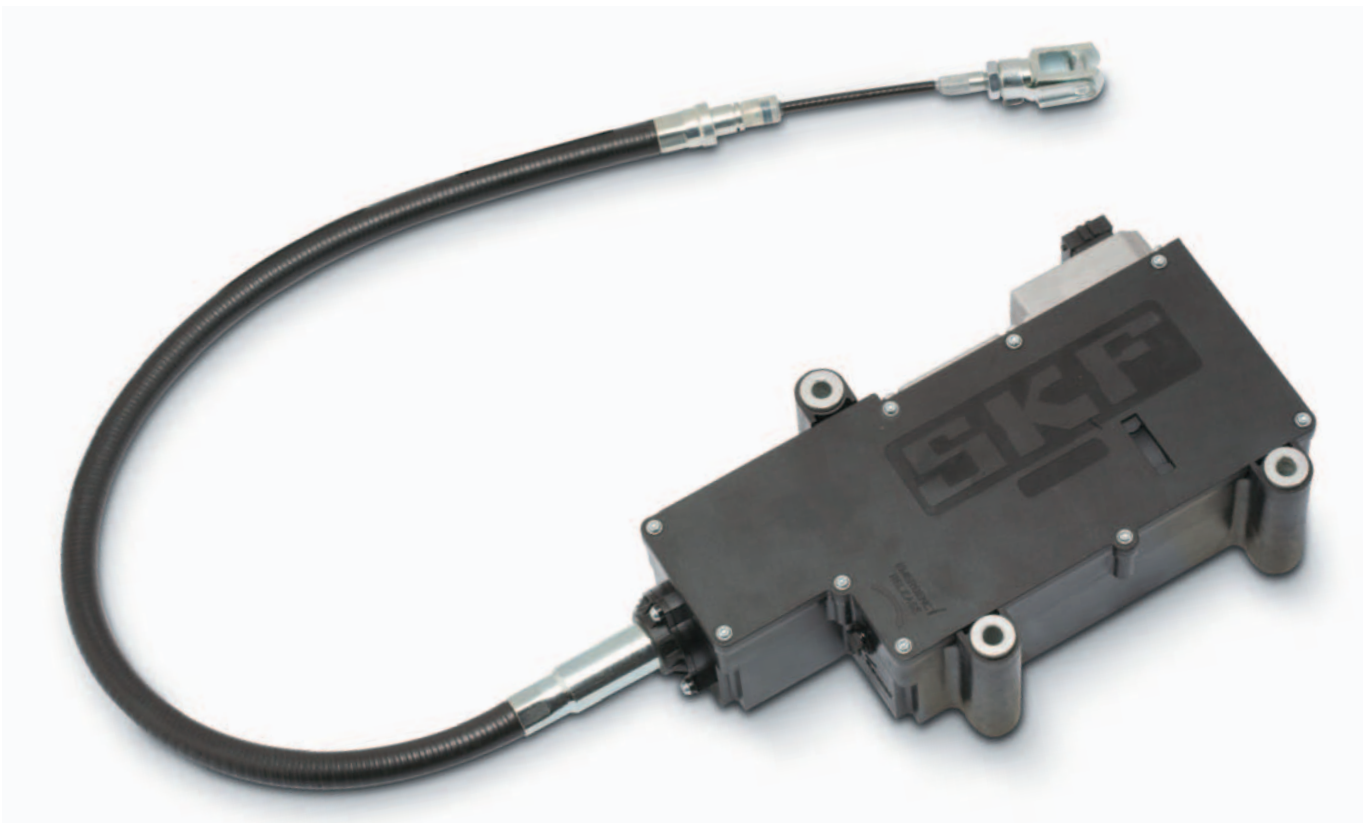


SKF Electronic Parking Brake



Product description

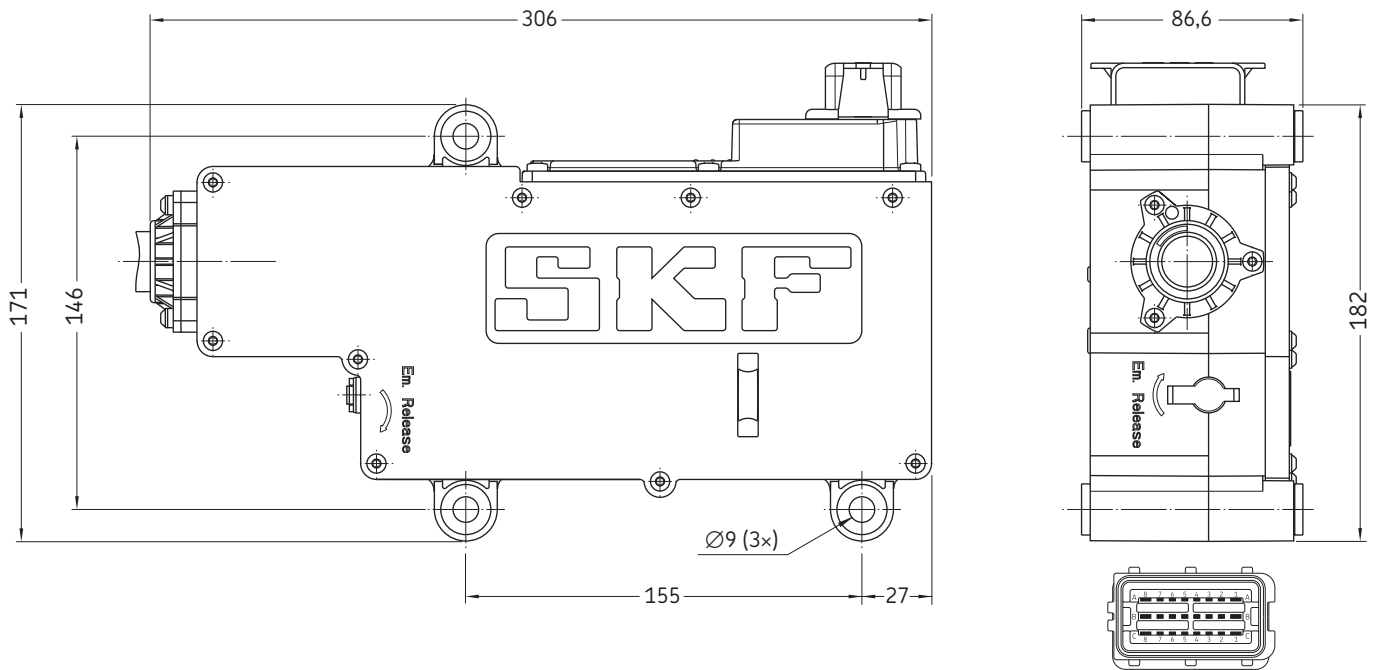
The SKF Electronic Parking Brake is a cable puller actuator: a compact and smart solution developed to provide a robust parking brake function on the vehicle.

Specifically designed for harsh environments and operating over the vehicle CAN bus.

This actuator offers an add-on solution which integrates Electronic Control Unit (ECU) and embedded software.

It is connected to the vehicle braking system by a flexible cable (Bowden cable).

Product dimensions and interfaces



Connector type: Delphi SICMA series 24 way male (p/n HCCPHPE24BKA00F). Sealed when connected to the relevant Delphi SICMA series 24way female.

Performances

Table 1

Product specifications ¹⁾					
Weight (without bowden cable)	Nominal force range	Max available stroke	Max speed (without load)	Endurance ²⁾	Protection level
kg	N	mm	mm/s	Apply/release cycles	-
3	2 000 to 4 000	65	18	250 000	IP 67

¹⁾ Referred to the actuator, excluding the Bowden cable
²⁾ Referred to a typical mechanical load characteristics

Table 2

Enviromental specifications			
Operating temperature (range)	Humidity (range)	Salt spray corrosion resistance	Random vibration
°C	%	hours	G _{rms}
-40 to 85	0 to 95	150	2,2

Electronics specifications

Table 3

Operating parameters at full performances				
Supply voltage at full performance (range)	Supply voltage at degraded performance (range)	Supply voltage at electronics full active (range)	Max current consumption (during actuations)	Max current consumption (only electronics)
V	V	V	A	A
11,5 to 16	10 to 11,5	9 to 16	30	0,2

Table 4

CAN interface		
Bus version	Bus speed	Transceiver
–	Kbit/s	Kbit/s
2.0B	125 – 250 – 500 – 1 000	high speed CAN transceiver

Electromagnetic compatibility

- Overvoltage and reverse polarity protection on power bus
- Short circuit protection (to ground, to voltage battery) of all lines
- Immunity to power transient pulses as per ISO7637 (pulse 1, 2, 3a, 3b, 4, 5)
- Immunity to RF E-field up to 150 V/m (ISO14982) and bulk current injection up to 200 mA (ISO11452-4).
- Immunity to ESD up to ±15 kV in air, ±8 kV on housing and connector's pin (as per EN61000)
- Conducted emissions and radiated emission meet CISPR25 level 3

SKF Electronic Parking Brake is homologated for vehicle installation according to:

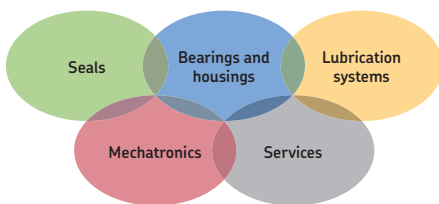
Directive 72/245/EEC-2006/28/EC
Regulation ECE / ONU N° 10 Amendments 03



SKF Electronic Parking Brake with customised Bowden cable

Options

- Management of a secondary power supply that can be used in case of primary power supply failure. This includes:
 - Secondary power supply diagnostic
 - Possibility to charge an external battery (maximum charging current: 200 mA)
- CAN Bus embedded terminating resistor (120 Ohm).
- Bowden cable customisation.
- Software customisation in order to adapt SKF EPB logics to customer required functions and vehicle network CAN messages. For example:
 - modulated EPB activation through a proportional command
 - Functional integration with vehicle stability control systems.
- Electronic Control Unit I/O available:
 - High side / low side digital outputs (i.e: to drive an external trailer brake activation relay or LEDs)
 - Analog inputs
 - Digital / frequency inputs
 - +5 V power supply (i.e: to supply an external sensor)



The Power of Knowledge Engineering

Combining products, people, and application-specific knowledge, SKF delivers innovative solutions to equipment manufacturers and production facilities in every major industry worldwide. Having expertise in multiple competence areas supports SKF Life Cycle Management, a proven approach to improving equipment reliability, optimizing operational and energy efficiency and reducing total cost of ownership.

These competence areas include bearings and units, seals, lubrication systems, mechatronics, and a wide range of services, from 3-D computer modelling to cloud-based condition monitoring and asset management services.

SKF's global footprint provides SKF customers with uniform quality standards and worldwide product availability. Our local presence provides direct access to the experience, knowledge and ingenuity of SKF people.

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