The broad range of hydraulic brake calipers offered by Knorr-Bremse is suitable for a wide variety of rail vehicles and requirements. The robust design ensures that they are unaffected by shock and vibration or harsh environmental conditions. All hydraulic calipers with automatic wear compensation and maintenance friendly – also within small installation space.

**CUSTOMER BENEFITS**
- High application force within small installation space
- Application force adjustable and mechanical emergency release
- Mounting possible to gearbox as floating support or to the bogie frame as elastic fixation
- Maintenance-friendly thanks to completely sealed bearings and joints
- Design principles successful worldwide and proven in use for many years
- Optional remote mechanical release

**APPLICATIONS**
- Light rail vehicles
- Metros
- Monorails
- People movers
**TECHNICAL DATA**

**HC1P50**
- Floating caliper with lever-type design
- Spring actuator brake
- Brake force per brake disc up to 100 kN
- Two hydraulic release circuits
- Maximum width of brake disc 100 mm
- Weight of brake caliper without bracket approx. 60 kg
- Optionally available with elastic fixing
- Remote mechanical release

**HC1P32**
- Floating caliper with lever-type design
- Spring actuator brake
- Brake force per brake disc up to 64 kN
- Two hydraulic brake circuits
- Maximum width of brake disc 60 mm
- Weight of brake caliper without bracket approx. 35 kg
- Optionally available with elastic fixing

**WZ80HZ45PS80**
- Brake caliper unit
- Spring actuator brake
- Brake force per brake disc up to 90 kN
- Two hydraulic release circuits
- Maximum width of brake disc 90 mm
- Weight of brake caliper approx. 115 kg
- Remote mechanical release

**HSC1P10N**
- Floating caliper frame-type design
- Spring actuator brake
- Brake force per brake disc 20 kN
- Two hydraulic release circuits
- Maximum width of brake disc 45 mm
- Weight of brake caliper approx. 15 kg

**HSE1A30**
- Elastic-mounted caliper with frame-type design
- Active brake
- Brake force per brake disc 60 kN
- One hydraulic brake circuit
- Maximum width of brake disc 60 mm
- Weight of brake caliper approx. 37 kg
- Also available as a spring actuator brake with remote mechanical release

**HF2A15**
- Fixed caliper
- Active brake
- Brake force per brake disc 60 kN
- One hydraulic brake circuit
- Maximum width of brake disc 60 mm
- Weight of brake caliper approx. 17 kg

---

**Knorr-Bremse Systeme für Schienenfahrzeuge GmbH**
Moosacher Straße 80
80809 Munich
Germany
Tel: +49 89 3547-0
Fax: +49 89 3547-2767
WWW.KNORR-BREMS.COM

---

This publication may be subject to alteration without prior notice. A printed copy of this document may not be the latest revision. Please contact your local Knorr-Bremse representative or check our website www.knorr-bremse.com for the latest update. The figurative mark “K” and the trademarks KNORR and KNORR-BREMSE are registered in the name of Knorr-Bremse AG. Copyright 2016 © Knorr-Bremse AG. All rights reserved, including industrial property rights and applications. Knorr-Bremse AG retains all power of disposal, such as for copying and transforming.