

## CB90R-Ultra Energy, Rotor Brake High-Energy Braking Application



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# CB90R-Ultra Energy Rotor Brake

## Features

- Active hydraulically actuated rotor brake for high-energy braking applications
- Braking torque adjustable by adjusting the pressure
- Wear sensor with detection of pre-worn and full-worn condition of lining pad
- Temperature sensor (PT100)
- Retraction system of lining pads
- Controlled retraction system of lining pads with constant airgap (CR)
- Mineral or synthetic oil
- Protection class C3-H standard ISO 12944-2
- Option:
  - Full retraction of lining pads
  - VCI packing

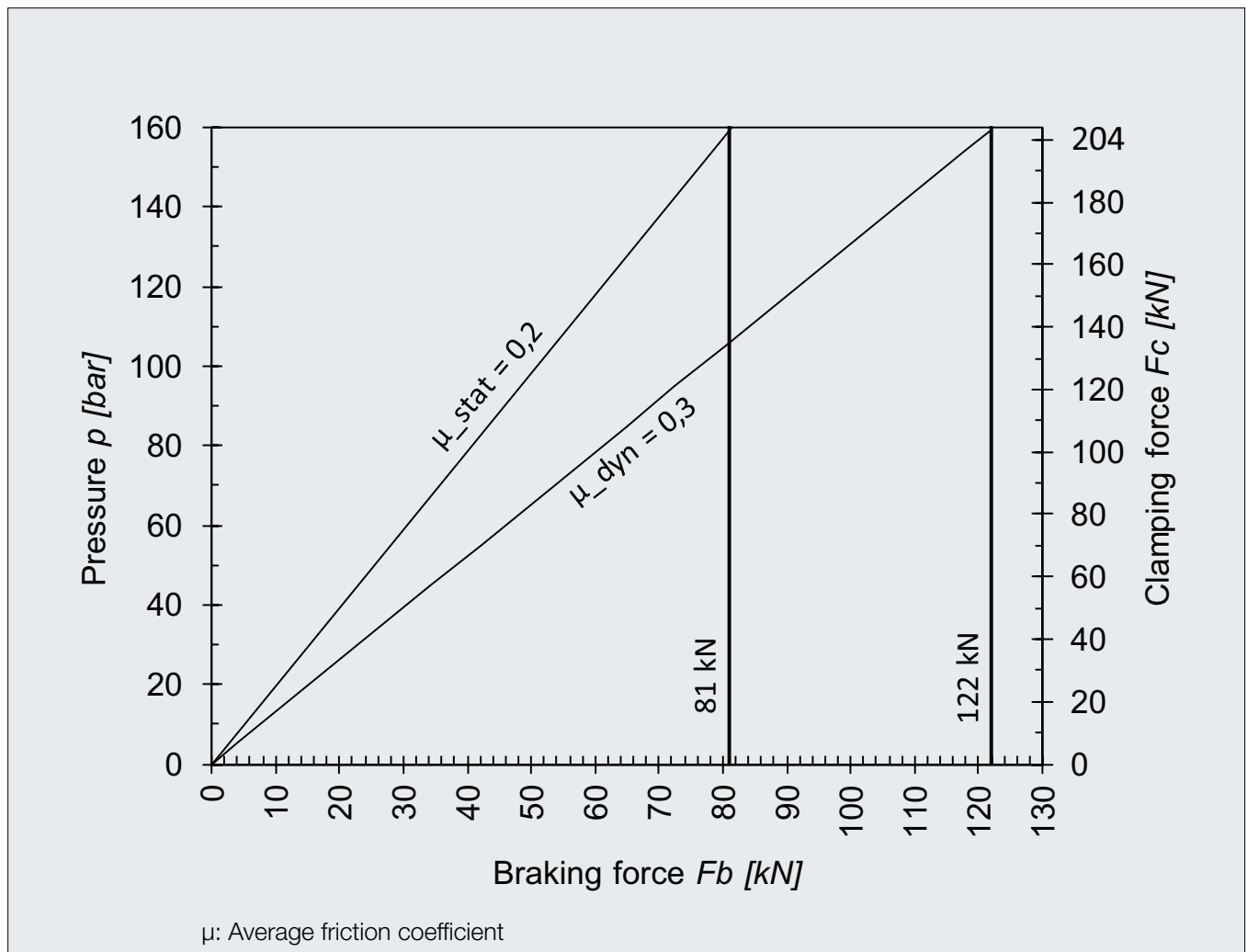
### Operating condition

Operating temperature: -30°C to +60°C

Option: -40°C to +60°C

Relative humidity:  $\leq 70\%$

Diagram 1: Pressure-force-diagram



# CB90R-Ultra Energy Rotor Brake

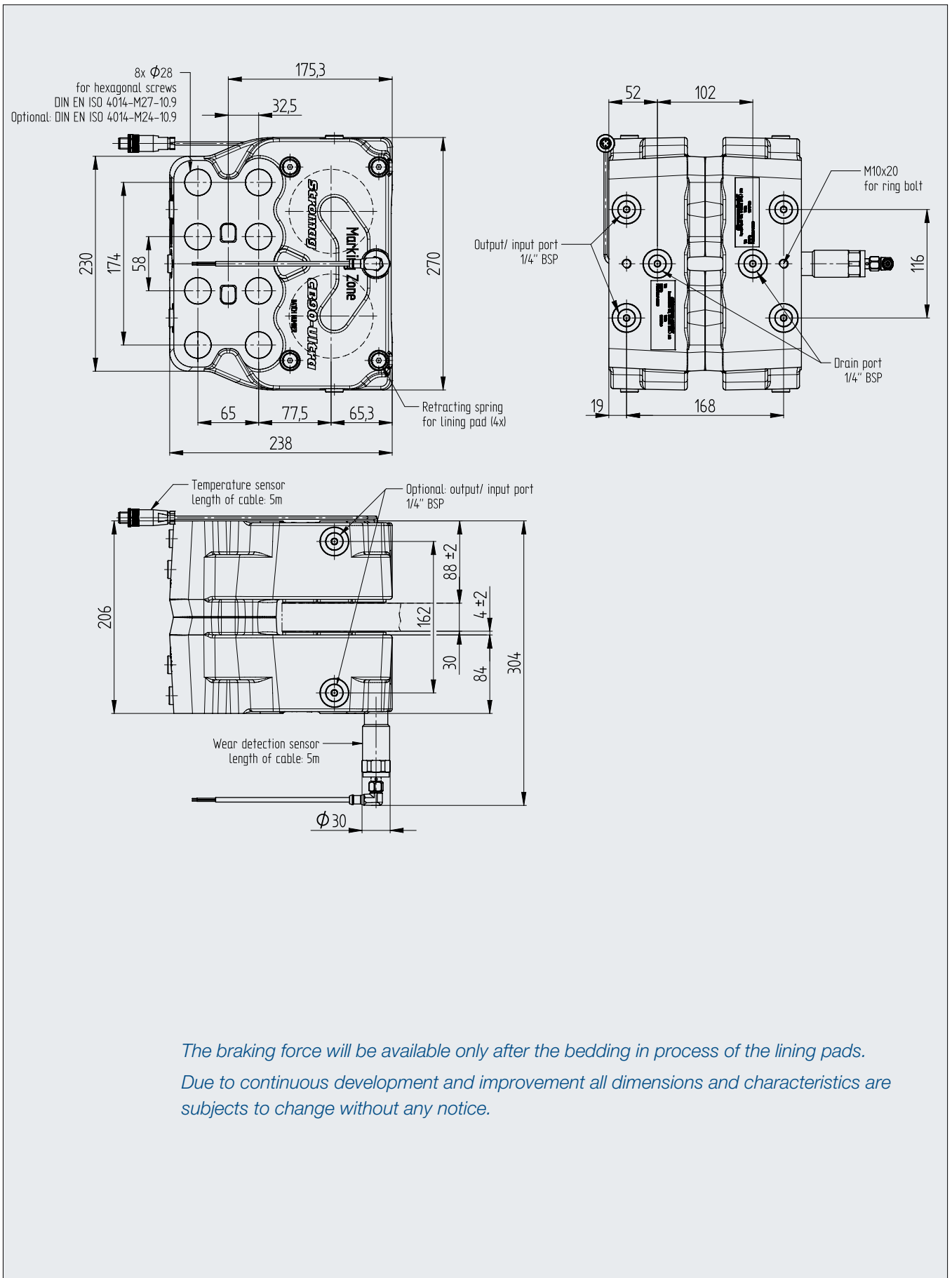
**Table 1: Technical data**

Designation CB90R-ULTRA Energy				
Lining Pad		EF3-1		RBS-5
Article no.		381-01324		381-01325
The following parameters apply to BOTH versions				
Operation mode		static		dynamic
Average braking force <sup>1)</sup> at max. pressure		$F_B$	N	81 000      122 000
Braking torque for the braking-Ø		$T_B$	Nm	$T_B = F_B \times \left(\frac{D}{2} + 0,0525\right)$
Max. pressure		p	bar	160
Disc speed				m/s ≤ 100
Oil volume	new pads	$V_{neu}$	cm <sup>3</sup>	180
	worn pads	$V_{versch.}$	cm <sup>3</sup>	333
	per 1 mm stroke	$V_{1\text{ mm}}$	cm <sup>3</sup>	25,5
Brake weight		m	kg	61
Disc thickness <sup>2)</sup>		e	mm	30
Max. dissipated energy per braking operation <sup>3)</sup>				MJ 14
<p>1) The fluctuation of the friction coefficient causes a tolerance of ±10%.                  2) For other disc thicknesses contact us.                  3) In combination with a disc size of Ø1000x30 mm. For other values contact us.</p>				

**Table 2: Electrical data**

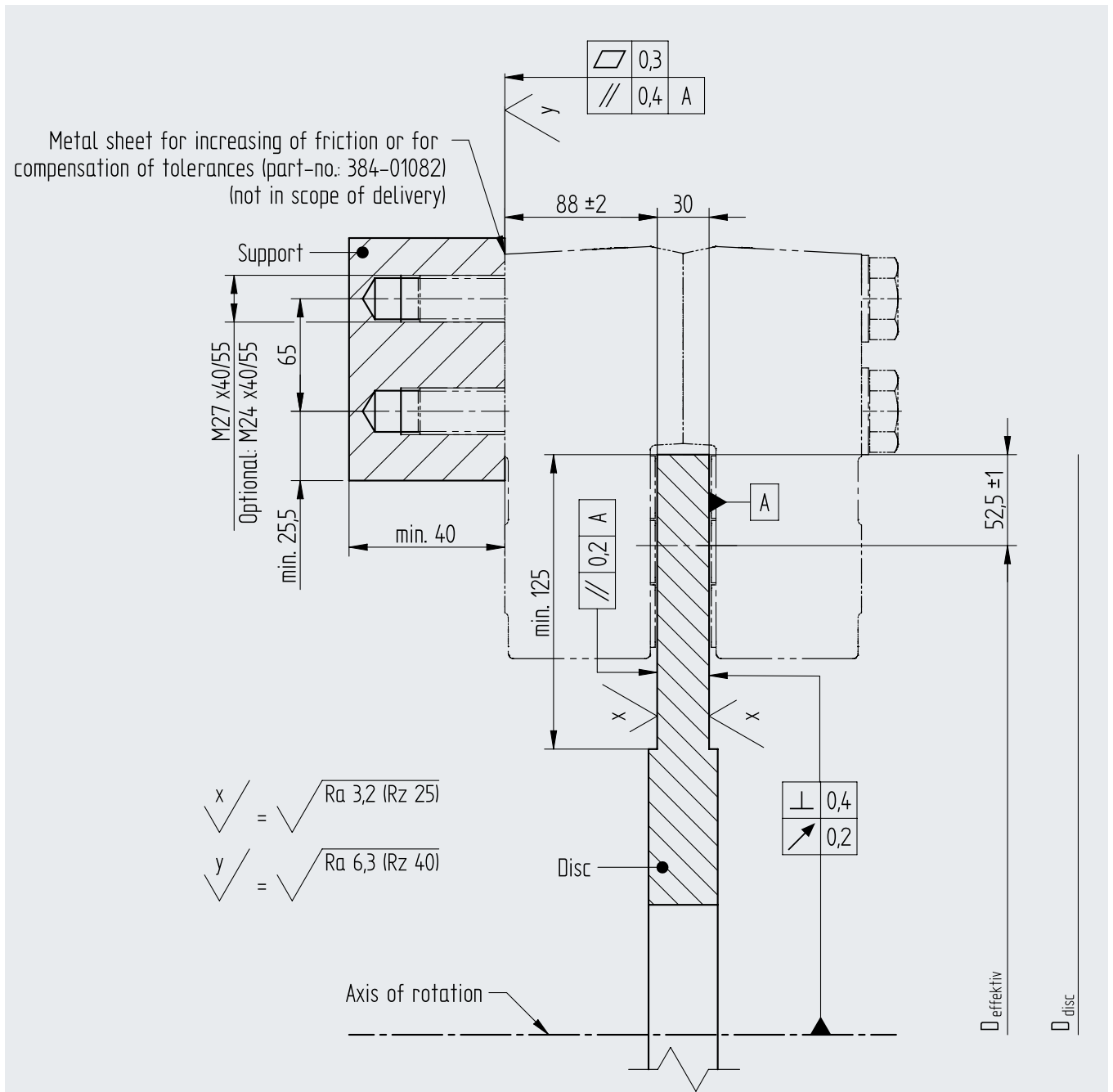
Sensor	Wear detection	Temperature (PT 100)
Data sheet	381-01130	062-01003
Operating current	2 ... 100 mA	max. 1 mA
Operating voltage	10 ... 36 V DC	f (R)
Resistance	R(- 40°C) = 84,27 Ω	
	R(0°C) = 100,00 Ω	
	R(100°C) = 138,51 Ω	
	R(200°C) = 175,86 Ω	

**Figure 1: Brake (sketch is not to scale)**



# CB90R-Ultra Energy Rotor Brake

Figure 2: Mounting conditions (sketch is not to scale)



### Material of disc:

Steel S235J or S355J standard NF EN10025 or casting EN GJS 400-18LT standard NF EN1563.

Please contact our technical service for any other operating conditions or for technical questions.

# Premier Industrial Company Leading Brands

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Our comprehensive product offerings include various types of clutches and brakes, overrunning clutches, engineered bearing assemblies, gearing and gear motors along with linear motion products, belted drives, couplings, limit switches, precision motors, drives & controls, miniature motors and engine braking systems. With thousands of product solutions available, Altra provides true single source convenience while meeting specific customer requirements. Many major OEMs and end users prefer Altra products as their No. 1 choice for performance and reliability.

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*Wind Brakes*

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