



# KIKK-EL CAP CHANGER



PNEUMATIC AUTOMATIC  
CAP CHANGER SYSTEM



RAM SOLUTIONS, LLC

# STRAIGHT TIP CARTRIDGE MAGAZINE

KIKK-EL

Pneumatic System Tip Changer



**CHANGER &  
DRESSER CORP.**  
*A DIVISION OF KYOKUTOH CO., LTD.*



- Light Compact
- Easy to Install



**RAM SOLUTIONS, LLC**

# Features of our KIKK-EL Cap Changer



CHANGER &  
DRESSER CORP.  
A DIVISION OF KYOKUTOH CO., LTD.

## FEATURE

---

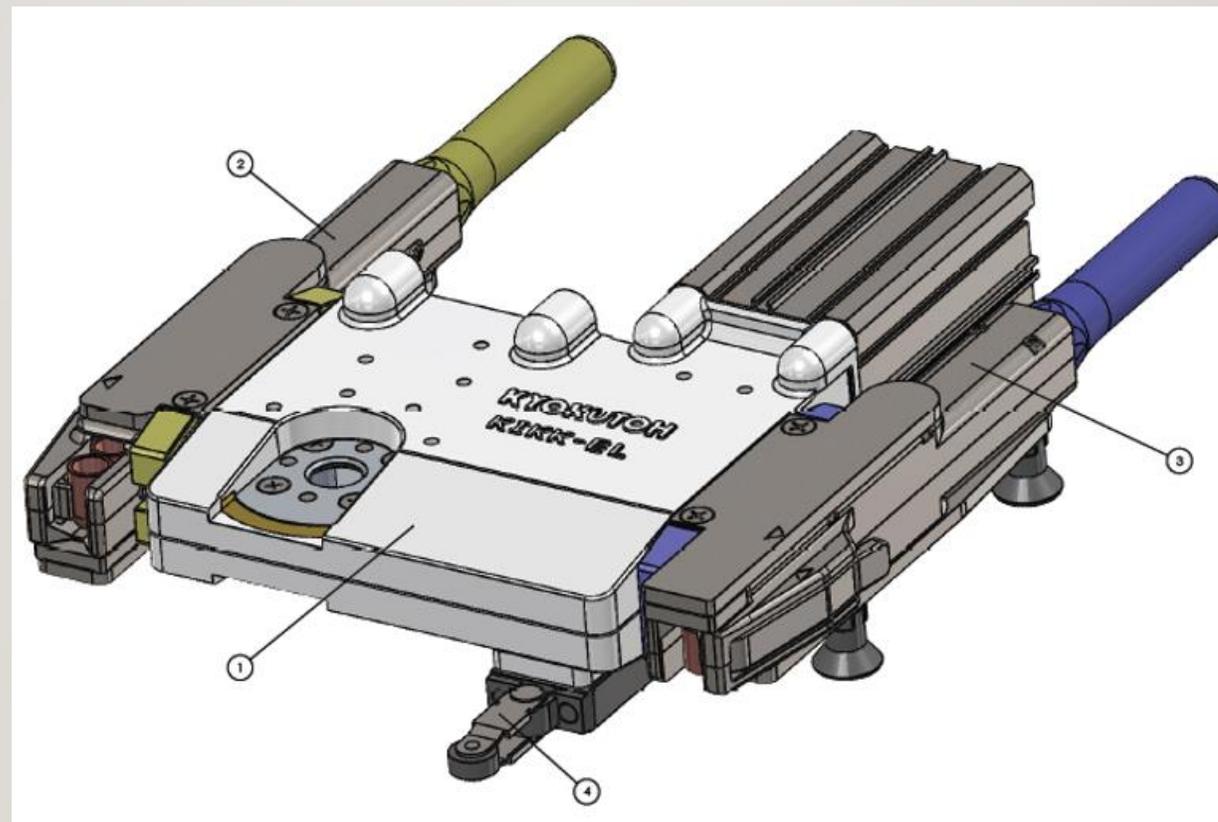
1. Easy teaching.
2. Correspond to  $\Phi 13, \Phi 16, \Phi 19, \Phi 20$  cap tips.
3. One touch operation cartridge.
4. Correspond to male and female tip.
5. 14pcs of  $\phi 13$  cap tips can be set in tip cartridge.
6. 12pcs of  $\phi 16$  cap tips can be set in tip cartridge.
7. 10pcs of  $\phi 19$  and  $\phi 20$  cap tips can be set in tip cartridge.
8. Detect timing of refilling cap tip by proximate sensor(Option).
9. Detect of exchange error by limit switch(Option).



RAM SOLUTIONS, LLC

# KIKK-EL

Parts list		
No	Name	Model
1	KIKK-EL Body	KIKK-EL**
2	Upper magazine	STC-****U
3	Lower magazine	STC-****L
4	Component (Option)	CD-KIKKEL-KIT-STC-P



# KIKK Molded Kit Mechanical switch

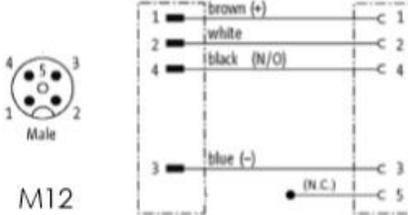
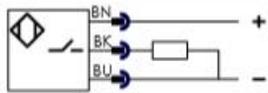
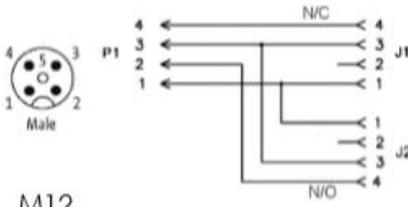
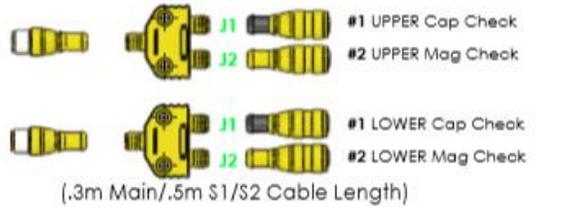
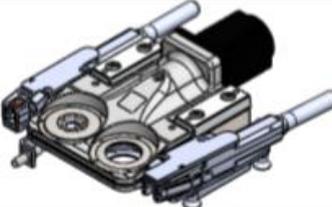
<p><b>Cylinder Sensors</b></p>		<p>#1 Engaged (FRONT closest to changer)</p> <p>#2 Not Engaged (BACK farthest from changer)</p> <p>(1.0m Cable Length)</p>	<p><b>CYLINDER M8</b> BROWN = PIN 1 BLUE = PIN 3 BLACK = PIN 4</p>																																										
<p><b>Magazine Sensors</b></p>		<p>#1 UPPER Cap Check #2 UPPER Mag Check</p> <p>#1 LOWER Cap Check #2 LOWER Mag Check</p> <p>(.3m Main/.5m S1/S2 Cable Length)</p>	<p><b>MAGAZINE M12</b> BROWN = PIN 1 BLUE = PIN 3 BLACK = PIN 4</p>																																										
<p><b>Solenoid Valve</b></p>		<p>(.8m Cable Length)</p>	<p><b>Regular/ Filter</b></p>																																										
<p><b>Limit Switch</b></p>		<p>(1.0m Cable Length)</p>	<table border="1"> <thead> <tr> <th>Contacts</th> <th>Pin No.</th> </tr> </thead> <tbody> <tr> <td>NC</td> <td>-2</td> </tr> <tr> <td>NO</td> <td>-4</td> </tr> </tbody> </table>	Contacts	Pin No.	NC	-2	NO	-4																																				
Contacts	Pin No.																																												
NC	-2																																												
NO	-4																																												
	<p><b>Push in fittings are provided for valve and reg/filter. 10mm OD supply hose needed.</b></p> <p><b>PROPRIETARY AND CONFIDENTIAL</b></p> <p>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CHANGER &amp; DRESSER CORP. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CHANGER &amp; DRESSER CORP. IS PROHIBITED.</p> <p>DO NOT SCALE DRAWING</p>	<table border="1"> <thead> <tr> <th>DESIGN APPLICATION</th> <th>DIMENSIONS ARE IN MILLIMETERS</th> </tr> </thead> <tbody> <tr> <td>UPPER WELD FACE Ø</td> <td>ANGULAR, MACH ± 1.0</td> </tr> <tr> <td>LOWER WELD FACE Ø</td> <td>ONE PLACE DECIMAL ± 0.1</td> </tr> <tr> <td>UPPER CAP Ø</td> <td>TWO PLACE DECIMAL ± 0.05</td> </tr> <tr> <td>LOWER CAP Ø</td> <td>THREE PLACE DECIMAL ± 0.005</td> </tr> <tr> <td>UPPER GUN ANGLE</td> <td>NOTES: ---</td> </tr> <tr> <td>LOWER GUN ANGLE</td> <td></td> </tr> <tr> <td>GUN TYPE (C or X)</td> <td></td> </tr> <tr> <td>GUN PRESSURE (kgf)</td> <td></td> </tr> </tbody> </table>	DESIGN APPLICATION	DIMENSIONS ARE IN MILLIMETERS	UPPER WELD FACE Ø	ANGULAR, MACH ± 1.0	LOWER WELD FACE Ø	ONE PLACE DECIMAL ± 0.1	UPPER CAP Ø	TWO PLACE DECIMAL ± 0.05	LOWER CAP Ø	THREE PLACE DECIMAL ± 0.005	UPPER GUN ANGLE	NOTES: ---	LOWER GUN ANGLE		GUN TYPE (C or X)		GUN PRESSURE (kgf)		<table border="1"> <thead> <tr> <th>NAME</th> <th>DATE</th> <th>TIP CHANGER MODEL</th> </tr> </thead> <tbody> <tr> <td>DRAWN JAP 2/04</td> <td>05/04/18</td> <td>KIKKEL (MG)</td> </tr> <tr> <td>MFG APPR.</td> <td></td> <td>PART NO.</td> </tr> <tr> <td>ENG APPR.</td> <td></td> <td>KIKK MOLDED KIT WIRING</td> </tr> <tr> <td>MATERIAL</td> <td></td> <td>STC V2.0</td> </tr> <tr> <td>FINISH</td> <td></td> <td></td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th>SIZE</th> <th>REF. NO.</th> <th>REV.</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>-</td> <td>0</td> </tr> </tbody> </table>	NAME	DATE	TIP CHANGER MODEL	DRAWN JAP 2/04	05/04/18	KIKKEL (MG)	MFG APPR.		PART NO.	ENG APPR.		KIKK MOLDED KIT WIRING	MATERIAL		STC V2.0	FINISH			SIZE	REF. NO.	REV.	A	-	0
DESIGN APPLICATION	DIMENSIONS ARE IN MILLIMETERS																																												
UPPER WELD FACE Ø	ANGULAR, MACH ± 1.0																																												
LOWER WELD FACE Ø	ONE PLACE DECIMAL ± 0.1																																												
UPPER CAP Ø	TWO PLACE DECIMAL ± 0.05																																												
LOWER CAP Ø	THREE PLACE DECIMAL ± 0.005																																												
UPPER GUN ANGLE	NOTES: ---																																												
LOWER GUN ANGLE																																													
GUN TYPE (C or X)																																													
GUN PRESSURE (kgf)																																													
NAME	DATE	TIP CHANGER MODEL																																											
DRAWN JAP 2/04	05/04/18	KIKKEL (MG)																																											
MFG APPR.		PART NO.																																											
ENG APPR.		KIKK MOLDED KIT WIRING																																											
MATERIAL		STC V2.0																																											
FINISH																																													
SIZE	REF. NO.	REV.																																											
A	-	0																																											



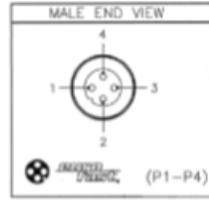
# Molded Kit STC V2.0 Prox Switch.

<p><b>Cylinder Sensors</b></p>		<p>(1.0m Cable Length)</p> <p>#1 Engaged (FRONT closest to changer)</p> <p>#2 Not Engaged (BACK farthest from changer)</p>	<p><b>CYLINDER M8</b> BROWN = PIN 1 BLUE = PIN 3 BLACK = PIN 4</p>																																																											
<p><b>Magazine Sensors</b></p>		<p>(.3m Main/.5m S1/S2 Cable Length)</p> <p>#1 UPPER Cap Check #2 UPPER Mag Check</p> <p>#1 LOWER Cap Check #2 LOWER Mag Check</p>	<p><b>MAGIZINE M12</b> BROWN = PIN 1 BLUE = PIN 3 BLACK = PIN 4</p>																																																											
<p><b>Solenoid Valve</b></p>		<p>(.8m Cable Length)</p>	<p><b>Regular/ Filter</b></p>																																																											
<p><b>Prox Sensor</b></p>		<p>(1.0m Cable Length)</p>	<p><b>MAGIZINE M12</b> BROWN = PIN 1 BLUE = PIN 3 BLACK = PIN 4</p>																																																											
	<p>Push in fittings are provided for valve and reg/filter. 10mm OD supply hose needed.</p> <p>PROPRIETARY AND CONFIDENTIAL</p> <p>THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CHANGER &amp; DRESSER CORP. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CHANGER &amp; DRESSER CORP. IS PROHIBITED</p>	<table border="1"> <thead> <tr> <th>DESIGN APPLICATION</th> <th>DIMENSIONS ARE IN MILLIMETERS</th> <th>NAME</th> <th>DATE</th> <th>TIP CHANGER MODEL</th> </tr> </thead> <tbody> <tr> <td>UPPER WELD FACE Ø</td> <td>ANGULAR: MACH ± 0.05 ONE PLACE DECIMAL ± 0.1</td> <td>DRAWN</td> <td>08/04/18</td> <td>KIKKEL (STC)</td> </tr> <tr> <td>LOWER WELD FACE Ø</td> <td>TWO PLACE DECIMAL ± 0.05</td> <td>MFG APPR.</td> <td></td> <td>PART NO.</td> </tr> <tr> <td>UPPER CAP Ø</td> <td>THREE PLACE DECIMAL ± 0.005</td> <td>ENG APPR.</td> <td></td> <td>KIKK MOLDED KIT WIRING STC V2.0 (CD-KIKKEL-KIT- STCPX-P)</td> </tr> <tr> <td>LOWER CAP Ø</td> <td>NOTES: ---</td> <td>MATERIAL</td> <td></td> <td>SIZE</td> </tr> <tr> <td>UPPER GUN ANGLE</td> <td></td> <td>FINISH</td> <td></td> <td>A</td> </tr> <tr> <td>LOWER GUN ANGLE</td> <td></td> <td></td> <td></td> <td>REF. NO.</td> </tr> <tr> <td>GUN TYPE (C BY X)</td> <td></td> <td></td> <td></td> <td>CD-KIKKEL-KIT-STCPX-P</td> </tr> <tr> <td>GUN PRESSURE (MP)</td> <td></td> <td></td> <td></td> <td>REV.</td> </tr> <tr> <td>DO NOT SCALE DRAWING</td> <td></td> <td></td> <td></td> <td>0</td> </tr> </tbody> </table> <p>Changer &amp; Dresser Corp. A DIVISION OF KYOKUTOH CO., LTD</p>	DESIGN APPLICATION	DIMENSIONS ARE IN MILLIMETERS	NAME	DATE	TIP CHANGER MODEL	UPPER WELD FACE Ø	ANGULAR: MACH ± 0.05 ONE PLACE DECIMAL ± 0.1	DRAWN	08/04/18	KIKKEL (STC)	LOWER WELD FACE Ø	TWO PLACE DECIMAL ± 0.05	MFG APPR.		PART NO.	UPPER CAP Ø	THREE PLACE DECIMAL ± 0.005	ENG APPR.		KIKK MOLDED KIT WIRING STC V2.0 (CD-KIKKEL-KIT- STCPX-P)	LOWER CAP Ø	NOTES: ---	MATERIAL		SIZE	UPPER GUN ANGLE		FINISH		A	LOWER GUN ANGLE				REF. NO.	GUN TYPE (C BY X)				CD-KIKKEL-KIT-STCPX-P	GUN PRESSURE (MP)				REV.	DO NOT SCALE DRAWING				0	<table border="1"> <thead> <tr> <th>SIZE</th> <th>REF. NO.</th> <th>REV.</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>CD-KIKKEL-KIT-STCPX-P</td> <td>0</td> </tr> <tr> <td>2/</td> <td>WEIGHT</td> <td>161</td> </tr> </tbody> </table>	SIZE	REF. NO.	REV.	A	CD-KIKKEL-KIT-STCPX-P	0	2/	WEIGHT	161
DESIGN APPLICATION	DIMENSIONS ARE IN MILLIMETERS	NAME	DATE	TIP CHANGER MODEL																																																										
UPPER WELD FACE Ø	ANGULAR: MACH ± 0.05 ONE PLACE DECIMAL ± 0.1	DRAWN	08/04/18	KIKKEL (STC)																																																										
LOWER WELD FACE Ø	TWO PLACE DECIMAL ± 0.05	MFG APPR.		PART NO.																																																										
UPPER CAP Ø	THREE PLACE DECIMAL ± 0.005	ENG APPR.		KIKK MOLDED KIT WIRING STC V2.0 (CD-KIKKEL-KIT- STCPX-P)																																																										
LOWER CAP Ø	NOTES: ---	MATERIAL		SIZE																																																										
UPPER GUN ANGLE		FINISH		A																																																										
LOWER GUN ANGLE				REF. NO.																																																										
GUN TYPE (C BY X)				CD-KIKKEL-KIT-STCPX-P																																																										
GUN PRESSURE (MP)				REV.																																																										
DO NOT SCALE DRAWING				0																																																										
SIZE	REF. NO.	REV.																																																												
A	CD-KIKKEL-KIT-STCPX-P	0																																																												
2/	WEIGHT	161																																																												

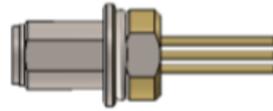
# DHSVR2 Molded Kit

<p><b>Prox Sensor</b></p>		  <p>(1.0m Cable Length)</p> <p><b>MAGIZINE M12</b> BROWN = PIN 1 BLUE = PIN 3 BLACK = PIN 4</p>	
<p><b>Magazine Sensors</b></p>		  <p>(.3m Main/.5m S1/S2 Cable Length)</p> <p><b>MAGIZINE M12</b> BROWN = PIN 1 BLUE = PIN 3 BLACK = PIN 4</p>	
			
<p>Push in fittings are provided for valve and reg/filter. 10mm OD supply hose needed.</p>	<p><b>DESIGN APPLICATION</b></p> <p>UPPER WELD FACE Ø -</p> <p>LOWER WELD FACE Ø -</p> <p>UPPER CAP Ø -</p> <p>LOWER CAP Ø -</p> <p>UPPER GUN ANGLE -</p> <p>LOWER GUN ANGLE -</p> <p>GUN TYPE (C or X) -</p> <p>GUN PRESSURE (kg) -</p> <p>DO NOT SCALE DRAWING</p>	<p><b>DIMENSIONS ARE IN MILLIMETERS</b></p> <p>ANGULAR: MACH ± .010 ONE PLACE DECIMAL ± 0.1 TWO PLACE DECIMAL ± 0.05 THREE PLACE DECIMAL ± 0.005</p> <p>NOTES: ---</p> <p><b>CD</b> Changer &amp; Dresser Corp. A DIVISION OF KYOKUTOH CO., LTD</p>	<p><b>TIP CHANGER MODEL</b></p> <p>KIKKEL (STC)</p> <p><b>PART NO.</b></p> <p>DHSVR2 MOLDED KIT WIRING STC V2.0 (CD- DHSVR2-KIT-STCPX-P)</p> <p><b>SIZE</b></p> <p>A</p> <p><b>REV.</b></p> <p>0</p>

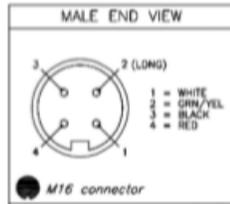
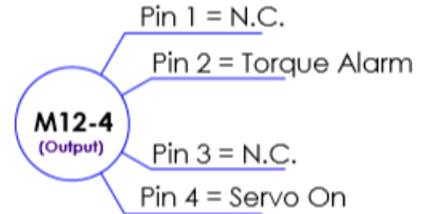
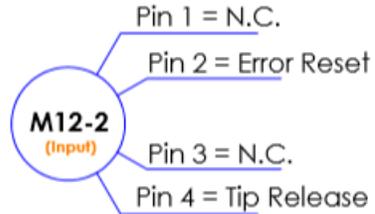
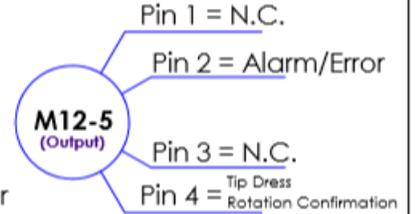
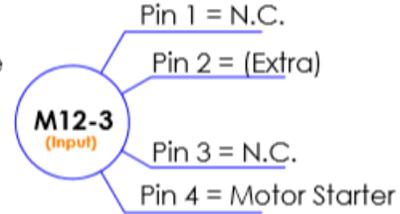
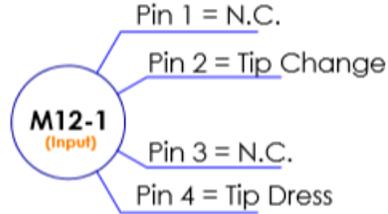
# DHSVR2 LENZ Switch



M12 Male



**Control Box SIGNALS**

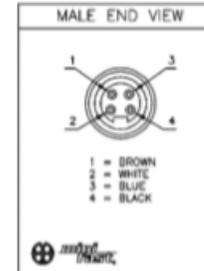


M16 Male



**480VAC**

Pin 4 = L3  
Pin 3 = L2  
Pin 2 = GND  
Pin 1 = L1

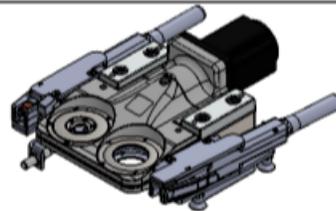


7/8 Male



**24VDC**

Pin 4 = 0VDC  
Pin 1 = +24VDC



PROPRIETARY AND CONFIDENTIAL  
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF CHANGER & DRESSER CORP. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF CHANGER & DRESSER CORP. IS PROHIBITED

DESIGN APPLICATION	
UPPER WELD FACE Ø	-
LOWER WELD FACE Ø	-
UPPER CAP Ø	-
LOWER CAP Ø	-
UPPER GUN ANGLE	-
LOWER GUN ANGLE	-
GUN TYPE (C or X)	-
GUN PRESSURE (kgf)	-
DO NOT SCALE DRAWING	

DIMENSIONS ARE IN MILLIMETERS	
ANGULAR, MACH & BEND	± 1.0
ONE PLACE DECIMAL	± 0.1
TWO PLACE DECIMAL	± 0.05
THREE PLACE DECIMAL	± 0.005
NOTES: ---	

NAME	DATE
DRAWN: jsh-jsh	04/28/19
MFG APPR.	
ENG APPR.	
MATERIAL	-
FINISH	-

TIP CHANGER MODEL		
DHSVR2		
PART NO.		
DHSVR2 Lenze Control Pinout		
SIZE	REF. NO.	REV.
A	-	0
1:	WEIGHT	1g/1



Changer & Dresser KIKK Tip Changer.			
QTY	PART #	DESCRIPTION	MANUF
1	FA3-C3PA	3/8" Filter/Regulator Combination Unit	Fabco Air
1	MME-43WES-D024	3/8" NPT In/Out, 1/4" NPT exhaust, 5/2 valve w/ Cable Gland	Clippard
1	7000-40981-6560150	Form BI (11 mm) – M12, male straight valve connector, black, weld spatter resistant	Murr
1	FD 531-K50	Mechanical limit switch, 1 N.O. contact + 1N.C., roller arm activation, 5-pin M12 connector	Pizzato
1	WK 4.5T-I-RS 4.5T/S1587	M12 90-Female 5-Pin to M12 STM 5-Pin Cordset (1m)	Murr
2	Bi 6-EGT12FE-AP6X-H1141	Inductive Prox, M12 Connector, PNP, DC, NO, 12mm x 6mm SN	TURCK
2	RKC 4.4T-I-RSC 4.4T/S3060	M12 STM/STF 4-Pin Cordset (1m)	TURCK
1	10 425 1038	10mm PIF x 3/8" NPT straight male fitting	Norgren
4	10 147 1038	10mm PIF x 3/8" ISO R 90 degree swivel male fitting	Norgren
1	VB2-FSM4.4/2PKG3M-1/1	T-Coupler, M12 4 x 2xM8 3	TURCK
1	VB2-FSM4.4/2FKM4	T-Coupler, M12 4 x 2xM12 4	TURCK
2	MZCK 03PI01 I/KS35D	Magnetic cylinder sensors, M8 Connector, PNP (300mm) (Can't change, come w/cylinder)	Baumer
1	FXEN-IOM88-0001-IP/CS30007	8 Input/8 IUTOYT-Ethernet AIM Station	TURCK