CAT Compact
Shock sensor with compact size
CAT Compact
System overview and technical data

The robot mount CAT Compact with fast installation cable assembly for air-cooled welding applications was designed for use on over arm robots up to 500 A. The overall system includes a welding torch, collision sensor and cable assembly with a heavy-duty and torsion-resistant coaxial cable for long service life.

The torch neck versions ABIROB® G 350, G 360 and G 500, which are equipped with the G-interface, are available to complement the CAT Compact system. Their outstanding features include stability and repeat accuracy — for good and reproducible welding results.

The torch neck types of the G-series are available in various TCP versions and can fall back on the tried-and-trusted wearing part concept of the ABIROB® A and ABIROB® GC-series.

Arguments that speak for themselves:
- Excellent purchasing price, combined with a fast and simple installation and long service life
- Compact design size for better access in tight and complex jigs or components
- Good reset-precision combined with large deflection for good reproducible welding results and the optimum protection of robot and welding torch
- Extensive range of welding torches
- Two cable assembly types available for standard applications with rubber cable support and for heavy dynamic welding application with spring support
- Technically sophisticated, robust design
- Excellent protection against contamination
- Worldwide Product support available

Reduced to the max: Compact, precise, simple, fast installation and value for money

Figure 1:
System overview

Figure 2:
Torch interface
Figure 1:
System overview

1.1 Changeable cable assembly to the CAT Compact, for an simple-and fast installation
1.2 Bracket
1.3 Robot flange

Figure 2:
Torch interface

2.1 Changeable torch interface
2.2 Key-way for precise positioning of the welding torch
2.3 HNBR rubber protection against welding spatter and soiling

Figure 3:
Shock Sensor

Modular shock sensor, simple and fast installation
Quick connection for signal cable

Figure 4:
CAT Compact

4.1 Signal/emergency stop
4.2 Switch housing
4.3 Interface/torch interface G-series
Technical data:

**CAT Compact**

**Technical data (EN 60 974-7):**

**ABIROB® G 350**
- **Rating:** 350 A CO₂, 300 A M21
- **Duty cycle:** 100%
- **Wire:** 0.8 – 1.4 mm
- **Neck geometries:** 30°/35°/45°

**ABIROB® G 360**
- **Rating:** 360 A CO₂, 290 A M21
- **Duty cycle:** 100%
- **Wire:** 0.8 – 1.6 mm
- **Neck geometries:** 22°/35°/45°

**ABIROB® G 500**
- **Rating:** 500 A CO₂, 400 A M21
- **Duty cycle:** 100%
- **Wire:** 0.8 – 1.6 mm
- **Neck geometries:** 22°/35°/45°

**Technical data:**

**CAT Compact**

- **Dimensions:** 148 x 69 x 88 mm
- **Weight:** approx. 0.85 kg
- **Weight:** approx. 1.3 kg (incl. bracket and flange)
- **Electrical data:** switching capacity 24 VDC / 100 mA
- **Switching point:** – deflection in X, Y direction approx. 2.5°
  – deflection in Z axis approx. 0.8 mm
- **Release accuracy:** all directions ≤ ± 0.3 mm
- **Max. release distance:** X-, Y-direction approx. 9.5°
  Z-direction approx. 3 mm
- **Protection class:** IPX 21
- **Ambient Temperature:** during operation -10°C to +55°C
  During storage and transportation -10°C to +55°C
- **Relative humidity:** during operation up to 70% at 20 °C
  During storage and transportation up to 70% at 20°C
**CAT Compact**

**Order information and technical details**

<table>
<thead>
<tr>
<th>Torch neck</th>
<th>Torch type</th>
<th>22°</th>
<th>30°</th>
<th>35°</th>
<th>45°</th>
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**CAT Compact**

**Robot mount CAT Compact**

**shock sensor for all torch types including protective cover**

**Part-No.** 780.2137.1

**Cable assemblies**

**CAT Compact cable assemblies including shock sensor**

<table>
<thead>
<tr>
<th>Description</th>
<th>Length</th>
<th>Part-No.</th>
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<tbody>
<tr>
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<tr>
<td>Spring cable support, Euro connector</td>
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<td>980.0275.1</td>
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**Liners**

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<td>Liner 2.1x5.5x3600 for Panasonic® connector</td>
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**Adaptor Flanges**

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<th>Part-No.</th>
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<td>ABB 1410/1600; OTC NV 6/NV 6L; Kuka KR 5 ARC</td>
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<tr>
<td>PANASONIC TM 1400</td>
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<td>KAWASAKI RA 06L</td>
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<td>MOTOMAN MA 1440/MA 2010</td>
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**Holder**

<table>
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<tr>
<th>Description</th>
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<tbody>
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<tr>
<td>L Bracket for CAT Compact, not adjustable</td>
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**TCP geometries**

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<th>Torch Type</th>
<th>Description</th>
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<tr>
<td>G 350 35°*</td>
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<td>G 350 45°*</td>
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<td>G 360 22°*</td>
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<td>G 360 45°*</td>
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<td>G 500 22°*</td>
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<td>G 500 45°*</td>
<td>x</td>
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