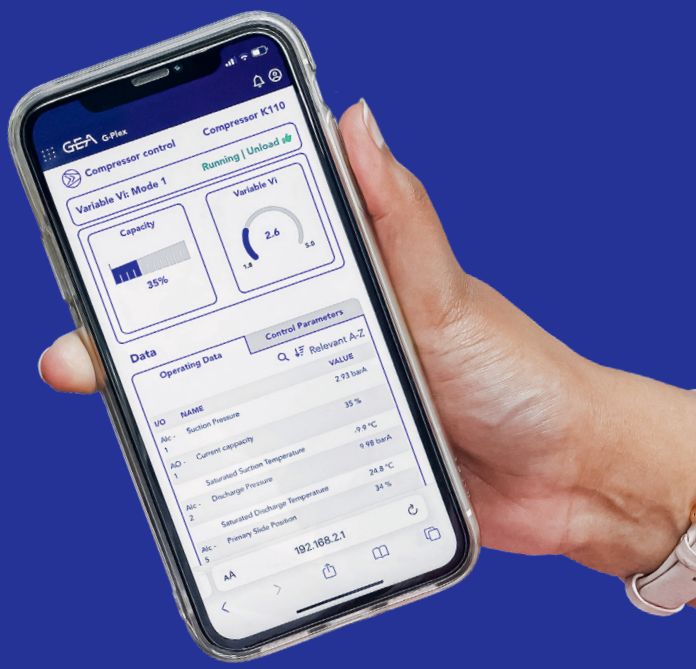
GEA G-Plex®

Vi control, condition monitoring, and more for GEA Grasso screw compressors

Key features

- Use G-Plex, in combination with your existing control systems, to achieve enhanced efficiency and safe operation
- Enabler for GEA Cloud® and other cloud-based digital solutions
- Main interface via Wi-Fi connection using your own mobile device
- Dynamic service intervals
- Onboard I/O
- Prewired sensors and actuators



Key functions & benefits

- Increased efficiency with automated variable Vi / capacity control
- Reduce maintenance costs by managing the variable service intervals based on running and standstill conditions
- Increased awareness of system operation via condition monitoring, safety alerts, and historical data logging, based on available sensors
- Clearly visualized compressor performance data via operator's mobile device
- Full communication via commonly used Modbus TCP using a LAN Ethernet connection

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GEA G-Plex®
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GEA G-Plex® is a new, proprietary, user-friendly, electronic module that provides built-in, automatic, optimal volume ratio (Vi) control and on-site and off-site monitoring of the performance of the compressor. G-Plex helps to increase efficiency and reduce energy usage while providing real-time information about compressor operating conditions. Easy to integrate in an existing control system via hardwiring and/or use of Modbus TCP communication.

GEA G-Plex	
Degree of protection	IP 54, NEMA 12
Housing material	Powder-coated carbon steel
Dimensions (w x h x d)	210 / 305 / 65 mm (8.3 / 12 / 2.6 in.)
Weight	2,6 kg / 5.7 lb.
Power input	24 V DC, +/- 20%, including separate PE
Power consumption	7 Amps (max. 2.6 Amps - controller & sensors / max. 4.4 Amps - solenoid outputs)
Operating temperature	5 to 45°C / 41 to 113°F
Storage temperature	-20 to +70°C / -4 to +158°F
Humidity	Minimum 10 to 90% @ 25°C / 77°F
Certifications / approvals	CE, UL, FCC, CCC, (UKCA), RoHS
Ethernet connections	2x RJ45, 100 Mbit
Wi-Fi	2.4GHz IEEE 802.11b/g/n
Communication protocol for external devices	Modbus TCP/IP
Operating system	LINUX
Real-time clock	Yes
Sensors *(standard solution)*	Primary slide position (4-20mA) Secondary slide position, depending on compressor execution (4-20mA) Suction & discharge pressure (4-20mA)
Additional sensors *(extended solution)*	Oil pressure (4-20mA) Suction, discharge & oil temperature (PT1000-2L)
Actuators	Maximum six capacity solenoids with amplifier (24 V DC)
Digital inputs	Economizer active*1
Digital outputs	Shutdown status*2 Warning status (optional)*2 Compressor running status (optional)*2
Analog inputs	Capacity set point (0-10 V DC) Motor speed (4-20mA)*3
Analog outputs	Actual primary slide position (0-10 V DC)

**1: Required when economizer option is active*
**2: Switching relays not included*
**3: Required with frequency-controlled compressors*

Products and services may not be available in all areas.
Please contact your local GEA office for additional information.

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