

RQC/RTP SERIES

Automatic Tool Changers | Features and Benefits

Additional Optional Air, Fluid, Electrical Modules are Available.

Air and fluid ports
modules are available
in NPT, BSPP, and BSPT
(See Page TC-RQTP-17)

Optional 19 Pin I/O Module

Spring loaded contacts are
recessed for a better protection

V-Seal provides moisture resistance

Robot Side

Tool Side

Locking Mechanisms

Made from
hardened
stainless steel,
they provide
a low stress,
highly rigid
locking
capability

Latch/Unlatch Switch

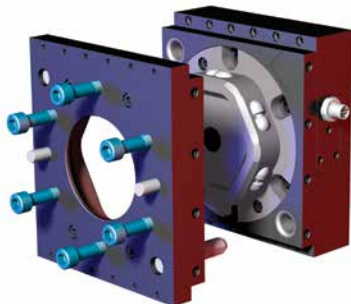
RQC's are pre-equipped for latch,
unlatch (all sizes) and part presence
sensing (sizes 800 & 1200 only)

Dry contact or inductive sensors with
or w/o connectors are available

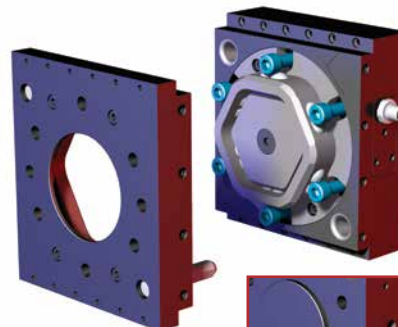
Optional 6 Port
Pneumatic Module

Locating Pins

Optional (4) Self-Sealing
Air Ports Module
(sizes 800 & 1200 only)



Tool Half Adaptor
has tapped holes,
two dowel pin holes
for accurate location
of payload, and
features a ISO9409-1
mounting pattern



Robot Half Adaptor
has counterbored
holes for mounting
with a dowel pin
hole, a raised boss
for location, and
features a ISO9409-1
mounting pattern



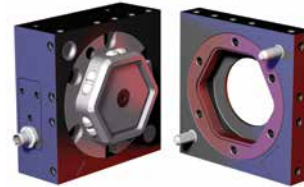
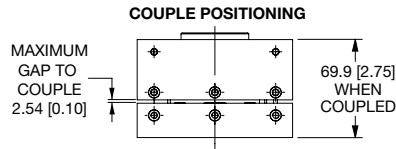
Back Side of Robot
Half Adaptor

RQC/RTP SERIES

Automatic Tool Changers | Technical Information

RQC-200/RTP-200

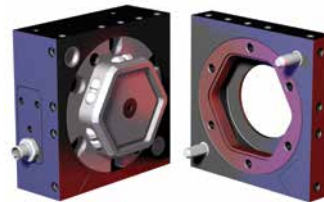
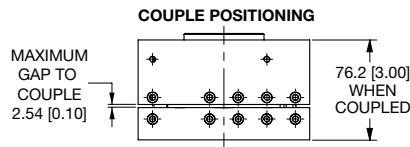
Combined Weight: 3 Kg [6.7 lb]
Max. Payload: 90 Kg [200 lb]
Max. Moment: 810 Nm [7200 in-lb]



RQC-200 **RTP-200**
Robot Adaptor Module **Tool Adaptor Module**

RQC-400/RTP-400

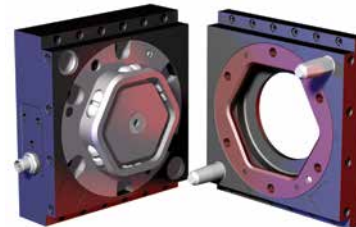
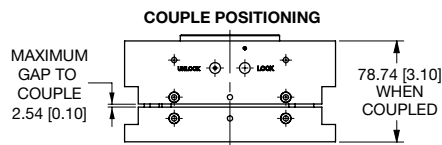
Combined Weight: 4.7 Kg [10.4 lb]
Max. Payload: 180 Kg [400 lb]
Max. Moment: 1580 Nm [14000 in-lb]



RQC-400 **RTP-400**
Robot Adaptor Module **Tool Adaptor Module**

RQC-800/RTP-800

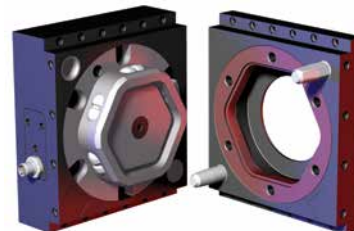
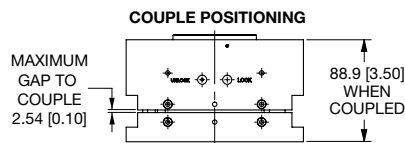
Combined Weight: 7.1 Kg [15.8 lb]
Max. Payload: 360 Kg [800 lb]
Max. Moment: 2490 Nm [22000 in-lb]



RQC-800 **RTP-800**
Robot Adaptor Module **Tool Adaptor Module**

RQC-1200/RTP-1200

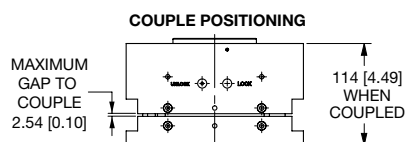
Combined Weight: 8.3 Kg [18.4 lb]
Max. Payload: 550 Kg [1200 lb]
Max. Moment: 3390 Nm [30000 in-lb]



RQC-1200 **RTP-1200**
Robot Adaptor Module **Tool Adaptor Module**

RQC-2400/RTP-2400

Combined Weight: 30 Kg [66.1 lb]
Max. Payload: 1089 Kg [2400 lb]
Max. Moment: 7000 Nm [61955 in-lb]

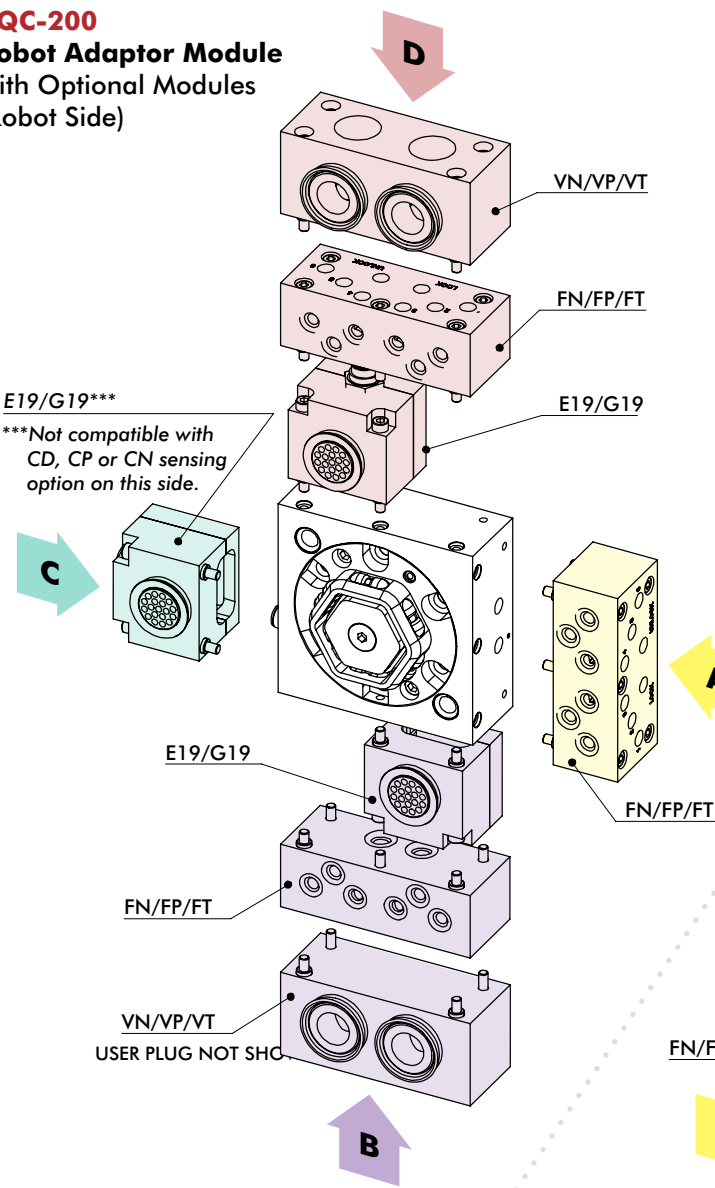


RQC-2400 **RTP-2400**
Robot Adaptor Module **Tool Adaptor Module**

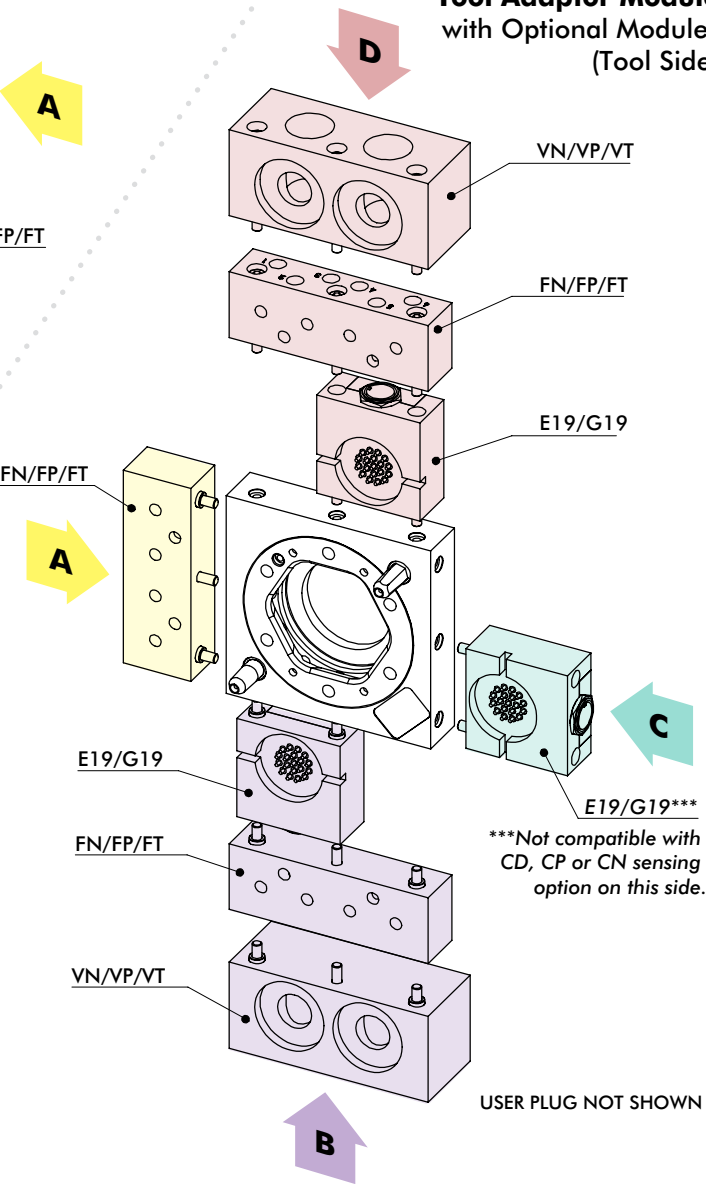
RQC-200/RTP-200

Automatic Tool Changers | Module Usage Illustrations

RQC-200 Robot Adaptor Module with Optional Modules (Robot Side)



RTP-200 Tool Adaptor Module with Optional Modules (Tool Side)



RQC-200/RTP-200

Automatic Tool Changers | Ordering Information

Base Model	Model Size	Port Options (RQC-only)	Sensing (RQC-only)	Side A MODULES	Side B MODULES	Side C MODULES	Side D MODULES
RQC	200	N	L0	0	0	0	0
RQC Robot Side RTP Tool Side	200 (See Page TC-RQTP-2 for Specifications)	N 1/8 NPT M 1/8 BSPP A 1/8 BSPT	L0 No Sensing LP* PNP Inductive Sensing CP† PNP Inductive Sensing with M12 connector LN* NPN Inductive Sensing CN† NPN Inductive Sensing with M12 connector LD* Dry contact sensor CD† Dry contact sensor with M12 connector	Optional Electrical, Air and Vacuum Modules can be ordered with Base Model See below for Module Description (See Pg. TC-RQTP-3 for Illustrated Module Config.)			

*Requires **E19** or **G19** module mounted on **Side C**.
 †Cordset or plug are sold separately.

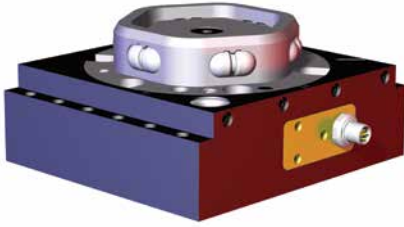
Side A	Side B	Side C	Side D	Order Code	Optional Modules
●	●	●	●	0	No Module
	●	●***	●	E19†***	19 pin, 3 Amp, 48 VDC Module w/Turck M16 Conn, w/o Cordset
	●	●***	●	G19†***	19 pin, 5 Amp, 120 VDC Module w/Industrial User Conn., w/o Cable
●	●		●	FN	6X 1/8" NPT Air Ports Module, Face Seal, 10 Bar
●	●		●	FP	6X 1/8" BSPP Air Ports Module, Face Seal, 10 Bar
●	●		●	FT	6X 1/8" BSPT Air Ports Module, Face Seal, 10 Bar
	●		●	VN	2X 3/4" Vacuum + 4 X 1/4" Air NPT Ports Module, Face Sealing
	●		●	VP	2X 3/4" Vacuum + 4 X 1/4" Air BSPP Ports Module, Face Sealing
	●		●	VT	2X 3/4" Vacuum + 4 X 1/4" Air BSPT Ports Module, Face Sealing

†Cordset or plug are sold separately. ***Not compatible with **CD**, **CP** or **CN** sensing option on **Side C**.

NOTE: Only (1) module can be mounted per side. Modules usage is based on the size of the Base Model and which side the module can be mounted.

RQC-200 (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions



Specification:

Max. Payload **W**: 90 Kg [200 lb]

Weight: 2 Kg [4.41 lb]

Cylinder Bore: Ø53mm [2.09in]

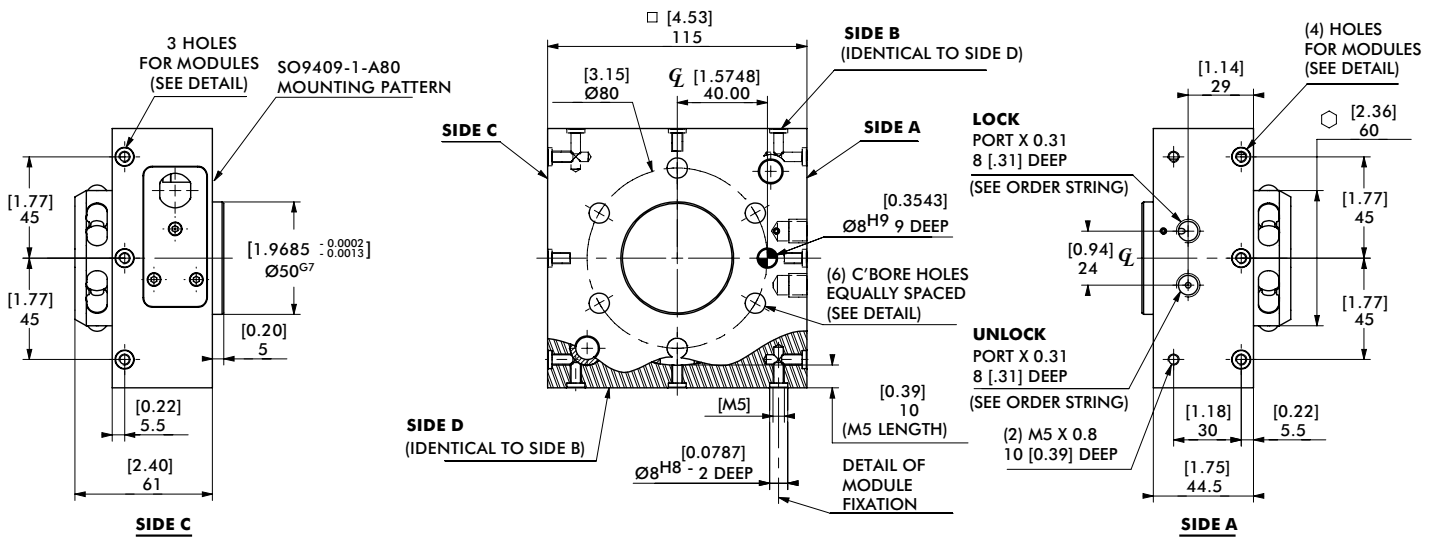
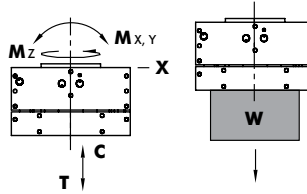
Displacement: 41.3 cm³ [2.52in³]

Loading Capacity:

Max. Tensile **T**: 1330 N [300 lb]

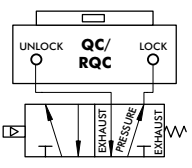
Max. Compressive **C**: 1780 N [400 lb]

Max. Moment (**M_x/M_y/M_z**): 810 Nm [7200 in-lb]



FAILSAFE OPERATION:

4-WAY VALVES WITH A SPRING RETURN ARE RECOMMENDED TO MAINTAIN AIR PRESSURE TO THE LOCK PORT DURING EMERGENCY STOP CONDITIONS.



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

⌀
DIMENSIONS ARE
SYMMETRICAL ABOUT
CENTERLINE

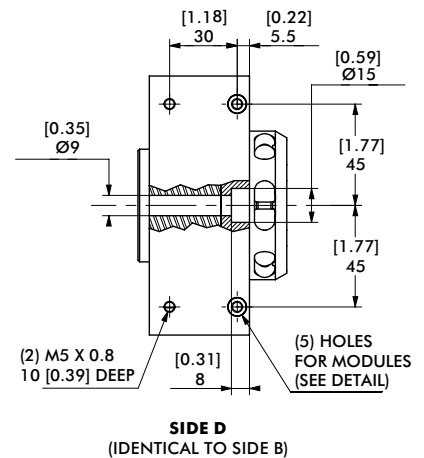
THIRD ANGLE
PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT).
LOCATIONAL TOLERANCE
±.0005" OR [±.013MM]

METRIC THREADS
COURSE PITCH

IMPERIAL ([IN.])
0.00 ±.01
0.000 ±.005
0.0000 ±.0005

METRIC (MM)
[0] = [±.25]
[0.0] = [±.13]
[0.00] = [±.013]



RTP-200 (TOOLING SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

Specification:

Max. Payload **W**: 180 Kg [400 lb]

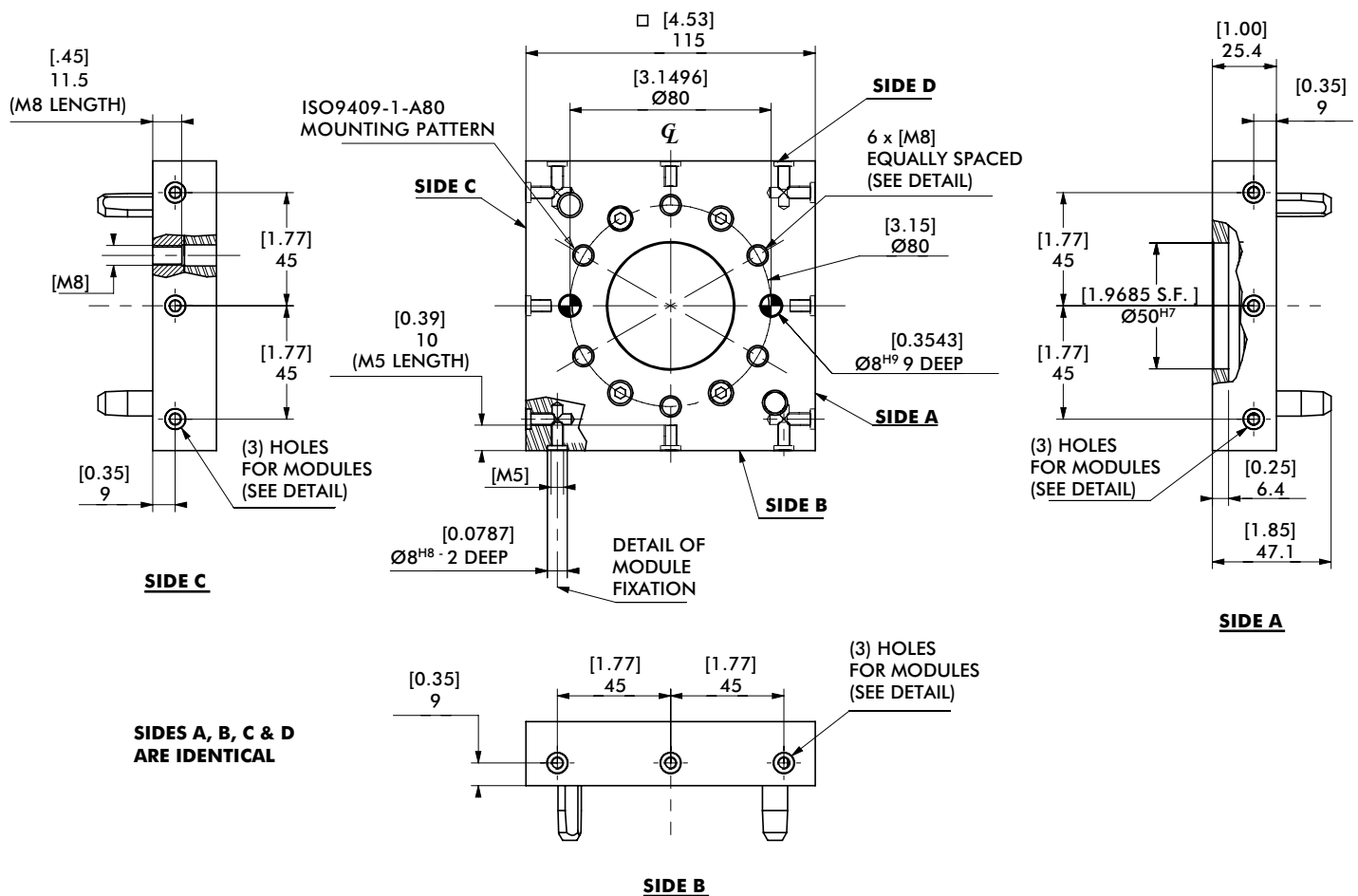
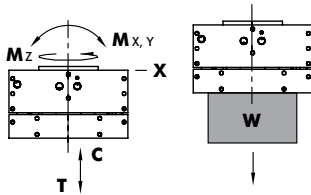
Weight: 1 Kg [2.2 lb]

Loading Capacity:

Max. Tensile **T**: 1330 N [300 lb]

Max. Compressive **C**: 1780 N [400 lb]

Max. Moment (**M_x/M_y/M_z**): 810 Nm [7200 in-lb]



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CENTERLINE

⊙
THIRD ANGLE
PROJECTION

⊙
ALL DOWEL HOLES ARE SF (SLIP FIT).
LOCATIONAL TOLERANCE
± .0005" OR [± .013MM]

⊙
METRIC THREADS
COURSE PITCH

IMPERIAL ([IN.])
0.00 = ± .01
0.000 = ± .005
0.0000 = ± .0005

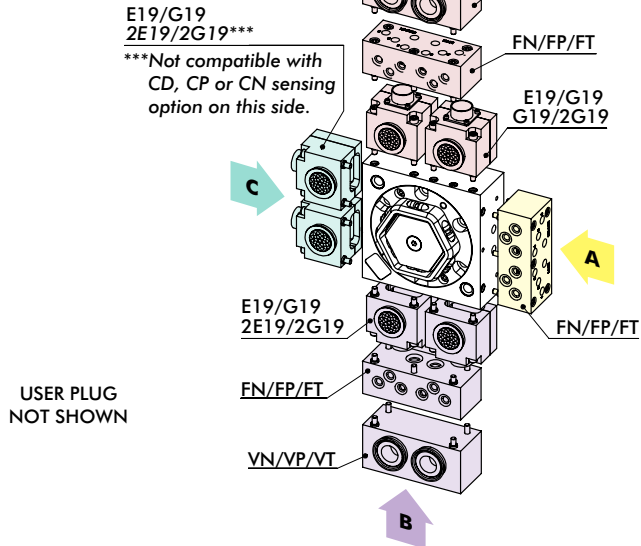
METRIC (MM)
[0] = [± .25]
[0.0] = [± .13]
[0.00] = [± .013]

RQC-400, 800, 1200/RTP-400, 800, 1200

Automatic Tool Changers | Module Usage Illustrations

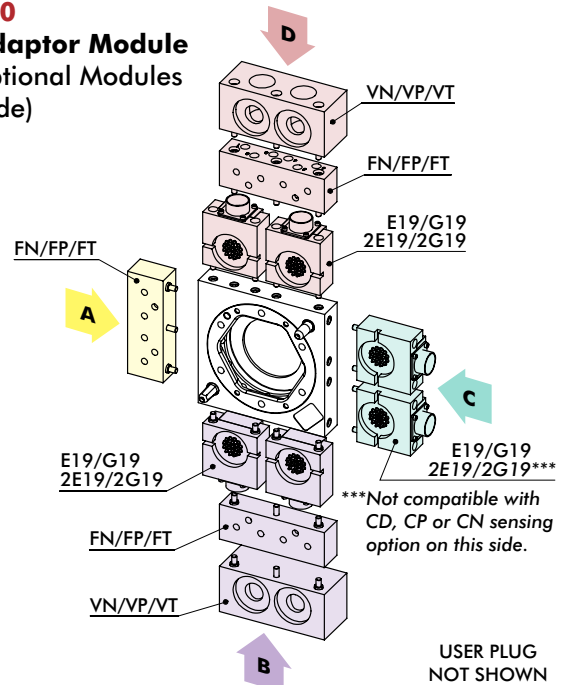
RQC-400

Robot Adaptor Module with Optional Modules (Robot Side)

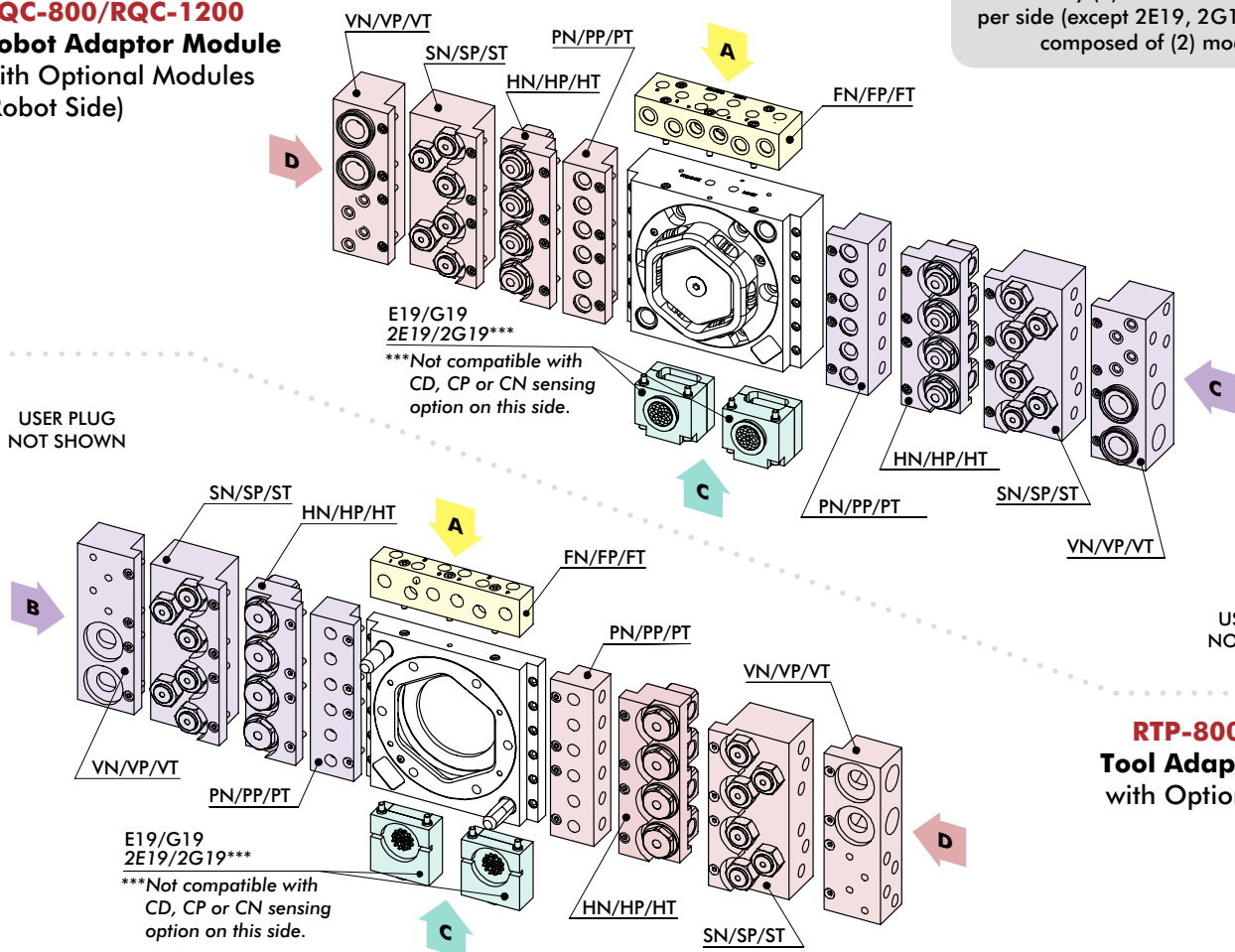


RTP-400

Tool Adaptor Module with Optional Modules (Tool Side)



RQC-800/RQC-1200 Robot Adaptor Module with Optional Modules (Robot Side)

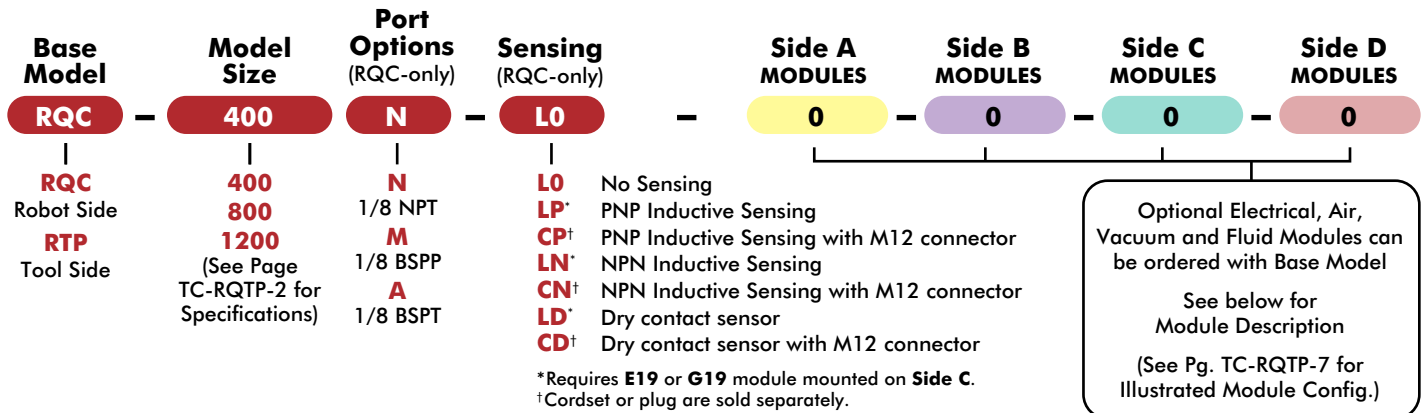


NOTE: Only (1) module can be mounted per side (except 2E19, 2G19 which are composed of (2) modules)

RTP-800/RTP-1200 Tool Adaptor Module with Optional Modules (Tool Side)

RQC-400, 800, 1200/RTP-400, 800, 1200

Automatic Tool Changers | Ordering Information



400	800/1200	Side A	Side B	Side C	Side D	Order Code	Optional Modules
•	•	•	•	•	•	0	No Module
	•			•		E19†	19 pin, 3 Amp, 48 VDC Module w/Turck M16 Conn, w/o Cordset
	•			•***		2E19†***	2X 19 pin, 3 Amp, 48 VDC Module w/Turck M16 Conn, w/o Cordset
	•			•		G19	19 pin, 5 Amp, 120 VDC Module w/Industrial User Conn., w/o Cable
	•			•***		2G19***	2X 19 pin, 5 Amp, 120 VDC Module w/Industrial User Conn., w/o Cable
•			•	•	•	E19†	19 pin, 3 Amp, 48 VDC Module w/Turck M16 Conn, w/o Cordset
•			•	•***	•	2E19†***	2X 19 pin, 3 Amp, 48 VDC Module w/Turck M16 Conn, w/o Cordset
•			•	•	•	G19	19 pin, 5 Amp, 120 VDC Module w/Industrial User Conn., w/o Cable
•			•	•***	•	2G19***	2X 19 pin, 5 Amp, 120 VDC Module w/Industrial User Conn., w/o Cable
•		•	•		•	FN	6X 1/8" NPT Air Ports Module, Face Seal, 10 Bar
•		•	•		•	FP	6X 1/8" BSPP Air Ports Module, Face Seal, 10 Bar
•		•	•		•	FT	6X 1/8" BSPT Air Ports Module, Face Seal, 10 Bar
	•	•	•		•	FN	6X 1/4" NPT Air Ports Module, Face Seal, 10 Bar
	•	•	•		•	FP	6X 1/4" BSPP Air Ports Module, Face Seal, 10 Bar
	•	•	•		•	FT	6X 1/4" BSPT Air Ports Module, Face Seal, 10 Bar
	•		•		•	PN	6X 1/4" NPT Air Ports Module, Face Seal, 10 Bar
	•		•		•	PP	6X 1/4" BSPP Air Ports Module, Face Seal, 10 Bar
	•		•		•	PT	6X 1/4" BSPT Air Ports Module, Face Seal, 10 Bar
	•		•		•	SN	6X 1/4" NPT Air Ports Module, Self Sealing, 10 Bar
	•		•		•	SP	6X 1/4" BSPP Air Ports Module, Self Sealing, 10 Bar
	•		•		•	ST	6X 1/4" BSPT Air Ports Module, Self Sealing, 10 Bar
•			•		•	VN	2X 3/4" Vacuum + 4 X 1/4" Air NPT Ports Module, Face Sealing
•			•		•	VP	2X 3/4" Vacuum + 4 X 1/4" Air BSPP Ports Module, Face Sealing
•			•		•	VT	2X 3/4" Vacuum + 4 X 1/4" Air BSPT Ports Module, Face Sealing
	•		•		•	HN	4X 3/8" NPT Fluid Ports Module, 100 Bar
	•		•		•	HP	4X 3/8" BSPP Fluid Ports Module, 100 Bar
	•		•		•	HT	4X 3/8" BSPT Fluid Ports Module, 100 Bar

†Cordset or plug are sold separately. ***Not compatible with CD, CP or CN sensing option on Side C.

NOTE: Only (1) module can be mounted per side. (Except 2E19 and 2G19, which are composed of (2) modules).
Modules usage is based on the size of the Base Model and which side the module can be mounted.

Electrical and pneumatic accessories are ordered separately.

Please note some electrical accessories can only be used with certain modules for either RQC or RTP "Base Models".

For pneumatic accessories, size of "Base Model" is considered.

ELECTRICAL ACCESSORIES

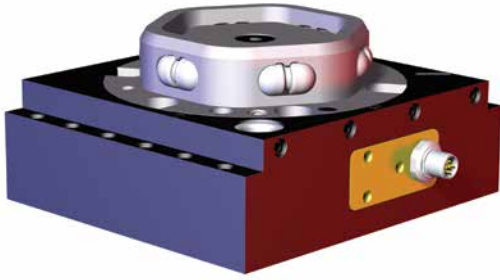
ELCT-048	90° Female Plug, w/o Cable, Solder Type, Cable Clamp for G19 (RQC Only)
ELCT-049	90° male Plug, w/o Cable, Solder Type, Cable Clamp for G19 (RTP Only)
CABL-028	90° Female M12 Cordset with 2M Cable for CP, CN, and CD (RQC Only)
CABL-029	90° Female Cordset with 4M Cable for E19 (RQC Only)
CABL-031	90° male Cordset with 2M Cable for E19 (RTP Only)
OSRK-004	PNP Inductive Sensor Repair Kit (RQC Only)
OSRK-005	NPN Inductive Sensor Repair Kit (RQC Only)
OSRK-006	Dry Contact Sensor Repair Kit (RQC Only)

PNEUMATIC ACCESSORIES

SLKT-402	RQC-400 Standard Seal Repair Kit
SLKT-403	RQC-800 Standard Seal Repair Kit
SLKT-404	RQC-1200 Standard Seal Repair Kit

RQC-400 (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions



Specification:

Max. Payload **W**: 180 Kg [400 lb]

Weight: 3.6 Kg [7.94 lb]

Cylinder Bore: Ø73mm [2.87in]

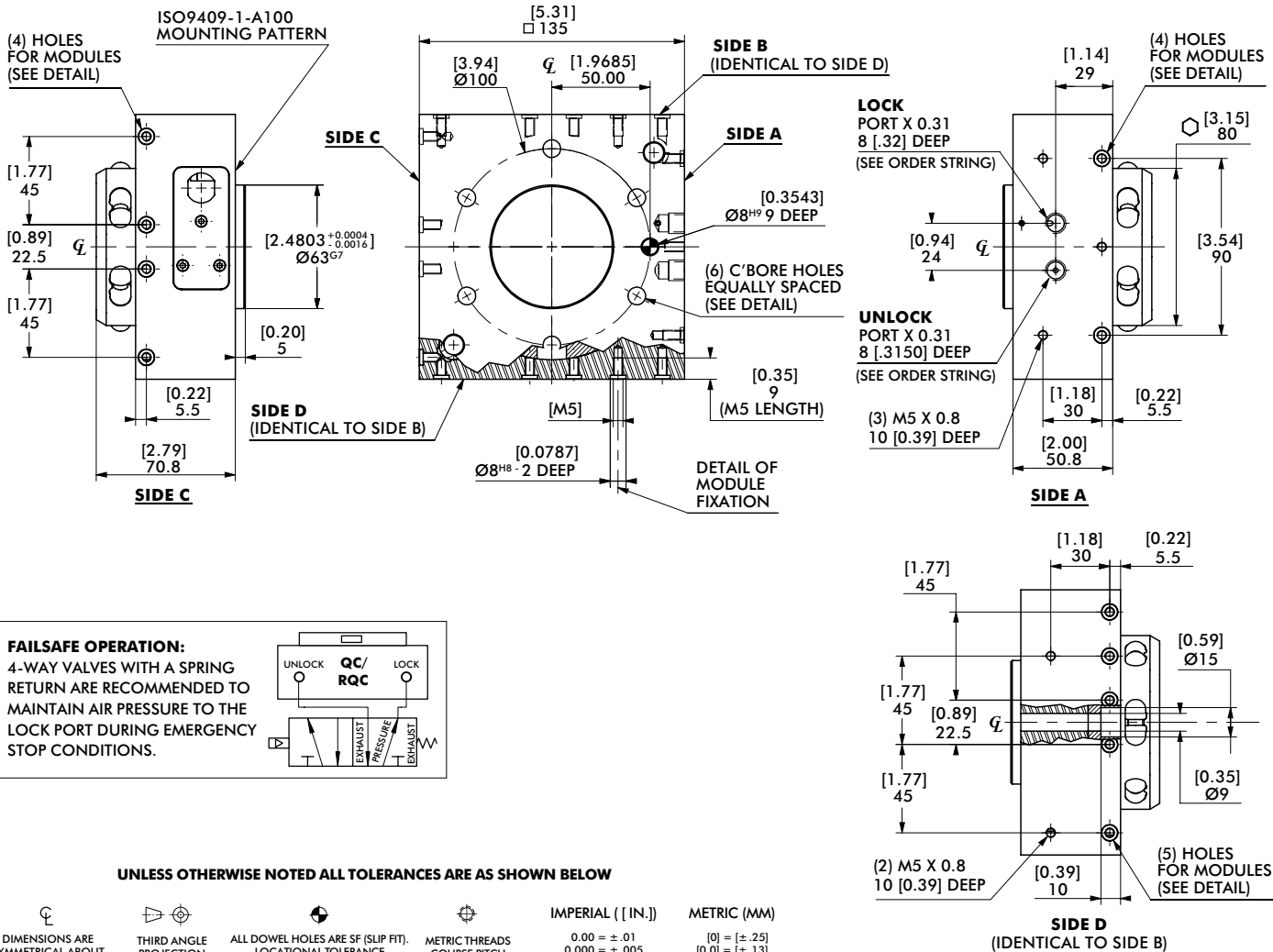
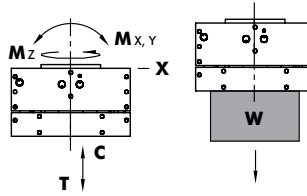
Displacement: 80.9 cm³ [4.93in³]

Loading Capacity:

Max. Tensile **T**: 2670 N [600 lb]

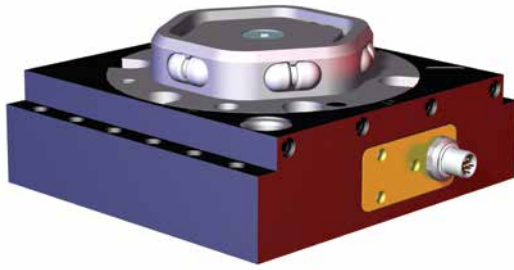
Max. Compressive **C**: 3560 N [800 lb]

Max. Moment (**M_x/M_y/M_z**): 1580 Nm [14000 in-lb]



RQC-800, RQC-1200 (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions



RQC-800 Specification:

Max. Payload **W**: 360 Kg [800 lb]
Weight: 5.3 Kg [11.68 lb]
Cyl. Bore: Ø80mm [3.15in]
Displacement: 95.6 cm³ [5.83in³]

Loading Capacity:

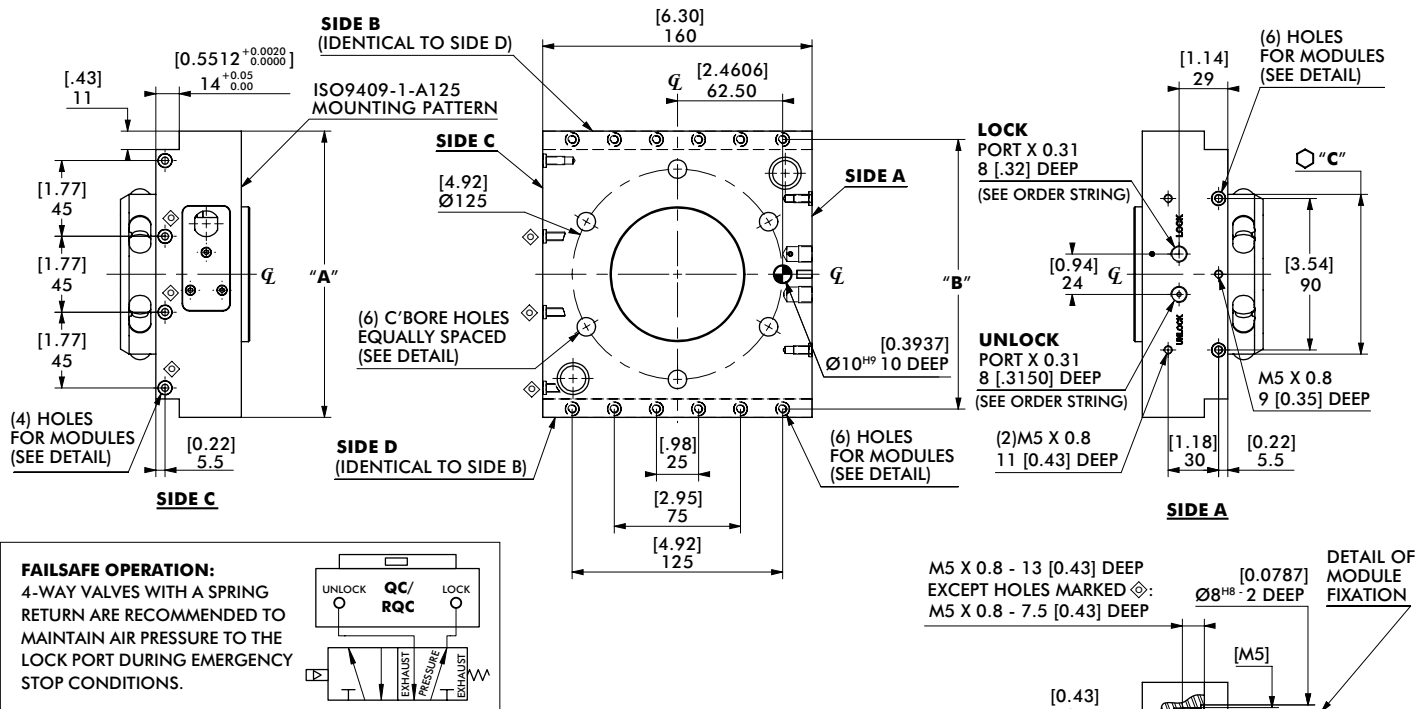
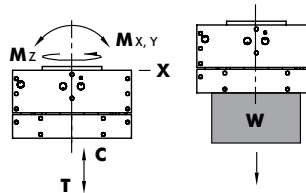
Max. Tensile **T**:
5340 N [1200 lb]
Max. Compressive **C**:
7120 N [1600 lb]
Max. Moment (**M_x/M_y/M_z**):
2490 Nm [22000 in-lb]

RQC-1200 Specification:

Max. Payload **W**: 550 Kg [1200 lb]
Weight: 6.4 Kg [14.11 lb]
Cyl. Bore: Ø95mm [3.74in]
Displacement: 153.7 cm³ [9.38in³]

Loading Capacity:

Max. Tensile **T**:
8000 N [1800 lb]
Max. Compressive **C**:
10700 N [2400 lb]
Max. Moment (**M_x/M_y/M_z**):
3390 Nm [30000 in-lb]



MODEL NUMBER	"A"	"B"	"C"	"D"	"E"	WEIGHT
RQC-800	[6.69] 170.0	[6.2992] 160.0	[3.73] 94.75	[2.00] 50.8	[2.82] 71.75	[11.8 lb] 6.3 kg
RQC-1200	[7.01] 178.0	[6.6142] 168.0	[4.08] 103.6	[2.25] 57.15	[3.31] 84.15	[14.1 lb] 6.4 kg

RTP-800, RTP-1200 (TOOLING SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

RTP-800 Specification:

Max. Payload **W**: 360 Kg [800 lb]
Weight: 1.8 Kg [3.97 lb]

Loading Capacity:

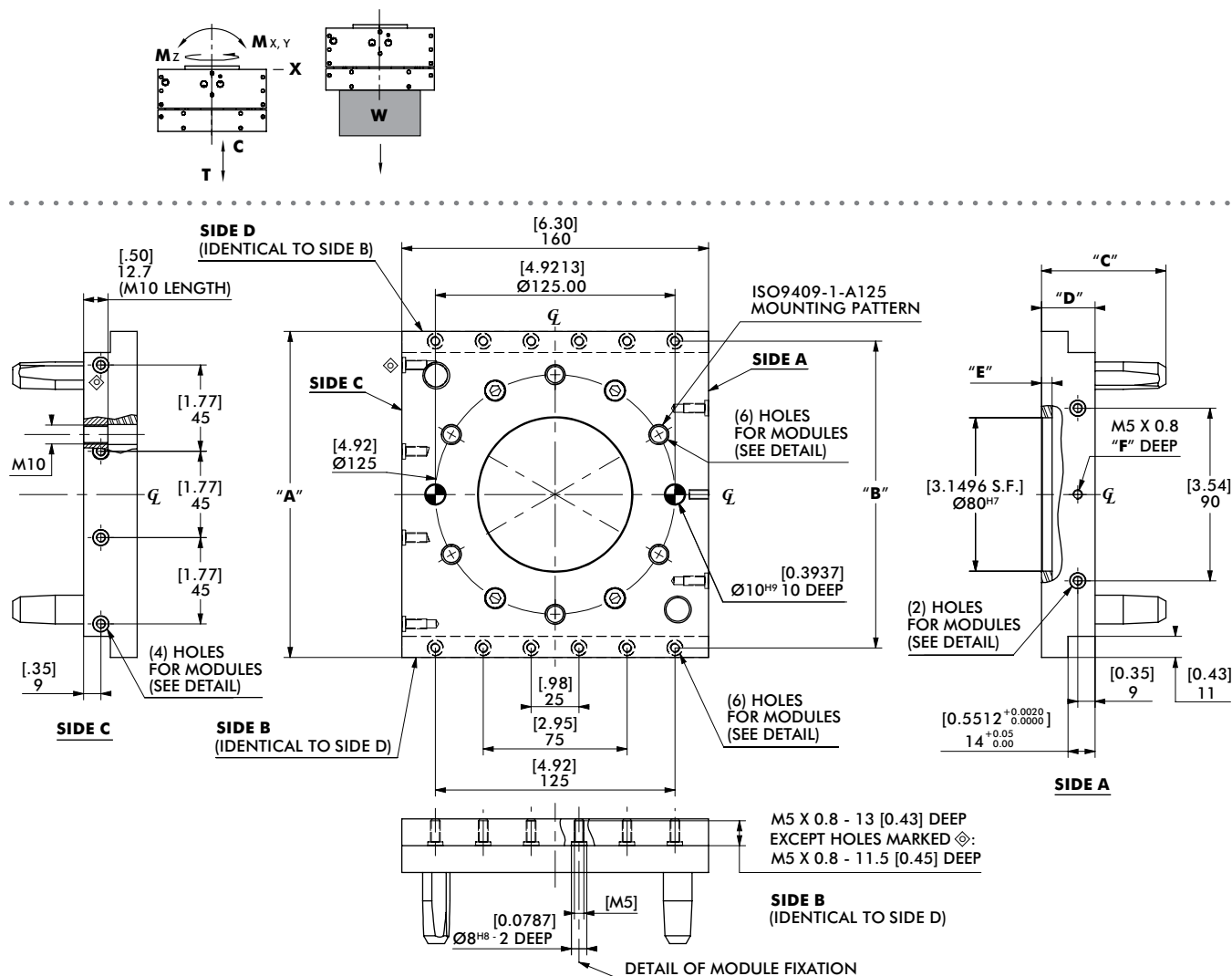
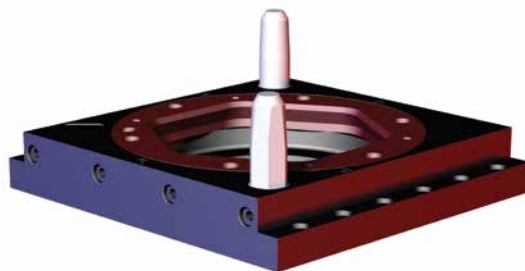
Max. Tensile **T**:
5340 N [1200 lb]
Max. Compressive **C**:
7120 N [1600 lb]
Max. Moment (**M_x/M_y/M_z**):
2490 Nm [22000 in-lb]

RTP-1200 Specification:

Max. Payload **W**: 550 Kg [1200 lb]
Weight: 1.9 Kg [4.19 lb]

Loading Capacity:

Max. Tensile **T**:
8000 N [1800 lb]
Max. Compressive **C**:
10700 N [2400 lb]
Max. Moment (**M_x/M_y/M_z**):
3390 Nm [30000 in-lb]



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SYMMETRICAL ABOUT
CENTERLINE

THIRD ANGLE
PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT).
LOCATIONAL TOLERANCE
±.0005" OR [±.013MM]

METRIC THREADS
COURSE PITCH

IMPERIAL ([IN.])
0.00 = ±.01
0.000 = ±.005
0.0000 = ±.0005

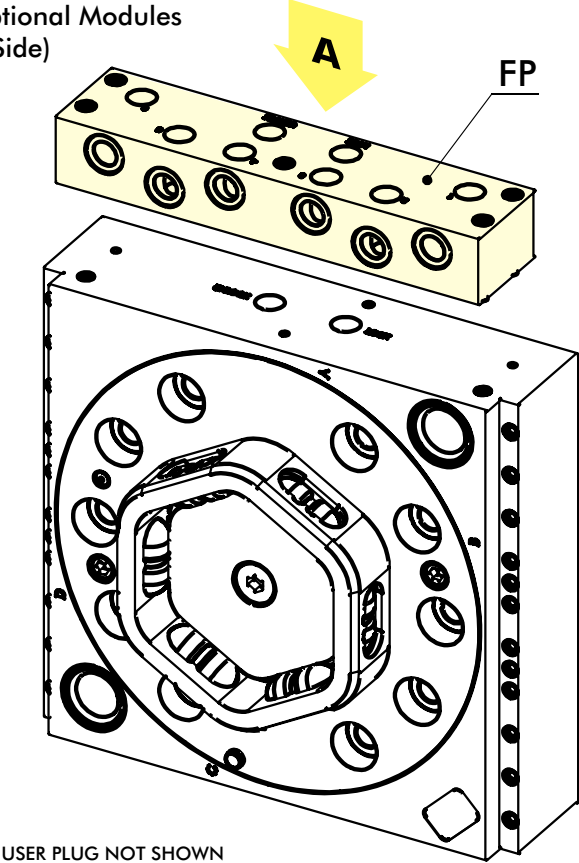
METRIC (MM)
[0] = [±.25]
[0.0] = [±.13]
[0.00] = [±.013]

MODEL NUMBER	"A"	"B"	"C"	"D"	"E"	"F"	WEIGHT
RTP-800	[6.69] 170.0	[6.2992] 160.0	[2.56] 64.94	[1.10] 27.94	[0.22] 5.5	[0.39] 10.0	[4.00 lb] 1.8 kg
RTP-1200	[7.01] 178	[6.6142] 168.0	[2.71] 68.75	[1.25] 31.75	[0.13] 3.25	[0.30] 7.5	[2.90 lb] 1.32 kg

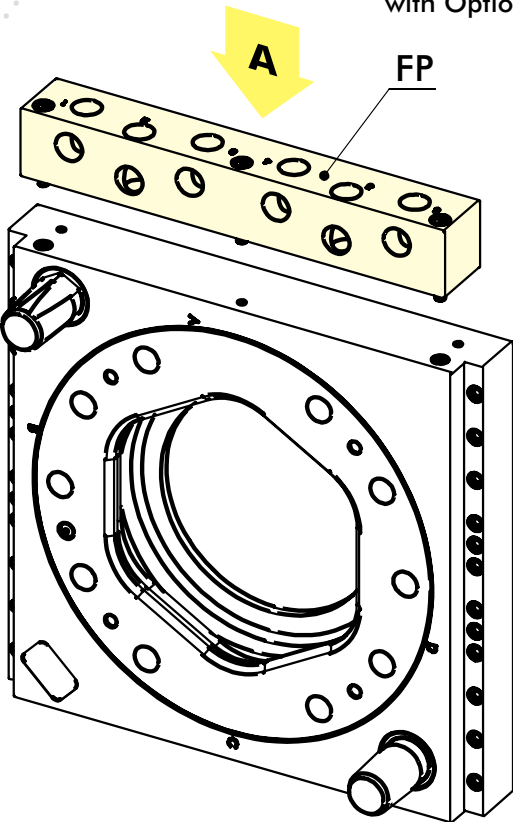
RQC-2400/RTP-2400

Automatic Tool Changers | Module Usage Illustrations

RQC-2400
Robot Adaptor Module
with Optional Modules
(Robot Side)



RTP-2400
Tool Adaptor Module
with Optional Modules
(Tool Side)



RQC-2400/RTP-2400

Automatic Tool Changers | Ordering Information

Base Model	Model Size	Port Options (RQC-only)	Sensing (RQC-only)	Side A MODULES
RQC RQC Robot Side RTP Tool Side	2400 2400 (See Page TC-RQTP-2 for Specifications)	N N 1/8 NPT M 1/8 BSPP A 1/8 BSPT	L0 L0 No Sensing LP PNP Inductive Sensing CP† PNP Inductive Sensing with M12 connector LN NPN Inductive Sensing CN† NPN Inductive Sensing with M12 connector LD Dry contact sensor CD† Dry contact sensor with M12 connector	0

†Cordset or plug are sold separately.

Optional Air Modules can be ordered with Base Model
See below for Module Description
(See Pg. TC-RQTP-13 for Illustrated Module Config.)

Side A	Order Code	Optional Modules
●	0	No Module
●	FP	6X 1/8" BSPP Air Ports Module, Face Seal, 10 Bar

Electrical and pneumatic accessories are ordered separately.

Please note some electrical accessories can only be used with certain modules for either **RQC** or **RTP** "Base Models".

For pneumatic accessories, size of "Base Model" is considered.

ELECTRICAL ACCESSORIES

ELCT-048	90° Female Plug, w/o Cable, Solder Type, Cable Clamp for G19 (RQC Only)
ELCT-049	90° male Plug, w/o Cable, Solder Type, Cable Clamp for G19 (RTP Only)
CABL-028	90° Female M12 Cordset with 2M Cable for CP, CN, and CD (RQC Only)
CABL-029	90° Female Cordset with 4M Cable for E19 (RQC Only)
CABL-031	90° male Cordset with 2M Cable for E19 (RTP Only)
OSRK-004	PNP Inductive Sensor Repair Kit (RQC Only)
OSRK-005	NPN Inductive Sensor Repair Kit (RQC Only)
OSRK-006	Dry Contact Sensor Repair Kit (RQC Only)

PNEUMATIC ACCESSORIES

SLKT-XXX	RQC-2400 Standard Seal Repair Kit
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Automatic Tool Changers | Technical Specifications | Dimensions



Max. Payload W: 1089Kg [2400 lb]

Cyl. Bore: Ø80mm [3.15in]

Displacement: XXXcm³ [XXXin³]

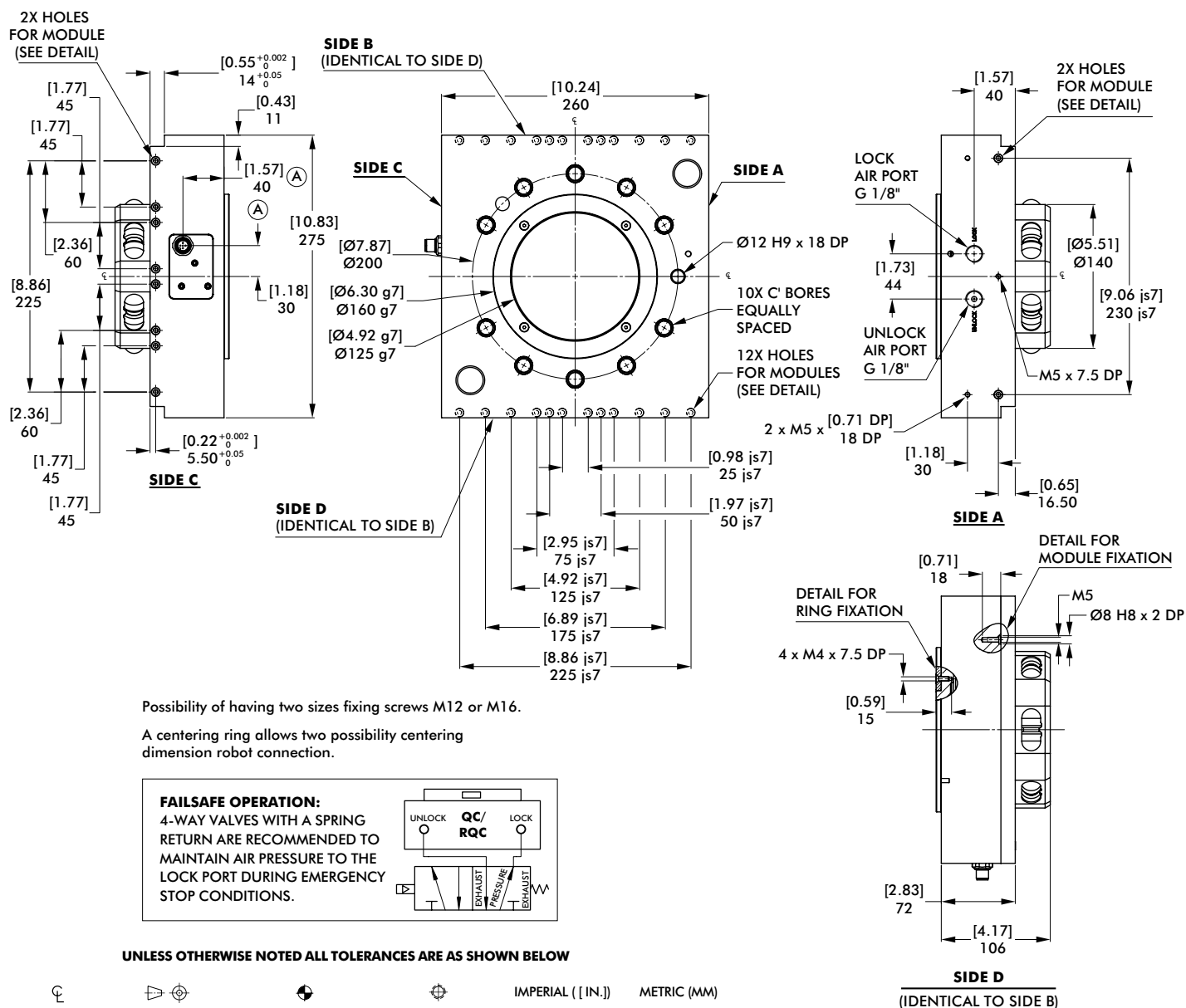
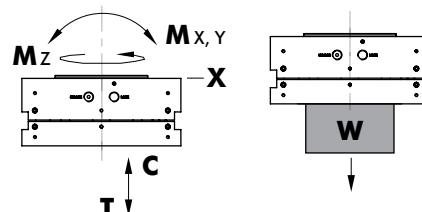
Max. Tensile **T**:

16000 N [3597 lb]

Max. Compressive **C**:

22000 N [4946 lb]

Max. Moment ($M_x/M_y/M_z$):
7000 Nm [91955 in-lb]



RTP-2400 (TOOLING SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

RTP-2400 Specification:

Max. Payload **W**: 1089Kg [2400 lb]

Weight: 8 Kg [17.64 lb]

Loading Capacity:

Max. Tensile **T**:

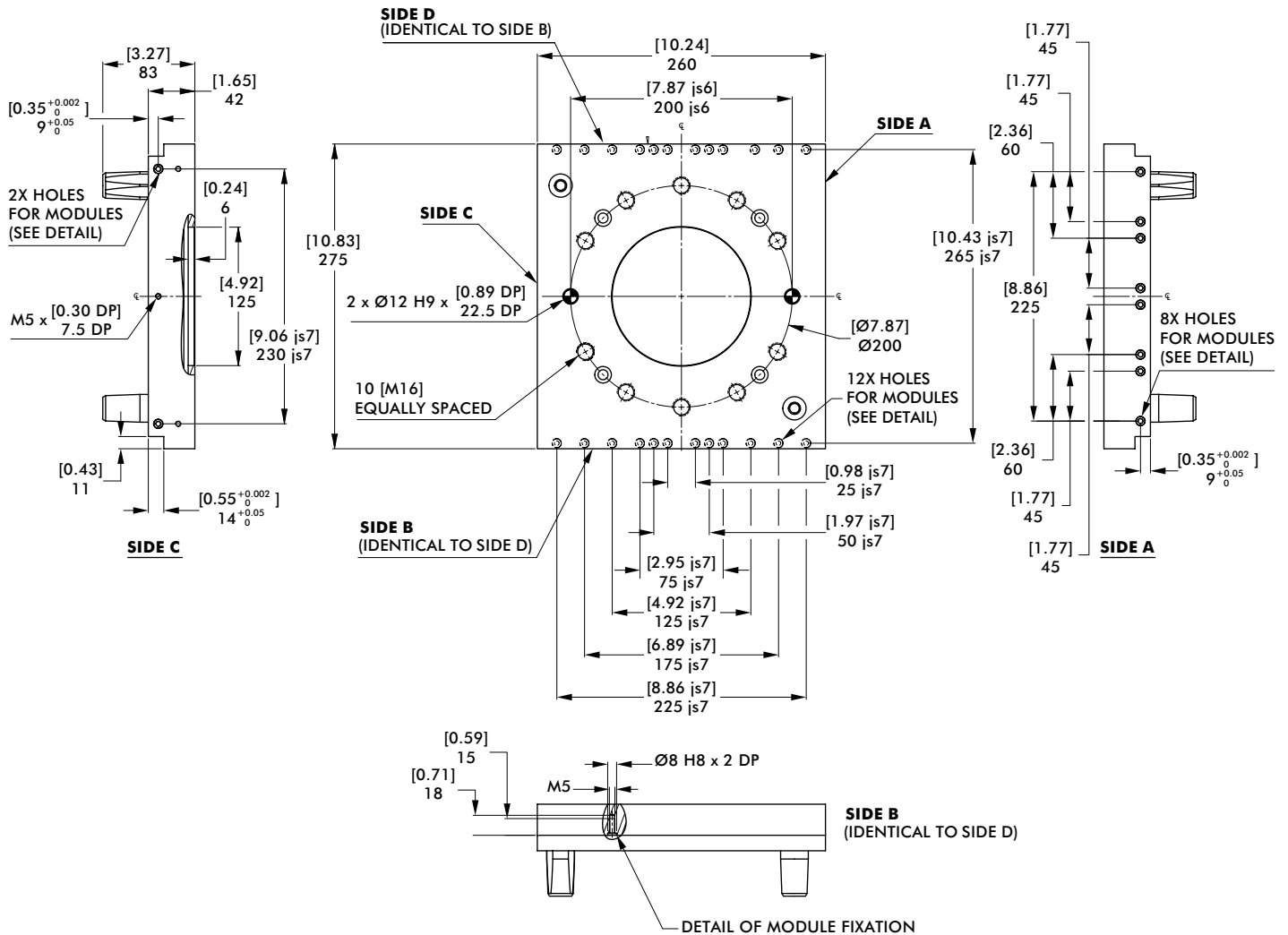
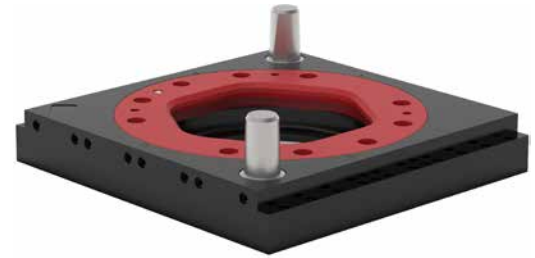
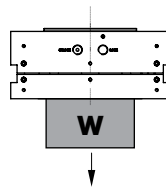
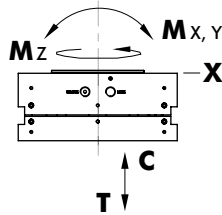
16000 N [3597 lb]

Max. Compressive **C**:

22000 N [4946 lb]

Max. Moment (**M_x/M_y/M_z**):

7000 Nm [91955 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT).
LOCATIONAL TOLERANCE
±.0005" OR ±.013MM

METRIC THREADS
COURSE PITCH

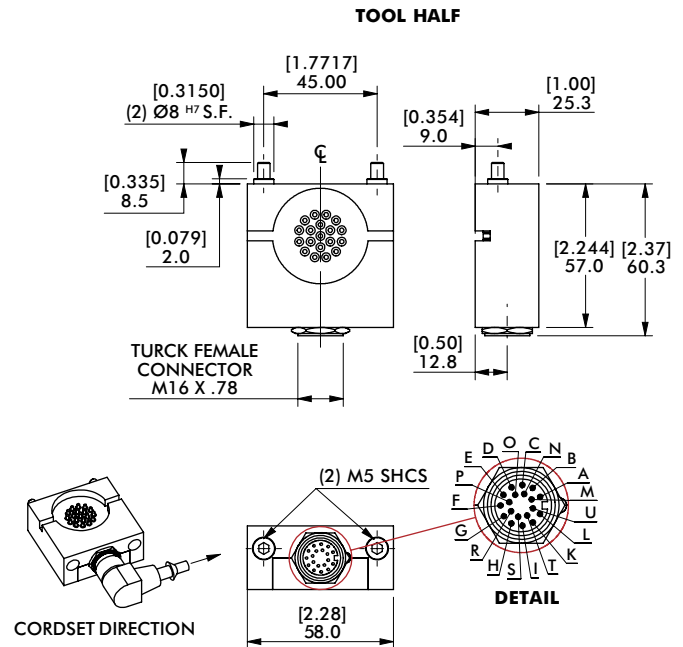
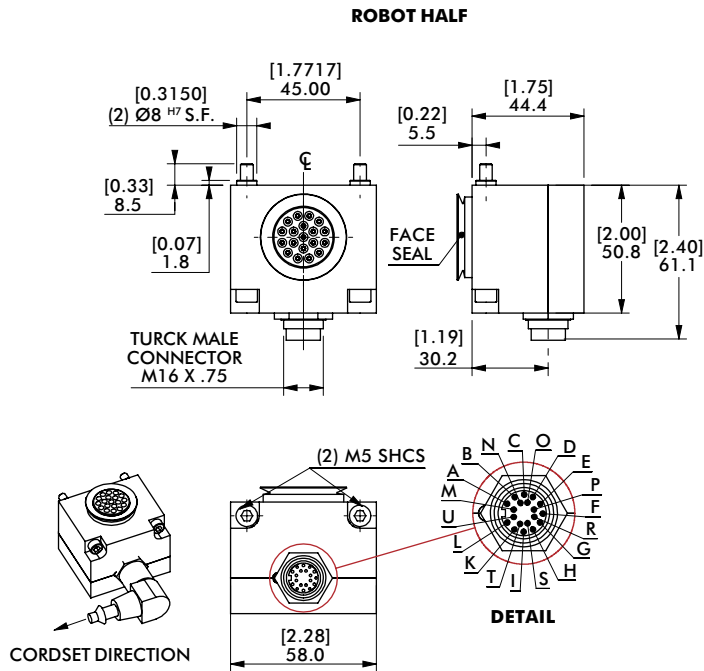
IMPERIAL ([IN.])
0.00 = ± .01
0.000 = ± .005
0.0000 = ± .0005

METRIC (MM)
[0] = [± .25]
[0.0] = [± .13]
[0.00] = [± .013]

RQC/RTP SERIES

Automatic Tool Changers | Technical Specifications | Dimensions

19 Pin Module 3 Amp - 48 VDC

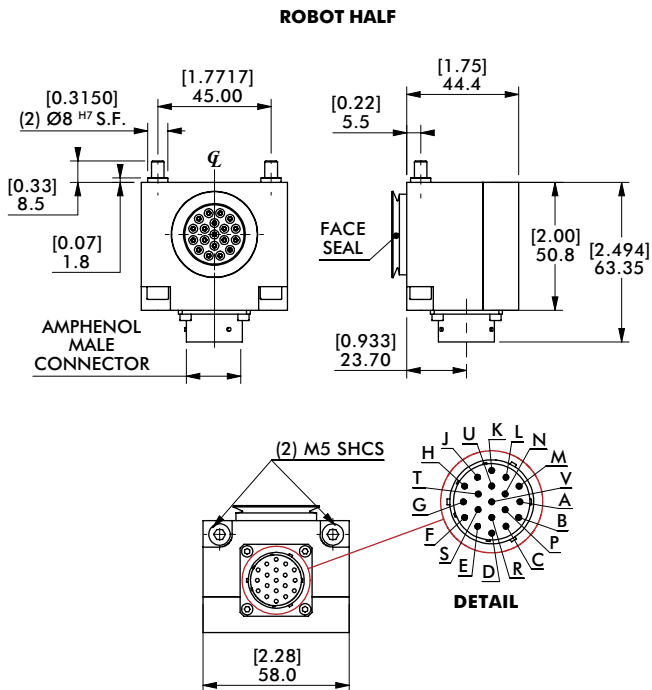


MODULE REPLACEMENT **ROBOT SIDE**
E19 **KE19-RQC**

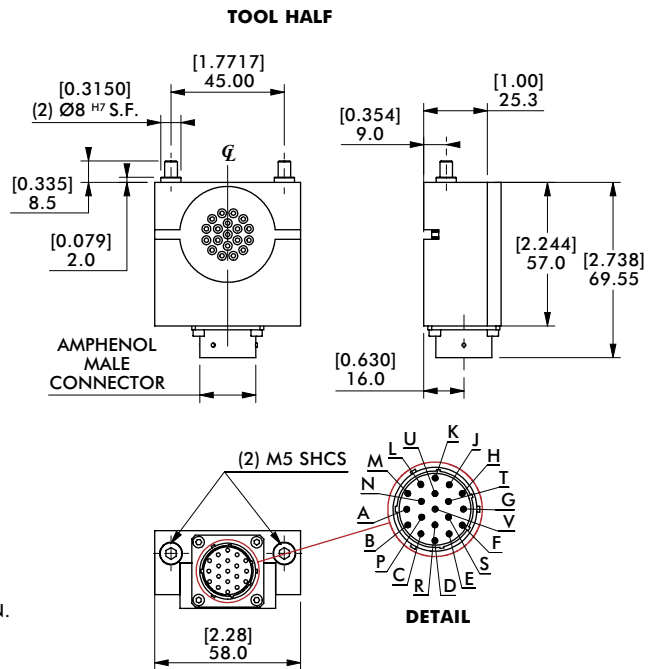
Module kits above include:
90° Plug Support (without cable),
indexing sleeves and hardware.

MODULE REPLACEMENT **TOOL SIDE**
E19 **KE19-RTP**

19 Pin Module 5 Amp - 120 VDC



USER
90°
PLUG
NOT
SHOWN.



MODULE REPLACEMENT **ROBOT SIDE**
G19 **KG19-RQC**

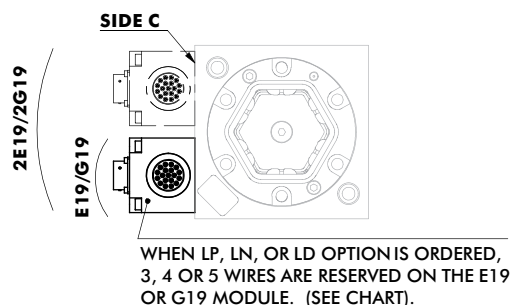
Module kits above include:
90° Plug support (without cable),
indexing sleeves and hardware.

MODULE REPLACEMENT **TOOL SIDE**
G19 **KG19-RTP**

RQC/RTP SERIES

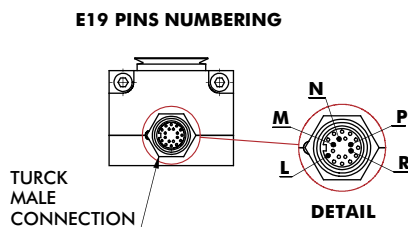
Automatic Tool Changers | Technical Specifications | Dimensions

Modules Connecting with Latch/Unlatch Sensors

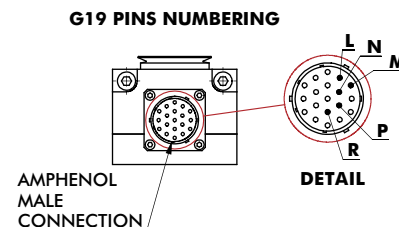


Reserved Pin Numbers on E19/G19		
Sensor/Switch	RQC 200 & 400	RQC 800 & 1200
LP or LN (Inductive)	R: + 10 - 30 VDC	R: + 10 - 30 VDC
	L: Common	L: Common
	M: Lock	M: Lock
	N: Unlock	N: Unlock
LD (Dry Contact)	R: + 10 - 30 VDC	R: + 10 - 30 VDC
	L: Common	L: Common
	M: Lock	M: Lock
	N: Unlock	N: Unlock

Pin Numbering

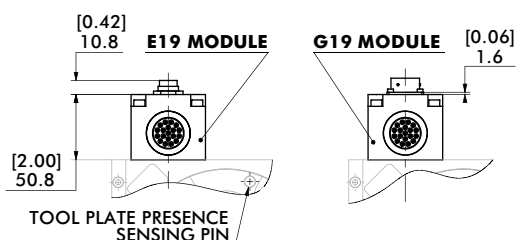
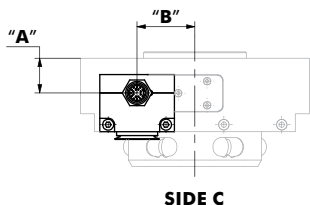


Wire Color on CABL-029 Cordset	
Contact	Wire Color
R	Red
L	Brown
M	Orange
N	Grey/Brown
P	White



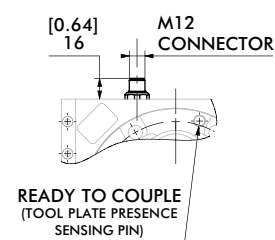
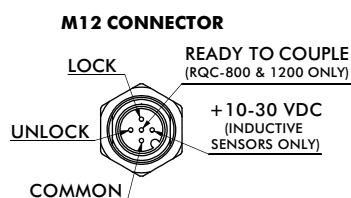
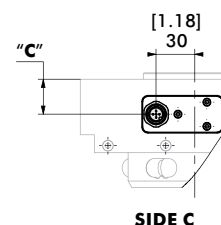
Lock/Unlock Tool Plate Presence Sensing Options (with inductive Sensors and Dry Contact Switches)

SENSING ACCESSORIES LP, LN, OR LD USING 19 PINS MODULES E19 OR G19 (REQUIRES 3, 4, OR 5 OF THE 19 PINS) (AS SHOWN ABOVE)



MODEL	"A"	"B"	"C"
RQC-200	[0.563] 14.3	[0.886] 22.5	[0.652] 16.55
RQC-400	[0.811] 20.6	[1.329] 33.7	[0.685] 17.4
RQC-800	[0.811] 20.6	[1.772] 45.0	[0.821] 20.8
RQC-1200	[1.061] 26.9	[1.772] 45.0	[1.071] 27.2

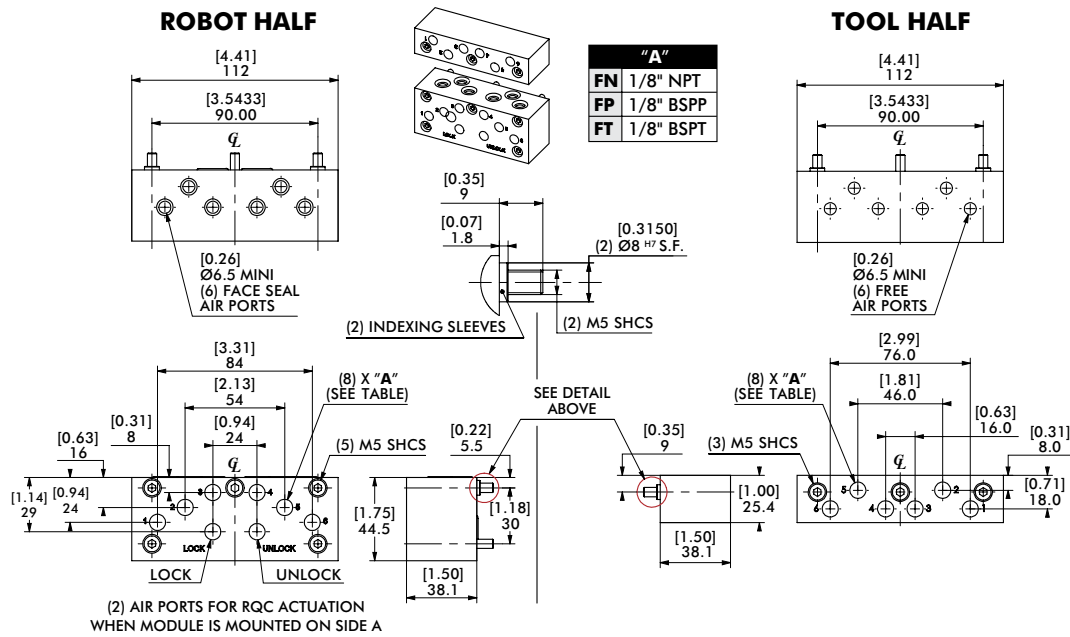
SENSING ACCESSORIES CP, CN, OR CD BY M12 CONNECTOR (3, 4, OR 5 PINS) (SEE BELOW)



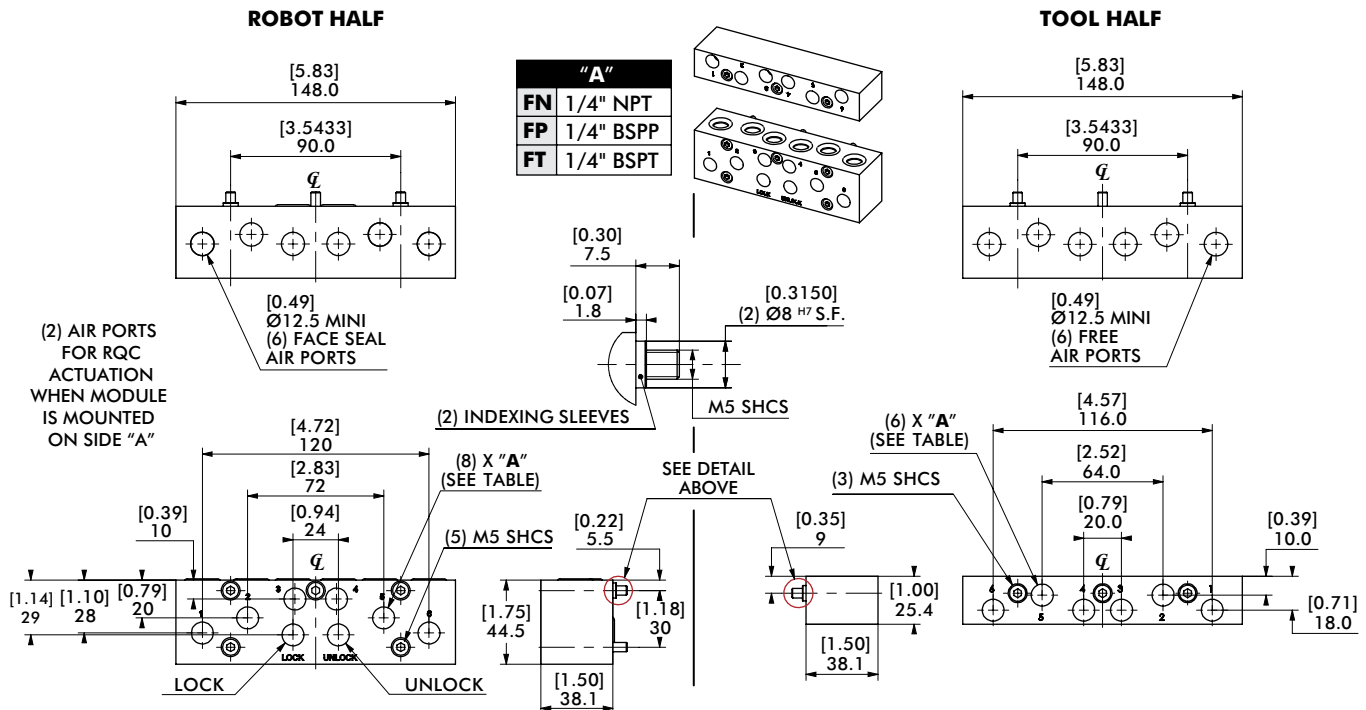
RQC/RTP SERIES

Automatic Tool Changers | Technical Specifications | Dimensions

6 x 1/8" Air Ports Module | Face Seal (for RQC/RTP-200 & RQC/RTP-400)



6 x 1/4" Air Ports Module | Face Seal (for RQC/RTP-800 & RQC/RTP-1200)

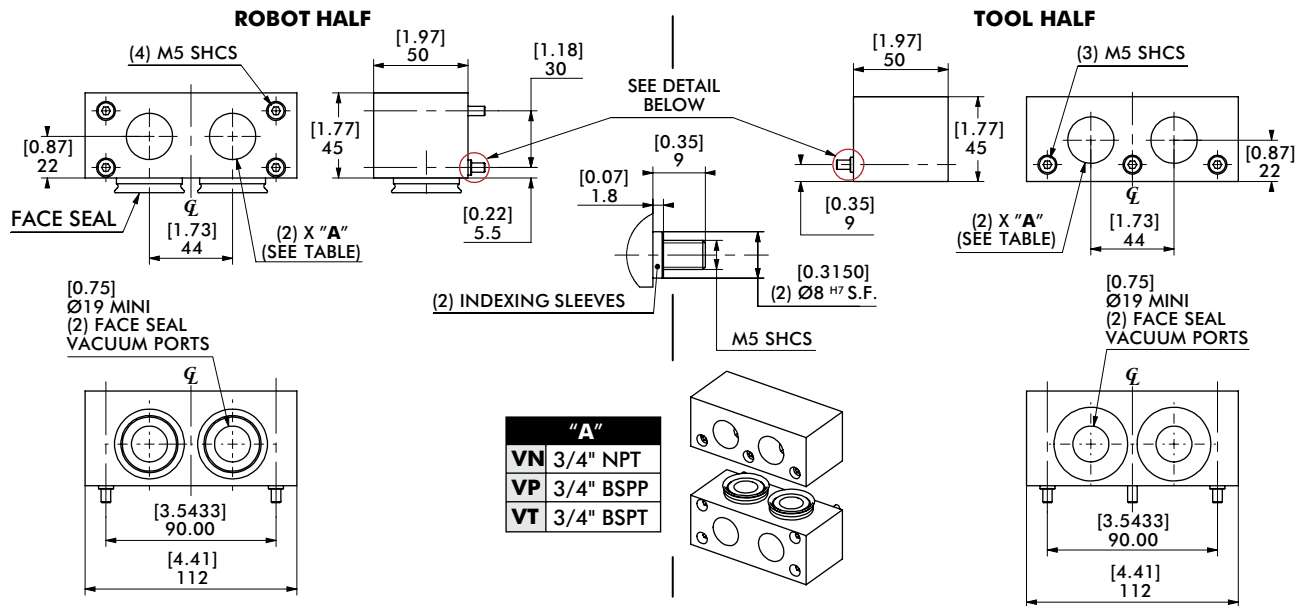


MODULE REPLACEMENT	FOR RQC-200/400	FOR RQC 800/1200
FN	KFN-RQC200	KFN-RQC800
FP	KFP-RQC200	KFP-RQC800
FT	KFT-RQC200	KFT-RQC800

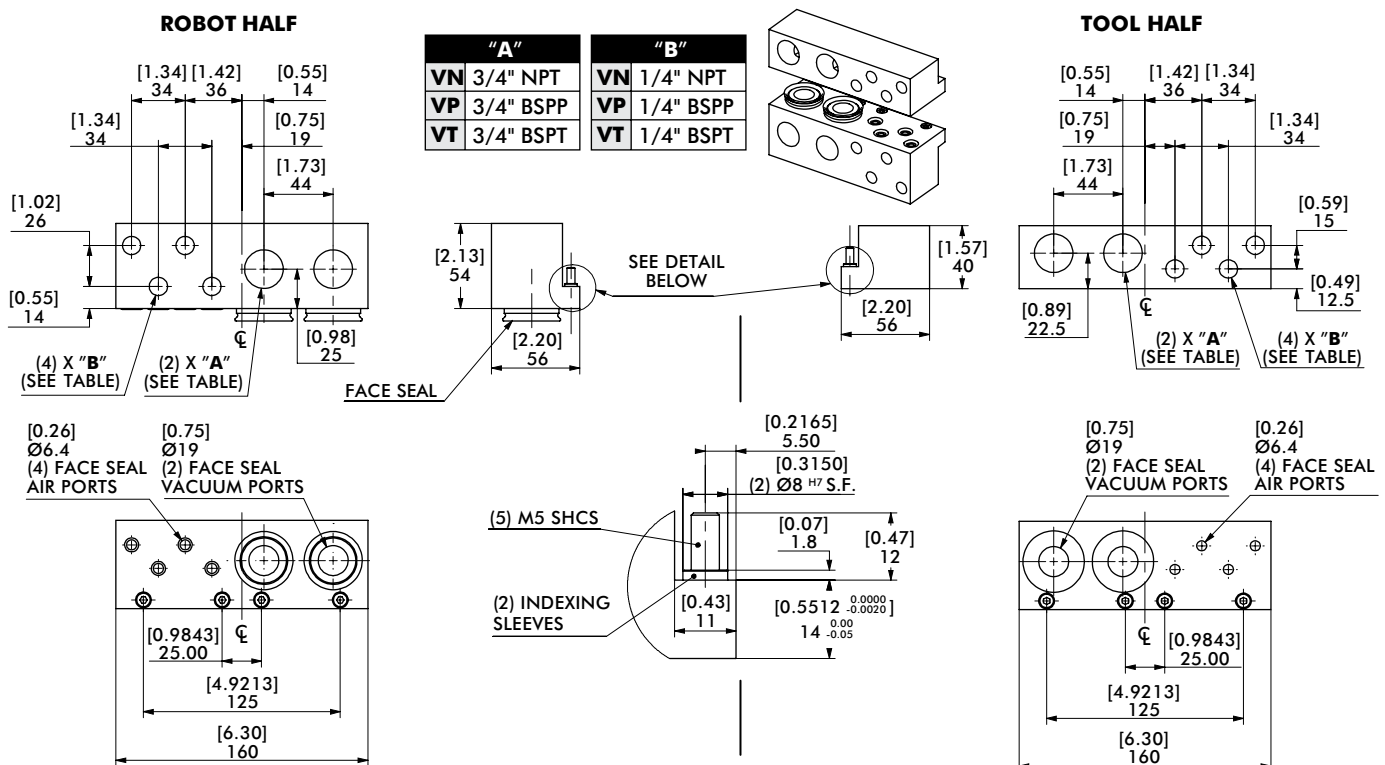
MODULE REPLACEMENT	FOR RTP-200/400	FOR RTP 800/1200
FN	KFN-RTP200	KFN-RTP800
FP	KFP-RTP200	KFP-RTP800
FT	KFT-RTP200	KFT-RTP800

Module kits above include: Couplings, indexing sleeves and hardware.

2 x 3/4" Vacuum Ports Module | Face Seal (for RQC/RTP-200 & RQC/RTP-400)



2 x 3/4" Vacuum Ports Module | Face Seal (for RQC/RTP-800 & RQC/RTP-1200)



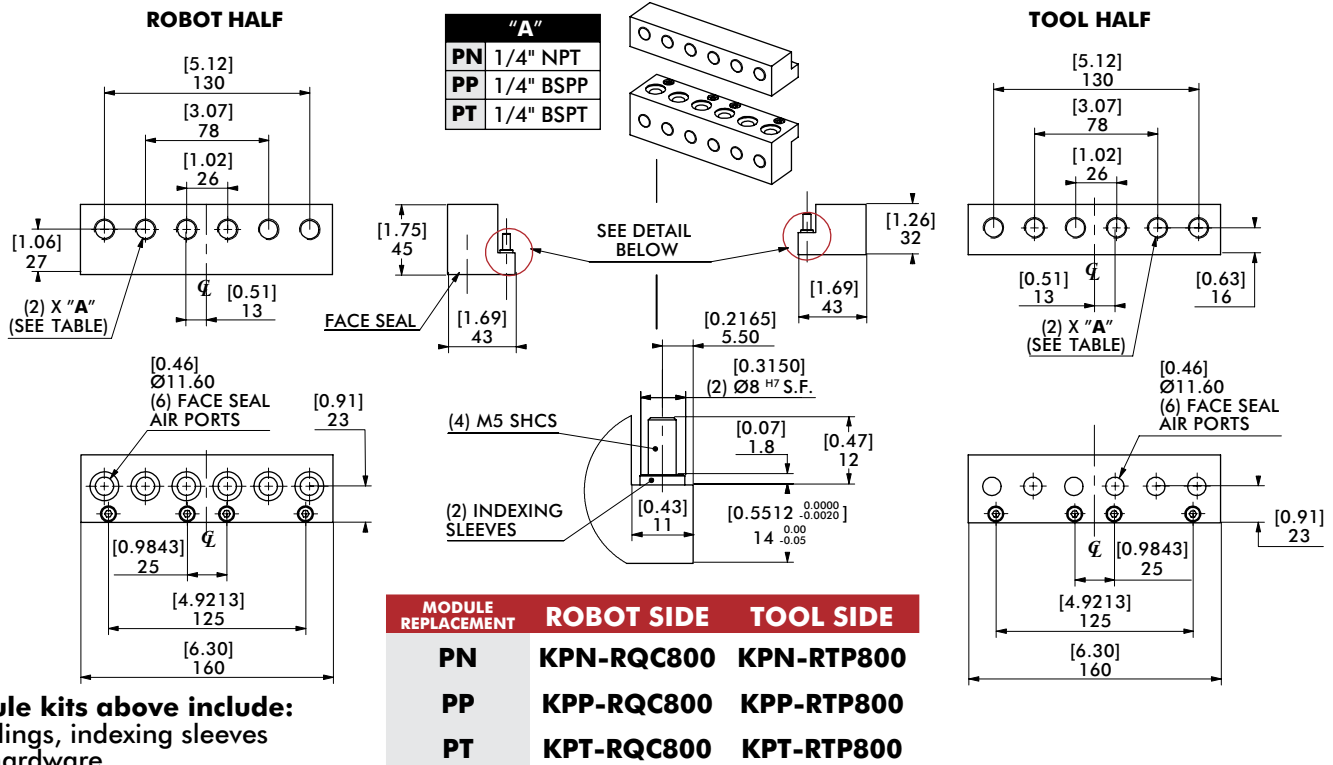
MODULE REPLACEMENT	FOR RQC-200/400	FOR RQC 800/1200	MODULE REPLACEMENT	FOR RTP-200/400	FOR RTP 800/1200
VN	KVN-RQC200	KVN-RQC800	VN	KVN-RTP200	KVN-RTP800
VP	KVP-RQC200	KVP-RQC800	VP	KVP-RTP200	KVP-RTP800
VT	KVT-RQC200	KVT-RQC800	VT	KVT-RTP200	KVT-RTP800

Module kits above include: Couplings, indexing sleeves and hardware.

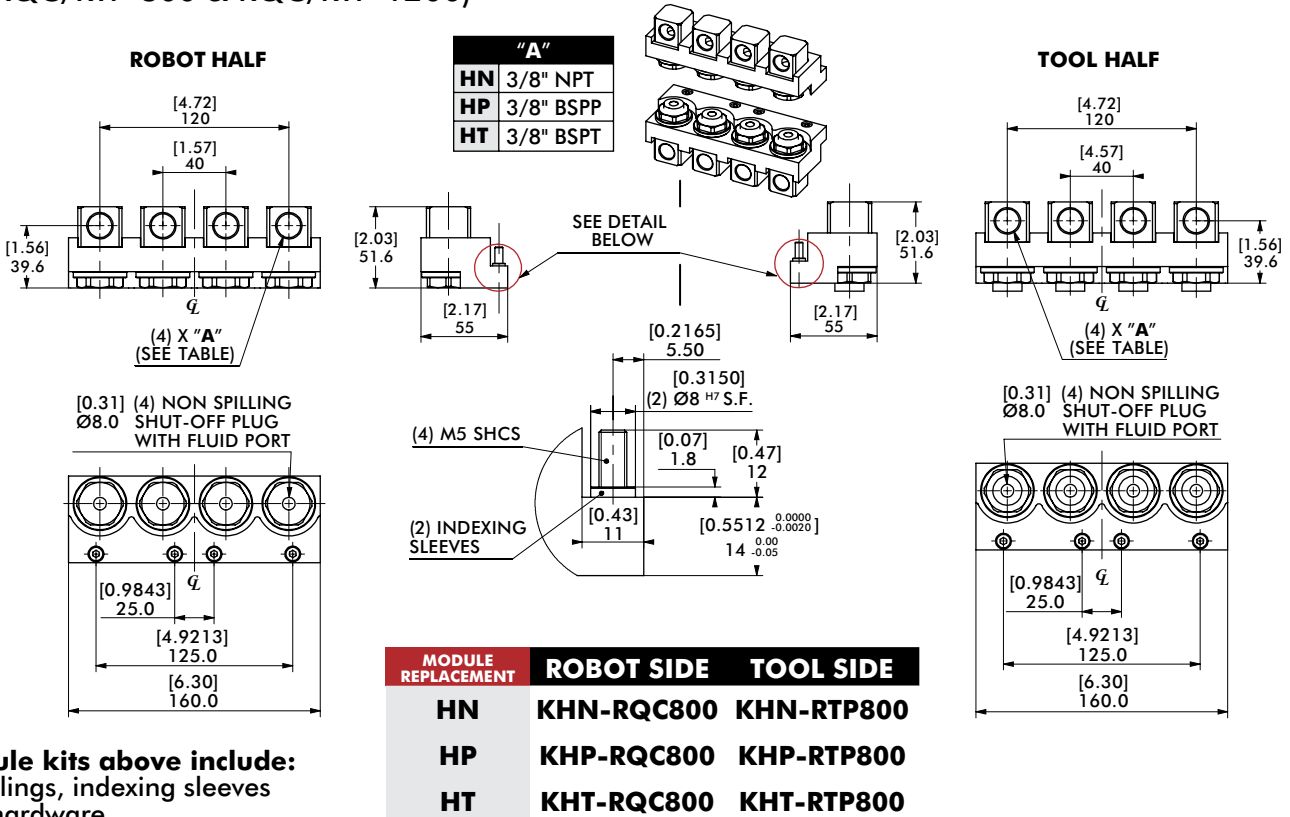
RQC/RTP SERIES

Automatic Tool Changers | Technical Specifications | Dimensions

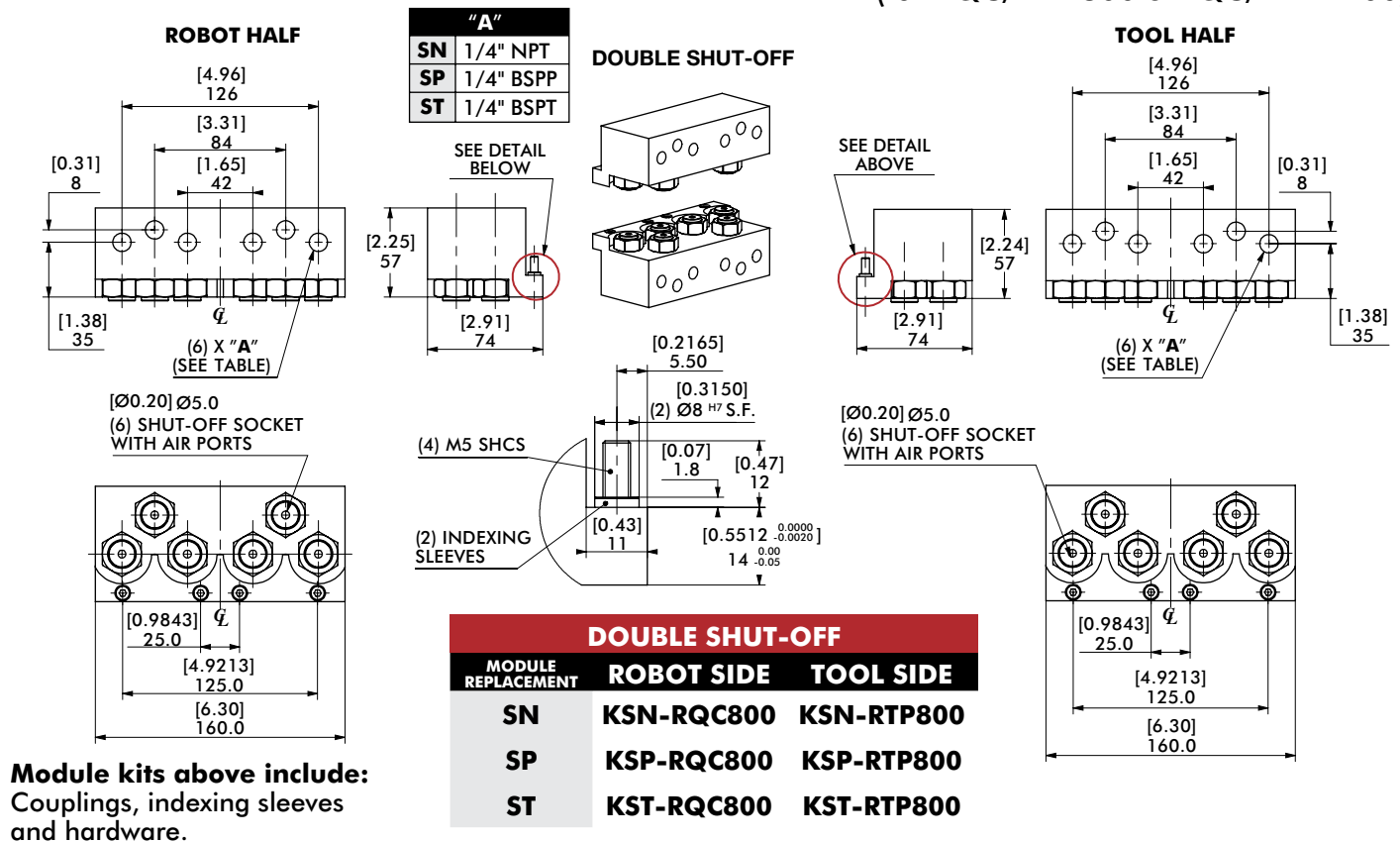
6 x 1/4" Air Ports Module | Face Seal (for RQC/RTP-800 & RQC/RTP-1200)



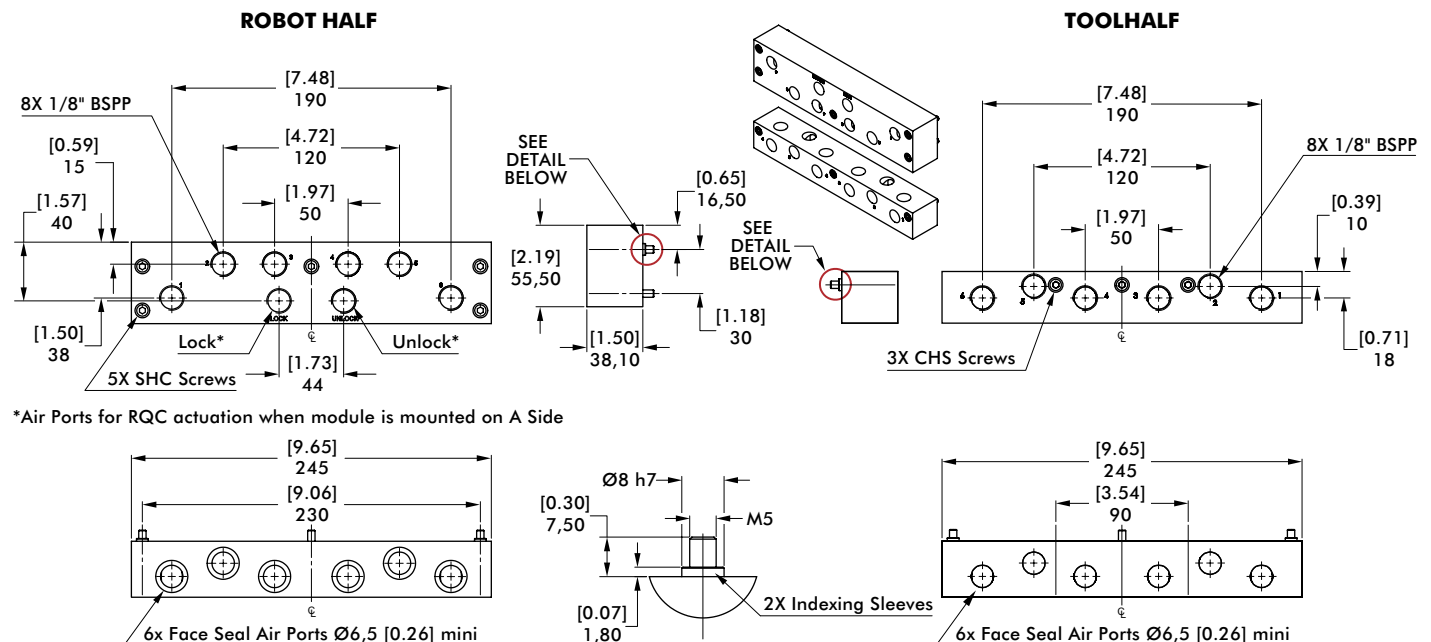
4 x 3/8" Fluid Ports Module | Non Spilling | Double Shut-Off (for RQC/RTP-800 & RQC/RTP-1200)



6 x 1/4" Air Ports Module | Double Shut-Off Flat Face (SN/SP/ST) (for RQC/RTP-800 & RQC/RTP-1200)



8 x 1/8" Air Ports Module | Face Seal (FN) (for RQC/RTP-2400)



*Air Ports for RQC actuation when module is mounted on A Side

Module kits above include:
Couplings, indexing sleeves and hardware.

MODULE REPLACEMENT	ROBOT SIDE	TOOL SIDE
FN	KPN-RQC2400	KPN-RTP2400

QC/TP SERIES

Automatic Tool Changers | Features and Benefits

Failsafe Operation

Failsafe locking spring keeps units coupled in the event of pressure loss

Durable Components

Locking components are made from hardened bearing & tool steels

Self Lubricating Seals

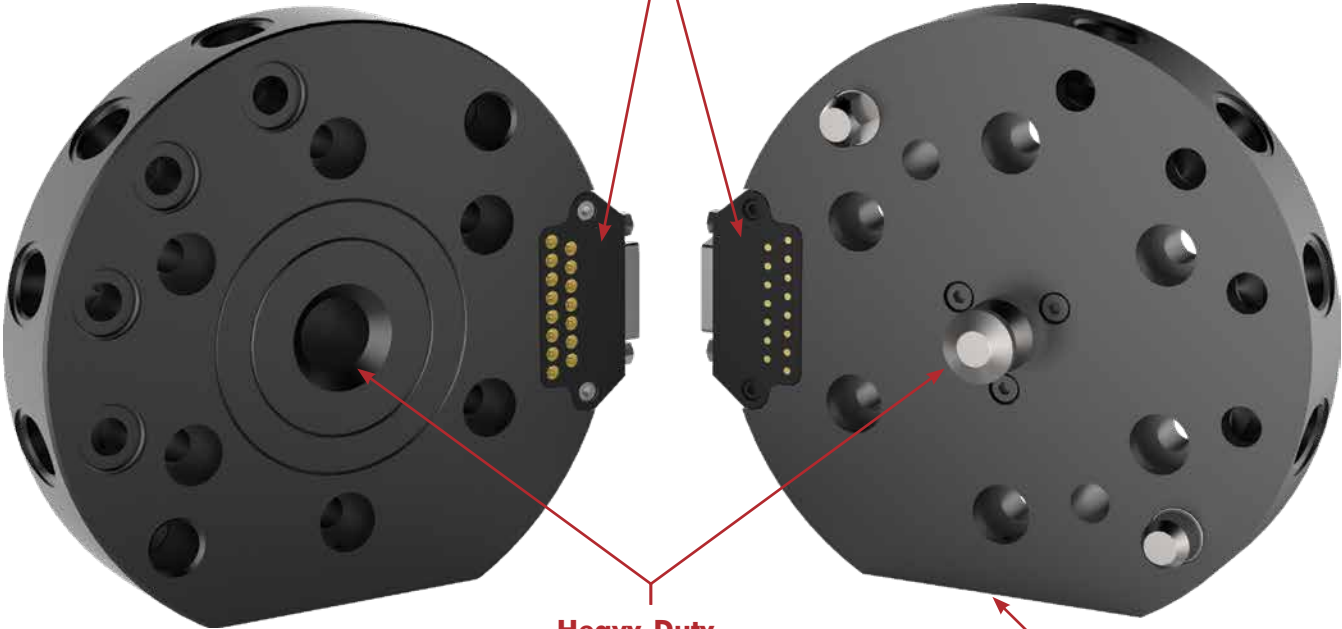
Self lubricating dynamic seals

Offboard I/O Block

with heavy-duty pins offer reliable contact points

Robot Side

Tool Side



Switches for Couple/Uncouple/Ready-to-Couple
Switch for latch (size 150 only)

Heavy-Duty Locking Mechanism

Improved rigidity for heavy-duty and in-process changing

Module Mounting Surface
Flat for optional pneumatic, fluid or electric module (See Page TC-QCTP-13)

Mounting Information



Robot Half Adaptor
has counterbored holes for mounting and two dowel pins for hole location (size 30 has pilot boss)

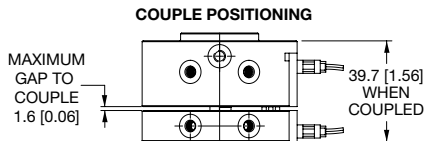


Tool Half Adaptor
has counterbored holes for mounting and two dowel pins for hole location (size 30 has pilot boss)

QC/TP SERIES

Automatic Tool Changers | Technical Information

Combined Weight: 0.34 Kg [0.75 lbs]
Max. Payload: 13.6 Kg [30 lbs]
Max. Moment: 22.6 Nm [200 in-lbs]

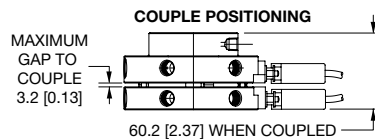


QC-30/TP-30



QC-30 **TP-30**
Robot Adaptor Module **Tool Adaptor Module**

Combined Weight: 1.27 Kg [2.8 lbs]
Max. Payload: 27 Kg [60 lbs]
Max. Moment: 88.1 Nm [780 in-lbs]

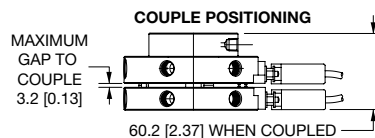


QC-60/TP-60



QC-60 **TP-60**
Robot Adaptor Module **Tool Adaptor Module**

Combined Weight: 1.27 Kg [2.8 lbs]
Max. Payload: 27 Kg [60 lbs]
Max. Moment: 88.1 Nm [780 in-lbs]

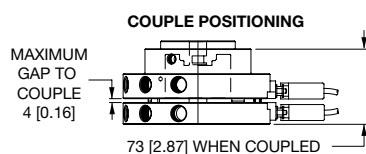


QC-60-10P/TP-60-10P



QC-60-10P **TP-60-10P**
Robot Adaptor Module **Tool Adaptor Module**

Combined Weight: 3.2 Kg [7.1 lbs]
Max. Payload: 68 Kg [150 lbs]
Max. Moment: 215 Nm [1900 in-lbs]



QC-150/TP-150

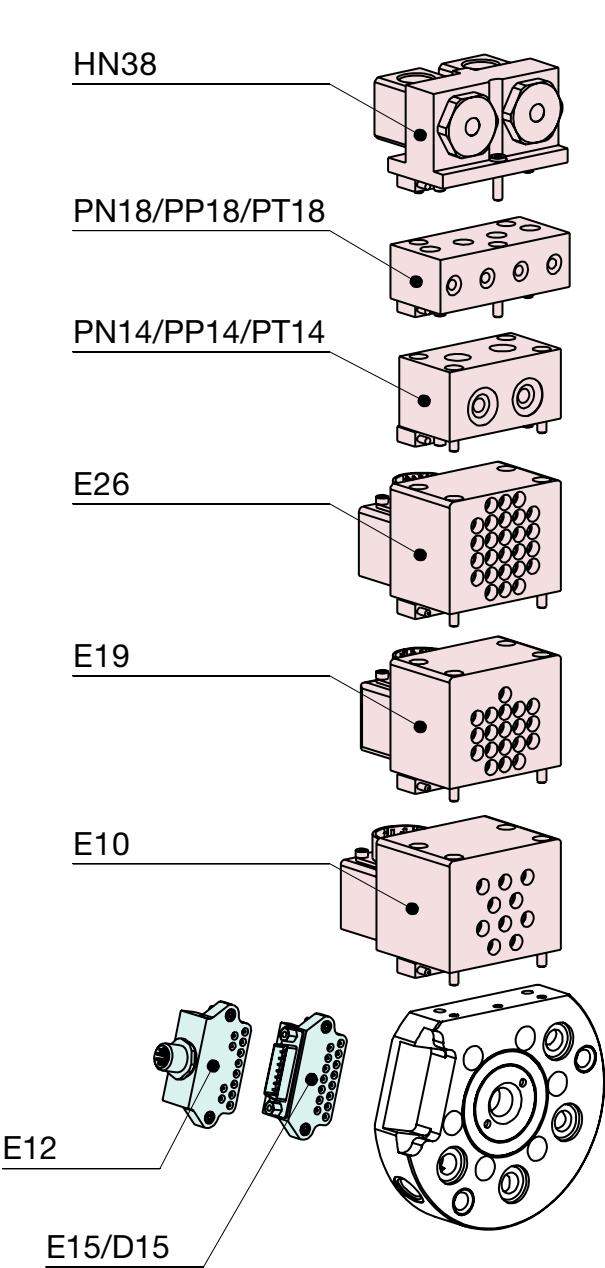


QC-150 **TP-150P**
Robot Adaptor Module **Tool Adaptor Module**

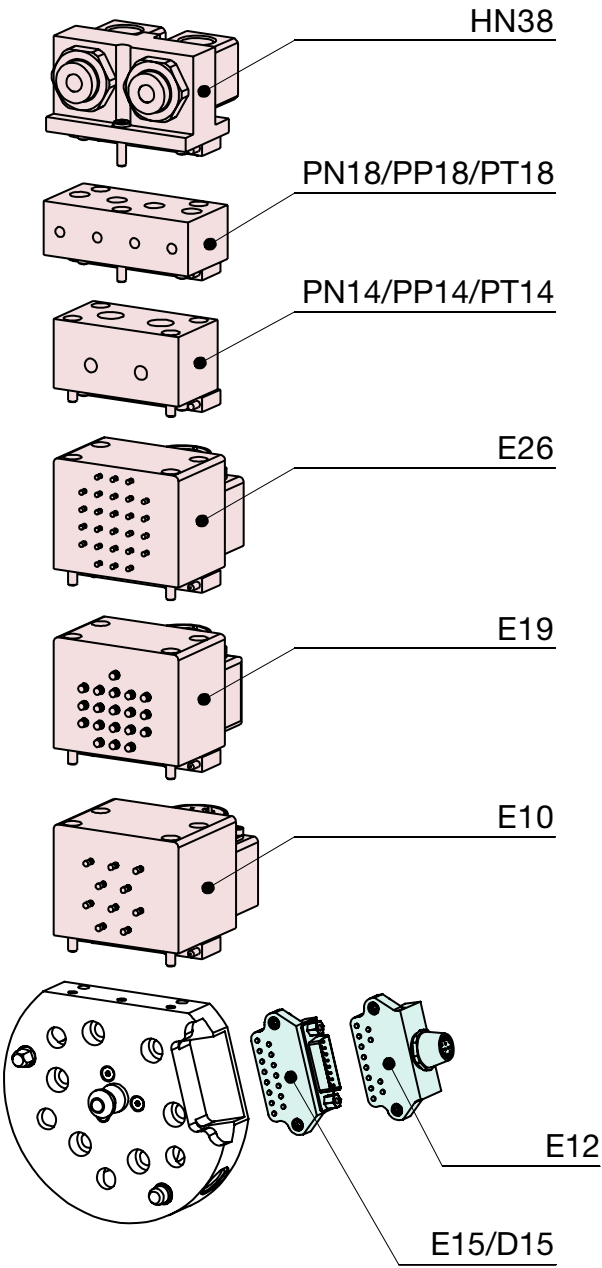
QC/TP SERIES

Automatic Tool Changers | Module Usage Illustrations

QC Series
Robot Adaptor Module
with Optional Modules
(Robot Side)



TP Series
Tool Adaptor Module
with Optional Modules
(Tool Side)



QC/TP SERIES

Automatic Tool Changers | How to Order



Base Model	Model Size	Port Options (QC-only)	I/O Block	Optional Modules*	10-Port (QC/TP-60 only)																						
QC QC Robot Side TP Tool Side	60 30 60 150 (See Page TC-QCTP-2 for Specifications)	M Blank 1/8 NPT M 1/8 BSPP A 1/8 BSPT	E15 0 No I/O Block E15 15-pin, Sub-D D15 (2) X E15 (QC/TP-30 only) E12 12-pin, Turck	PN18 <table><thead><tr><th>Order Code</th><th>Optional Modules</th></tr></thead><tbody><tr><td>E26</td><td>26-PIN 5A Module</td></tr><tr><td>E19*</td><td>19-PIN 5A Module</td></tr><tr><td>E10</td><td>10-PIN 13A Module</td></tr><tr><td>PN18</td><td>4X 1/8 NPT Pneumatic Port</td></tr><tr><td>PP18</td><td>4X 1/8 BSPP Pneumatic Port</td></tr><tr><td>PT18</td><td>4X 1/8 BSPT Pneumatic Port</td></tr><tr><td>PN14</td><td>2X 1/4 NPT Pneumatic Port</td></tr><tr><td>PP14</td><td>2X 1/4 BSPP Pneumatic Port</td></tr><tr><td>PT14</td><td>2X 1/4 BSPT Pneumatic Port</td></tr><tr><td>HN38</td><td>2X 3/8 NPT Fluid Port</td></tr></tbody></table>	Order Code	Optional Modules	E26	26-PIN 5A Module	E19*	19-PIN 5A Module	E10	10-PIN 13A Module	PN18	4X 1/8 NPT Pneumatic Port	PP18	4X 1/8 BSPP Pneumatic Port	PT18	4X 1/8 BSPT Pneumatic Port	PN14	2X 1/4 NPT Pneumatic Port	PP14	2X 1/4 BSPP Pneumatic Port	PT14	2X 1/4 BSPT Pneumatic Port	HN38	2X 3/8 NPT Fluid Port	10P
Order Code	Optional Modules																										
E26	26-PIN 5A Module																										
E19*	19-PIN 5A Module																										
E10	10-PIN 13A Module																										
PN18	4X 1/8 NPT Pneumatic Port																										
PP18	4X 1/8 BSPP Pneumatic Port																										
PT18	4X 1/8 BSPT Pneumatic Port																										
PN14	2X 1/4 NPT Pneumatic Port																										
PP14	2X 1/4 BSPP Pneumatic Port																										
PT14	2X 1/4 BSPT Pneumatic Port																										
HN38	2X 3/8 NPT Fluid Port																										

***QC/TP-30 and QC/TP-60-10P**
cannot be ordered with optional modules

*QC/TP-30 and QC/TP-60-10P cannot be ordered with optional modules

Electric and Pneumatic Accessories (Ordered Separately)

Electrical Accessories

ELCT-047	Straight Female 12-pin D-Sub User Plug, w/o Cable, Solder Type for E15 (QC/TP-60/150)
CABL-021	90° Female Cordset 4M for E12 (QC-30/60/150)
CABL-023	90° Male Cordset 2M for E12 (TP-30/60/150)
CABL-024	Straight Male Cordset 1.2M for E15 (QC/TP-30)
OSRK-009	NPN Inductive Sensor Repair Kit (QC-150 Only)
OSRK-010	PNP Inductive Sensor Repair Kit (QC-150 Only)

Pneumatic Accessories

SLKT-387	Seal Repair Kit (QC-30)
SLKT-388	Face Seal Repair Kit (QC-30)
SLKT-389	Seal Repair Kit (QC-60)
SLKT-390	Face Seal Repair Kit (QC-60/150)
SLKT-392	Face Seal Repair Kit (QC-60-10P)
SLKT-393	Seal Repair Kit (QC-150)

QC-30 (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions



QC-30 Specification:

Max. Payload: 13.6 Kg [30 lbs]

Weight: 0.23 Kg [0.50 lbs]

Bore Ø: 25.4 mm [1.00 in]

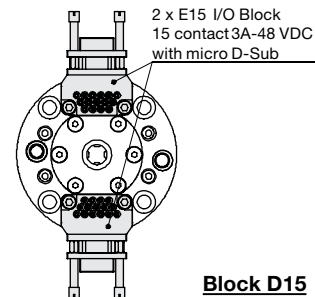
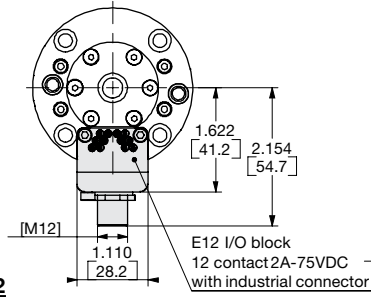
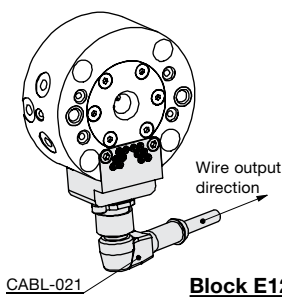
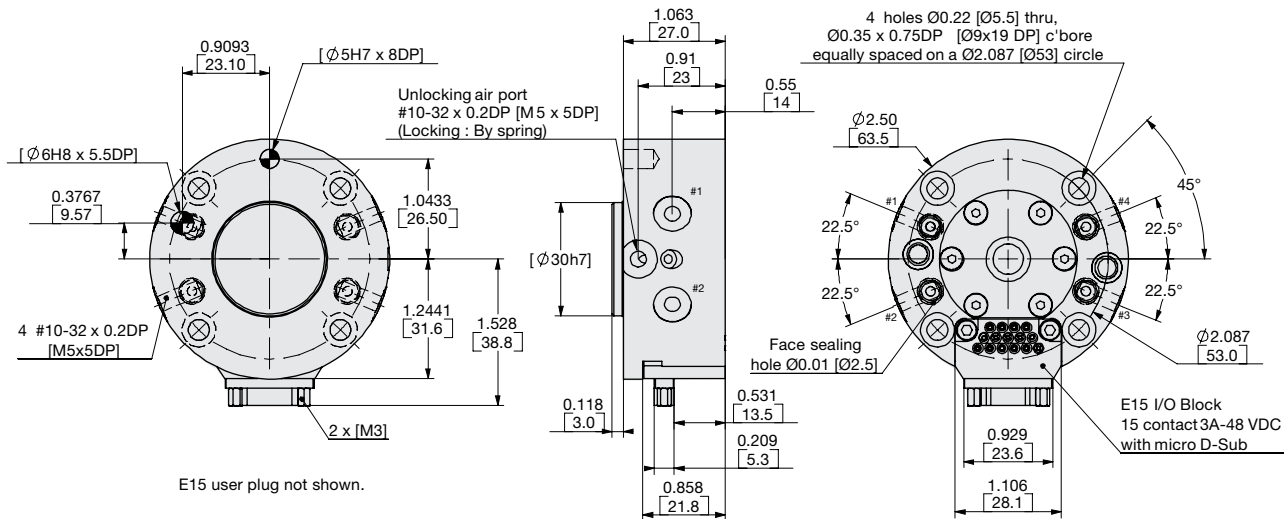
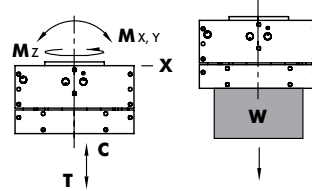
Displacement: 3.9 cm³ [0.24 in³]

Loading Capacity

Max. Tensile T: 311 N [70 lb]

Max. Compressive C: 445 N [100 lb]

Max. Moment (M_x/M_y/M_z): 22.6 Nm [200 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

⌀
DIMENSIONS ARE
SYMMETRICAL ABOUT
CENTERLINE

⌀
THIRD ANGLE
PROJECTION

⌀
ALL DOWEL HOLES ARE SF (SLIP FIT).
LOCATIONAL TOLERANCE
±.0005" OR ±.013MM

⌀
METRIC THREADS
COURSE PITCH

IMPERIAL ([IN.])
0.00 = ± .01
0.000 = ± .005
0.0000 = ± .0005

METRIC (MM)
[0] = [± .25]
[0.0] = [± .13]
[0.00] = [± .013]

Automatic Tool Changers | Technical Specifications | Dimensions

TP-30 Specification:

Max. Payload: 13.6 Kg [30 lbs]

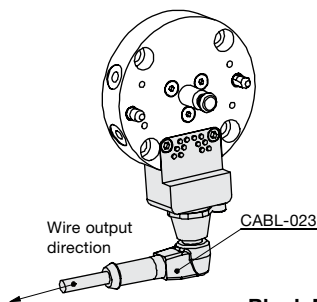
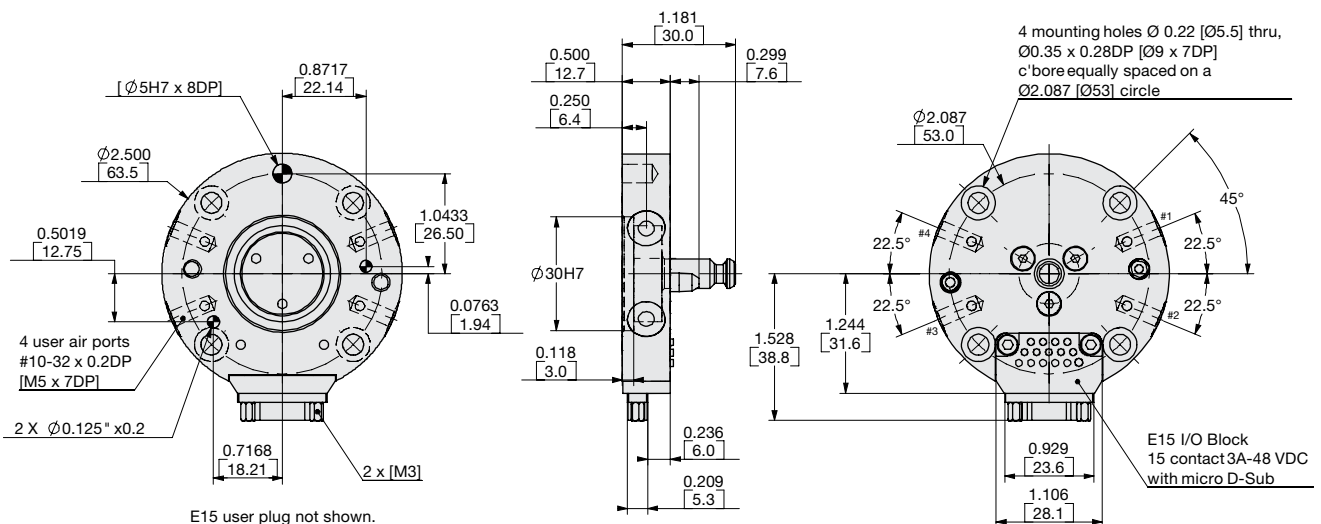
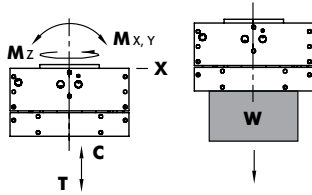
Weight: 0.11 Kg [0.25 lbs]

Loading Capacity

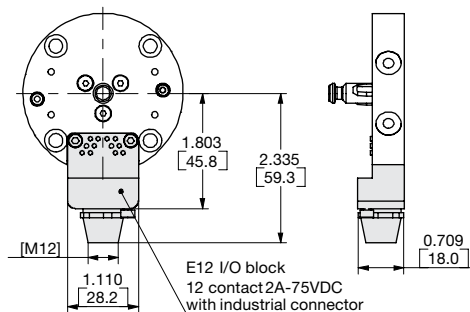
Max. Tensile T: 311 N [70 lb]

Max. Compressive **C**: 445 N [100 lb]

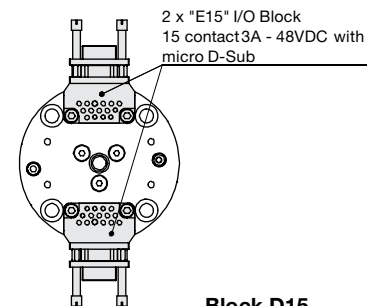
Max. Moment ($M_x/M_y/M_z$): 22.6 Nm [200 in-lb]



Block E12



Director



Block D15

UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

CL
DIMENSIONS ARE
SYMMETRICAL ABOUT
CENTERLINE



THIRD ANGLE
PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT)
LOCATIONAL TOLERANCE
±.0005" OR [±.013MM]



METRIC THREADS
COURSE PITCH

IMPERIAL ([IN.])

0.00 = $\pm .01$
0.000 = $\pm .005$
0.0000 = $\pm .0005$

METRIC (MM)

$$\begin{aligned}[0] &= [\pm .25] \\ [0.0] &= [\pm .13] \\ [0.00] &= [\pm .013]\end{aligned}$$

Automatic Tool Changers | Technical Specifications | Dimensions



Max. Payload: 27 Kg [60 lbs]

Weight: 0.86 Kg [1.9 lbs]

Bore Ø: 44.5 mm [1.75 in]

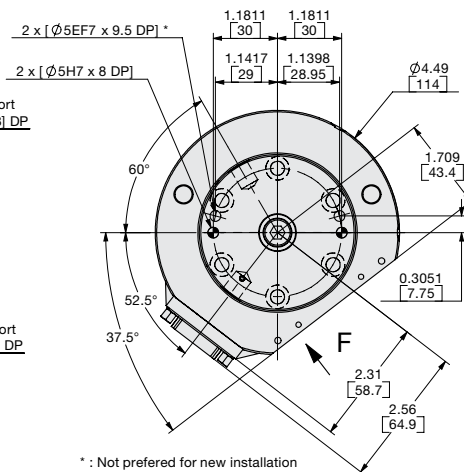
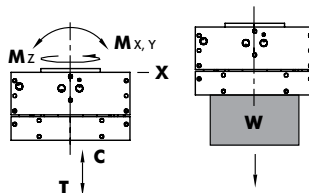
Displacement: 9.2 cm³ [0.56 in³]

Loading Capacity

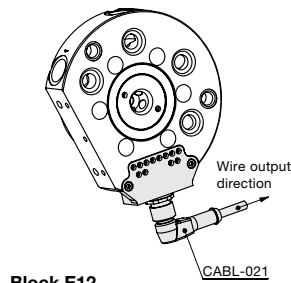
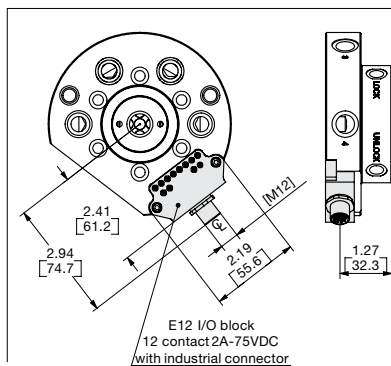
Max. Tensile **T**: 445 N [100 lb]

Max. Compressive **C**: 534 N [120 lb]

Max. Moment ($M_x/M_y/M_z$): 88.1 Nm [780 in-lb]

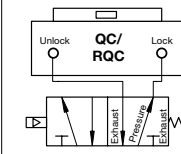


* : Not preferred for new installation



Failsafe operation:

4-way valves with a spring return are recommended to maintain air pressure to the lock port during emergency stop conditions.



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW



ALL DOWEL HOLES ARE SF (SLIP FIT).
LOCATIONAL TOLERANCE
±.0005" OR [±.013MM]



IMPERIAL ([IN.]

$$\begin{aligned} 0.00 &= \pm .01 \\ 0.000 &= \pm .005 \\ 0.0000 &= \pm .0005 \end{aligned}$$

METRIC (MM)

$$\begin{aligned}[0] &= [\pm .25] \\ [0.0] &= [\pm .13] \\ [0.00] &= [\pm .013]\end{aligned}$$

TP-60 (TOOLING SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

TP-60 Specification:

Max. Payload: 27 Kg [60 lbs]

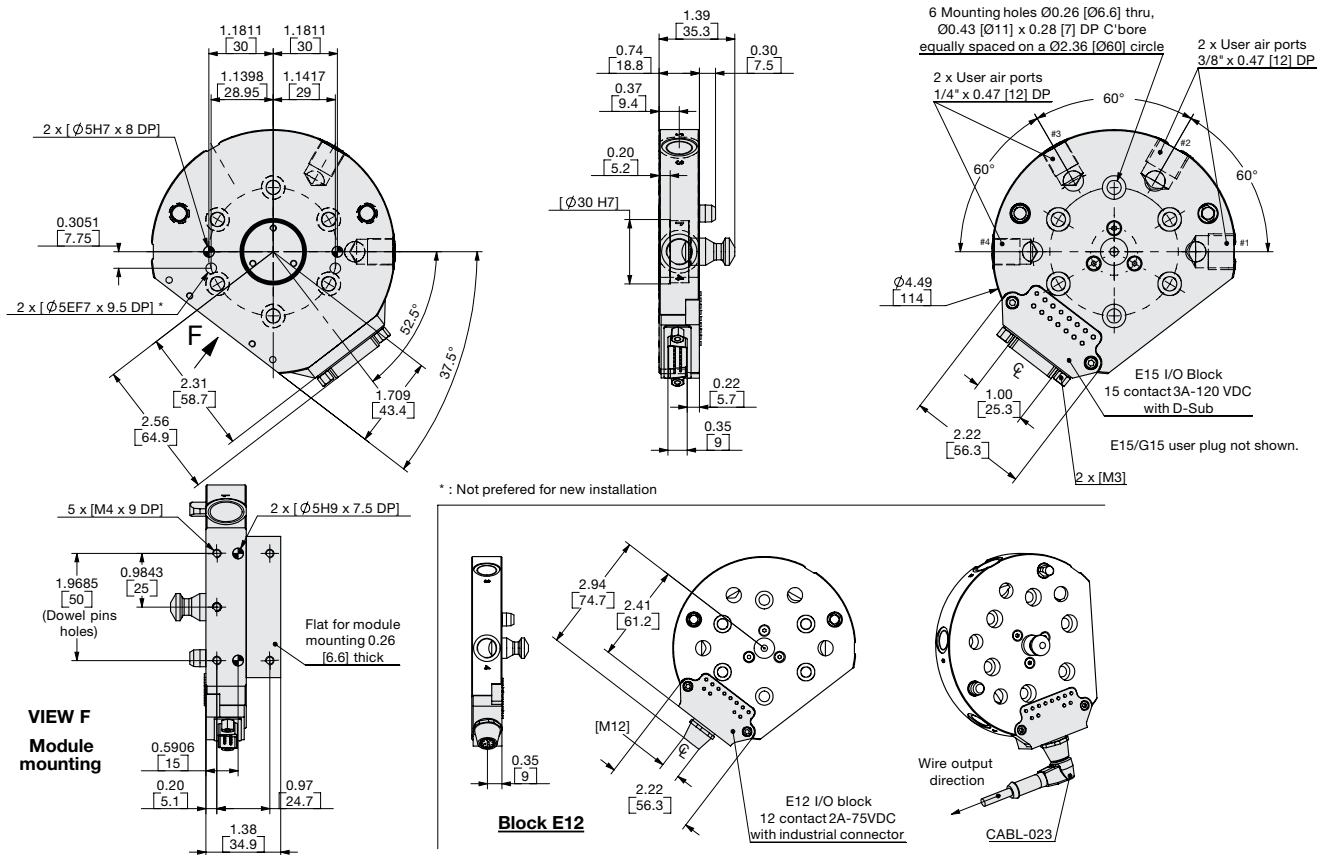
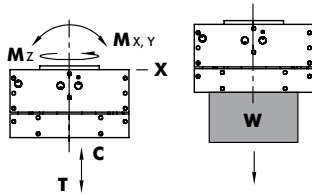
Weight: 0.41 Kg [0.90 lbs]

Loading Capacity

Max. Tensile **T**: 445 N [100 lb]

Max. Compressive **C**: 534 N [120 lb]

Max. Moment (**M_x/M_y/M_z**): 88.1 Nm [780 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT). LOCATIONAL TOLERANCE ±.0005" OR [±.013MM]

METRIC THREADS COURSE PITCH

IMPERIAL ([IN.])
0.00 = ±.01
0.000 = ±.005
0.0000 = ±.0005

METRIC (MM)
[0] = [±.25]
[0.0] = [±.13]
[0.00] = [±.013]

QC-60-10P (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions



QC-60-10P Specification:

Max. Payload: 27 Kg [60 lbs]

Weight: 0.86 Kg [1.9 lbs]

Bore Ø: 44.5 mm [1.75 in]

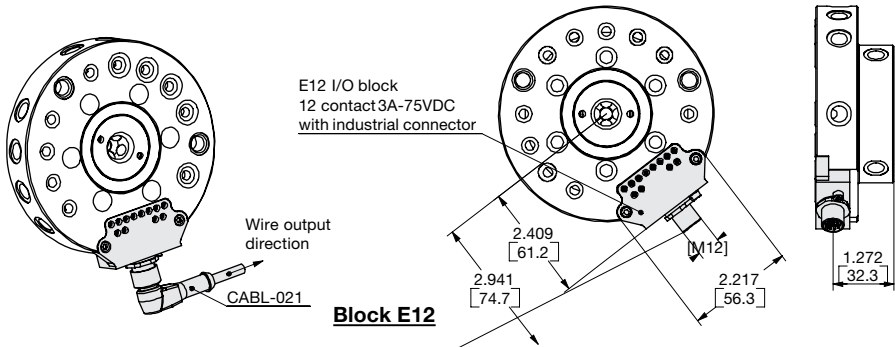
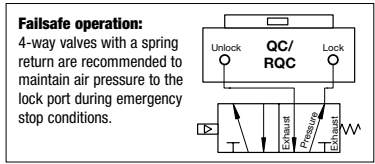
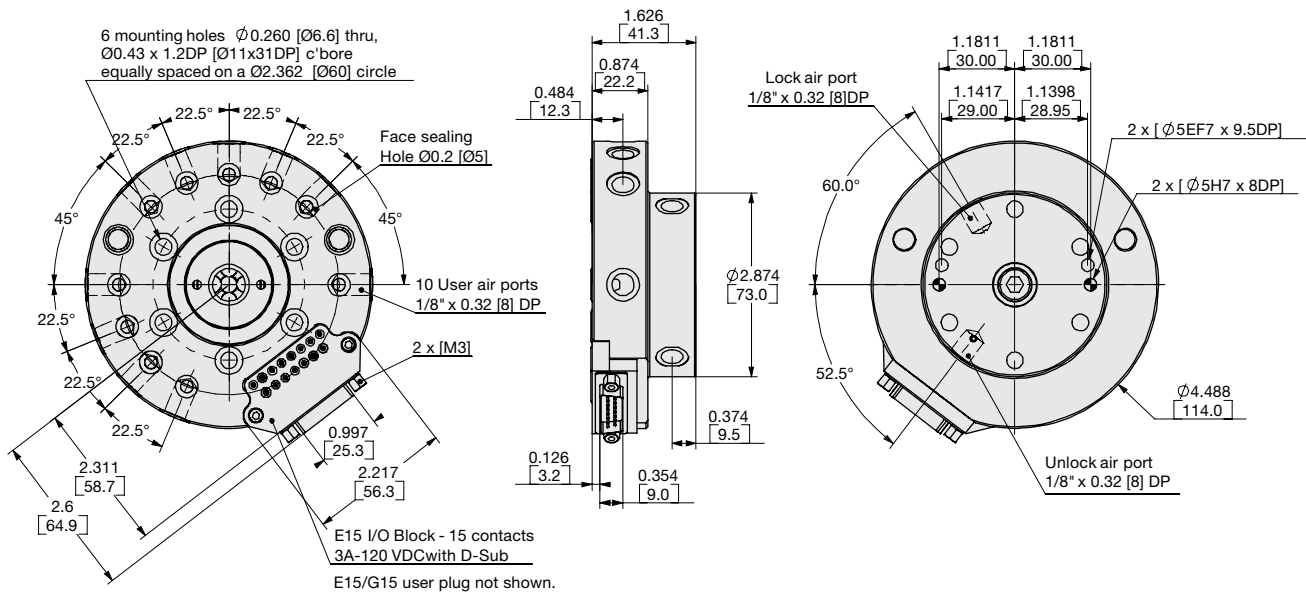
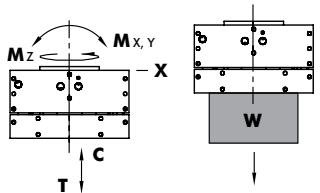
Displacement: 9.2 cm³ [0.56 in³]

Loading Capacity

Max. Tensile **T**: 445 N [100 lb]

Max. Compressive **C**: 534 N [120 lb]

Max. Moment (**M_x/M_y/M_z**): 88.1 Nm [780 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT).
LOCATIONAL TOLERANCE
±.0005" OR [±.013MM]

METRIC THREADS
COURSE PITCH

IMPERIAL ([IN.])
0.00 = ± .01
0.000 = ± .005
0.0000 = ± .0005

METRIC (MM)
[0] = [± .25]
[0.0] = [± .13]
[0.00] = [± .013]

TP-60-10P (TOOLING SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

TP-60-10P Specification:

Max. Payload: 27 Kg [60 lbs]

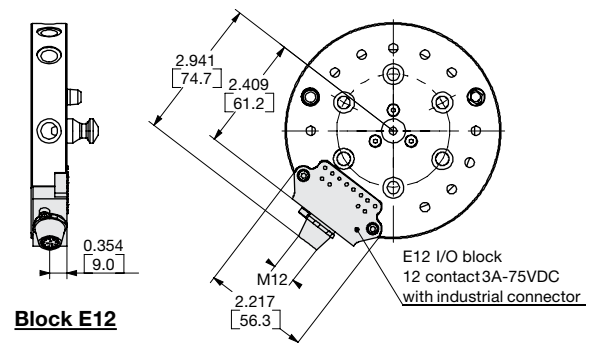
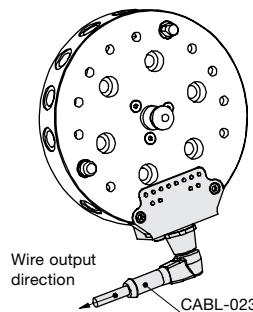
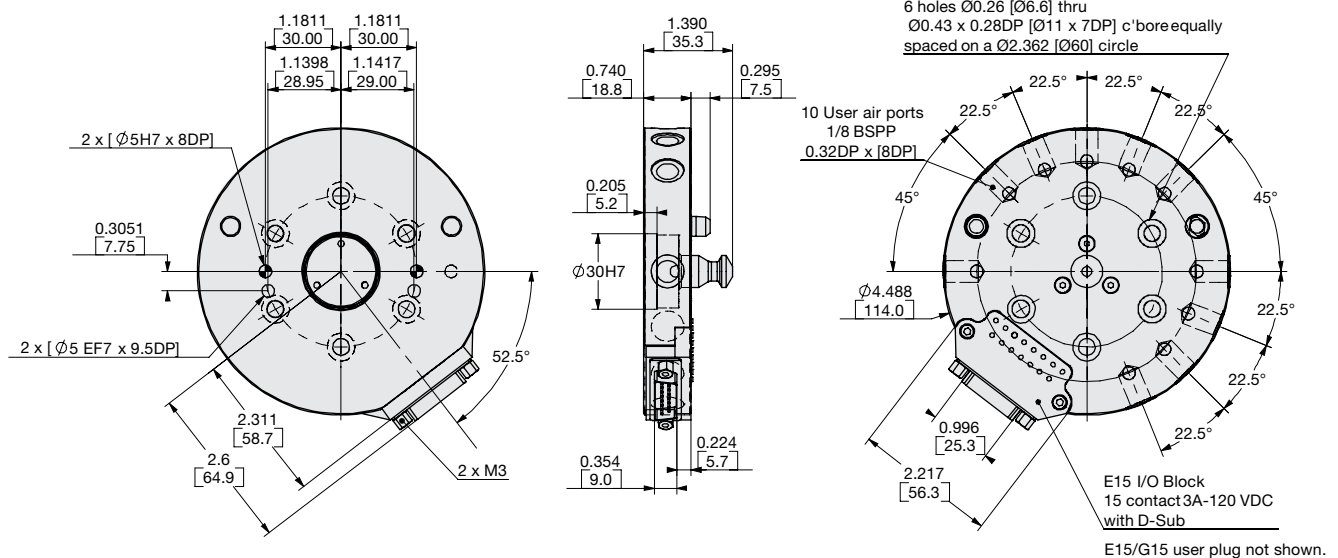
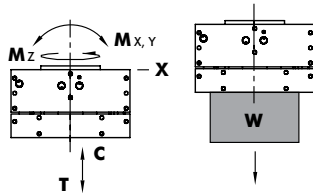
Weight: 0.41 Kg [0.90 lbs]

Loading Capacity

Max. Tensile **T**: 445 N [100 lb]

Max. Compressive **C**: 534 N [120 lb]

Max. Moment (**M_x/M_y/M_z**): 88.1 Nm [780 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT). LOCATIONAL TOLERANCE ±.0005" OR [±.013MM]

METRIC THREADS COURSE PITCH

IMPERIAL ([IN.])
0.00 = ±.01
0.000 = ±.005
0.0000 = ±.0005

METRIC (MM)
[0] = [±.25]
[0.0] = [±.13]
[0.00] = [±.013]

QC-150 (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions



QC-150 Specification:

Max. Payload: 68 Kg [150 lbs]

Weight: 2.2 Kg [4.8 lbs]

Bore Ø: 66.8 mm [2.63 in]

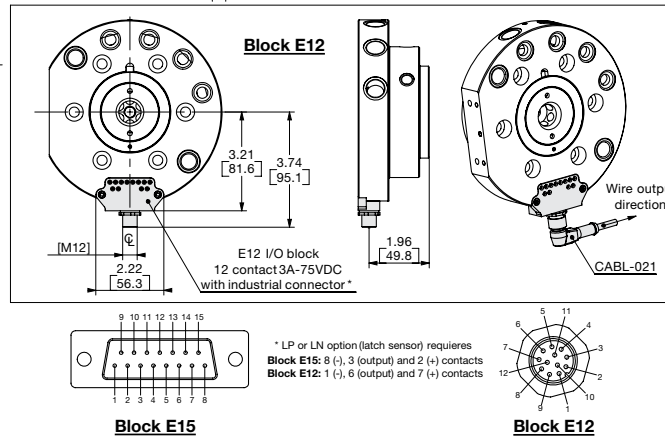
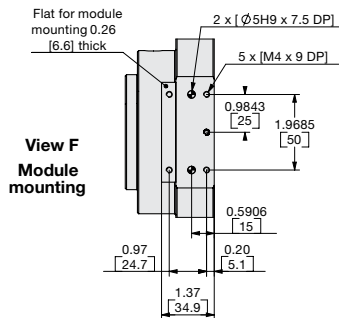
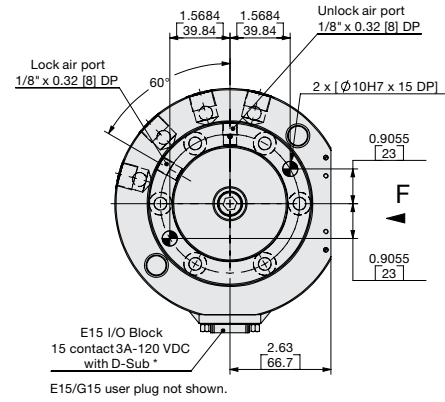
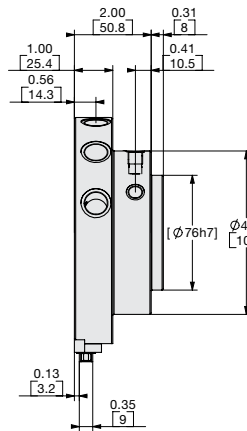
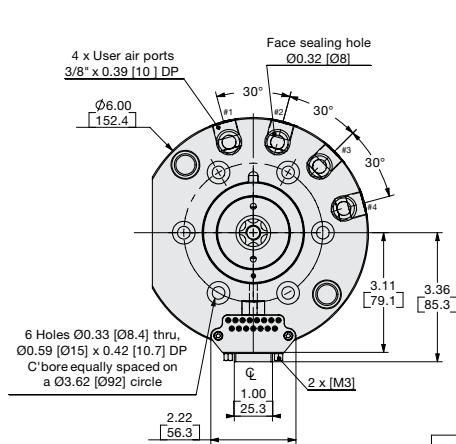
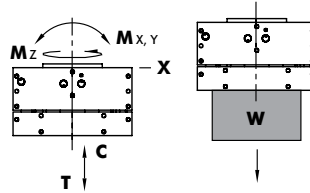
Displacement: 25.4 cm³ [1.55 in³]

Loading Capacity

Max. Tensile T: 890 N [200 lb]

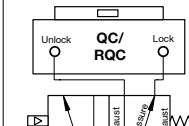
Max. Compressive C: 1334 N [300 lb]

Max. Moment (M_x/M_y/M_z): 215 Nm [1900 in-lb]



Failsafe operation:

4-way valves with a spring return are recommended to maintain air pressure to the lock port during emergency stop conditions.



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

⌀
DIMENSIONS ARE
SYMMETRICAL ABOUT
CENTERLINE

THIRD ANGLE
PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT).
LOCATIONAL TOLERANCE
±.0005" OR [±.013MM]

METRIC THREADS
COURSE PITCH

IMPERIAL ([IN.])
0.00 = ±.01
0.000 = ±.005
0.0000 = ±.0005

METRIC (MM)
[0] = [±.25]
[0.0] = [±.13]
[0.00] = [±.013]

TP-150 (TOOLING SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

TP-150 Specification:

Max. Payload: 68 Kg [150 lbs]

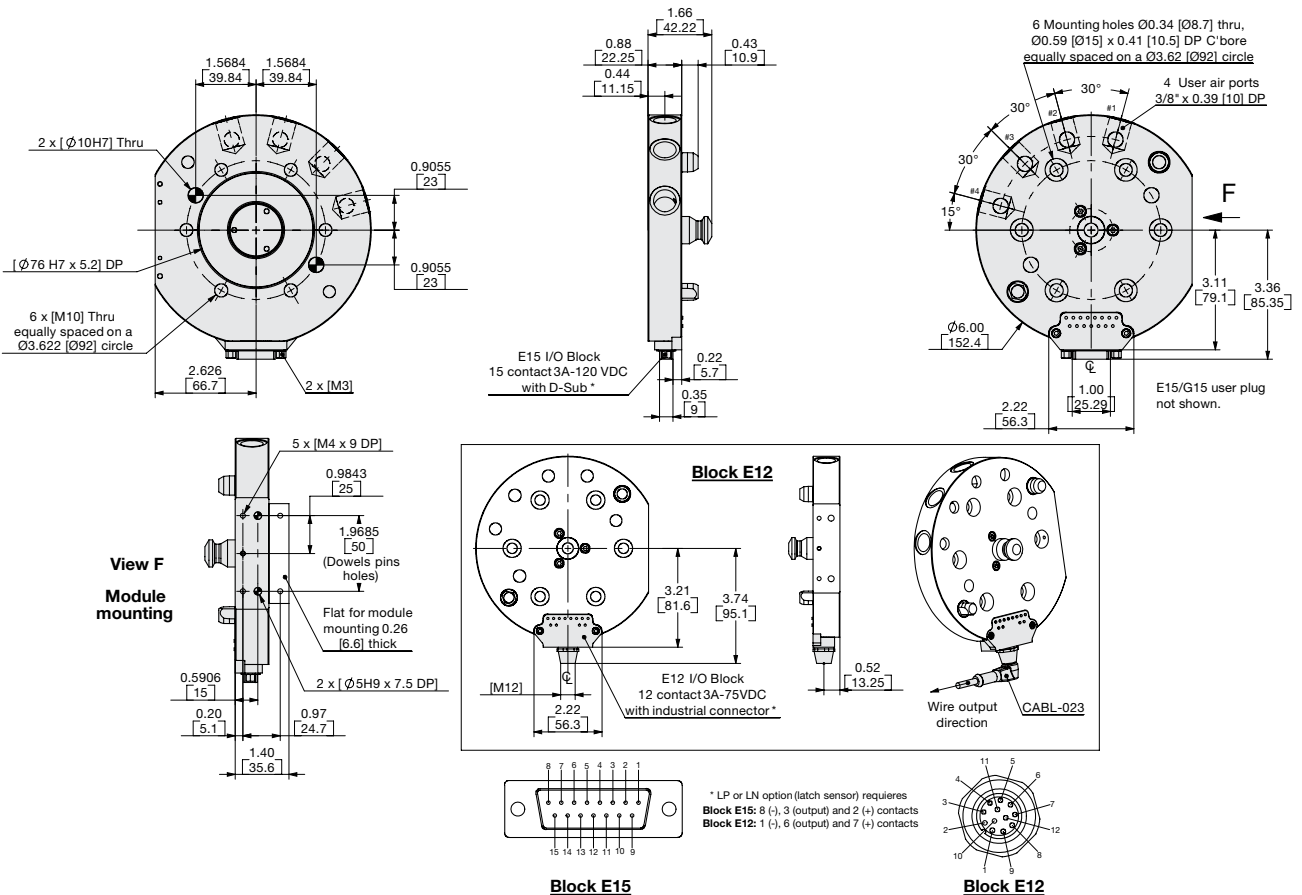
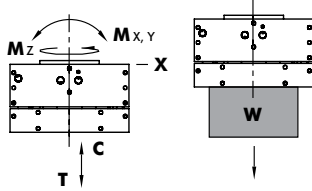
Weight: 1.0 Kg [2.3 lbs]

Loading Capacity

Max. Tensile **T**: 890 N [200 lb]

Max. Compressive **C**: 1334 N [300 lb]

Max. Moment (**M_x/M_y/M_z**): 215 Nm [1900 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT).
LOCATIONAL TOLERANCE
±.0005" OR [±.013MM]

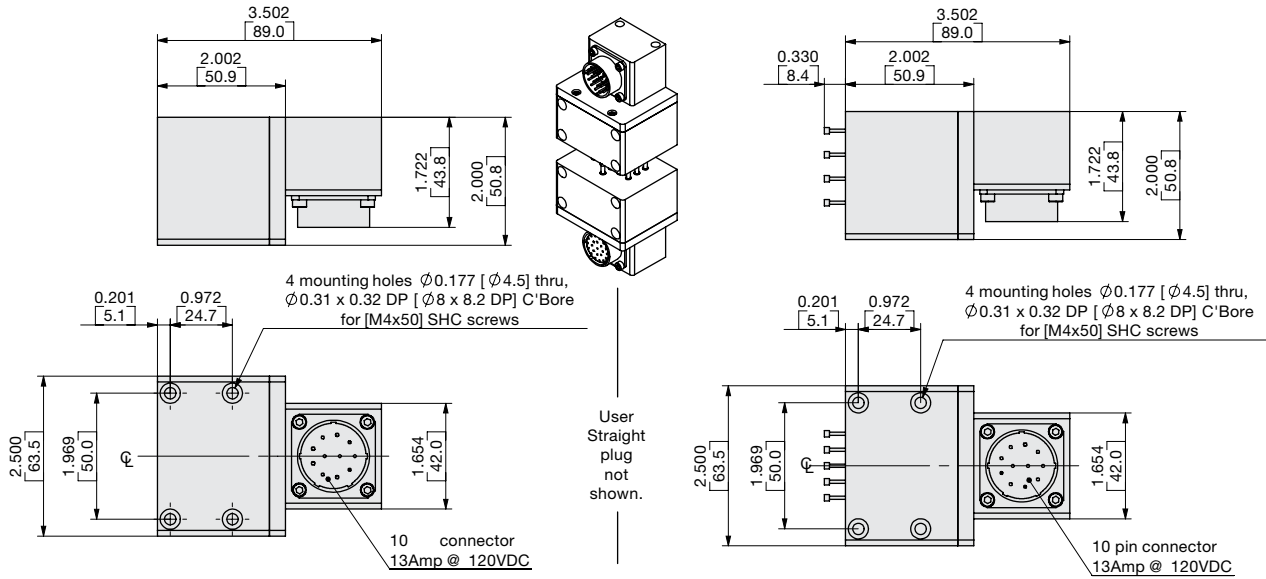
METRIC THREADS
COURSE PITCH

IMPERIAL ([IN.])
0.00 = ±.01
0.000 = ±.005
0.0000 = ±.0005

METRIC (MM)
[0] = [±.25]
[0.0] = [±.13]
[0.00] = [±.013]

QC/TP SERIES

Automatic Tool Changers | Dimensions | 10-Pin Module 5Amp @ 120VDC Electric Module



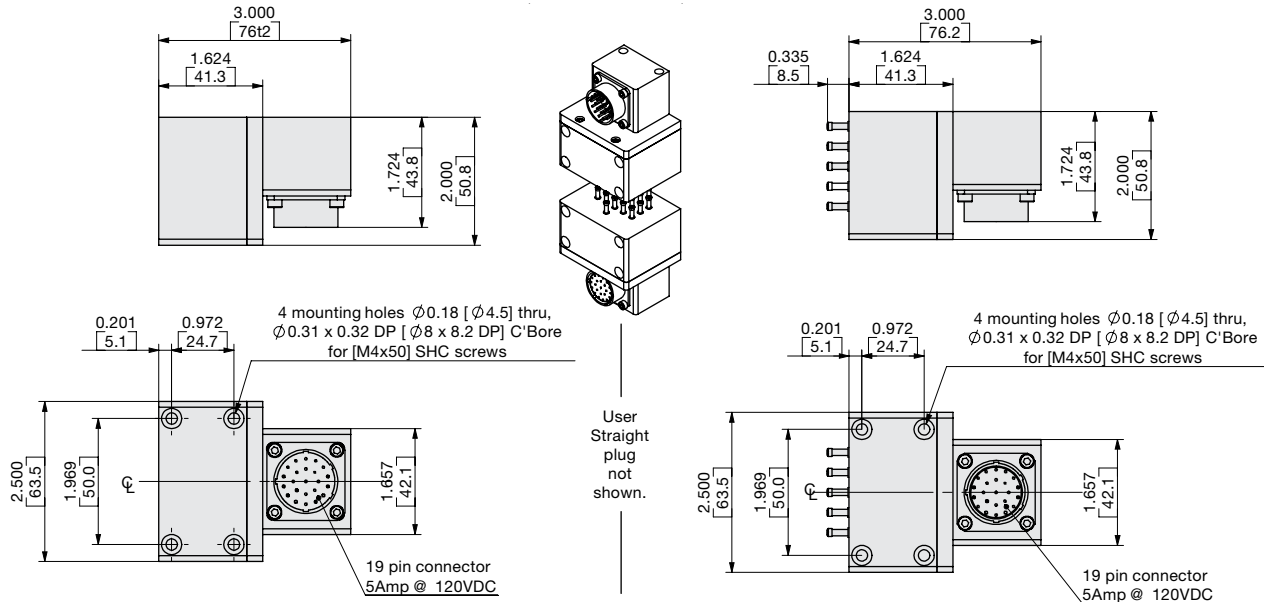
Flat for module mounting not shown: See QC or TP drawings.

Model	Module	Robot Side	Tool Side	*Accessory
QC/TP60	E10	KE10-QC60	KE10-TP60	ELCT-041 (Female)
QC/TP150	E10	KE10-QC150	KE10-TP150	ELCT-042 (Male)

*Straight Plug, (w/o Cable), Solder Type, Cable Clamp

Module kits above include: Flat for module mounting, straight plug (without cable), locating pins and hardware.

19-Pin Module 5Amp @ 120VDC Electric Module



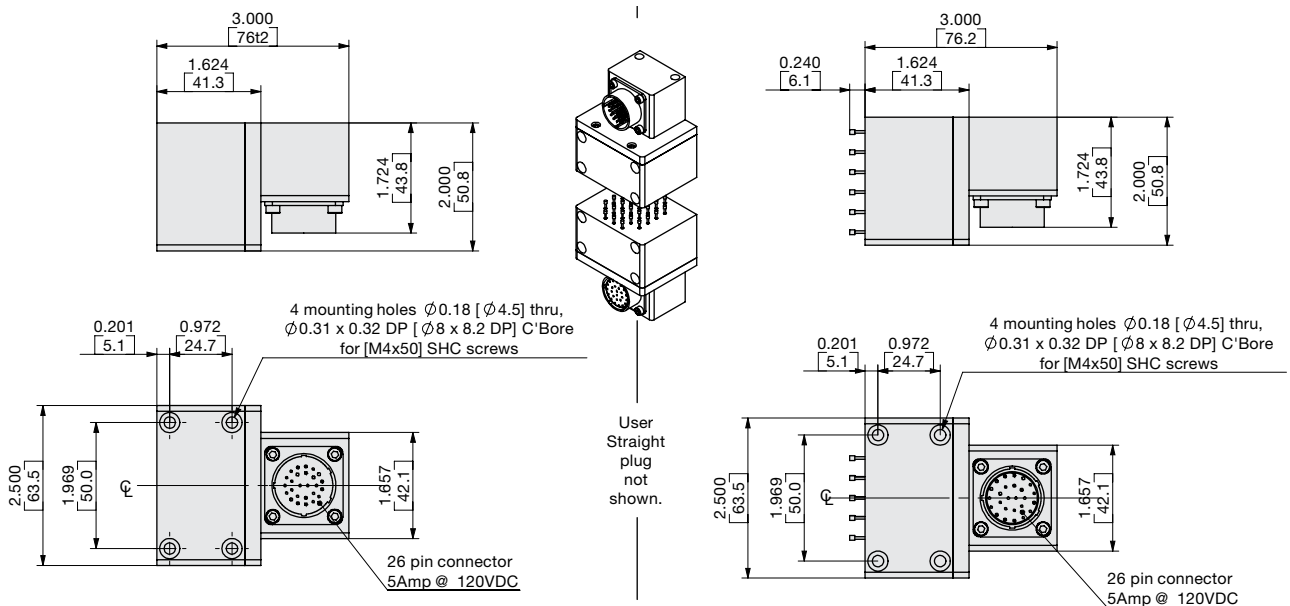
Flat for module mounting not shown: See QC or TP drawings.

Model	Module	Robot Side	Tool Side	*Accessory
QC/TP60	E19	KE19-QC60	KE19-TP60	ELCT-043 (Female)
QC/TP150	E19	KE19-QC150	KE19-TP150	ELCT-044 (Male)

*Straight Plug, (w/o Cable), Solder Type, Cable Clamp

Module kits above include: Flat for module mounting, straight plug (without cable), locating pins and hardware.

Automatic Tool Changers | Dimensions | 26-Pin Module 5Amp @ 120VDC Electric Module



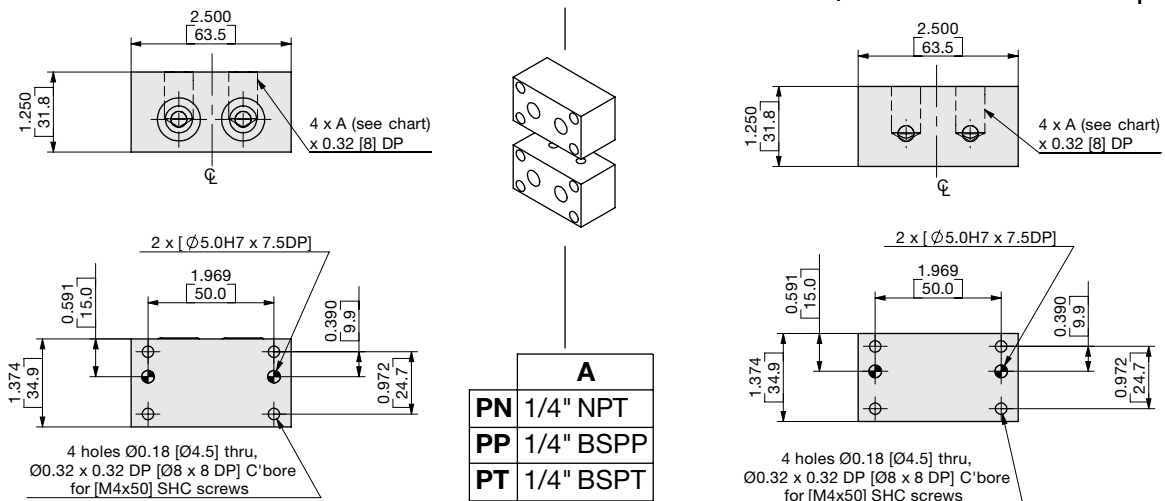
Flat for module mounting not shown: See QC or TP drawings.

Model	Module	Robot Side	Tool Side	*Accessory
QC/TP60	E26	KE26-QC60	KE26-TP60	ELCT-045 (Female)
QC/TP150	E26	KE26-QC150	KE26-TP150	ELCT-046 (Male)

*Straight Plug, (w/o Cable), Solder Type, Cable Clamp

Module kits above include: Flat for module mounting, straight plug (without cable), locating pins and hardware.

2 X 1/4" Air Port Module | Face Seal



Flat for module mounting not shown: See QC or TP drawings.

For QC/TP-60

Module	Robot Side	Tool Side
PN14	KPN14-QC60	KPN14-TP60
PP14	KPP14-QC60	KPP14-TP60
PT14	KPT14-QC60	KPT14-TP60
Seal Kit	SLKT-395	---

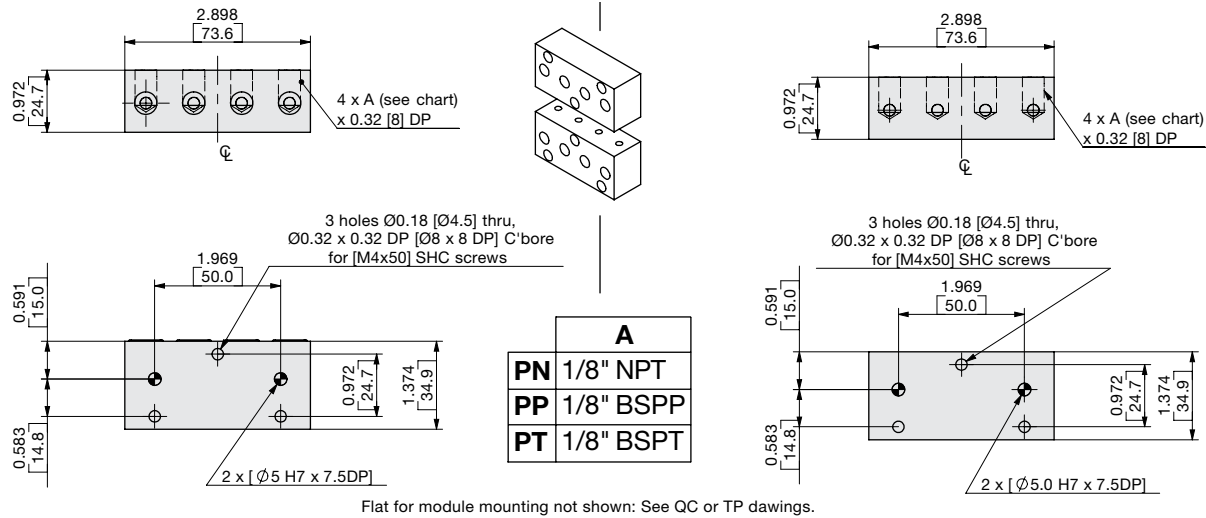
For QC/TP-150

Module	Robot Side	Tool Side
PN14	KPN14-QC150	KPN14-TP150
PP14	KPP14-QC150	KPP14-TP150
PT14	KPT14-QC150	KPT14-TP150
Seal Kit	SLKT-395	---

Module kits include: Flat for module mounting, seals, locating pins and hardware.

QC/TP SERIES

Automatic Tool Changers | Dimensions | 4 X 1/8" Air Port Module | Face Seal



Maximum Working Pressure: 10 bar

For **QC/TP-60**

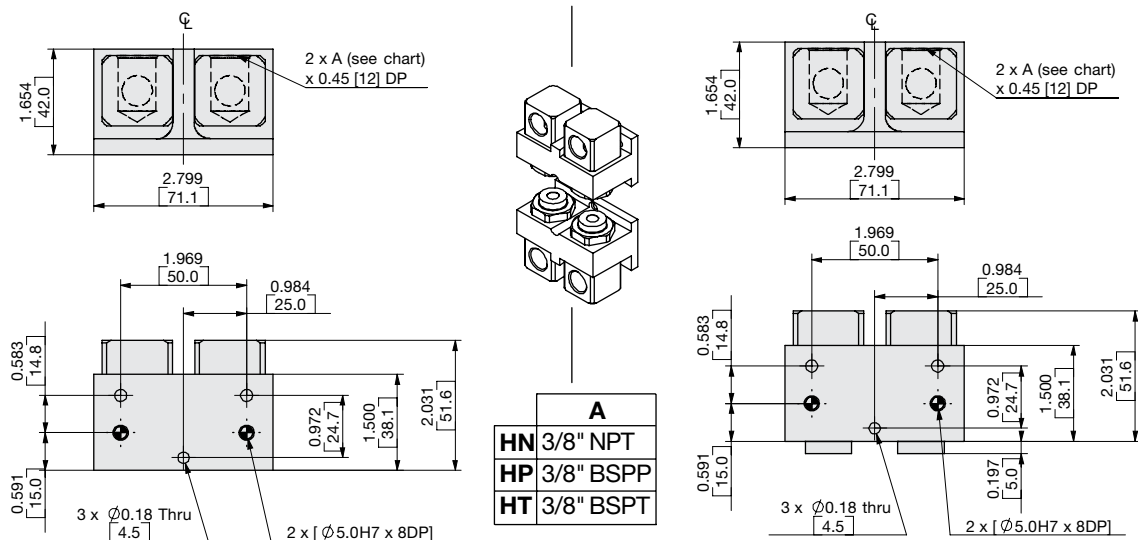
Module	Robot Side	Tool Side
PN18	KPN18-QC60	KPN18-TP60
PP18	KPP18-QC60	KPP18-TP60
PT18	KPT18-QC60	KPT18-TP60
Seal Kit	SLKT-391	---

For **QC/TP-150**

Module	Robot Side	Tool Side
PN18	KPN18-QC150	KPN18-TP150
PP18	KPP18-QC150	KPP18-TP150
PT18	KPT18-QC150	KPT18-TP150
Seal Kit	SLKT-391	---

Module kits include: Flat for module mounting, seals, locating pins and hardware.

2 X 3/8" Fluid Ports Module | Non-Spilling Double Shut-off



Maximum Working Pressure: 100 bar

For **QC/TP-60**

Module	Robot Side	Tool Side
HN38	KHN38-QC60	KHN38-TP60

For **QC/TP-150**

Module	Robot Side	Tool Side
HN38	KHN38-QC150	KHN38-TP150

Module kits include: Flat for module mounting couplings, locating pins and hardware.

QC/TP SERIES

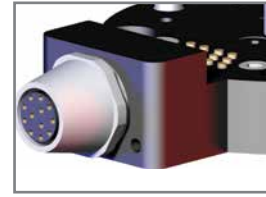
Automatic Tool Changers | Dimensions | Sub-D Conn and User Plug IO Block



15 Pin w/Sub-D Conn and User Plug w/o cable

Model	Module	Robot Side	Tool Side
QC/TP30	E15	KE15-QC30	KE15-TP30
QC/TP60	E15	KE15-QC60	KE15-TP60
QC/TP150	E15	KE15-QC150	KE15-TP60

See individual datasheets for dimensions.



12 Pin w/Turck M12 Conn w/o Cordset

Model	Module	Robot Side	Tool Side
QC/TP30	E12	KE12-QC30	KE12-TP30
QC/TP60	E12	KE12-QC60	KE12-TP60
QC/TP150	E12	KE12-QC150	KE12-TP60

See individual datasheets for dimensions.

RHC SERIES

Automatic Tool Changers | Features and Benefits

Durable Components

Locking components are made from hardened bearing & tool steels

Self Lubricating Seals

Self lubricating dynamic seals

Quality Materials

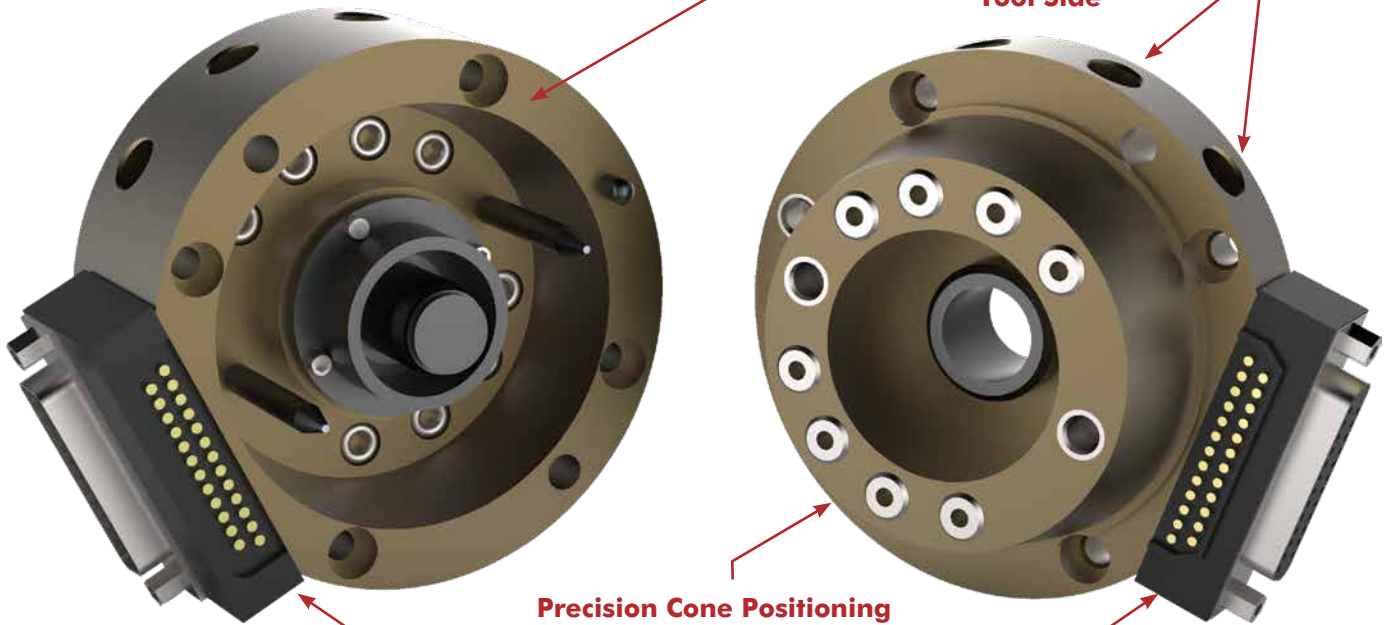
Each body is made of lightweight 7075-T6 aircraft quality aluminum

Pneumatic Ports

User pneumatic ports

Robot Side

Tool Side



Precision Cone Positioning

Machine tool proven mating conical coupling

Durable Finish

Bodies have hard-coat anodize 60RC with Teflon® impregnation

Electrical Contacts

(Sold Separately- See "How to Order" Section for more info)

Failsafe Operation

Failsafe locking spring keeps units coupled in the event of pressure loss

Mounting Information



Robot Half Adaptor

mounts with screws from behind or through the front and locates with dowel pins for accuracy.

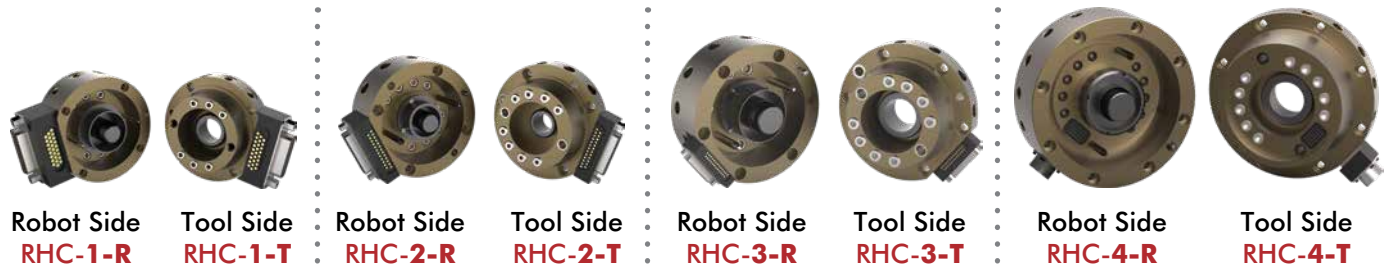


Tool Half Adaptor

mounts payload with screws from behind or through the front and locates with dowel pins for accuracy. Protect cone surfaces from debris to insure proper positioning.

RHC SERIES

Automatic Tool Changers | Ordering Information



Base Model	Model Size	Metric	Adapter Module	Seals (for -R only)	Contacts	Sensor (for RHC-3-R only)
RHC	1	M	R	V	OHCC-009	P
Base Model	1 2 3 4	Blank Imperial M Metric	R Robot Side T Tool Side	V Viton® Seals		P PNP Sensors N NPN Sensors No Sensors Leave Blank

Size	Max. Moment Nm [in-lb]	Max. Payload Kg [lbs]
RHC-1	28 [250]	9 [20]
RHC-2	136 [1200]	59 [130]
RHC-3	1017 [9000]	136 Kg [300]
RHC-4	2825 [25000]	454 Kg [1000]

Robot Side	Optional Contacts
OHCC-009	15 Pin D-Sub Contacts (RHC-1)
OHCC-001	26 Pin D-Sub Contacts (RHC-1)
OHCC-011	15 Pin D-Sub Contacts (RHC-2, -3)
OHCC-003	25 Pin D-Sub Contacts (RHC-2, -3)
OHCC-005	19 Pin Mil. Spec. Contacts (RHC-3)
OHCC-007	38 Pin Mil. Spec. Contacts (RHC-3)
OHCC-021	24 Pin Mil. Spec. Contacts (RHC-4)
Tool Side	Optional Contacts
OHCC-010	15 Pin D-Sub Contacts (RHC-1)
OHCC-002	26 Pin D-Sub Contacts (RHC-1)
OHCC-012	15 Pin D-Sub Contacts (RHC-2, -3)
OHCC-004	25 Pin D-Sub Contacts (RHC-2, -3)
OHCC-006	19 Pin Mil. Spec. Contacts (RHC-3)
OHCC-027	24 Pin Mil. Spec. Contacts (RHC-4)
OHCC-023	24 Wire Single Pigtail Connector (RHC-4)
OHCC-022	24 Wire Double Pigtail Connector (RHC-4)

Sensor and Pneumatic Accessories (Ordered Separately)

Sensor Accessories

OSMK-064	Replacement Sensor Mounting Kit (RHC-3-R)
OISP-009	Replacement Locked Position NPN Inductive Sensor with Hard Wired Cable (RHC-3-R)
OISP-009	Replacement Locked Position NPN Inductive Sensor with Hard Wired Cable (RHC-3-R)
OSMK-063	Replacement Sensor Mounting Kit (RHC-4-R)
OISN-008	Replacement Locked Position NPN Inductive Sensor with Hard Wired Cable (RHC-4-R)
OISP-008	Replacement Locked Position PNP Inductive Sensor with Hard Wired Cable (RHC-4-R)

Pneumatic Accessories

SLKT-028	Standard Seal Repair Kit (RHC-1-R)
SLKT-028V	Viton Seal Repair Kit (RHC-1-R)
SLKT-029	Standard Seal Repair Kit (RHC-2-R)
SLKT-029V	Viton Seal Repair Kit (RHC-2-R)
SLKT-030	Standard Seal Repair Kit (RHC-3-R)
SLKT-030V	Viton Seal Repair Kit (RHC-3-R)
SLKT-031	Standard Seal Repair Kit (RHC-4-R)
SLKT-031V	Viton Seal Repair Kit (RHC-4-R)

RHC-1-R (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

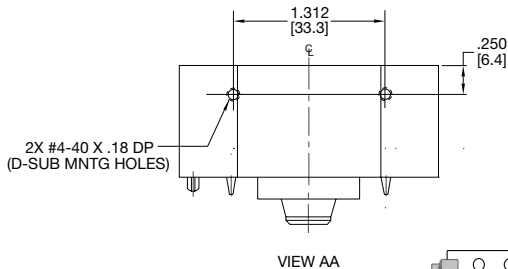
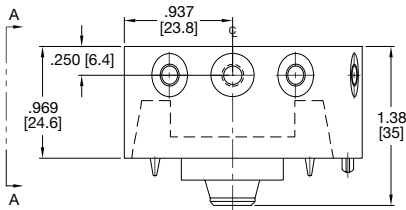
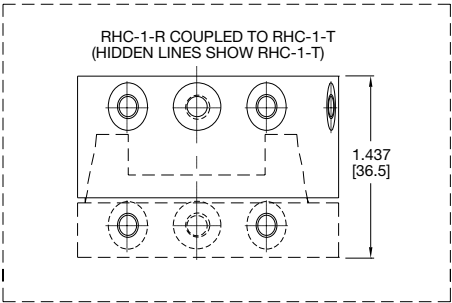
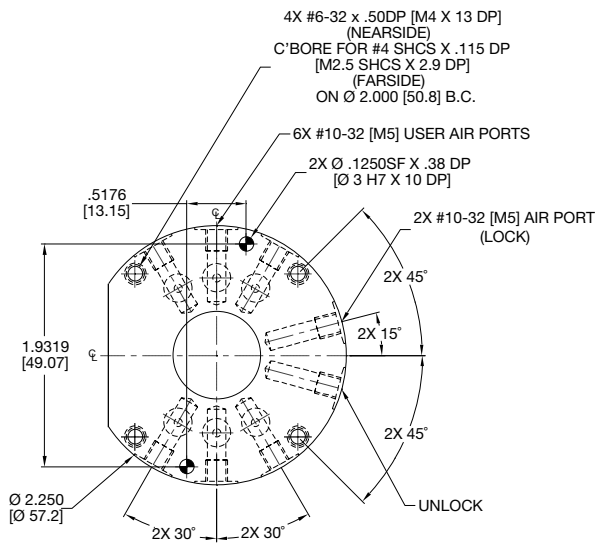
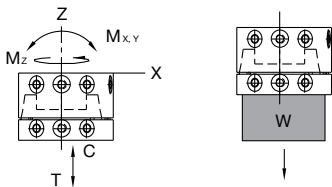


RHC-1-R Specification:

- Max. Payload (**W**): 9 Kg [20 lbs]
- Weight: 0.18 Kg [0.41 lbs]
- Bore Ø: 19 mm [0.75 in]
- Displacement: 4.18 cm³ [0.255 in³]

Loading Capacity

- Max. Tensile **T**: 890 N [200 lb]
- Max. Compressive **C**: 2224 N [500 lb]
- Max. Moment (**M_x/M_y**): 14 Nm [125 in-lb]
- Max. Moment (**M_z**): 28 Nm [250 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

Ø
DIMENSIONS ARE
SYMMETRICAL ABOUT
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THIRD ANGLE
PROJECTION

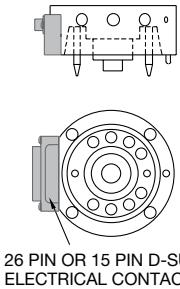
ALL DOWEL HOLES ARE SF (SLIP FIT).
LOCATIONAL TOLERANCE
±.0005" OR [±.013MM]

METRIC THREADS
COURSE PITCH

IMPERIAL ([IN.])
0.00 = ±.01
0.000 = ±.005
0.0000 = ±.0005

METRIC (MM)
[0] = [±.25]
[0.0] = [±.13]
[0.00] = [±.013]

Model	Robot Side	Description	Specification
RHC-1	OHCC-009	15 Pin D-Sub Contacts	15 Pin @ 3 AMPS
	OHCC-001	26 Pin D-Sub Contacts	26 Pin @ 3 AMPS



RHC-1-T (TOOLING SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

RHC-1-T Specification:

Max. Payload (**W**): 9 Kg [20 lbs]

Weight: 0.09 Kg [0.22 lbs]

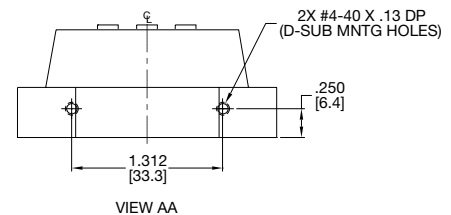
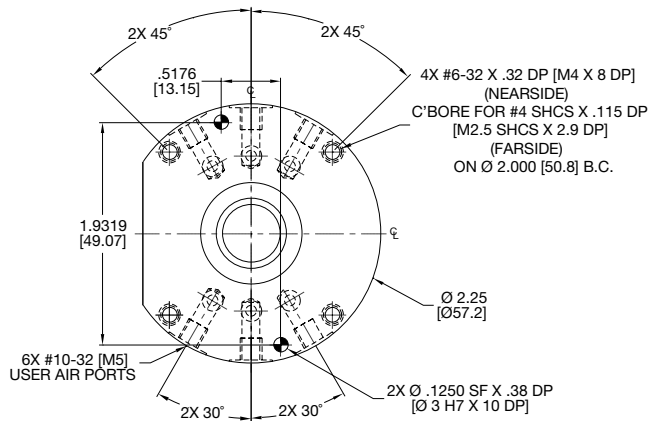
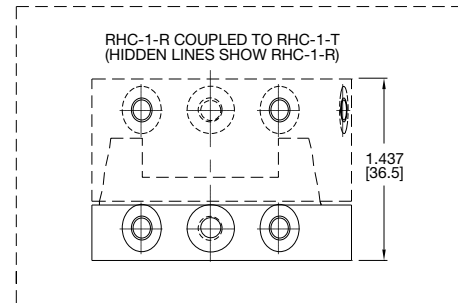
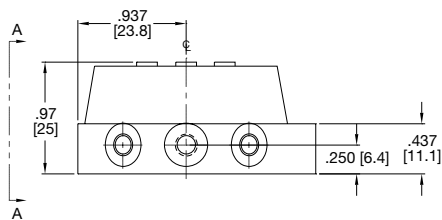
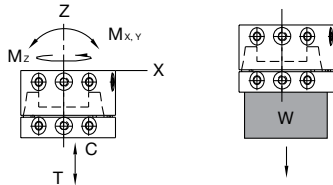
Loading Capacity

Max. Tensile **T**: 890 N [200 lb]

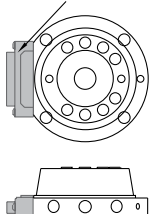
Max. Compressive **C**: 2224 N [500 lb]

Max. Moment (**M_x/M_y**): 14 Nm [125 in-lb]

Max. Moment (**M_z**): 28 Nm [250 in-lb]



26 PIN OR 15 PIN D-SUB ELECTRICAL CONTACTS



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

⌀
DIMENSIONS ARE
SYMMETRICAL ABOUT
CENTERLINE

⌀
THIRD ANGLE
PROJECTION

⌀
ALL DOWEL HOLES ARE SF (SLIP FIT).
LOCATIONAL TOLERANCE
±.0005" OR [±.013MM]

⌀
METRIC THREADS
COURSE PITCH

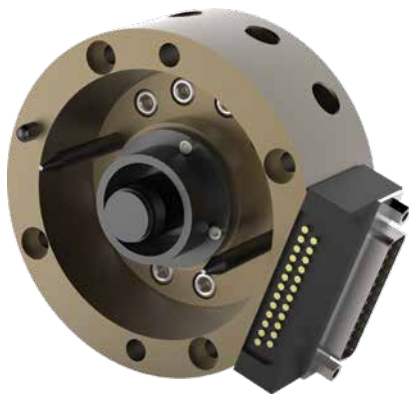
IMPERIAL ([IN.])
0.00 = ±.01
0.000 = ±.005
0.0000 = ±.0005

METRIC (MM)
[0] = [±.25]
[0.0] = [±.13]
[0.00] = [±.013]

Model	Tool Side	Description	Specification
RHC-1	OHCC-010	15 Pin D-Sub Contacts	15 Pin @ 3 AMPS
	OHCC-002	26 Pin D-Sub Contacts	26 Pin @ 3 AMPS

RHC-2-R (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

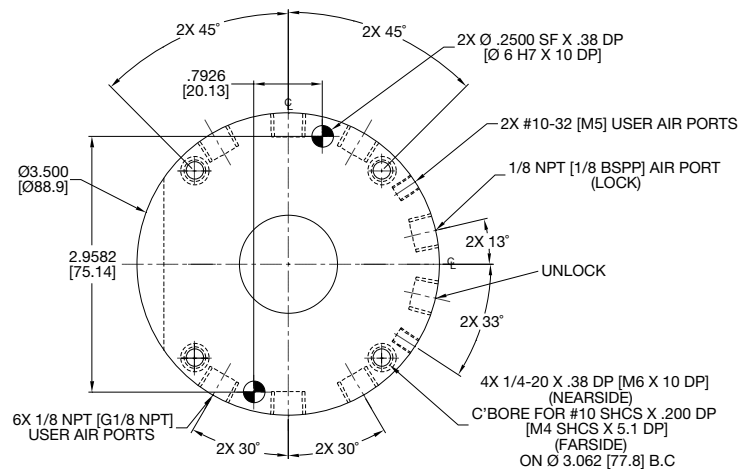
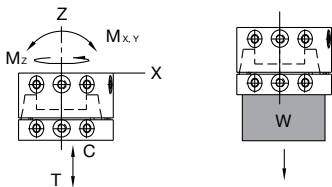


RHC-2-R Specification:

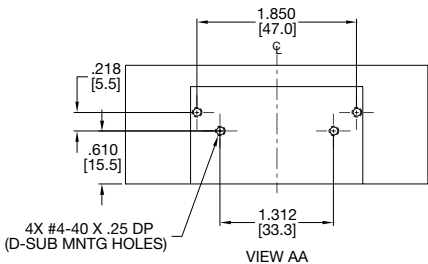
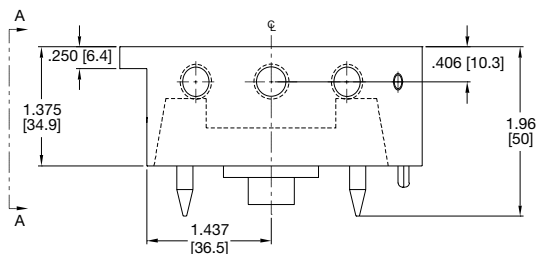
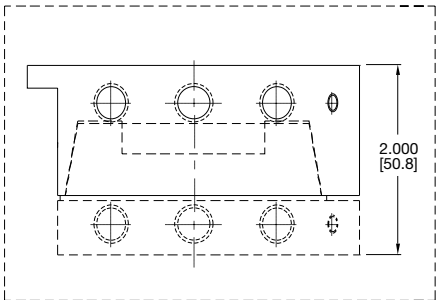
- Max. Payload (**W**): 59 Kg [130 lbs]
- Weight: 0.44 Kg [0.99 lbs]
- Bore Ø: 28.57 mm [1.125 in]
- Displacement: 12.22 cm³ [0.746 in³]

Loading Capacity

- Max. Tensile **T**: 3336 N [750 lb]
- Max. Compressive **C**: 6672 N [1500 lb]
- Max. Moment (**M_x/M_y**): 90 Nm [800 in-lb]
- Max. Moment (**M_z**): 136 Nm [1200 in-lb]



RHC-2-R COUPLED TO RHC-2-T
(HIDDEN LINES SHOW RHC-2-T)



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

IMPERIAL ([IN.])	METRIC (MM)
0.00 = ± .01	[0] = [± .25]
0.000 = ± .005	[0.0] = [± .13]
0.0000 = ± .0005	[0.00] = [± .013]

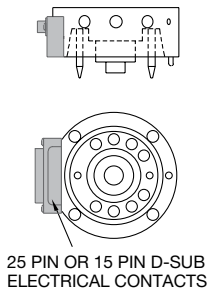
⌀ DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE

THIRD ANGLE PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT). LOCATIONAL TOLERANCE ± .0005" OR [± .013MM]

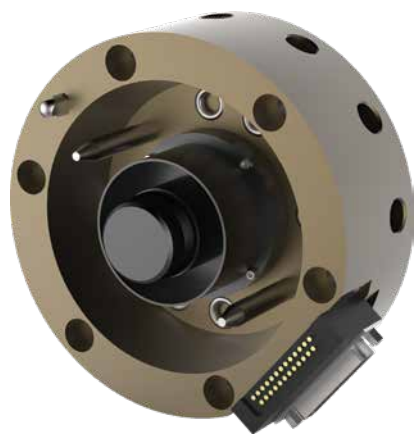
METRIC THREADS COARSE PITCH

Model	Robot Side	Description	Specification
RHC-2	OHCC-011	15 Pin D-Sub Contacts	15 Pin @ 3 AMPS
	OHCC-003	25 Pin D-Sub Contacts	25 Pin @ 3 AMPS



RHC-3-R (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions



RHC-3-R Specification:

Max. Payload (W): 136 Kg [300 lbs]

Weight: 1.79 Kg [3.95 lbs]

Bore Ø: 44.45 mm [1.750 in]

Displacement: 44.34 cm³ [2.706 in³]

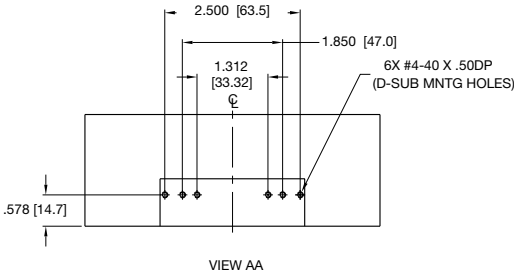
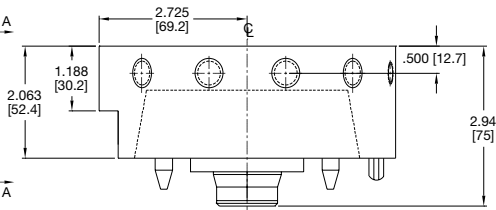
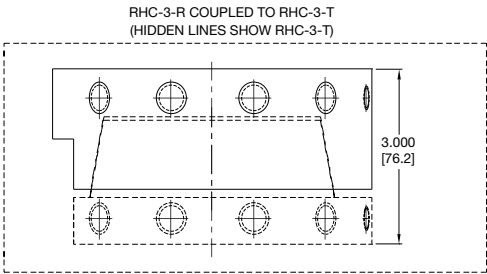
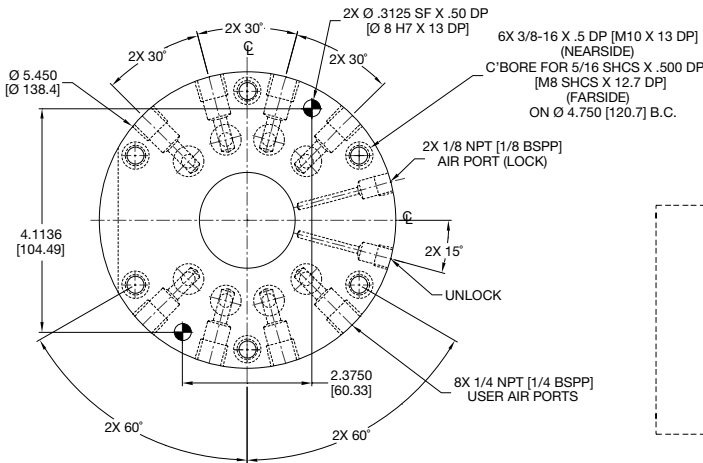
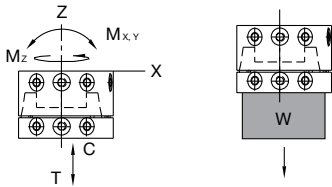
Loading Capacity

Max. Tensile T: 8896 N [2000 lb]

Max. Compressive C: 17793 N [4000 lb]

Max. Moment (M_x/M_y): 678 Nm [6000 in-lb]

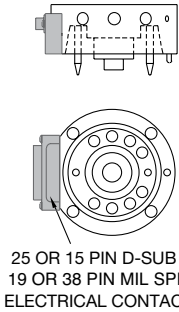
Max. Moment (M_z): 1017 Nm [9000 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

				IMPERIAL ([IN.])	METRIC (MM)
DIMENSIONS ARE SYMMETRICAL ABOUT CENTERLINE	THIRD ANGLE PROJECTION	ALL DOWEL HOLES ARE SF (SLIP FIT). LOCATIONAL TOLERANCE ±.0005" OR [±.013MM]	METRIC THREADS COURSE PITCH	0.00 = ±.01 0.000 = ±.005 0.0000 = ±.0005	[0] = [±.25] [0.0] = [±.13] [0.00] = [±.013]

Model	Robot Side	Description	Specification
RHC-3	OHCC-011	15 Pin D-Sub Contacts	15 Pin @ 3 AMPS
	OHCC-003	25 Pin D-Sub Contacts	25 Pin @ 3 AMPS
	OHCC-005	19 Pin Mil. Spec. Contacts	19 Pin @ 3 AMPS
	OHCC-007	38 Pin Mil. Spec. Contacts	38 Pin @ 3 AMPS



RHC-3-T (TOOLING SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

RHC-3-T Specification:

Max. Payload (**W**): 136 Kg [300 lbs]

Weight: 1.29 Kg [2.85 lbs]

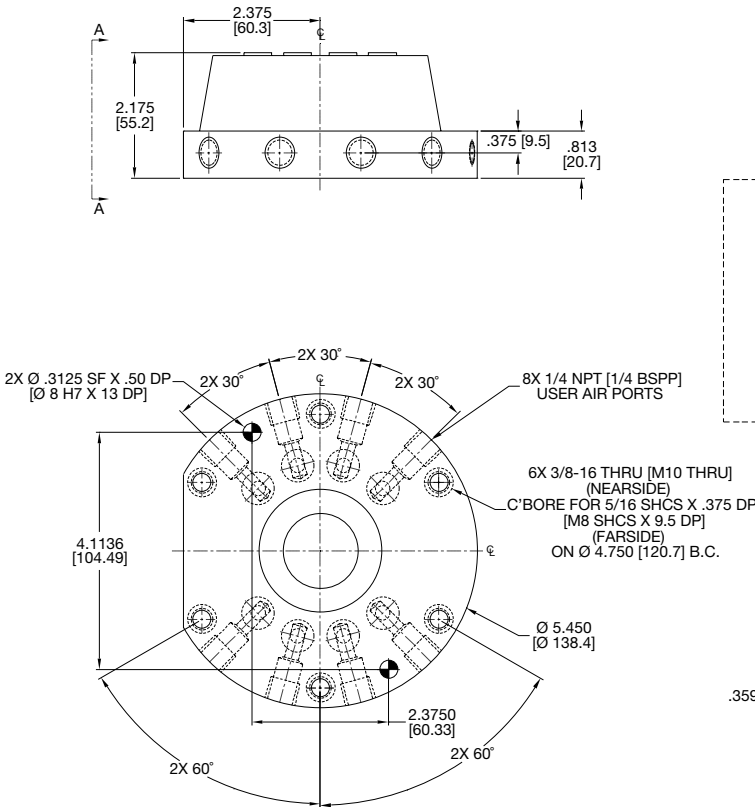
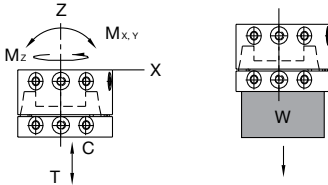
Loading Capacity

Max. Tensile **T**: 8896 N [2000 lb]

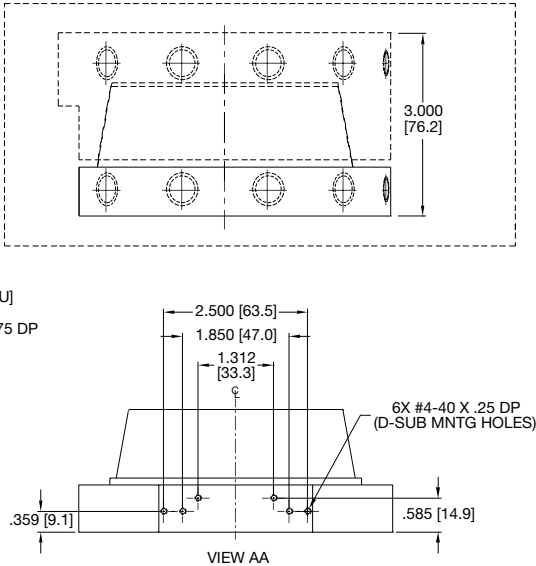
Max. Compressive **C**: 17793 N [4000 lb]

Max. Moment (**M_x/M_y**): 678 Nm [6000 in-lb]

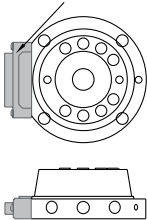
Max. Moment (**M_z**): 1017 Nm [9000 in-lb]



RHC-3-R COUPLED TO RHC-3-T
(HIDDEN LINES SHOW RHC-3-R)



25 OR 15 PIN D-SUB or
19 OR 38 PIN MIL SPEC
ELECTRICAL CONTACTS



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

\varnothing
DIMENSIONS ARE
SYMMETRICAL ABOUT
CENTERLINE

\triangle
THIRD ANGLE
PROJECTION

\oplus
ALL DOWEL HOLES ARE SF (SLIP FIT).
LOCATIONAL TOLERANCE
 $\pm .0005$ " OR [$\pm .013$ MM]

\oplus
METRIC THREADS
COURSE PITCH

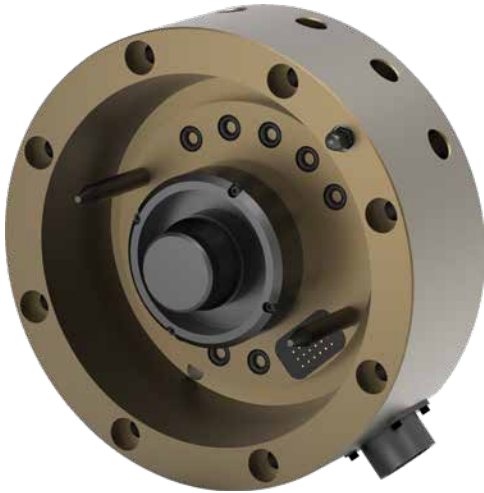
IMPERIAL ([IN.])
0.00 = $\pm .01$
0.000 = $\pm .005$
0.0000 = $\pm .0005$

METRIC (MM)
[0] = [$\pm .25$]
[0.0] = [$\pm .13$]
[0.00] = [$\pm .013$]

Model	Tool Side	Description	Specification
RHC-3	OHCC-010	15 Pin D-Sub Contacts	15 Pin @ 3 AMPS
	OHCC-002	25 Pin D-Sub Contacts	25 Pin @ 3 AMPS
	OHCC-006	19 Pin Mil. Spec. Contacts	19 Pin @ 3 AMPS

RHC-4-R (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions



RHC-4-R Specification:

Max. Payload (**W**): 454 Kg [1000 lbs]

Weight: 6.52 Kg [12.39 lbs]

Bore Ø: 57.15 mm [2.250 in]

Displacement: 85.52 cm³ [85.52 in³]

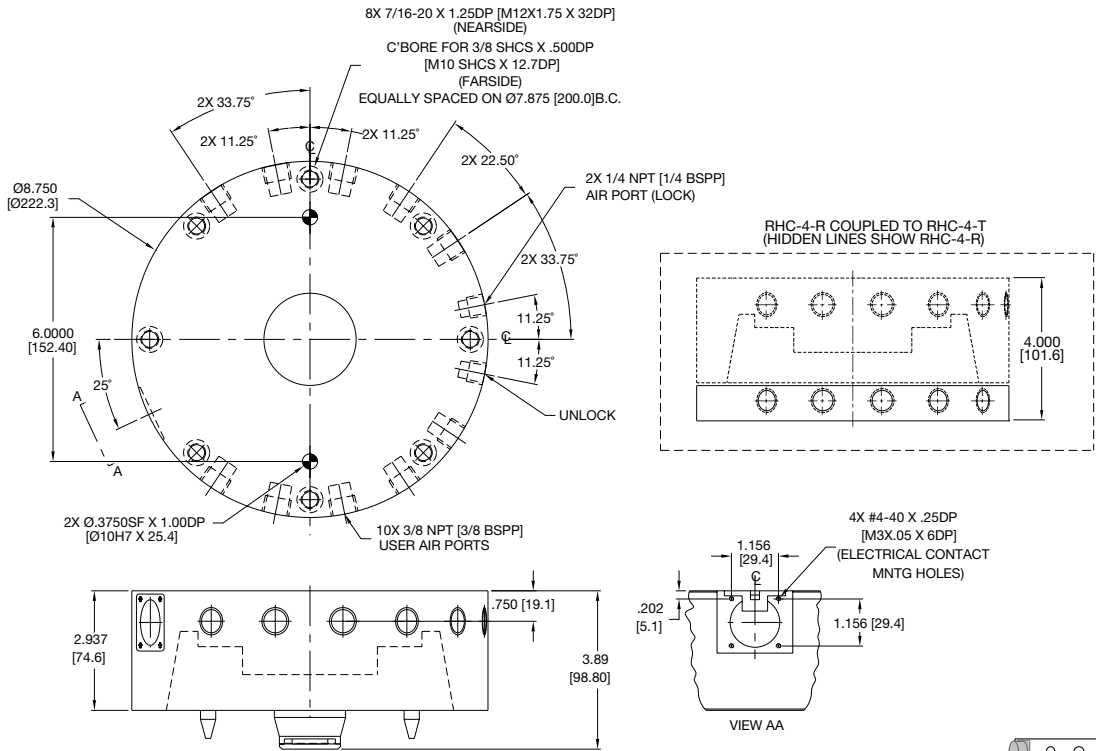
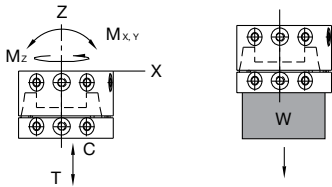
Loading Capacity

Max. Tensile **T**: 35586 N [8000 lb]

Max. Compressive **C**: 71171 N [16000 lb]

Max. Moment (**M_x/M_y**): 2825 Nm [25000 in-lb]

Max. Moment (**M_z**): 2825 Nm [25000 in-lb]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

⌀
DIMENSIONS ARE
SYMMETRICAL ABOUT
CENTERLINE

THIRD ANGLE
PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT).
LOCATIONAL TOLERANCE
±.0005" OR [±.013MM]

METRIC THREADS
COURSE PITCH

IMPERIAL ([IN.])
0.00 = ±.01
0.000 = ±.005
0.0000 = ±.0005

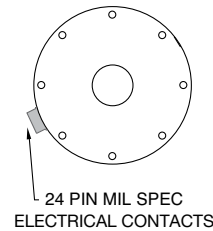
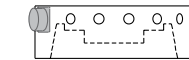
METRIC (MM)
[0] = [±.25]
[0.0] = [±.13]
[0.00] = [±.013]

Model
RHC-4

Robot Side
OHCC-021

Description
24 Pin Mil. Spec. Contacts

Specification
24 Pin @ 3 AMPS



RHC-4-T (TOOLING SIDE)

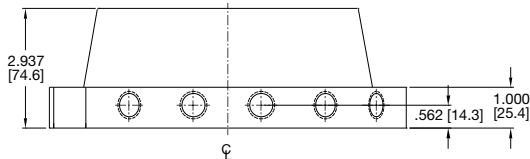
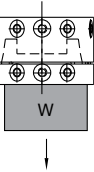
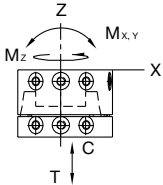
Automatic Tool Changers | Technical Specifications | Dimensions

RHC-4-T Specification:

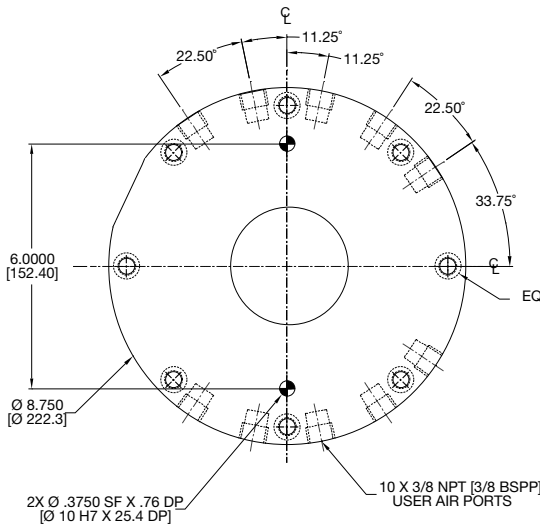
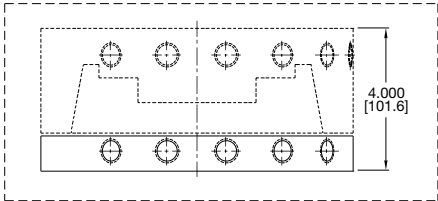
Max. Payload (**W**): 454 Kg [1000 lbs]
Weight: 4.35 Kg [9.61 lbs]

Loading Capacity

Max. Tensile **T**: 35586 N [8000 lb]
Max. Compressive **C**: 71171 N [16000 lb]
Max. Moment (**M_x/M_y**): 2825 Nm [25000 in-lb]
Max. Moment (**M_z**): 2825 Nm [25000 in-lb]

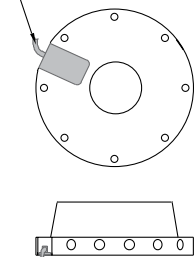


RHC-4-R COUPLED TO RHC-4-T
(HIDDEN LINES SHOW RHC-4-R)



8X 7/16-20 X .75 DP [M12 X 19 DP]
(NEARSIDE)
C'BORE FOR 3/8 SHCS X .375 DP
[M10 SHCS X 9.5 DP]
(FARSIDE)
EQUALLY SPACED ON Ø 7.875 [Ø 200.0] B.C.

INDUCTIVE SENSOR
MOUNTING KIT



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

Ø
DIMENSIONS ARE
SYMMETRICAL ABOUT
CENTERLINE

THIRD ANGLE
PROJECTION

ALL DOWEL HOLES ARE SF (SLIP FIT).
LOCATIONAL TOLERANCE
±.0005" OR [±.013MM]

METRIC THREADS
COURSE PITCH

IMPERIAL ([IN.])
0.00 = ± .01
0.000 = ± .005
0.0000 = ± .0005
METRIC (MM)
[0] = [± .25]
[0.0] = [± .13]
[0.00] = [± .013]

Model	Tool Side	Description	Specification
RHC-4	OHCC-027	24 Pin Mil. Spec. Contacts	24 Pin @ 3 AMPS
	OHCC-023	24 Wire Single Pigtail Connector	
	OHCC-022	24 Wire Double Pigtail Connector	