

ABB MEASUREMENT & ANALYTICS | SPARE PARTS LIST

CoriolisMaster FCB400, FCH400

Coriolis mass flowmeter



Measurement made easy

Additional Information

Additional documentation on CoriolisMaster FCB400, FCH400 is available for download free of charge at www.abb.com/flow.

Alternatively simply scan this code:



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1 Safety instructions for repair work

ABB flowmeters are designed to be easy to repair thanks to uniform replacement parts and simple replacement of predefined parts.

However, if repair work is not carried out in accordance with the guidelines, this may result in malfunctioning of the device, causing serious injury to persons, and harm to the environment. This is especially true for safety-critical devices and those certified for use in explosion hazard environments.

Certifications will also lapse if the repairs were not carried out with the proper tool or by persons without adequate training. We therefore recommend all repair work on flowmeters be carried out by ABB service technicians.

As the manufacturer of the device, ABB cannot guarantee the necessary quality of the repair procedures if the work and/or parts exchange was not carried out by ABB.

The plant operator is responsible for all repairs carried out by the customer, plant operator, or third party. In this case, ABB will reject all responsibility for any improper device functionality, in particular all safety-related functions.

ABB does not assume any liability for the deterioration or loss of device performance, malfunctions, or damage arising from the above repair work or replacement. All liability for defects shall lapse when the replacement or repair work is not carried out by ABB.

If you are unsure about the repair process even if some or all replacement parts are available, please get in touch with ABB Service before beginning work.

Respect national and internal laws when carrying out repairs. In particular laws relating to certified flowmeters used in explosion hazard environments. Repair work which is carried out without following the legal requirements can result in the revocation of your operating permit.

For more information, go to <http://new.abb.com/service/repairs> or contact your local ABB Customer Service Center.

2 Name plate specifications for spare parts orders

The flowmeter version can be identified by referring to the name plate that is attached to the housing.

Name plate of sensor in integral mount design (example)

When placing spare parts orders, always remember to state the serial number as shown on the name plate.



① Serial number

Figure 1: Name plate of sensor in integral mount design (example)

Note

Prices available upon request!

... 3 Spare parts list

Number	Designation	Variant	Ordering number	Recommended spare part	
①+②+⑧+⑪	T3 housing including motherboard and EMC board aluminum zone 2 / DIV 2 M20 U _{high}	Without explosion protection, ATEX / IECEx Zone 2	3KQZ407133U1100		Modbus and DP
	T3 housing including motherboard and EMC board aluminum zone 2 / DIV 2 NPT U _{high}	Without explosion protection, ATEX / IECEx Zone 2, cFMus Class 1 Div. 2	3KQZ407133U1500		Modbus and DP
	T3 housing including motherboard and EMC board aluminum zone 2 / DIV 2 NPT U _{low}	Without explosion protection, ATEX / IECEx Zone 2, cFMus Class 1 Div. 2	3KQZ407133U1300		Modbus and DP
	T3 housing including motherboard and EMC board aluminum zone 2 / DIV 2 M20 U _{low}	Without explosion protection, ATEX / IECEx Zone 2	3KQZ407133U1700		Modbus and DP
①	T3 housing aluminum M20 Zone 2 / DIV 2 pa. without gland	Without explosion protection, ATEX / IECEx Zone 2	3KQZ407020U0100		
	T3 housing aluminum NPT Zone 2 / DIV 2 pa. without plug	Without explosion protection, ATEX / IECEx Zone 2, cFMus Class 1 Div. 2	3KQZ407020U0300		
	T3 housing aluminum M20 Zone 2 / DIV 2 pa. without gland	Without explosion protection, ATEX / IECEx Zone 2	3KQZ407020U0100		Modbus and DP
	T3 housing aluminum NPT Zone 2 / DIV 2 pa. without plug	Without explosion protection, ATEX / IECEx Zone 2, cFMus Class 1 Div. 2	3KQZ407020U0300		Modbus and DP
	O-ring housing 41.00 x 1.78 NBR	–	D101A040U01	X	
②	Motherboard complete U _{high}	–	D800D520U19	X	
	Motherboard complete U _{low}	–	D800D520U20	X	
	Fuse 5 x 20 mm 1.25 A 1500 A @ 250 V AC	–	3KQR000757U0100	X	Only 1:1 replacement in case of EX
	Fuse 5 x 20 mm 0.8 A 1500 A @ 250 V AC	–	3KQR000757U0200	X	Only 1:1 replacement in case of EX
⑪	T3 spacing bolts HML type c	–	3KQZ407017U0100		
④	HMI Type C pre assy. no data logger	–	3KQZ407125U0100	X	

Number	Designation	Variant	Ordering number	Recommended spare part
③	DP Plug-in card	–	3KQZ400027U0100	Only 1:1 replacement in case of EX
	Modbus plug-in card	–	3KQZ400028U0100	Only 1:1 replacement in case of EX
	Plug-in card current output 4 to 20 mA passive – (red)	–	3KQZ400029U0100	Only 1:1 replacement in case of EX
	Plug-in card digital output passive (green)	–	3KQZ400030U0100	Only 1:1 replacement in case of EX
	Plug-in card 24 V DC power supply (blue)	–	3KQZ400031U0100	Only 1:1 replacement in case of EX
	Plug-in card passive digital input (yellow)	–	3KQZ400032U0100	Only 1:1 replacement in case of EX
	EMC protection sheet T3	–	3KXF003070U0100	Only 1:1 replacement in case of EX
⑤	Cover with glass pre-mounted	Without explosion protection, ATEX / IECEx Zone 2, cFMus Class 1 Div. 2	D612A197U01	
	Cover with glass pre-mounted, Ex,	ATEX / IECEx Zone 1, cFMus Class 1 Div. 1	D612A197U02	
⑦	Cover, VST rear, type 3, STD Aluminum, INT	Without explosion protection, ATEX / IECEx Zone 2, cFMus Class 1 Div. 2	D612A226U01	
	Cover, VST rear, type 3, EX Aluminum	ATEX / IECEx Zone 1, cFMus Class 1 Div. 1	D612A226U02	
⑥	O-ring cover 118 x 3.70, NBR	–	D101A034U05	X
⑧	T3 EMC board complete	ZN2 / DIV 2/ DIV1	D800D520U21	X
	4WCTW EMC Board complete ZN1 POT	ZN1	D800D520U22	X
	T3 EMC board complete	ZN2 / DIV 2/ DIV1	D800D520U23	X
	4WCTW EMC Board complete ZN1 POT	ZN1	D800D520U24	X
⑨	T3 plastic cap network connection	–	3KQZ407005U0100	
⑩	Screw for network connection cap M 4 x 6 DIN7985	–	D004G106AU20	

... 3 Spare parts list

... Coriolis mass flowmeter FCB430, FCB450, FCH430, FCH450 in remote mount design

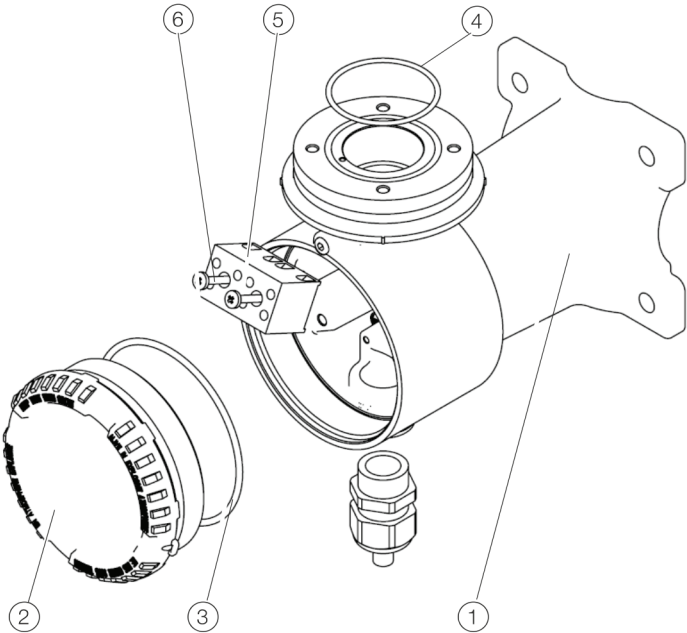


Figure 3: Wall mount

Number	Designation	Variant	Ordering number	Recommended spare part
①	T3 wall mount, base aluminum ZN1 M20 pre assy	Without explosion protection, ATEX / IECEx Zone 2	3KQZ407114U0100	
	T3 wall mount, base aluminum DIV 1 NPT pre assy	Without explosion protection, ATEX / IECEx Zone 2	3KQZ407114U0300	
		cFMus Class 1 Div. 2		
②	T2 cover wall mount aluminum Zone 1, 2 / DIV 1, 2 pre assy	Without explosion protection, ATEX / IECEx Zone 2 ATEX / IECEx Zone 1, cFMus Class 1 Div. 2, cFMus Class 1 Div. 1	3KQZ207035U0100	
③	O-ring cover wall mount 118 x 3.70 NBR	–	D101A034U05	
④	O-Ring 41 x 1.78 NBR	–	D101A040U01	
⑤	Terminal block 4-pole	–	3KQR002621U0100	

Number	Designation	Variant	Ordering number	Recommended spare part
⑥	Raised-head screw for terminal block ISO7985 M3 x 20 A2-70	–	3KQP000063U0100	
	Accessory bag for cable clamps	–	3KXF002015U0100	
	T3 connection cable wall mount for housing	Without explosion protection, ATEX / IECEx Zone 2 cFMus Class 1 Div. 2	3KQZ407087U0100	
	Signal cable wall mounting for connection box 4WCTW 4 x 0.75 mm 5 m		3KQZ407123U0500	
	Signal cable wall mounting for connection box 4WCTW 4 x 0.75 mm 10 m		3KQZ407123U1000	
	Signal cable wall mounting for connection box 4WCTW 4 x 0.75 mm 15 m		3KQZ407123U1500	
	Signal cable wall mounting for connection box 4WCTW 4 x 0.75 mm 20 m		3KQZ407123U2000	
	Signal cable wall mounting for connection box 4WCTW 4 x 0.75 mm 25 m		3KQZ407123U2500	
	Signal cable wall mounting for connection box 4WCTW 4 x 0.75 mm 30 m		3KQZ407123U3000	
	Signal cable wall mounting for connection box 4WCTW 4 x 0.75 mm 35 m		3KQZ407123U3500	
	Signal cable wall mounting for connection box 4WCTW 4 x 0.75 mm 40 m		3KQZ407123U4000	
	Signal cable wall mounting for connection box 4WCTW 4 x 0.75 mm 50 m		3KQZ407123U5000	
	Signal cable wall mounting for connection box 4WCTW 4 x 0.75 mm 80 m		3KQZ407123U8000	

... 3 Spare parts list

... Coriolis mass flowmeter FCB430, FCB450, FCH430, FCH450 in remote mount design

Sensor FCB430, FCB450, FCH430, FCH450

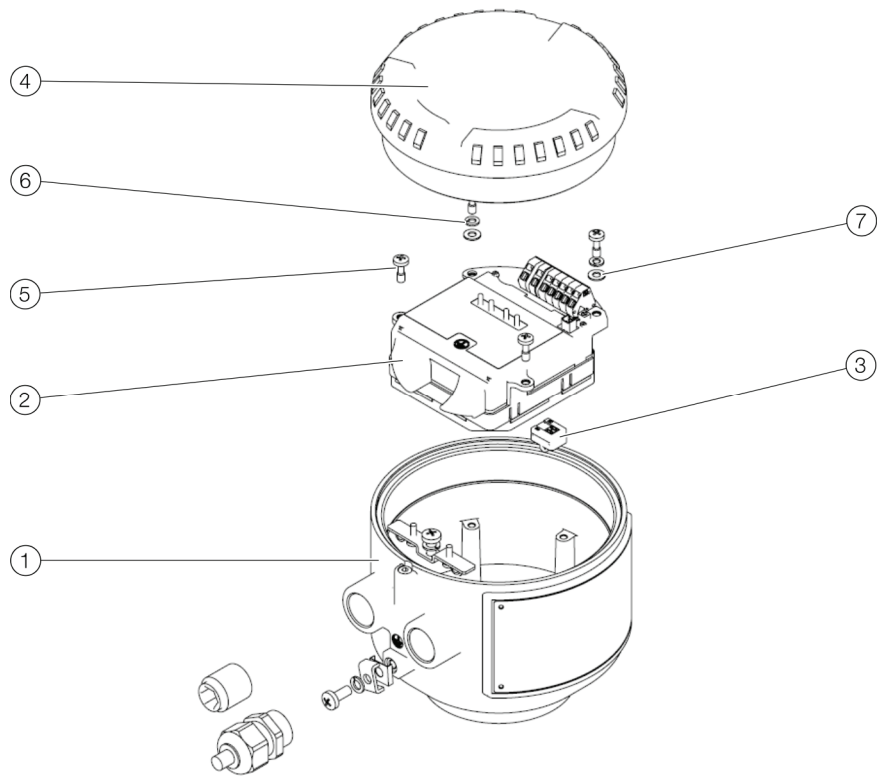


Figure 4: Terminal box

Number	Designation	Variant	Ordering number	Recommended spare part
①	Connection box aluminum M20 GP/ZN2/DV2/ZN1 PreA 1Entry	Without explosion protection, ATEX / IECEx Zone 2, ATEX / IECEx Zone 1, cFMus Class 1 Div. 2	3KXF002568U0100	With Div. 1 not replaceable
	Connection box aluminum NPT GP/ZN2/DV2/ZN1 PreA 1Entry	Without explosion protection, ATEX / IECEx Zone 2, ATEX / IECEx Zone 1, cFMus Class 1 Div. 2	3KXF002568U0200	With Div. 1 not replaceable
	Terminal box stainless steel M20 GP/ZN2/DV2/ZN1 PreA 1Entry	Without explosion protection, ATEX / IECEx Zone 2, ATEX / IECEx Zone 1, cFMus Class 1 Div. 2	3KXF002567U0100	With Div. 1 not replaceable
	Terminal box NPT GP/ZN2/DV2/ZN1 PreA 1Entry	Without explosion protection, ATEX / IECEx Zone 2, ATEX / IECEx Zone 1, cFMus Class 1 Div. 2	3KXF002567U0200	With Div. 1 not replaceable

Number	Designation	Variant	Ordering number	Recommended spare part
②	Slide-In Remote GP/ZN/DV2/DV1 U _{low} CorIF	Without explosion protection, ATEX / IECEx Zone 2, cFMus version Class 1 Div. 2	3KXF002566U0100	X
	Slide-In Remote ZN1 U _{low} Cor_IF	ATEX / IECEx, (Zone 1 / 21), cFMus version Class 1 Div. 1	3KXF002566U0200	X
③	Memory module assembled	-	3KXF002906U0100	
	Memory module assembled programmed	-	3KXF002906U0100A	X
④	Cover, VST rear, TYPE3, standard, aluminum, INT	Without explosion protection, ATEX / IECEx Zone 2, ATEX / IECEx Zone 1, cFMus Class 1 Div. 2	D612A226U01	
	Cover, VST rear, TYPE3, EX, aluminum	cFMus Class 1 Div. 1	D612A226U02	
	Cover VST, rear stainless steel	Without explosion protection, ATEX / IECEx Zone 2, ATEX / IECEx Zone 1, cFMus Class 1 Div. 2, cFMus Class 1 Div. 1	3KQZ407109U0100	
	Rounded head screw ISO7380 M5 x 16 A2	-	3KQP000043U0100	
	O-Ring 4.76 x 1.78 NBR	-	D101A034U07	
⑤	Raised-head screw with cross slot M4 x 12 D7985-stainless		D396A014U02	
	Spacing bolts for Ex M4 x 8 SW7	ATEX / IECEx, (Zone 1 / 21)	3KXF002616U0100	
⑦	Washer A 4.3 DIN 125 without bevel stainless	-	D085A021AU20	
⑥	Spring washer B 4.0 DIN 127 SS	-	D085C020BU20	

... 3 Spare parts list

Coriolis mass flowmeter FCB430, FCB450, FCH430, FCH450 in integral mount design

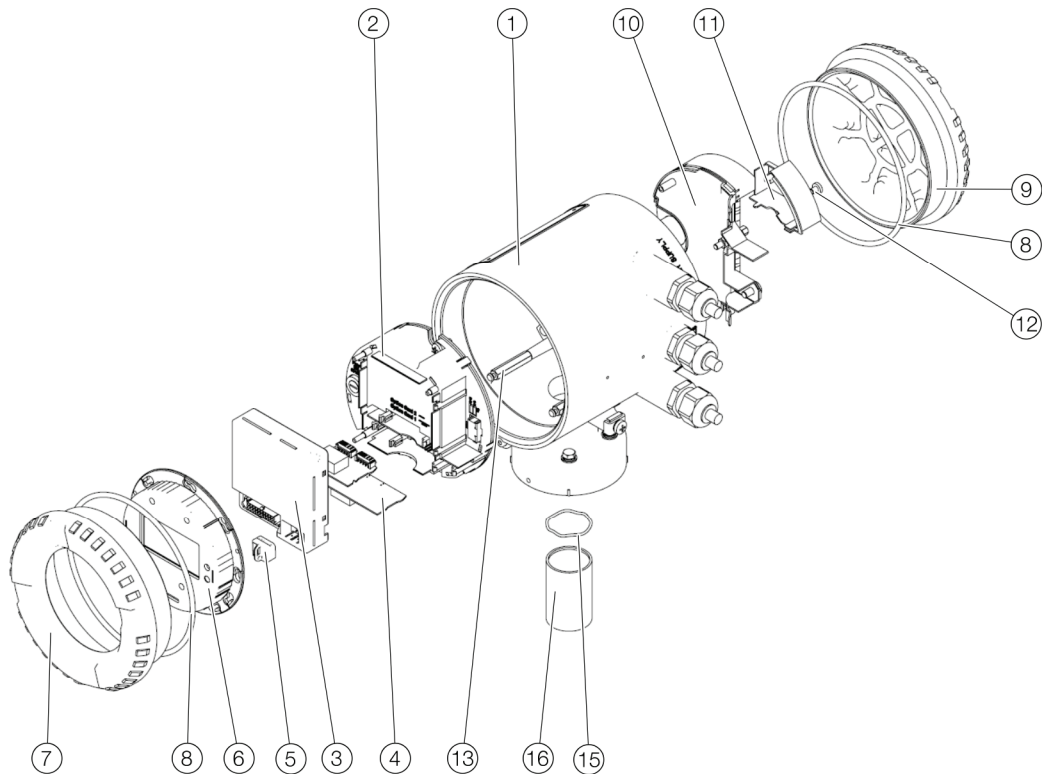


Figure 5: FCB4x0, FCH4x0 with integral mount design

Number	Designation	Variant	Ordering number	Recommended spare part
①+②+⑩+⑬	T3 housing including motherboard and EMC board aluminum zone 2 / DIV 2 M20 U _{high}	Without explosion protection, ATEX / IECEx Zone 2	3KQZ407115U0100	
	T3 housing including motherboard and EMC board aluminum zone 2 / DIV 2 M20 U _{low}	Without explosion protection, ATEX / IECEx Zone 2	3KQZ407115U0300	
	T3 housing including motherboard and EMC board aluminum zone 2 / DIV 2 NPT U _{high}	Without explosion protection, ATEX / IECEx Zone 2 cFMus Class 1 Div. 2	3KQZ407115U0500	
	T3 housing including motherboard and EMC board aluminum zone 2 / DIV 2 NPT U _{low}	Without explosion protection, ATEX / IECEx Zone 2 cFMus Class 1 Div. 2	3KQZ407115U0700	
	T3 housing including motherboard and EMC board aluminum zone 2 / DIV 2 M20 U _{high}	Without explosion protection, ATEX / IECEx Zone 2	3KQZ407133U1100	Modbus and DP
	T3 housing including motherboard and EMC board aluminum zone 2 / DIV 2 M20 U _{low}	Without explosion protection, ATEX / IECEx Zone 2	3KQZ407133U1500	Modbus and DP
	T3 housing including motherboard and EMC board aluminum zone 2 / DIV 2 NPT U _{high}	Without explosion protection, ATEX / IECEx Zone 2	3KQZ407133U1300	Modbus and DP
	T3 housing including motherboard and EMC board aluminum zone 2 / DIV 2 NPT U _{low}	Without explosion protection, ATEX / IECEx Zone 2	3KQZ407133U1700	Modbus and DP

Number	Designation	Variant	Ordering number	Recommended spare part	
①	T3 base aluminum M20 Zone 2 / DIV 2 pa. without gland	Without explosion protection, ATEX / IECEx Zone 2	3KQZ407020U0100		
	T3 base aluminum NPT Zone 2 / DIV 2 pa. without plug	Without explosion protection, ATEX / IECEx Zone 2, cFMus Class 1 Div. 2	3KQZ407020U0300		
	O-ring housing 41.00 x 1.78 NBR		D101A040U01	X	
②	Motherboard complete U _{high}	–	D800D520U19	X	
	Motherboard complete U _{low}	–	D800D520U20	X	
	Fuse 5 x 20 mm 1.25 A 1500 A @ 250 V AC		3KQR000757U0100	X	Only 1:1 replacement in case of EX
	Fuse 5 x 20 mm 0.8 A 1500 A @ 250 V AC		3KQR000757U0200	X	Only 1:1 replacement in case of EX
⑬	T3 spacing bolts HML type c	–	3KQZ407017U0100		
③	Front end board Cor_IF pre assy	–	3KXF002564U0100	X	
④	DP Plug-in card	–	3KQZ400027U0100		Only 1:1 replacement in case of EX
	Modbus plug-in card	–	3KQZ400028U0100		Only 1:1 replacement in case of EX
	Plug-in card current output 4 to 20 mA passive (red)	–	3KQZ400029U0100		Only 1:1 replacement in case of EX
	Plug-in card digital output passive (green)	–	3KQZ400030U0100		Only 1:1 replacement in case of EX
	Plug-in card 24 V DC power supply (blue)	–	3KQZ400031U0100		Only 1:1 replacement in case of EX
	Plug-in card passive digital input (yellow)	–	3KQZ400032U0100		Only 1:1 replacement in case of EX
	EMC protection sheet T3		3KXF003070U0100		Only 1:1 replacement in case of EX
⑤	Memory module assembled	–	3KXF002906U0100		
	Memory module assembled programmed		3KXF002906U0100A	X	
⑥	HMI Type C pre assy. no data logger	–	3KQZ407125U0100	X	

... 3 Spare parts list

... Coriolis mass flowmeter FCB430, FCB450, FCH430, FCH450 in integral mount design

Number	Designation	Variant	Ordering number	Recommended spare part
⑦	Cover with glass pre-mounted	Without explosion protection, ATEX / IECEx Zone 2, ATEX / IECEx Zone 1, cFMus Class 1 Div. 2	D612A197U01	
	Cover with glass pre-mounted, Ex	ATEX / IECEx Zone 1, cFMus Class 1 Div. 1	D612A197U02	
⑨	Cover, VST rear, TYPE 3, Standard, Aluminum INT Blind	Without explosion protection, ATEX / IECEx Zone 2, ATEX / IECEx Zone 1, cFMus Class 1 Div. 2	D612A226U01	
	Cover, VST rear, TYPE3, EX, aluminum	ATEX / IECEx Zone 1, cFMus Class 1 Div. 1	D612A226U02	
⑧	O-ring cover 118 x 3.70, NBR	–	D101A034U05	X
⑩	T3 EMC board complete	ZN2 /DIV 2/ DIV1	D800D520U21	X
	4WCTW EMC Board complete ZN1 POT	ZN1	D800D520U22	X
	T3 EMC board complete	ZN2 /DIV 2/ DIV1	D800D520U23	X
	4WCTW EMC Board complete ZN1 POT	ZN1	D800D520U24	X
⑪	T3 plastic cap network connection	–	3KQZ407005U0100	
⑫	Screw for network connection cap M 4 x 6 DIN7985	–	D004G106AU20	
	Accessory bag for cable clamps		3KXF002015U0100	

4 Upgrade Kits

Conversion kit FCB3XX to FCB430, FCB450, FCH430, FCH450

Number	Designation	Variant	Ordering number	Recommended spare part
	Conversion kit FCB3xx > FCB4xx U _{high} remote mount design M20 without explosion protection		D800D520U03	
	Conversion kit FCB3xx > FCB4xx U _{low} remote mount design M20 without explosion protection		D800D520U04	
	Conversion kit FCB3xx > FCB4xx U _{high} remote mount design NPT without explosion protection		D800D520U05	
	Conversion kit FCB3xx > FCB4xx U _{low} remote mount design NPT without explosion protection		D800D520U06	
	Conversion kit FCB3xx > FCB4xx U _{high} integral mount design M20 without explosion protection		D800D520U07	
	Conversion kit FCB3xx > FCB4xx U _{low} integral mount design M20 without explosion protection		D800D520U08	
	Conversion kit FCB3xx > FCB4xx U _{high} integral mount design NPT without explosion protection		D800D520U09	
	Conversion kit FCB3xx > FCB4xx U _{low} integral mount design NPT without explosion protection		D800D520U10	

Note

Upgrades shall be at the user's own risk!

The upgrade can be performed by request on site or by the Göttingen service center.

5 Activation codes

Number	Designation	Variant	Ordering number	Recommended spare part
	DensiMass measurement activation code	–	3KXS360060L0001	
	FillMass filling application activation code	–	3KXS360060L0002	
	VeriMass diagnosis measurement activation code	–	3KXS360060L0003	

Trademarks

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