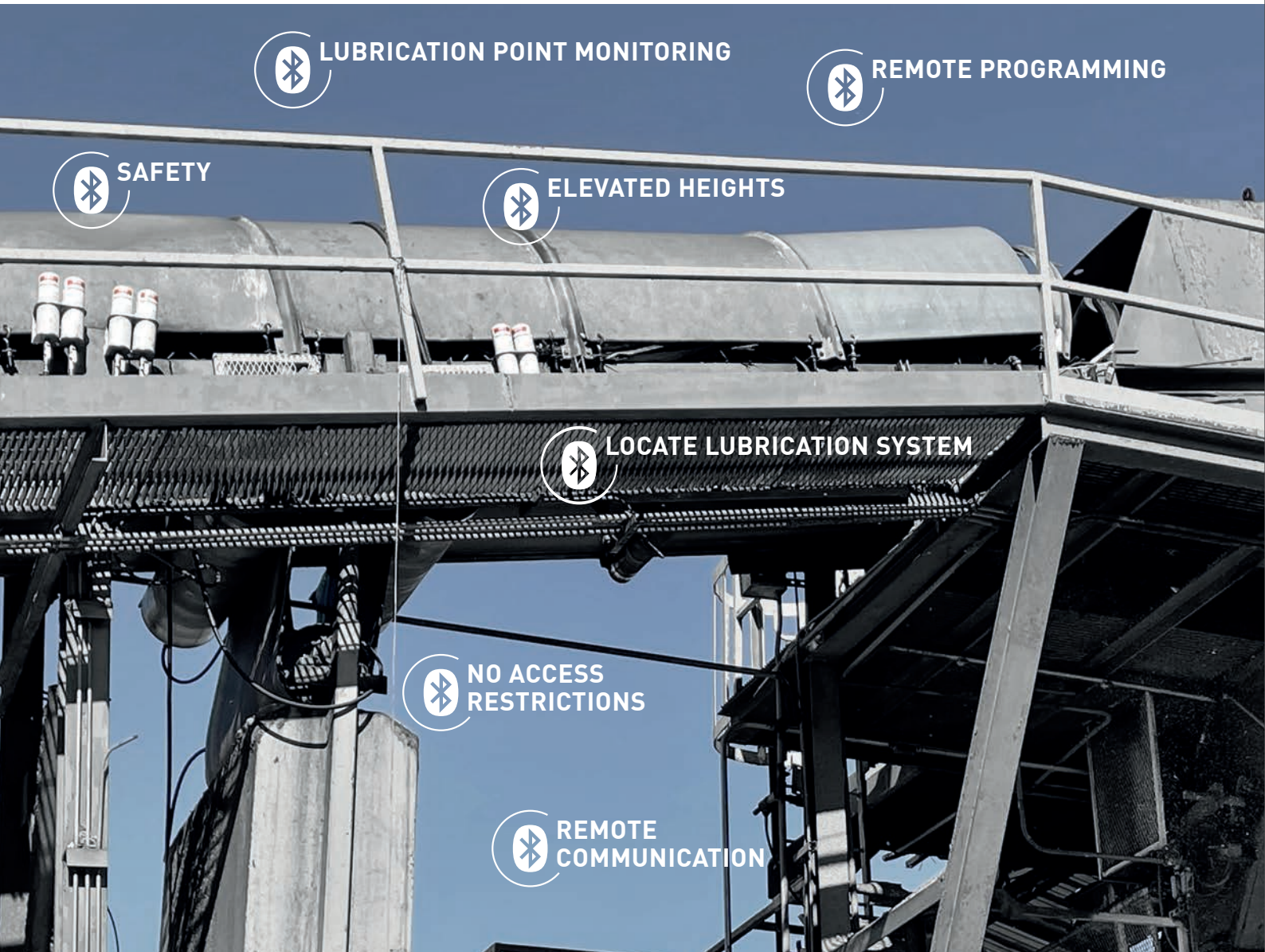
perma CONNECT APP

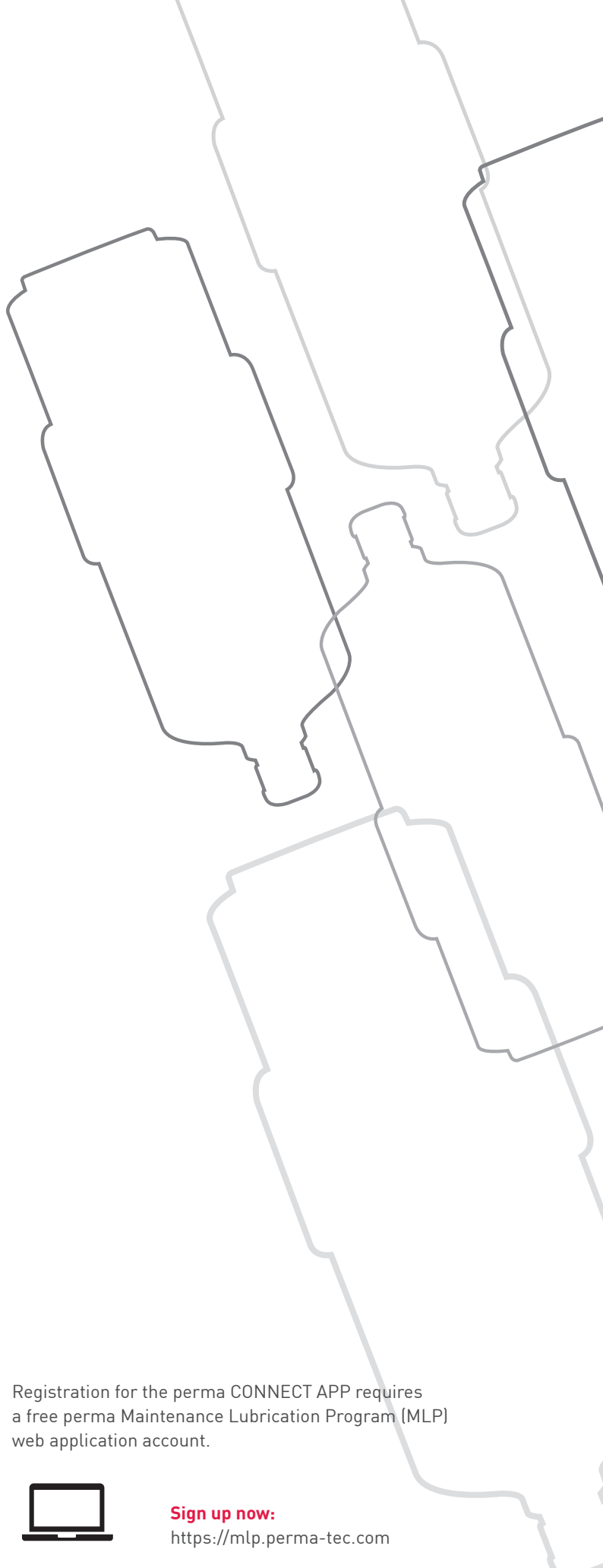
The convenient solution for remote lubrication point management

Simple and intuitive - configure and maintain your perma STAR VARIO BLUETOOTH lubrication systems via the perma CONNECT APP.

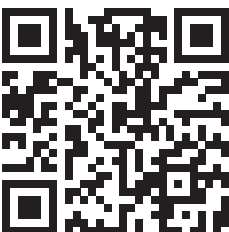
perma Maintenance Lubrication Program (MLP) provides clear structures with details about perma STAR VARIO BLUETOOTH, which can be accessed via the perma CONNECT APP.

The current status information is transferred to perma MLP for convenient access from your workplace.





Start now!



Registration for the perma CONNECT APP requires a free perma Maintenance Lubrication Program (MLP) web application account.



Sign up now:
<https://mlp.perma-tec.com>



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