

HEIDENHAIN

THE POWER OF QUADRA-CHEK

QUADRA-CHEK 2000 Product Selection Guide





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Easy Product Transition ND1200 to QC2000!



■ ND1200

- Measure Magic
- No Touch Screen
- B&W Display
- Optical Edge Detection
- HP Printers Only
- 2 I/Os for footswitch
- No network connectivity
- Basic Report creation
- IP40
- Difficult to stock

■ QUADRA-CHEK 2000

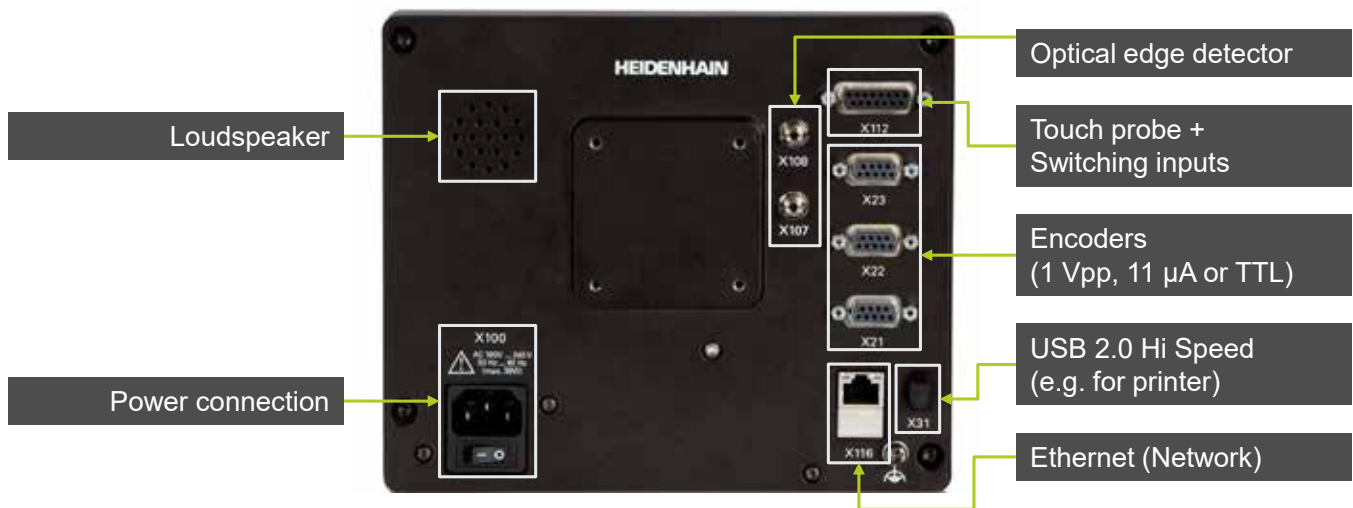
- Measure Magic
- 7" Touch Screen Display
- Full Part View creation
- Record Programs
- Optical Edge Detection
- Over 1400 different printers compatible
- Up to 4 I/Os including for a footswitch.
- Shared folder network connectivity
- Advanced Report creation
- Shop floor ready (IP65 front, IP40 rear)
- Simple to stock

+ Fast and Precise Measurement

- + Intuitive touchscreen operation
- + Graphical display of measurement results
- + Wide variety of measuring tools
- + Intelligent measuring functions including Measure Magic
- + Automatic Edge detection
- + Measuring point filter and error compensation
- + Tolerance evaluation
- + Measuring program function



+ QUADRA-CHEK 2000 – All-in-One Solution for the Shop



- + Everything in one device
- + Compact dimensions (7-inch display)
- + Extremely rugged
- + No moving parts inside
- + Integrated power supply
- + Device is maintenance-free

Thanks to **software-options**, you can invest exclusively in the functions you truly need.

+ You Can Rely on QUADRA-CHEK

SECURITY, STABILITY, AVAILABILITY

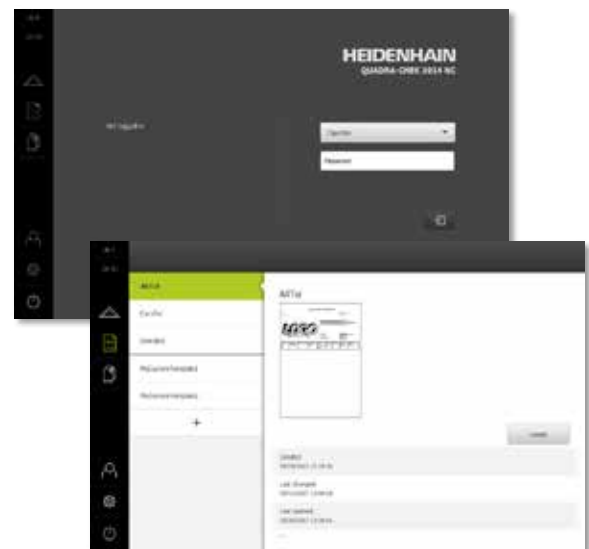
- + The hardware and software are optimally matched to each other and are a closed system
- + Only measurement-specific functions
- + No background updates or viruses
- + No downtime due to typical PC system and software problems

TRACEABILITY

- + Management of users and permissions

SECURE DOCUMENTATION

- + Measurement report formats: PDF; XLS, or XML
- + Storage locations: Internal file management, USB mass memory, or a shared network drive



The QUADRA-CHEK family fulfills **the highest security standards**. Its measuring algorithms have been certified by the PTB and NIST.

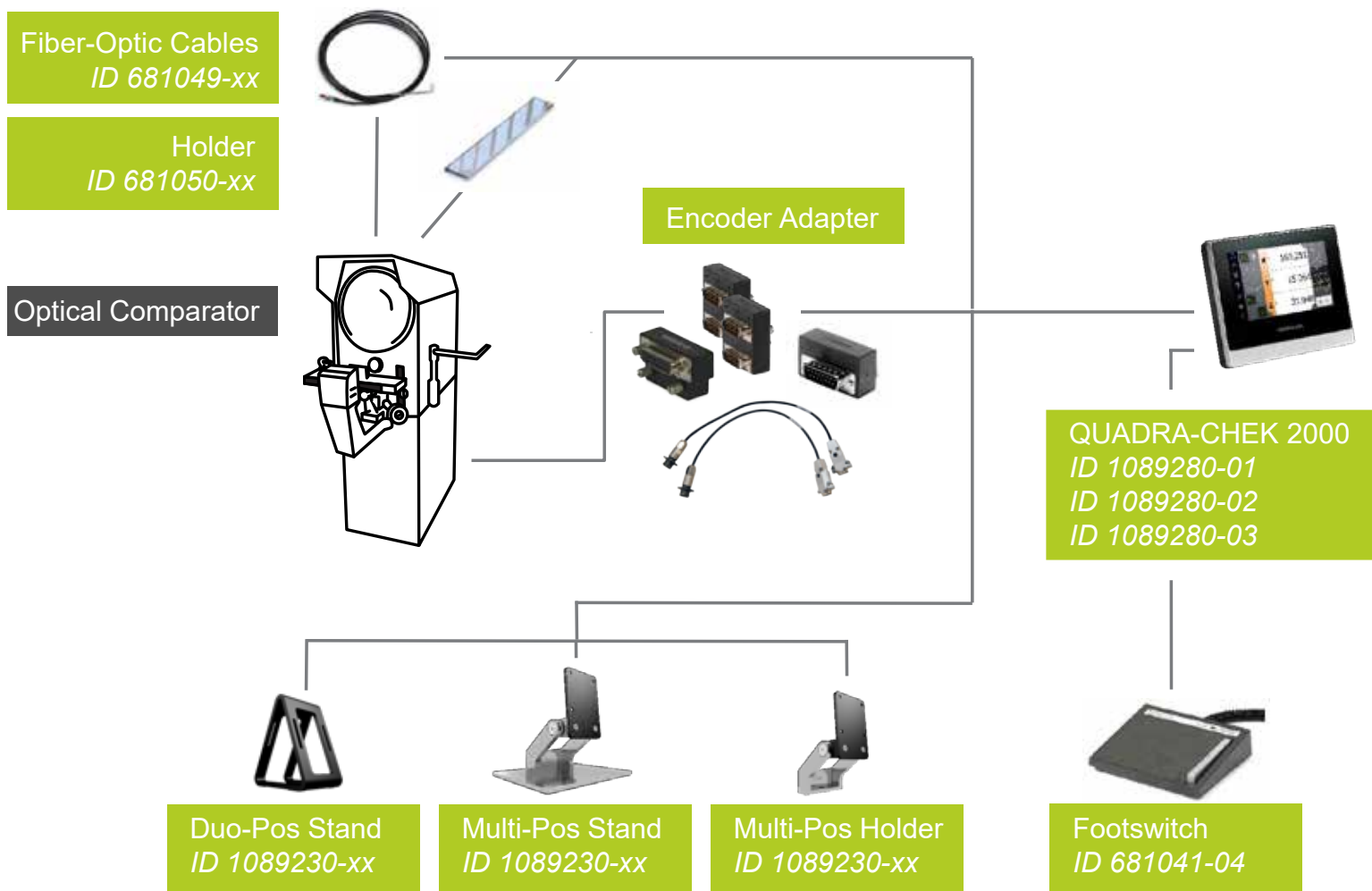


QUADRA-CHEK System Guide

Optical Comparators

You will need:

- + QUADRA-CHEK 2000 unit
- + SW Options (3rd axis, OED, depending on need)
- + Encoder Adapters (if needed)
- + Fiber Optic Cables (if OED)
- + Stand option
- + Footswitch (Optional)



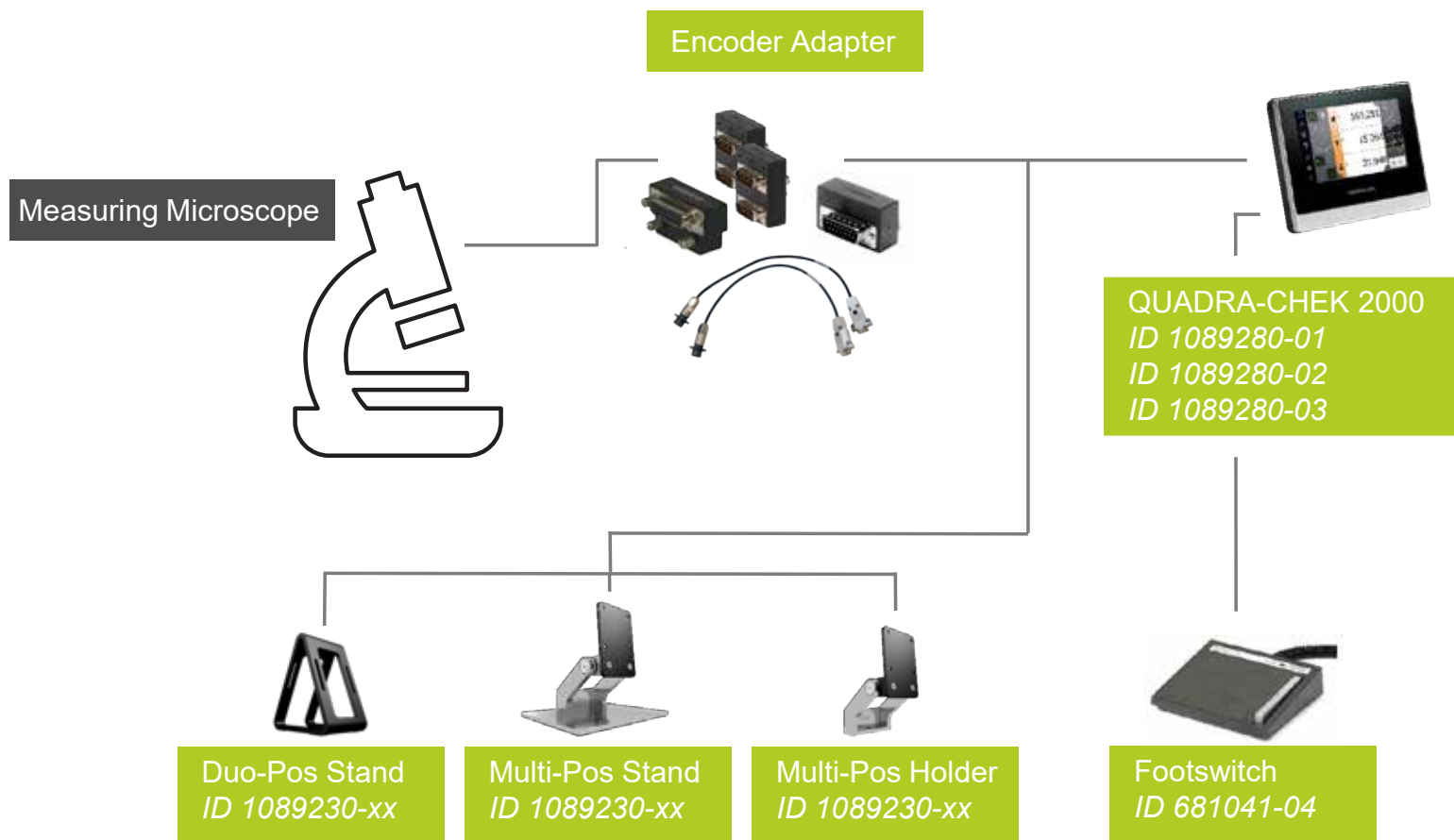


QUADRA-CHEK System Guide

Measuring Microscopes

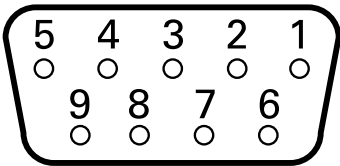
You will need:

- + QUADRA-CHEK 2000 unit
- + SW Option (3rd Axis if needed)
- + Encoder Adapters (if needed)
- + Stand Option
- + Footswitch (Optional)



QUADRA-CHEK 2000TTL Interface

Can replace ND1200 (QC 200)



Configurations

2-axis X-Hair	Name	ID	LP (USD\$)
	QC 2023	1089180-02	2340

2-axis Optical Edge	Name	ID	LP (USD\$)
	QC 2023	1089180-02	2340
	OED	1089227-02	670

3-axis X-Hair	Name	ID	LP (USD\$)
	QC 2023	1089180-02	2340
	AEI1 - 3rd Axis	1089227-01	202

3-axis Optical Edge	Name	ID	LP (USD\$)
	QC 2023	1089180-02	2340
	AEI1 - 3rd Axis	1089227-01	202
	OED	1089227-02	670

For OED Systems

Fiber Optic kit	Name	ID	LP (USD\$)
	Fiber Optic Cable .. 0017 ..	681049-01	153
	Fiber Optic Cable .. 0019 ..	681049-04	153
	Optical Cable Holder .. 0023 ..	681050-01	33

Hardware — QC unit
(Power cable included)



15-pin Footswitch (QC2000/3000)

Optional

ID	681041-04
LP (USD\$)	322



Stand Options

Pick one



Multi-Pos
Stand



Duo-Pos
Stand

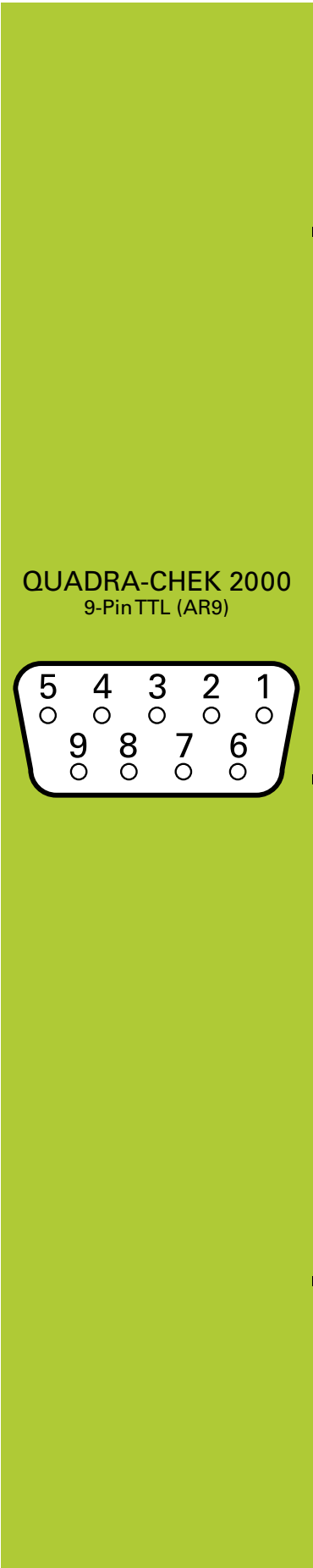


Arm
Multi-Pos

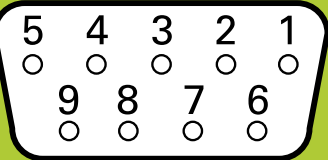
Name	Multi-Pos	Duo-Pos	Arm Multi-Pos
ID	1089230-07	1089230-06	1089230-08
LP (USD\$)	261	79	234

QUADRA-CHEK 2000 TTL Interface Adapters

Encoder Signal Adapters



QUADRA-CHEK 2000
9-Pin TTL (AR9)

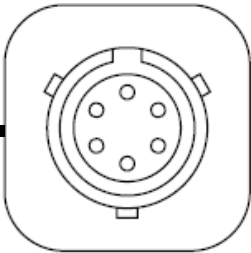


ACU-RITE 6-pin Adapter Cable

ID:683201-01
LP: \$78 (per axis)



Encoder Connection
6-Pin ARTTL (DM)

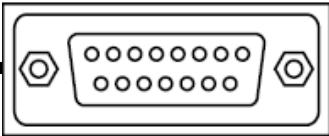


RSF15/REN Adapter

ID:1089210-01
LP: \$18 (per axis)



Encoder Connection
15-Pin RSF15TTL (FH)

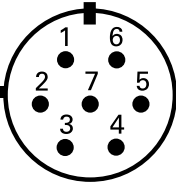


RSF L70 Adapter Cable

ID:998000221005
LP:\$105 (per axis)

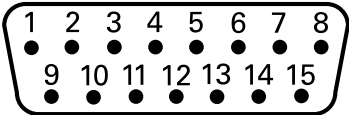


Encoder Connection
7-Pin RSFTTL (K70)



QUADRA-CHEK 2000 1Vpp, 11μA, EnDat Interface

Can replace ND1200 (QC 200)



Configurations

2-axis X-Hair	Name	ID	USD \$
	QC 2013	1089180-01	2340
2-axis OED	Name	ID	USD \$
	QC 2013	1089180-01	2340
	OED	1089227-02	670
3-axis X-Hair	Name	ID	USD \$
	QC 2013	1089180-01	2340
	AEI1- 3rd Axis	1089227-01	202
3-axis OED	Name	ID	USD \$
	QC 2013	1089180-01	2340
	AEI1 - 3rd Axis	1089227-01	202
	OED	1089227-02	670

For OED Systems

Fiber Optic kit	Name	ID	LP (USD\$)
	Fiber Optic Cable .. 0017 ..	681049-01	153
	Fiber Optic Cable .. 0019 ..	681049-04	153
	Optical Cable Holder .. 0023 ..	681050-01	33

Hardware — QC unit
(Power cable included)



15-pin Footswitch (QC2000/3000) Optional

ID	681041-04
LP (USD\$)	322



Stand Options Pick one



Multi-Pos
Stand



Duo-Pos
Stand



Arm
Multi-Pos

Name	Multi-Pos	Duo-Pos	Arm Multi-Pos
ID	1089230-07	1089230-06	1089230-08
LP (USD\$)	261	79	234

QUADRA-CHEK 2000 1Vpp, 11μA, EnDat Interface Adapters

Encoder Signal Adapters

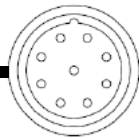
11uA 9-pin round Adapter cable

ID:653231-N2

LP: \$105 (per axis)



Encoder Connection
9-Pin HH (04)



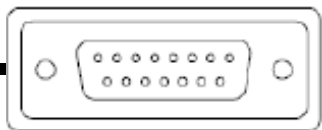
15-pin Mitutoyo 2Vpp Adapter

ID:1089216-01

LP: \$65 (per axis)



Encoder Connection
15-Pin ML15 (FH)



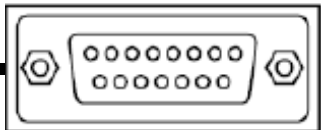
15-pin to 15-pin Male Adapter

ID:1089214-01

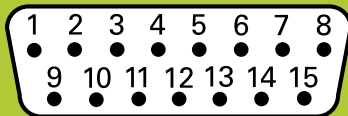
LP:\$105 (per axis)



Encoder Connection
15-Pin Male HH15 (03)



QUADRA-CHEK 2000
15-Pin 1Vpp, 11μA, EnDat (0V)



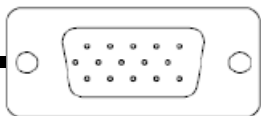
Nikon Adapter for 2 Axis

ID:1089211-01

LP:\$137



Encoder Connection
High Density 15-Pin ND (FD)



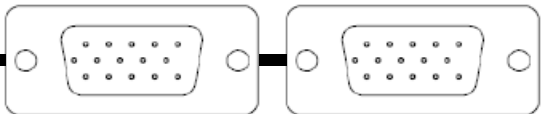
3 axis Nikon Adapter

ID:1089217-01

LP:\$242



Encoder Connection
High Density 15-Pin ND (FD)



Nikon I/O Adapter

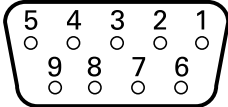
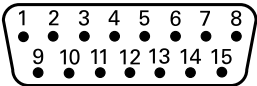
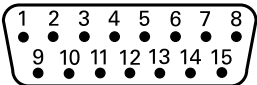
ID:1089215-01

LP:\$65



QUADRA-CHEK 2000 2X 1Vpp (11µA), 1XTTL

Can replace ND1200 (QC 200) Mixed Starrett Interface



Configurations

2-axis X-Hair	Name	ID	USD \$
	QC 2093	1089180-03	2340

2-axis OED	Name	ID	USD \$
	QC 2093	1089180-03	2340
	OED	1089227-02	670

3-axis X-Hair	Name	ID	USD \$
	QC 2093	1089180-03	2340
	AEI1- 3rd Axis	1089227-01	202

3-axis OED	Name	ID	USD \$
	QC 2093	1089180-03	2340
	AEI1 - 3rd Axis	1089227-01	202
	OED	1089227-02	670

For OED Systems

Fiber Optic kit	Name	ID	LP (USD\$)
	Fiber Optic Cable .. 0017 ..	681049-01	153
	Fiber Optic Cable .. 0019 ..	681049-04	153
	Optical Cable Holder .. 0023 ..	681050-01	33

Hardware — QC unit
(Power cable included)



15-pin Footswitch (QC2000/3000) Optional

ID	681041-04
LP (USD\$)	322



Stand Options Pick one



Multi-Pos
Stand



Duo-Pos
Stand



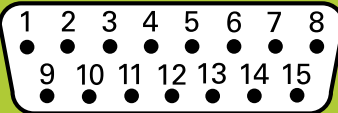
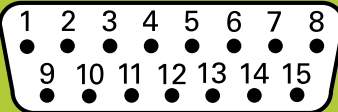
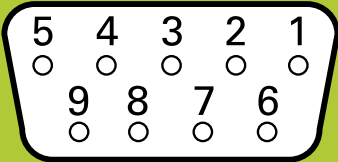
Arm
Multi-Pos

Name	Multi-Pos	Duo-Pos	Arm Multi-Pos
ID	1089230-07	1089230-06	1089230-08
LP (USD\$)	261	79	234

QUADRA-CHEK 2000 Mixed Interface Adapters

Encoder Signal Adapters

QUADRA-CHEK 2000
Mixed Starrett Interface
2X 1Vpp (11μA), 1XTTL



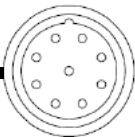
11uA 9-pin round Adapter cable

ID:653231-N2

LP: \$105 (per axis)



Encoder Connection
9-Pin HH (04)



15-pin to 15-pin Male Adapter

ID:1089214-01

LP:\$105 (per axis)



Encoder Connection
15-Pin Male HH15 (03)



QUADRA-CHEK 2000 Accessories



ID	Name	LP (USD\$)
681047-02	QC Quickie	16
683662-01	4x7 Mag Checker	1568
389997223	4x12 Inspection Master	2472

Software Options

It is possible to add features to a unit in the field (i.e. system needs 3 axis instead of 2)

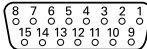
To order additional SW Options:

- + Send us a PO with the Serial Number of the unit on it.
- + We will send you back a code asap.
- + Load the file we send back to you (contact us if you need support)
- + Your unit is upgraded!

ID	Name	LP (USD\$)
1089227-01	AEI1 - 3rd Axis	202
1089227-02	OED - Optical Edge Detection	670

QUADRA-CHEK Encoder Pin Layouts

Pin layout of $\sim 1V_{pp}/\sim 11\mu A_{pp}/EnDat$

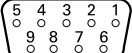
15-pin D-sub flange socket (female)															
 															
	Power supply voltage					Incremental signals						Serial data transfer			
	4	12	2	10	6	1	9	3	11	14	7	5	13	8	15
$\sim 1V_{pp}$	U_P	Sensor U_P	0V	Sensor 0V	/	A+	A-	B+	B-	R+	R-	/	/	/	/
$\sim 11\mu A_{pp}$					Internal shield	I ₁₊	I ₁₋	I ₂₊	I ₂₋	I ₀₊	I ₀₋	/	/	/	/
EnDat						/	/	/	/	/	/	DATA	DATA	CLOCK	CLOCK

Shield on housing; U_P = Power supply voltage

Sensor: the sensor line is connected in the encoder with the corresponding power line

Vacant pins or wires must not be used!

Pin layout $\square\square$ TTL

9-pin D-sub flange socket (female)									
 									
	Power supply voltage		Incremental signals						Others
	7	6	2	3	4	5	9	8	1
$\square\square$ TTL	U_P	0V	U_{a1}	$\overline{U_{a1}}$	U_{a2}	$\overline{U_{a2}}$	U_{a0}	$\overline{U_{a0}}$	/

Cable shield connected to housing; U_P = Power supply voltage

Vacant pins or wires must not be used!

HEIDENHAIN

HEIDENHAIN CORPORATION

333 East State Parkway

Schaumburg, IL 60173-5337 USA

Phone: (847) 490-1191

Technical support: (847) 490-0351

Fax: (847) 490-3931

Email: HCsalesoperation@heidenhain.com

Technical support: metrologyhc@heidenhain.com

www.heidenhain.us