

TriPlus 500 Headspace Sampler: Consumables, Accessories, and Spare Parts Guide

This guide contains part numbers for all of the consumable and replaceable components in the TriPlus 500 Headspace Sampler (TriPlus 500 HS). Refer to the *TriPlus 500 Headspace Sampler Hardware Manual* or contact the local service engineer for information about installing these components in your instrument.

You can purchase the following components for the TriPlus 500 HS. Be sure to reference the component's part number when placing an order with your local Sales/Service Representative.

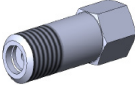
Contents

- Consumables
 - Nut and Ferrules for Column Connections
 - Microcaps
 - Suggested Vials, Caps, and Septa
 - Crimpers
 - TriPlus 500 HS Sampling Loops
- TriPlus 500 HS Accessories
- TriPlus 500 HS Spare Parts
 - HS Main Frame
 - HS 12-position Vial Carousel
 - HS Sampling Needle
 - HS Sampling Path
 - HS Incubation Oven
 - HS Electronics
- Vial Loader Spare Parts
 - Vial Loader Main Frame
 - Vial Loader Electronics
- Transfer Line Spare Parts

Consumables

Nut and Ferrules for Column Connections

Table 1. Nut and Ferrules

Component		Quantity	Thermo Scientific Part Number
Retaining Nut, Hexagonal, 1/4-in. (M6)		Pkg of 5	35050458
Graphite Vespel® Ferrule for 0.1 mm - 0.25 mm Column		Pkg of 10	290VA191
Graphite Vespel® Ferrule for 0.32 mm Column		Pkg of 10	290VA192
Graphite Vespel® Ferrule for 0.53 mm Column		Pkg of 10	290VA193

Microcaps

Table 2. Microcaps

Component		Quantity	Thermo Scientific Part Number
5 µL Microcaps		Pkg of 100	36520056

Suggested Vials, Caps, and Septa

Table 3. Vials, Caps, and Septa (Sheet 1 of 3)

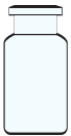
Component		Quantity	Thermo Scientific Part Number
Vial, 10 mL clear crimp glass (20 mm) Headspace (beveled edge round bottom), Performance Level 2		Pkg of 100	6ACV10-1R
Vial, 10 mL clear crimp glass (20 mm) Headspace (beveled edge flat bottom), Performance Level 3		Pkg of 100	6PCV10-1F
Vial, 10 mL amber crimp glass (20 mm) Headspace (beveled edge round bottom), Performance Level 2		Pkg of 100	6ACV10-2R
Vial, 10 mL clear screw glass (18 mm) Headspace (round bottom), Performance Level 2		Pkg of 100	6ASV10-1

Table 3. Vials, Caps, and Septa (Sheet 2 of 3)

Component		Quantity	Thermo Scientific Part Number
Vial, 10 mL amber screw top vial glass (18 mm) Headspace (round bottom), Performance Level 2		Pkg of 100	6ASV10-2
Vial, 22 mL clear screw glass (18 mm) Headspace (round bottom), Performance Level 2		Pkg of 125	22-CV
Vial, 20 mL clear crimp glass (20 mm) Headspace (beveled edge round bottom), Performance Level 2		Pkg of 100	6ACV20-1R
Vial, 20 mL clear crimp glass (20 mm) Headspace (beveled edge flat bottom), Performance Level 3		Pkg of 100	6PCV20-1F
Vial, 20 mL clear screw glass (18 mm) Headspace (round bottom), Performance Level 2		Pkg of 100	6ASV20-1
Vial, 20 mL amber screw glass (18 mm) Headspace (round bottom), Performance Level 2		Pkg of 100	6ASV20-2
Cap, Magnetic crimp (20 mm) (Red Aluminum/Magnetic Tinplate: Blue Silicone/Clear PTFE Soft: 3.0 mm thickness), Performance Level 3		Pkg of 100	6PBCC20-ST3

Table 3. Vials, Caps, and Septa (Sheet 3 of 3)

Component		Quantity	Thermo Scientific Part Number
Cap, Magnetic screw (18 mm) (Silver Magnetic Steel: Blue Silicone/Clear PTFE Soft: 3.0 mm thickness), Performance Level 3		Pkg of 100	6PMSC18-ST2
Cap, Magnetic crimp (20 mm) (Gold Magnetic Steel: Blue Silicone/Clear PTFE Soft: 3.0 mm Thickness), Performance Level 2		Pkg of 100	6AMCC20-ST3
Cap, Magnetic screw (18 mm) (Silver Magnetic Steel: Red Silicone/Natural PTFE; High Temperature: 3.0 mm thickness), HT: max 250 °C, Performance Level 3		Pkg of 100	6PMSC18-STH
Cap, Magnetic crimp (20 mm) (Silver Magnetic Steel: Red Silicone/Natural PTFE; High Temperature: 3.0 mm thickness), HT: max 300 °C, Performance Level 2		Pkg of 100	6AMCC20-STH
NOTE: Requires the Electronic High Power Crimper (P/N 60180-ECRH-20KIT) and Accessory Base (P/N ECRH-STAND)			

Note For a more detailed list of the consumables in Table 3, visit www.thermoscientific.com or contact your local vendor.

Crimpers

Table 4. Crimpers

Component		Quantity	Thermo Scientific Part Number
Manual Crimpers for 20 mm Crimp Seals		Each	CR-20C
Programmable Electronic High Power Crimper 20 mm Kit. Includes the basic high power crimper, the 12 volt DC supply with the power cord and a set of crimp heads: 1 × 20 mm crimp head and 1 × 20 mm decrimp head. (Accessory Base is not included)		Each	ECRH-20KIT
Accessory Base for Electronic Crimpers (base plate and bar). Adjustable height, base plate is solvent resistant. Dimensions: 37.6 cm × 25.4 cm × 17.7 cm		Each	ECRH-STAND

TriPlus 500 HS Sampling Loops

Table 5. TriPlus 500 HS Sampling Loops (Sheet 1 of 2)

Component		Quantity	Thermo Scientific Part Number
25 µL SilcoNert™ Deactivated Sampling Loop		Each	27207101

TriPlus 500 HS Accessories

Table 5. TriPlus 500 HS Sampling Loops (Sheet 2 of 2)

Component		Quantity	Thermo Scientific Part Number
50 μ L SilcoNert™ Deactivated Sampling Loop		Each	27207102
100 μ L SilcoNert™ Deactivated Sampling Loop		Each	27207103
500 μ L SilcoNert™ Deactivated Sampling Loop		Each	27207104
1 mL SilcoNert™ Deactivated Sampling Loop (standard)		Each	27207095
3 mL SilcoNert™ Deactivated Sampling Loop		Each	27207096

Table 6. TriPlus 500 HS Accessories (Sheet 1 of 2)

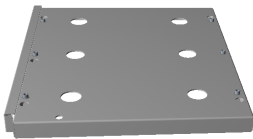
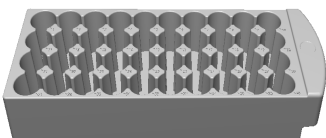
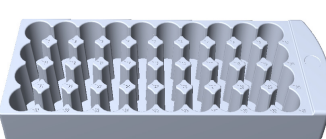
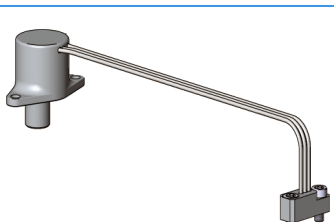
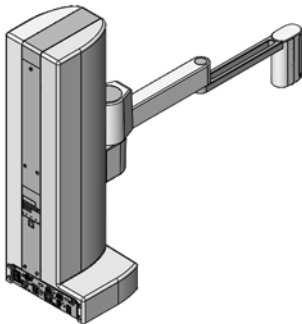
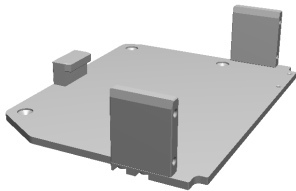
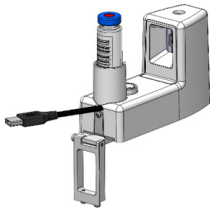
Component		Quantity	Thermo Scientific Part Number
Tray Holder Plate for HS		Each	24010166
40-position Headspace Vial Tray		Each	24010167
40-position Aluminum Headspace Vial Tray		Each	24010169
SSL Injector Adapter		Each	25900036
Injector Adapter O-rings		Pkg of 3	29011310

Table 6. TriPlus 500 HS Accessories (Sheet 2 of 2)

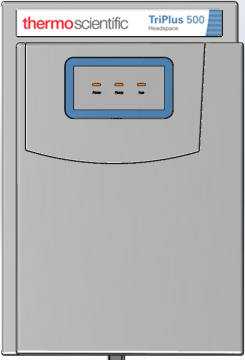
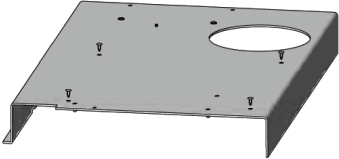
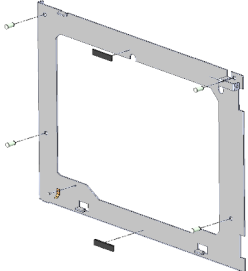
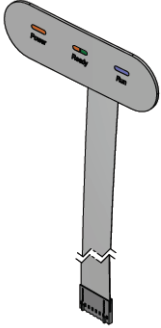
Component		Quantity	Thermo Scientific Part Number
Vial Loader Unit (for replacement)		Each	29903515
Vial Loader Mounting Bracket		Kit	19070142
Barcode Reader for the TriPlus 500 HS		Kit	19070023

TriPlus 500 HS
Spare Parts

HS Main Frame

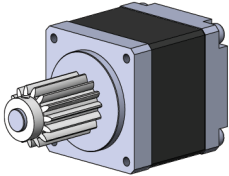
The following spare parts are for service purposes only.

Table 7. HS Main Frame

Component		Quantity	Thermo Scientific Part Number
Front Cover with LEDs		Each	MI-899103200
Top Cover		Each	24104469
Interface Side Panel		Each	33330951
Front LED Assembly		Each	23043733

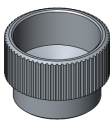
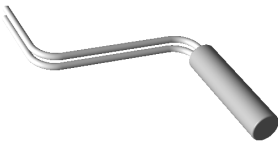
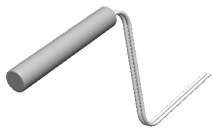
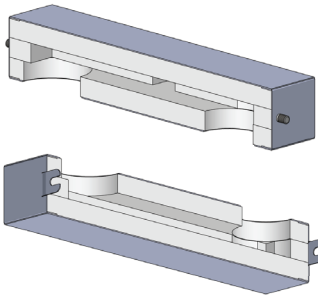
HS 12-position Vial Carousel

Table 8. HS 12-position Vial Carousel

Component		Quantity	Thermo Scientific Part Number
Carousel Cover		Each	21210022
Carousel/Door Motor		Each	23044057

HS Sampling Needle

Table 9. HS Sampling Needle

Component		Quantity	Thermo Scientific Part Number
Knurled Knob		Each	31100369
Needle Heater Element 25 W		Each	23044011
Needle Temperature Probe PT100		Each	23038108
Front and Back Needle Assembly Covers (with insulation)		Kit	19070130

HS Sampling Path

Table 9. HS Sampling Needle

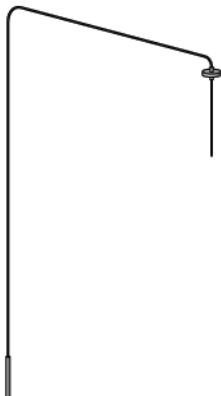
Component		Quantity	Thermo Scientific Part Number
Needle with ferrule and fitting not installed		Kit	19070131

Table 10. HS Sampling Path (Sheet 1 of 4)

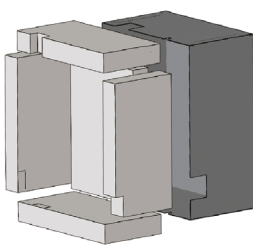
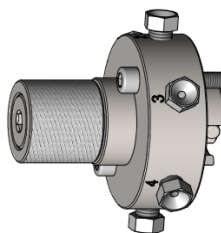
Component		Quantity	Thermo Scientific Part Number
Interface Cover		Each	25904051
Interface Tube (with ferrules and fittings)		Kit	19070132
Manifold Cover with Insulation		Each	24104487
6-port Sampling Valve, 225 °C, Standard		Each	40524177

Table 10. HS Sampling Path (Sheet 2 of 4)

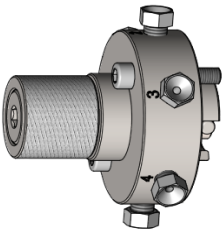
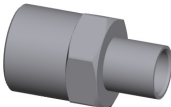
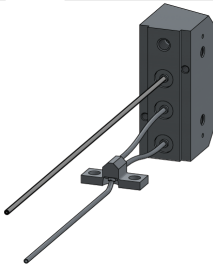
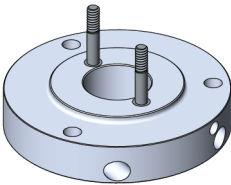
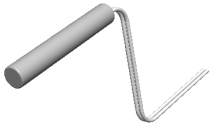
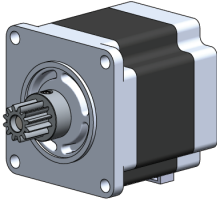
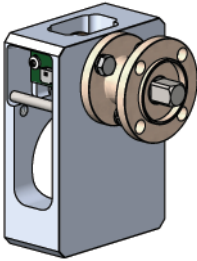
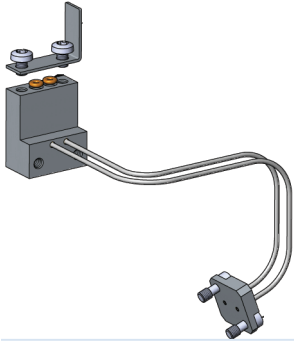
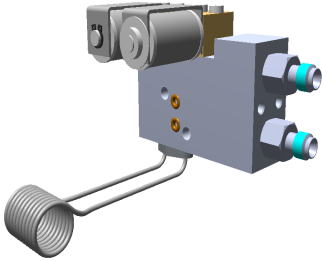
Component		Quantity	Thermo Scientific Part Number
6-port HT Sampling Valve, 150–300 °C		Each	40524178
Standard Valve Rotor (max 225 °C)		Each	29003550
Interface Fitting Retaining Nut		Each	35001126
Valve Plumbing Gas Connection Assembly (with ferrules and fittings)		Kit	19070133
Valve Heating Block		Each	35455015
Valve Heater Element 80 W		Each	23044013
Valve Temperature Probe PT100		Each	23038108
Valve Motor		Each	31802919

Table 10. HS Sampling Path (Sheet 3 of 4)

Component		Quantity	Thermo Scientific Part Number
Valve Actuator Gear Box		Each	12266010
Split Line Filter with replaced O-rings		Each	28113199
The filter is identical to the injector split filter in the design. However, the o-ring are made of paroflour and not viton. Viton is not suitable as it may swollen when in contact with high boiling solvents. DO NOT USE THE INJECTOR SPLIT FILTER ON THE HS.			
Carrier Gas Inlet		Kit	19070134
Aux/Vent Gas Manifold Assembly		Each	22101132
Assy Gas Connection		Each	34700500

HS Incubation Oven

Table 10. HS Sampling Path (Sheet 4 of 4)

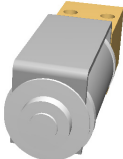
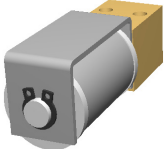
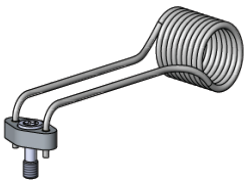
Component		Quantity	Thermo Scientific Part Number
Proportional Valve (405.BD1)		Each	40516159
On-Off Valve (405.BD8)		Each	40524196
Restrictor		Each	24505909
Filter Large O-ring		Pkg of 2	29001313
Filter Small O-ring		Pkg of 2	29001311
Solenoid Valve O-ring		Pkg of 2	29011310
Restrictor O-rings		Pkg of 2	29001319
Vent Outlet O-ring		Pkg of 2	29001321

Table 11. HS Incubation Oven (Sheet 1 of 3)

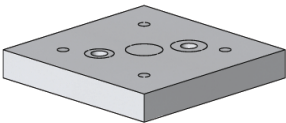
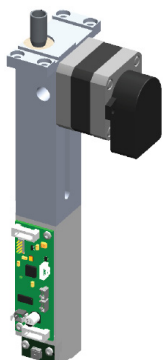
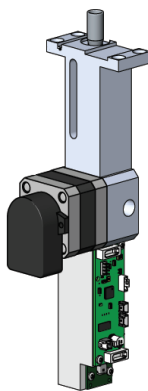
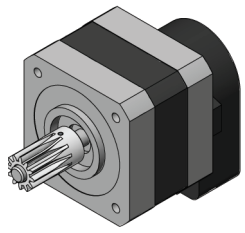
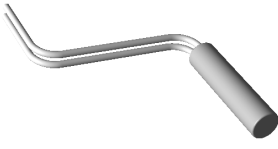
Component		Quantity	Thermo Scientific Part Number
HS Incubator Top/Bottom Insulator		Each	30200146

Table 11. HS Incubation Oven (Sheet 2 of 3)

Component		Quantity	Thermo Scientific Part Number
Loading Lifter Assembly		Each	12266015
Sampling Lifter Assembly		Each	12266016
Lifter Motor		Each	12266017
Oven Heater Element 50 W (FC1711)		Each	23044007
Oven Temperature Probe PT100		Each	40300710
Fan Motor		Each	23044047

HS Electronics

Table 11. HS Incubation Oven (Sheet 3 of 3)

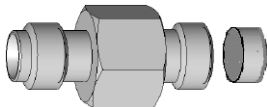
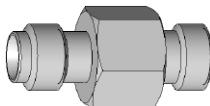
Component		Quantity	Thermo Scientific Part Number
Aux Inlet Fitting		Each	35008434
Vent Outlet Fitting		Each	35008442

Table 12. HS Electronics (Sheet 1 of 3)

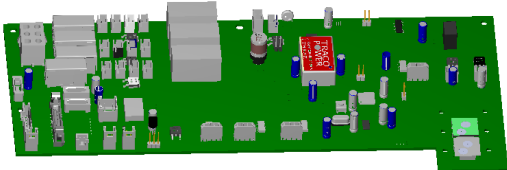
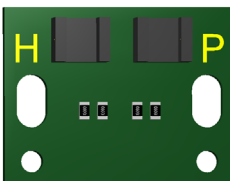
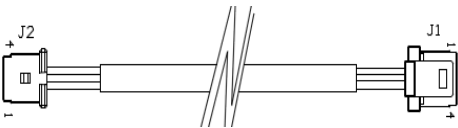
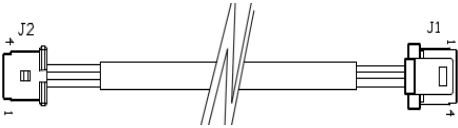
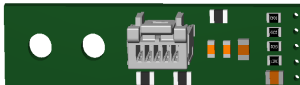
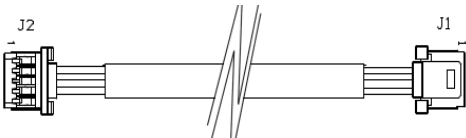
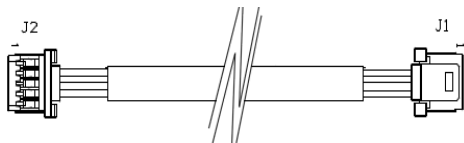
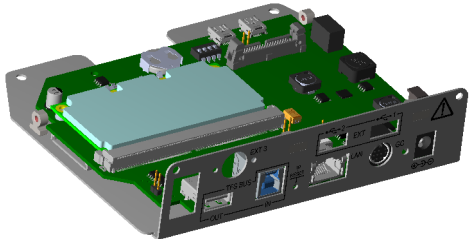
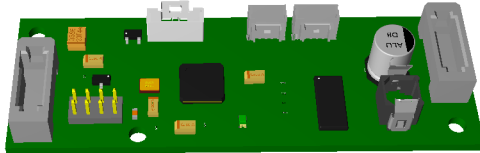
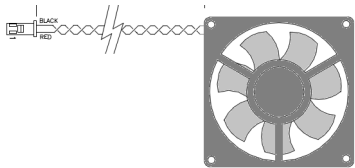
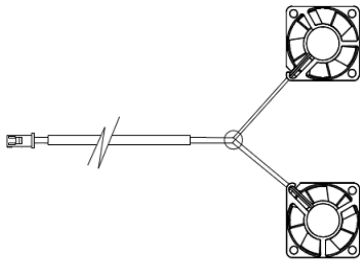
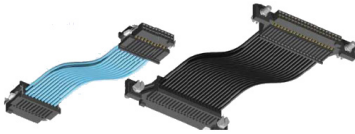
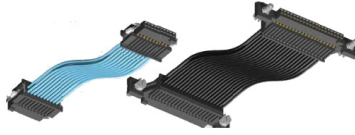
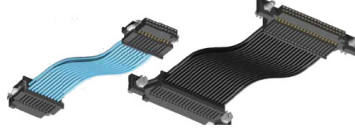
Component		Quantity	Thermo Scientific Part Number
Power Supply (208AC4)		Each	20803000
PT Board (PC1325)		Each	23608000
Optical Sensor		Each	23608005
Optical Sensor Cable (500 mm)			23044023
Optical Sensor Cable (120 mm)			23044024
Proximity Sensor		Each	23608007
Proximity Sensor Cable (300 mm)		Each	23044019

Table 12. HS Electronics (Sheet 2 of 3)

Component		Quantity	Thermo Scientific Part Number
Proximity Sensor Cable (500 mm)		Each	23044018
Baseboard Assembly (900100120)		Each	43210176
Servo Motor Board		Each	23608011
60 mm Fan		Each	23043728
40 mm Fan		Each	23044044
Bus Cable, Short (85 mm)		Each	23044058
Bus Cable, Medium (160 mm)		Each	23044059
Bus Cable, Long (450 mm)		Each	23044060

Vial Loader Spare Parts

Vial Loader Main Frame

Table 12. HS Electronics (Sheet 3 of 3)

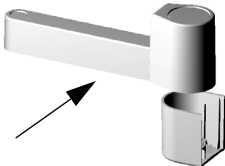
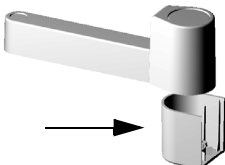
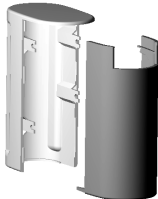
Component		Quantity	Thermo Scientific Part Number
LAN Communication Cable (230.AI2)		Each	23043592
DSUB 9P / Minidin Handshake Cable		Each	23038106
Mini Delta 20P / Minidin 9P (TRACE 1600 Series Handshake Cable)		Each	MI-FC1808-0028

The following spare parts are for service purposes only.

Table 13. Vial Loader Main Frame (Sheet 1 of 2)

Component		Quantity	Thermo Scientific Part Number
Right Panel		Each	MI-900101220
Left Panel		Each	MI-900101230

Table 13. Vial Loader Main Frame (Sheet 2 of 2)

Component		Quantity	Thermo Scientific Part Number
Front Panel Assembly		Each	MI-900101241
Link 0 Top Cover		Each	39305439
Link 0 Bottom Cover		Each	39305440
Gripper Case + Cover		Kit	19070143
Polyurethane Timing Belt T2,5 H 6 mm L 380 mm		Each	23501010
Polyurethane Timing Belt T2,5 H 6 mm L 480 mm		Each	23501012
Polyurethane Timing Belt T2,5 H 10 mm L 177 mm		Each	23501014

Vial Loader Electronics

Table 14. Vial Loader Electronics (Sheet 1 of 3)

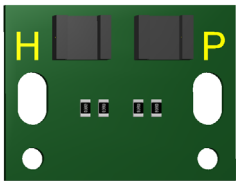
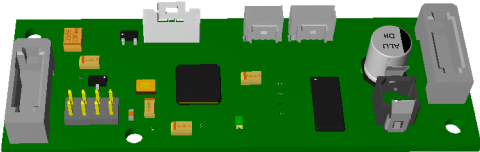
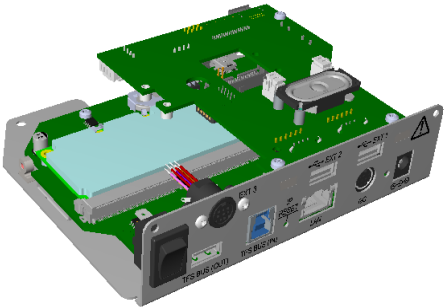
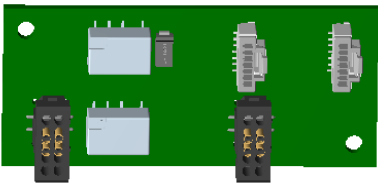
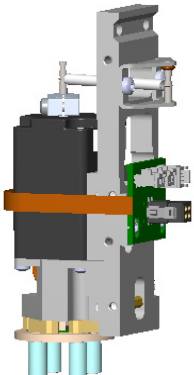
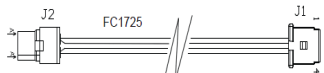
Component		Quantity	Thermo Scientific Part Number
Optical Sensor		Each	23608005
Servo Motor Board		Each	23608011
Loader Electronic Assembly		Each	43210177
Brake Board		Each	23620413
LED Board (PC1348) + Cable		Kit	19070145
Gripper Assembly		Each	19070140
Gripper P4 Servo P1 Cable		Each	23044041

Table 14. Vial Loader Electronics (Sheet 2 of 3)

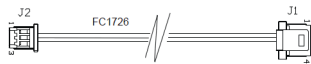
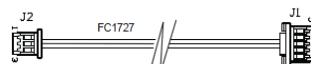
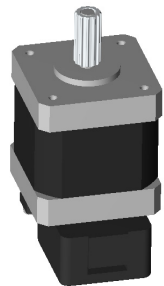
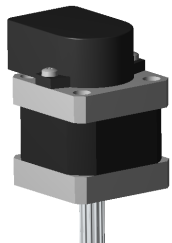
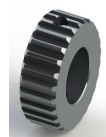
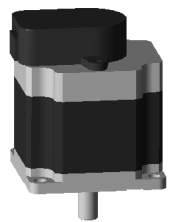
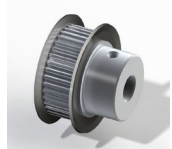
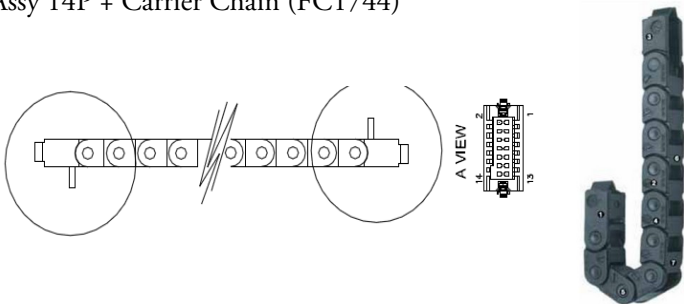
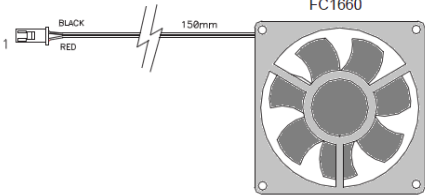
Component		Quantity	Thermo Scientific Part Number
Gripper P1 Servo P3 Cable		Each	23044042
Gripper P2 Servo P7 Cable		Each	23044043
J0 Motor Assembly		Each	31802930
J1 Motor Assembly		Each	31802931
J1 Motor Pulley + Grain		Kit	19070141
Z-Axis Lifting Motor		Each	23044052
Z-Axis Lifting Motor Pulley + Grain		Kit	19070144

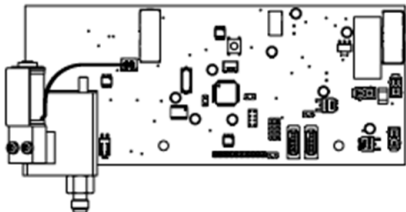
Table 14. Vial Loader Electronics (Sheet 3 of 3)

Component	Quantity	Thermo Scientific Part Number
Cable Assy 14P + Carrier Chain (FC1744) 	Each	23044054
FC1660; 20 mm Fan 	Each	23043729
USB Cable 	Each	23043549
Portable External Power Supply with Ferrite, level VI efficiency Input 100~240 Vac; 50/60 Hz Output 24 Vdc; Power 90 W; 3.75 A 	Each	20806067

Transfer Line Spare Parts

The following spare parts are available for the TriPlus 500 with Transfer Line.

Table 15. Transfer Line Components

Component		Quantity	Thermo Scientific Part Number
Transfer Line		Each	MI-899001200
Carrier Connection		Each	MI-899402200
Aux Carrier/Temp. Board Assembly		Each	MI-899402100
Cable Assembly Mini Fit 2P - Forks		Each	MI-FC1783-0001
O-ring Parofluor 2-002		Each	MI-290AH6-0003
Internal Reducer, 1/16 in. to 1/32 in. Valco IZR1,5-THE		Each	MI-350AA1-0002
Hydroguard SS Tubing, 2 m x 0.53 mm (ID)		Kit	MI-190000-0034

