

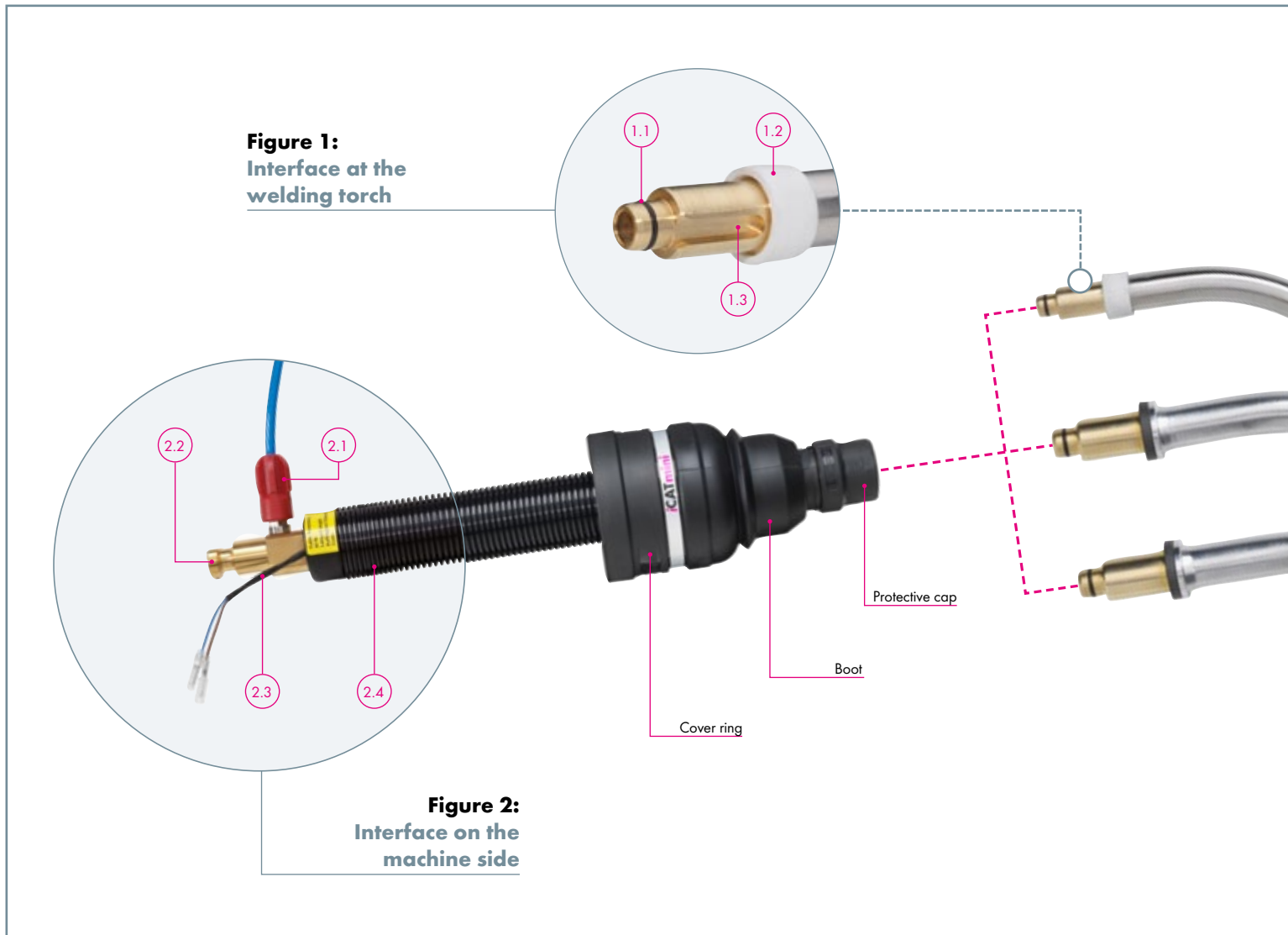


iCAT mini: Reduced to the max.

The robot mount iCAT mini represents optimum performance in air cooled applications, simple and fast installation, durability, low maintenance effort and a very good price-performance ratio.

In detail:

System Overview & Technical Data



Reduced to the max:
Compact, precise,
simple and value-
for-money ...

The compact robot mount iCAT mini – with integrated cable assembly guide for air cooled welding applications – was designed for use on hollow wrist robots up to 400 A at automotive suppliers and in general industries. The overall system comprises a welding torch, safety cutoff and cable assembly with a heavy-duty and torsion-resistant coaxial cable for a long service life.

The torch neck versions ABIROB® G350, G360 and G500, which are equipped with the new G-interface, are available to complement the compact iCAT mini system. Their outstanding features include stability and repeat accuracy – for excellent 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 GC series.

Arguments that speak for themselves:

- Low purchasing price, fast and simple installation and long service life
- Low weight of approx. 1200 g (incl. welding torch)
- Reduced design size for access in tight and complex jigs or components
- Extremely good reset precision – combined with large deflection for the optimum protection of robot and welding torch
- Extensive range of welding torches with different performance classes
- Can be used with all standard hollow wrist welding robots

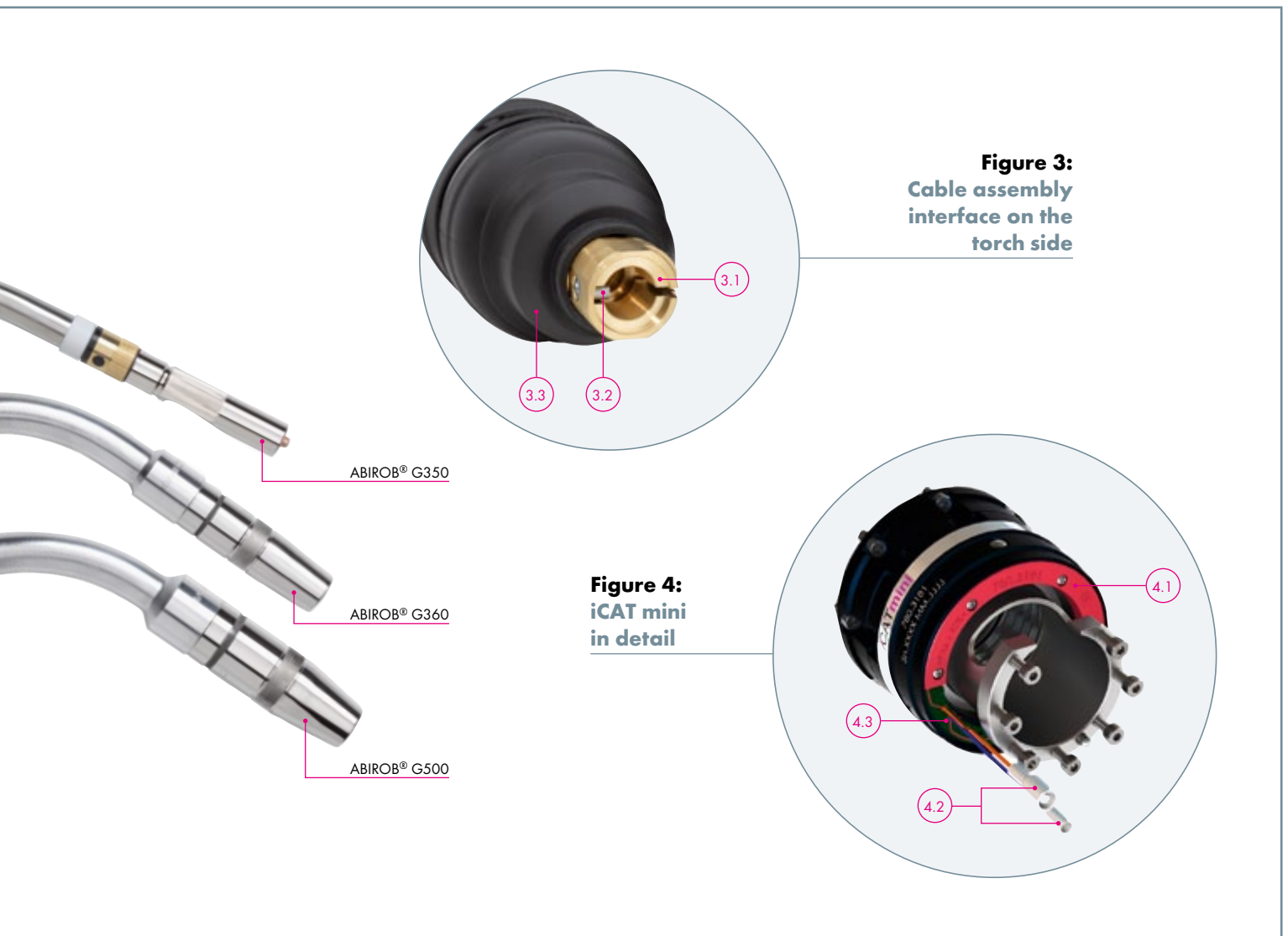


Figure 1:
Interface at the welding torch

- 1.1 O-ring seal guarantees the safe and gas-tight connection to the welding torch interface at the cable assembly
- 1.2 Insulating ring for additional insulation protection
- 1.3 Groove for positioning the welding torch for fast and simple changing of the torch neck

Figure 2:
Interface on the machine side

- 2.1 Connection for inert gas
- 2.2 Welding current connectors available for all standard wire feeds
- 2.3 Signal cable for transmitting the emergency-stop signal
- 2.4 Cable assembly – with heavy-duty, torsion-resistant coaxial cable for high reliability and long service life

Figure 3:
Cable assembly interface on the torch side

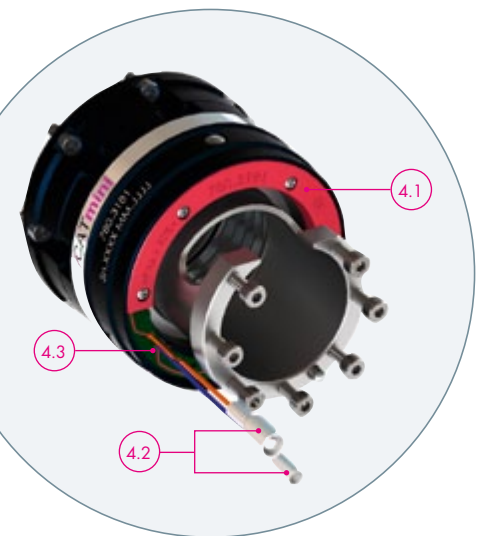


Figure 4:
iCAT mini in detail

Figure 3:
Cable assembly interface on the torch side

- 3.1 Welding torch interface
- 3.2 Feather key positioning for precise positioning of the welding torch
- 3.3 Boot as protection against welding splatter and soiling

Figure 4:
iCAT mini in detail

- 4.1 Protective ring cover to protect the signal board from soiling
- 4.2 Signal cables with ports for connection to the cable assembly
- 4.3 Integrated signal board



Technical data (EN 60 974-7):

ABIROB® G350

Type of cooling: air cooled
 Rating: 350 A CO₂
 300 A Mixed gases M21¹
 Duty cycle: 100 %
 Wire-Ø: 0.8-1.4 mm
 Torch geometries: 30°/35°/45°

ABIROB® G360

Type of cooling: air cooled
 Rating: 360 A CO₂
 290 A Mixed gases M21¹
 Duty cycle: 100 %
 Wire-Ø: 0.8-1.6 mm
 Torch geometries: 22°/35°/45°

ABIROB® G500²

Type of cooling: air cooled
 Rating: 500 A CO₂
 400 A Mixed gases M21¹
 Duty cycle: 100 %
 Wire-Ø: 0.8-1.6 mm
 Torch geometries: 22°/35°/45°

¹ Mixed gases M21 as per DIN EN ISO 14175

² **Note:** The maximum performance data of the cable assembly are 360 A CO₂ and 350 A Mixed gases M21 (DIN EN ISO 14175).

Technical data:

Robot mount iCAT mini

Dimensions: Length 92 mm
 (without adapter flange)
 Ø 88 mm

Weight: approx. 850 g
 (without adapter flange and cable assembly)

Release force: 24 N ± 3 N
 (at a distance of 400 mm to the robot flange)

Maximum deflection: Deflection in X- and Y-axis: approx. 11°
 Deflection in Z-axis: approx. 8 mm

Triggering of the emergency-off switch: - Deflection in the X- and Y-plane: approx. 0.5-1°
 - Deflection in the Z-plane: approx. 0.5-1 mm

Resetting accuracy: < ± 0.1 mm
 (at 400 mm distance to the robot flange)

Load capacity of safety cut-out: 24 V DC, max. 100 mA

iCAT mini & Co.

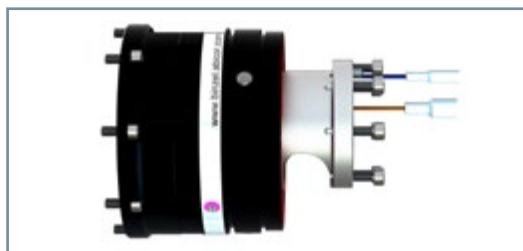
Order numbers & technical details

Torch necks

Torch type	Part-No.			
	22°	30°	35°	45°
ABIROB® G350	-	980.0190.1	980.0185.1	980.0203.1
ABIROB® G360	980.0215.1	-	980.0222.1	980.0216.1
ABIROB® G500	980.0208.1	-	980.0223.1	980.0209.1

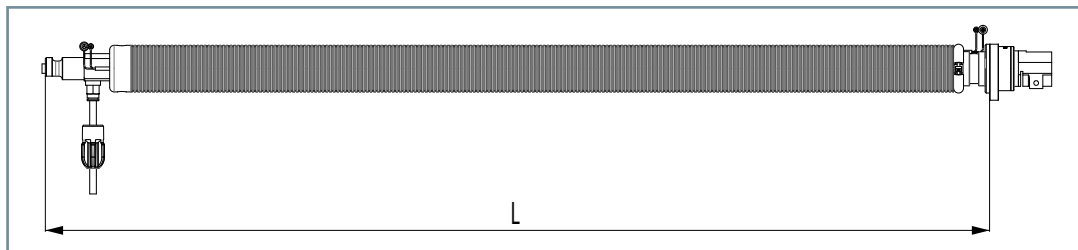
Please note: The respective wearing parts can be found in the current ROBO catalogue. Further torch necks on request.

Robot mount iCAT mini



Description	Part-No.
Robot mount iCAT mini for all torch types incl. fixing materials and protective covers (without robot flange)	780.3181.1

Cable assemblies



Cable assembly cpl. (with RPC or PANASONIC® connection)¹

Description	Feed type	Length ²	Part-No.
MOTOMAN® MA1440 T50	MOTOWELD®	L=0.84 m	980.2412.1
MOTOMAN® MA2010 T50	MOTOWELD®	L=1.26 m	980.2413.1

Configuration	Cooling	Rating (at 100% DC)	suitable for torch type			optionally wire brake available
			ABIROB®			
			G350	G360	G500	
BIKOX® T50	air cooled	360 A CO ₂ 340 A Mixed gases M21 ³	✓	✓	✓	yes

Adapter flanges, liners and spare parts



Adapter flanges (shown on the left)⁴

Type	Description	Part-No.
Adapter flange for YASKAWA®	MA1440 / 2010	780.3509.1
Adapter flange for YASKAWA®	MA1400 / 1900	780.3516.1
Adapter flange for ABB®	IRB 1520iD	780.3515.1
Adapter flange for FANUC®	100 / 120 iC	780.3509.1

Liners and spare parts (not shown)

Type	Part-No.
Liner	124.0165
Protective cap	780.3185.1
Boot	780.3183.1
Cover ring	780.3184.1
Sealing ring	780.3182.1
Signal board set cpl. (comprising signal board, control cable, cover ring and attachment screws)	780.3190.1

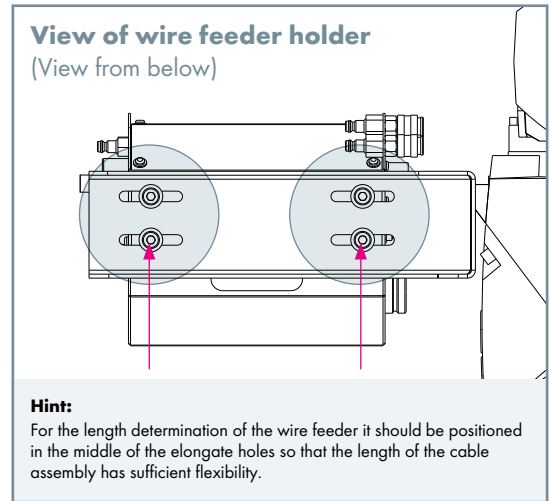
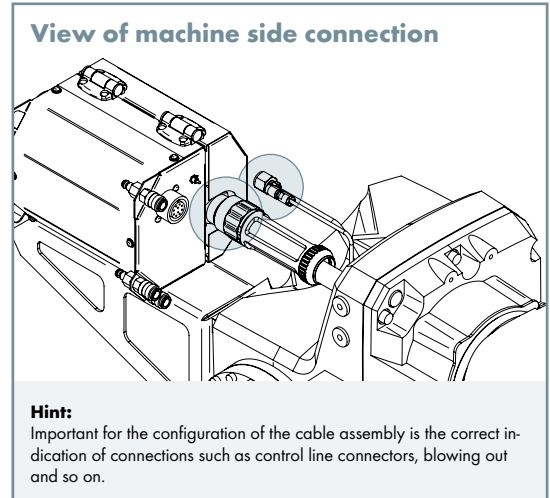
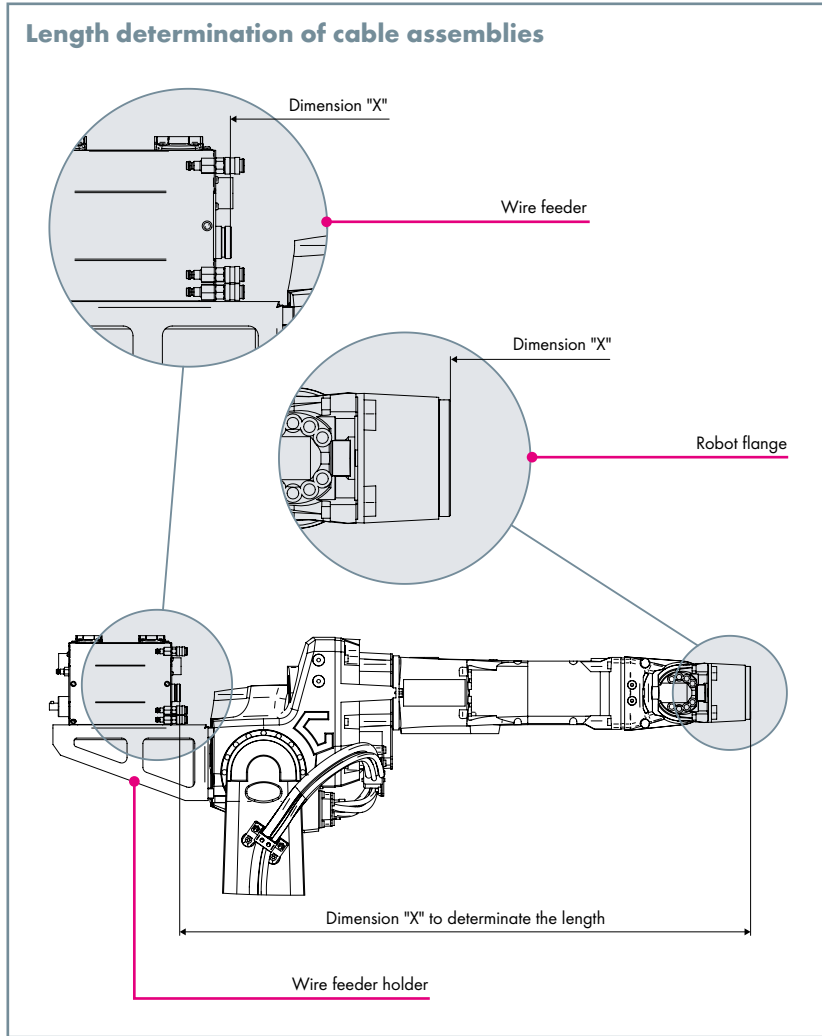
¹ **Note:** The passage of the sixth axis on the hollow-shaft robot must be at least 45 mm.

² Further lengths on request.

³ Mixed gases M21 as per DIN EN ISO 14175

⁴ Adapter flanges for other welding robots on request. Please indicate the robot type.

How to order a Hollow Wrist Cable Assembly



Important information for ordering hollow wrist cable assemblies (please fill in):

Type and manufacturer of the robot: _____

Type and manufacturer of the wire feeder: _____

Welding torch system (e.g. ABIROB® A): _____

Control lines connector (e.g. Amphenol, open, etc. ...): _____

Size „X“ cable assembly (see above) _____

Other information: _____

Desired additional functions:

Wire brake



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