

# 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

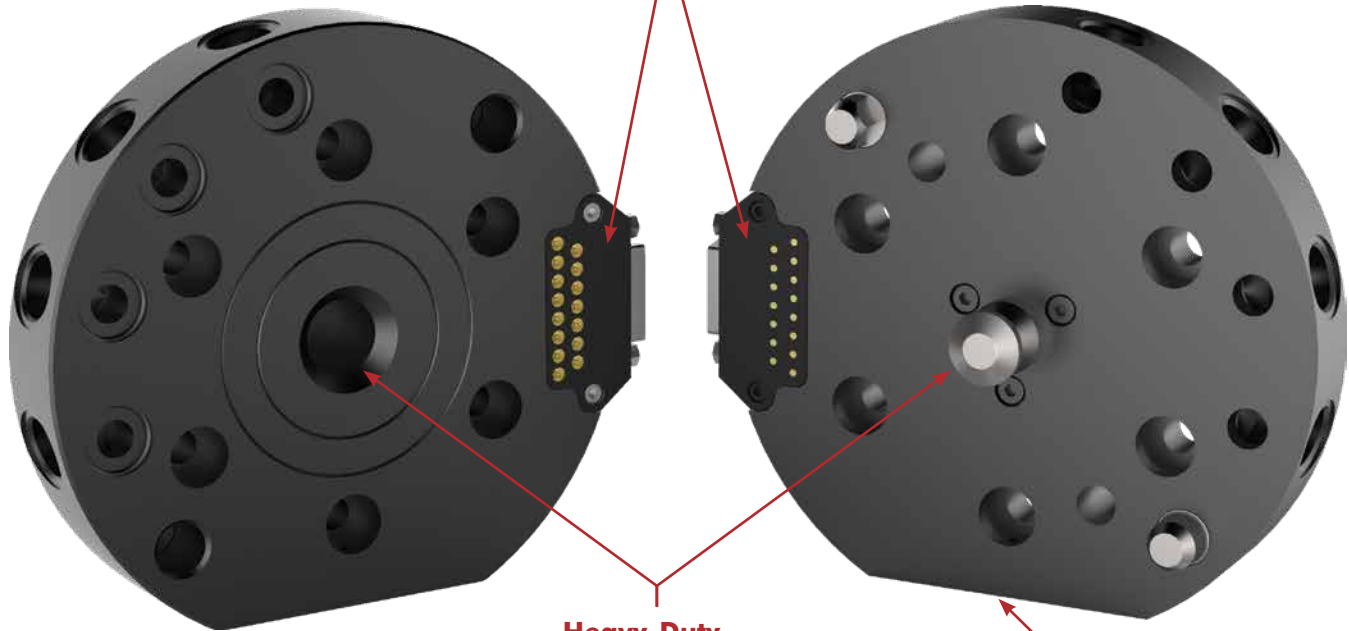
### Self Lubricating Seals

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)

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## Mounting Information



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

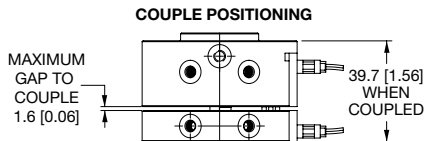


**Tool Half Adaptor**  
has counterbored holes for mounting and two dowel pins for hole location (size 30 has pilot boss)

# 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]

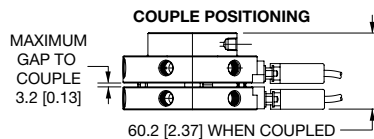


### QC-30/TP-30



**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]

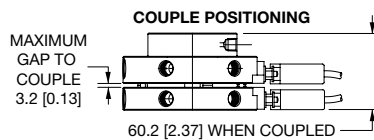


### QC-60/TP-60



**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]

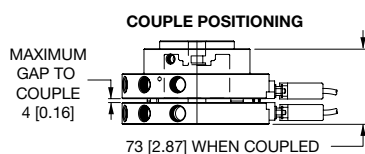


### QC-60-10P/TP-60-10P



**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

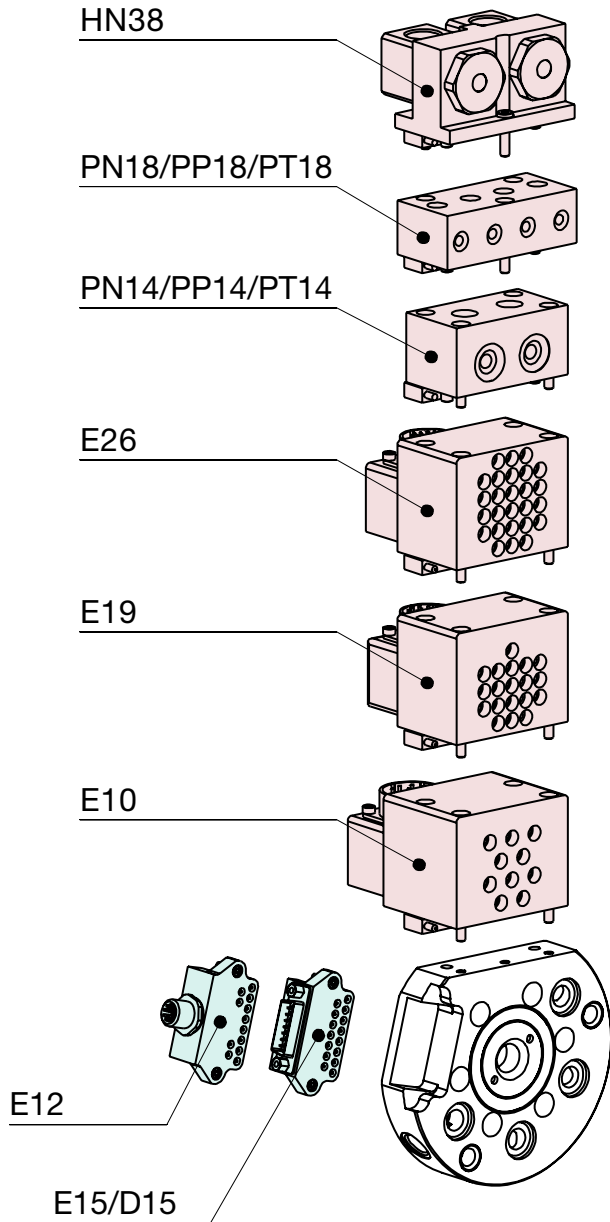


**QC-150** **TP-150P**  
**Robot Adaptor Module** **Tool Adaptor Module**

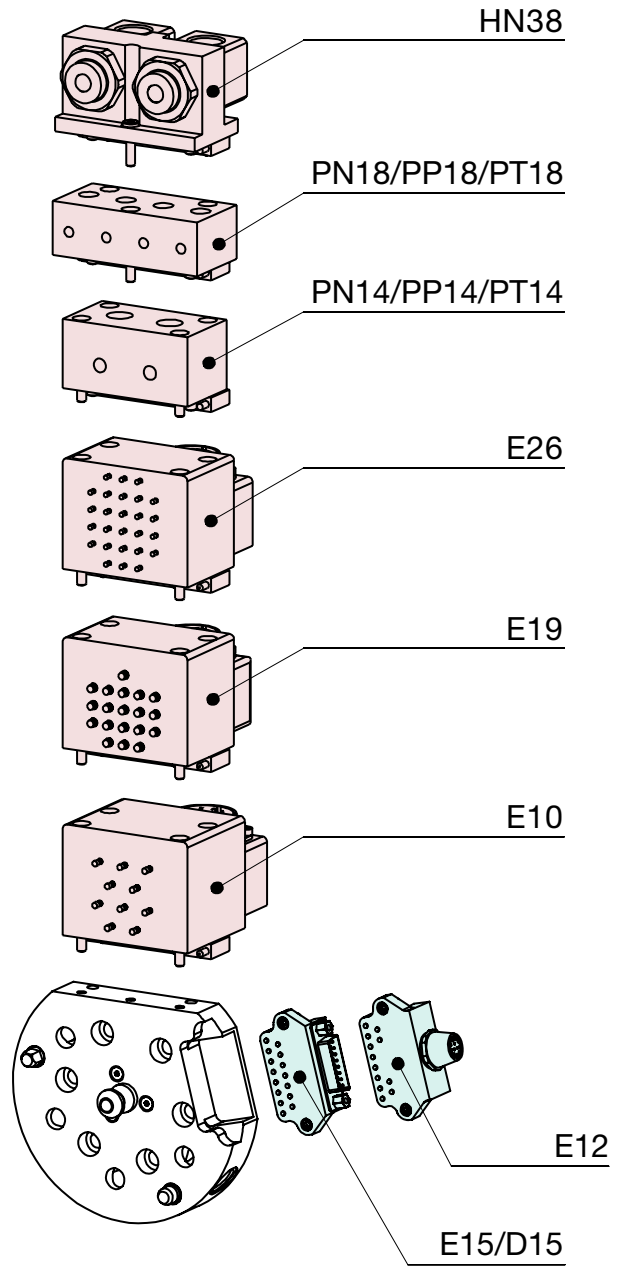
# QC/TP SERIES

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

\*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]

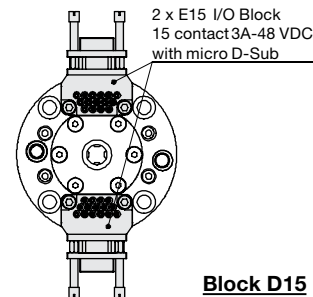
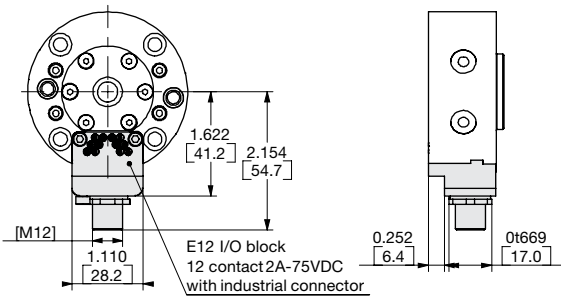
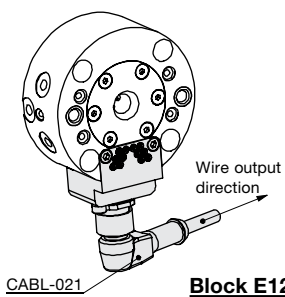
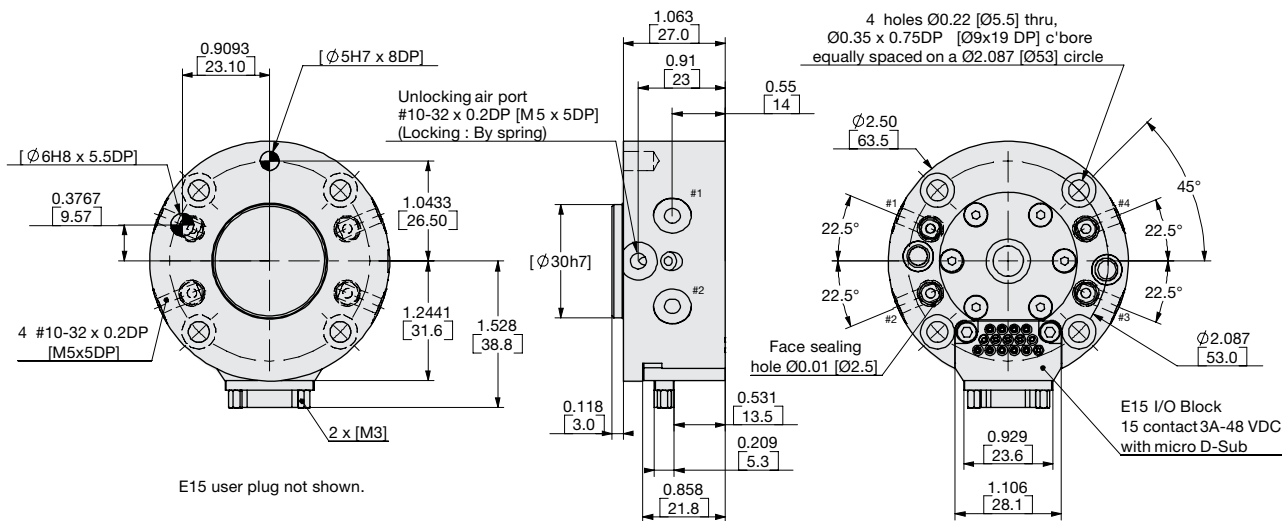
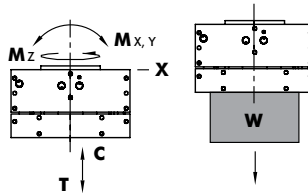
Displacement: 3.9 cm<sup>3</sup> [0.24 in<sup>3</sup>]

### Loading Capacity

Max. Tensile **T**: 311 N [70 lb]

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

Max. Moment (**M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>**): 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). LOCAL 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-30 (TOOLING SIDE)

## Automatic Tool Changers | Technical Specifications | Dimensions

### TP-30 Specification:

Max. Payload: 13.6 Kg [30 lbs]

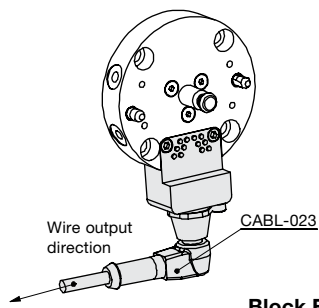
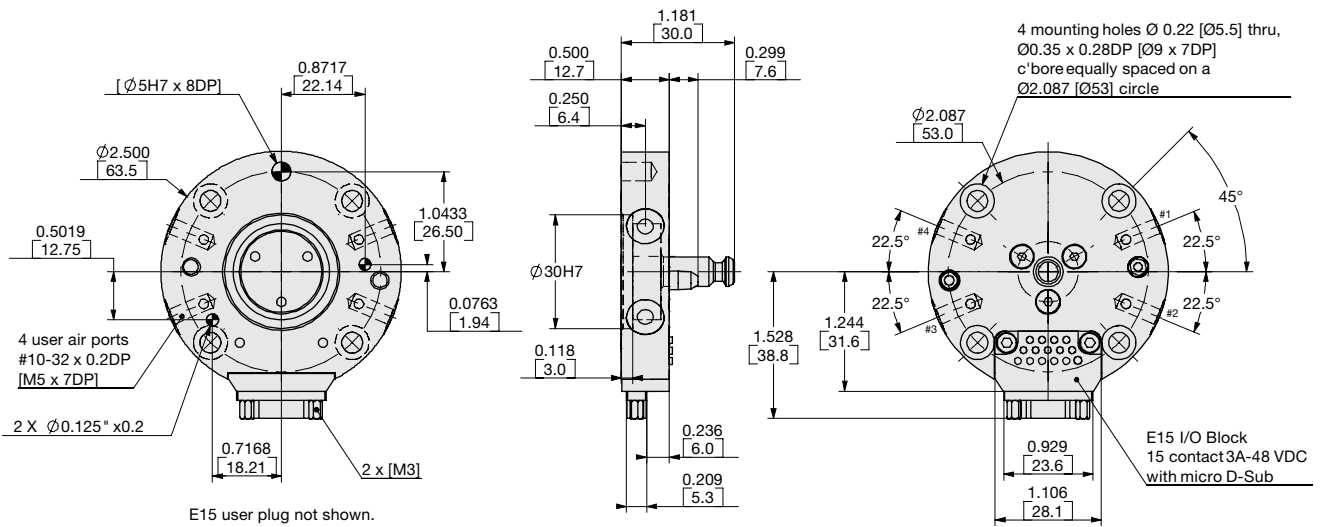
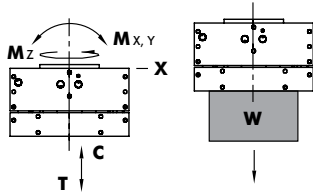
Weight: 0.11 Kg [0.25 lbs]

### Loading Capacity

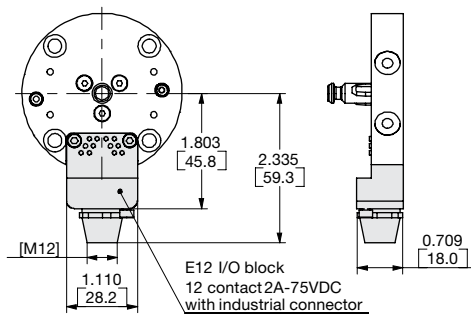
Max. Tensile **T**: 311 N [70 lb]

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

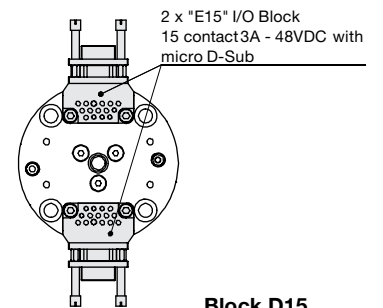
Max. Moment (**M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>**): 22.6 Nm [200 in-lb]



**Block E12**



**Block D15**



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LOCATIONAL TOLERANCE ±.0005" OR [±.013MM]

METRIC THREADS  
COURSE PITCH

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

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

# QC-60 (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions



## QC-60 Specification:

Max. Payload: 27 Kg [60 lbs]

Weight: 0.86 Kg [1.9 lbs]

Bore Ø: 44.5 mm [1.75 in]

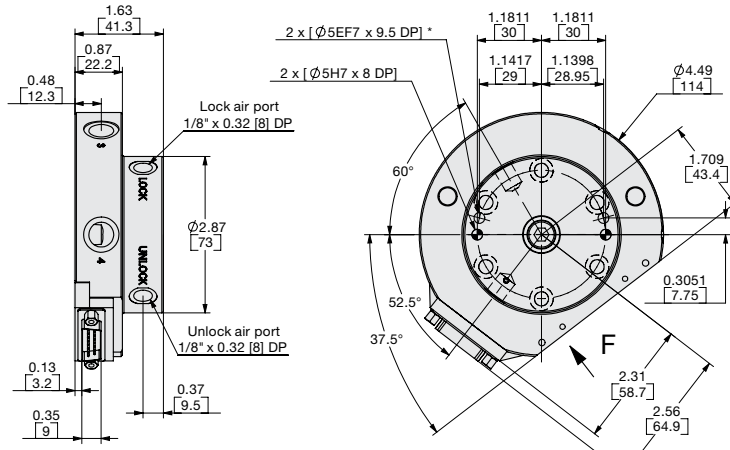
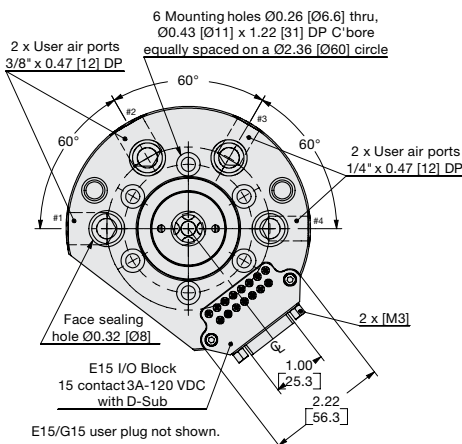
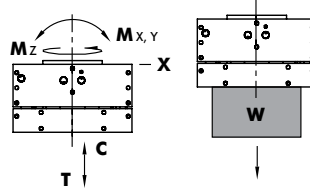
Displacement: 9.2 cm<sup>3</sup> [0.56 in<sup>3</sup>]

## Loading Capacity

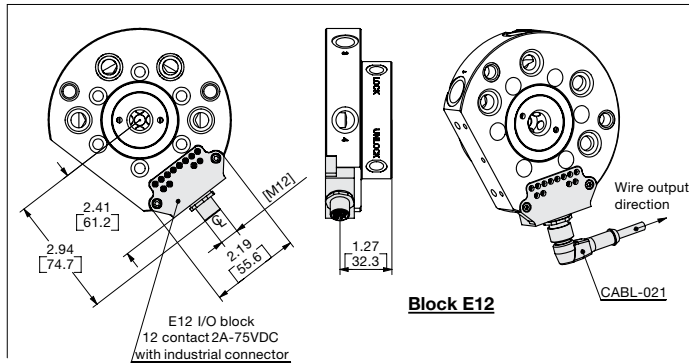
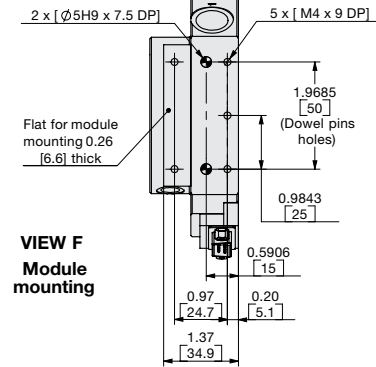
Max. Tensile **T**: 445 N [100 lb]

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

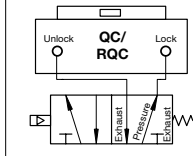
Max. Moment (**M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>**): 88.1 Nm [780 in-lb]



\* : 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.



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THIRD ANGLE PROJECTION

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

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# TP-60 (TOOLING SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

## TP-60 Specification:

Max. Payload: 27 Kg [60 lbs]

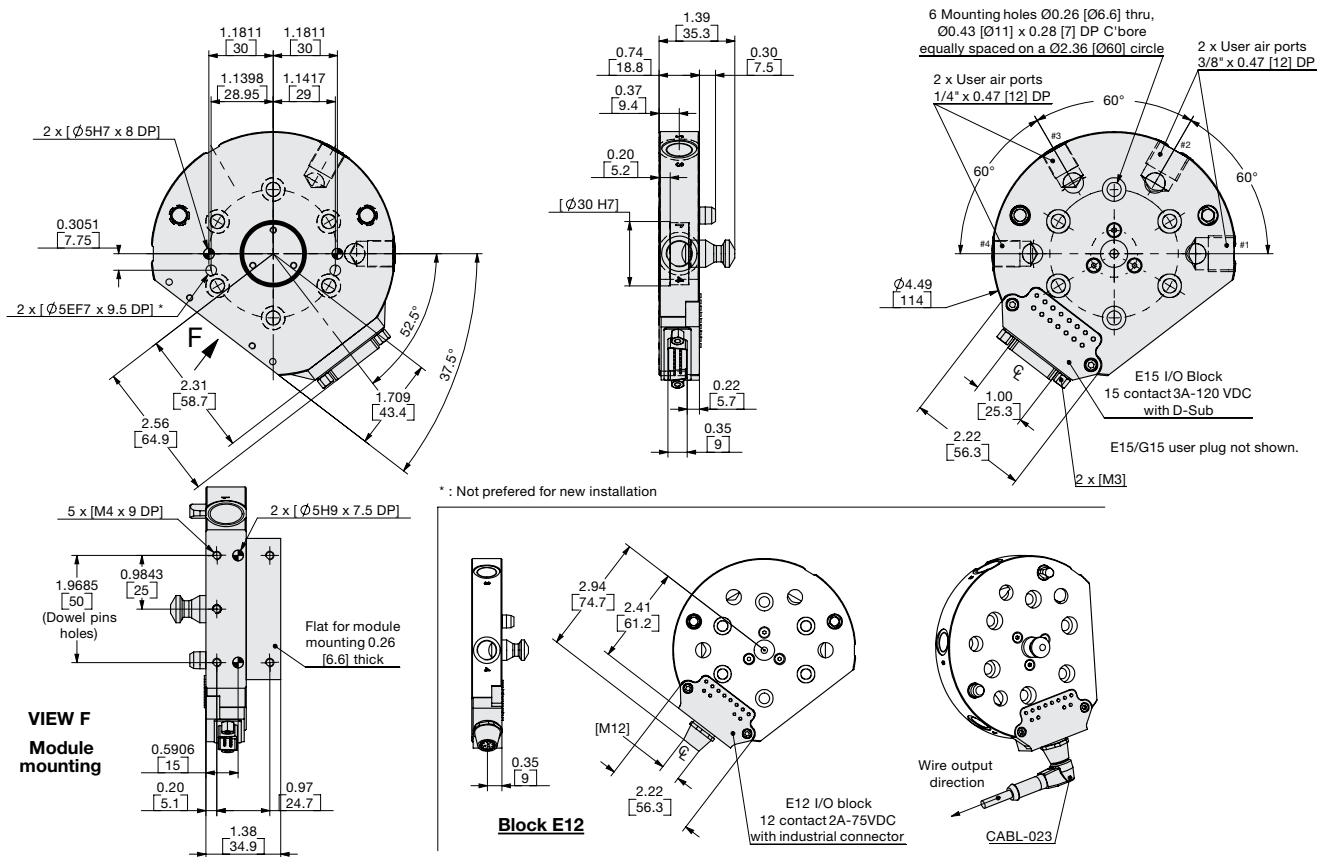
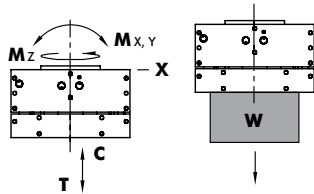
Weight: 0.41 Kg [0.90 lbs]

## Loading Capacity

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

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

Max. Moment (**M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>**): 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]

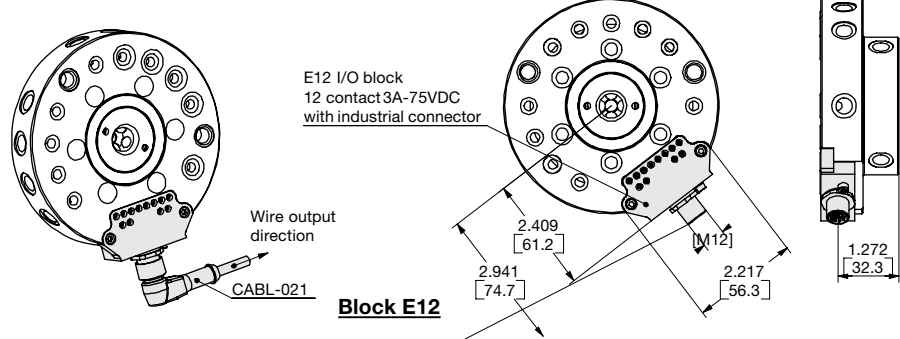
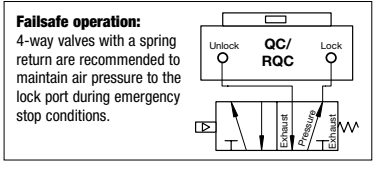
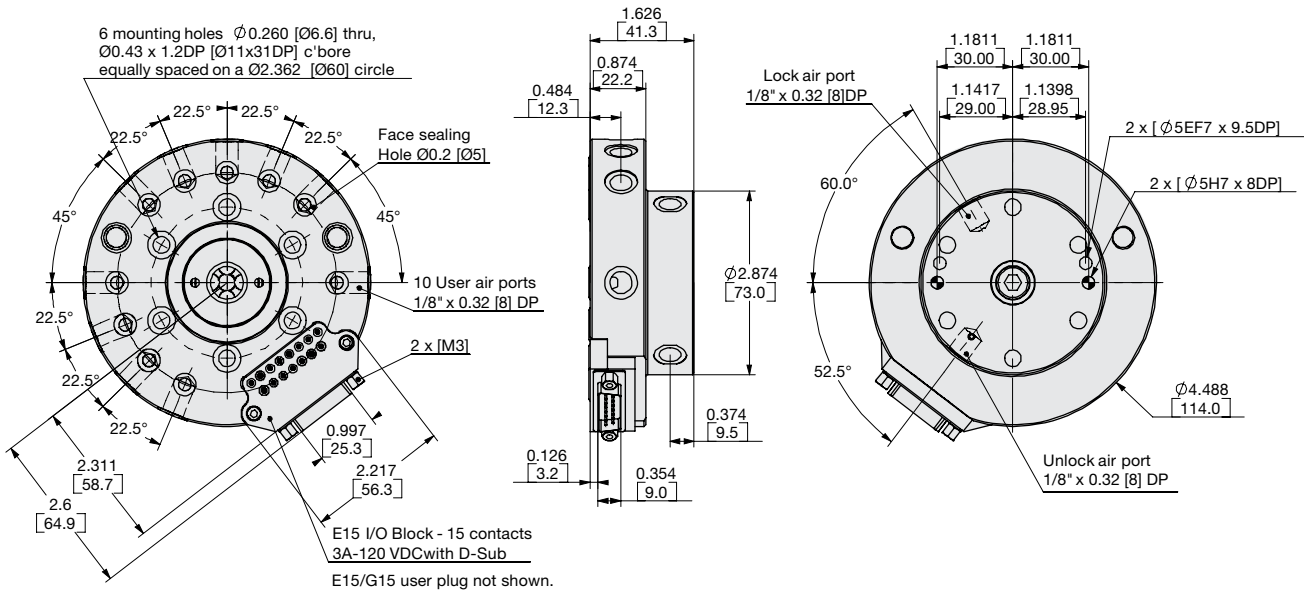
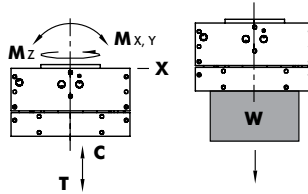
Displacement: 9.2 cm<sup>3</sup> [0.56 in<sup>3</sup>]

## Loading Capacity

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

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

Max. Moment (**M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>**): 88.1 Nm [780 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). LOCAL 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

# TP-60-10P (TOOLING SIDE)

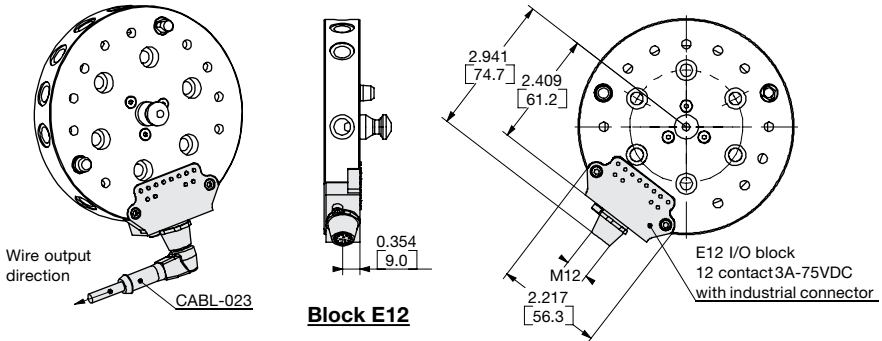
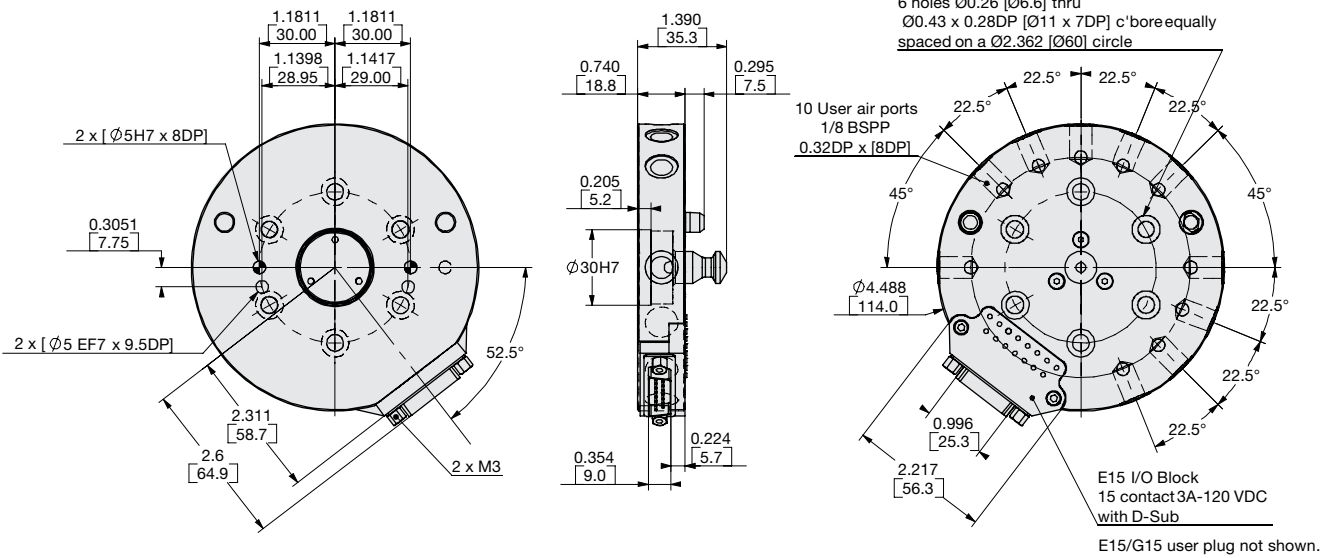
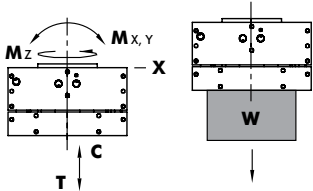
Automatic Tool Changers | Technical Specifications | Dimensions

**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<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>**): 88.1 Nm [780 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]

# 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]

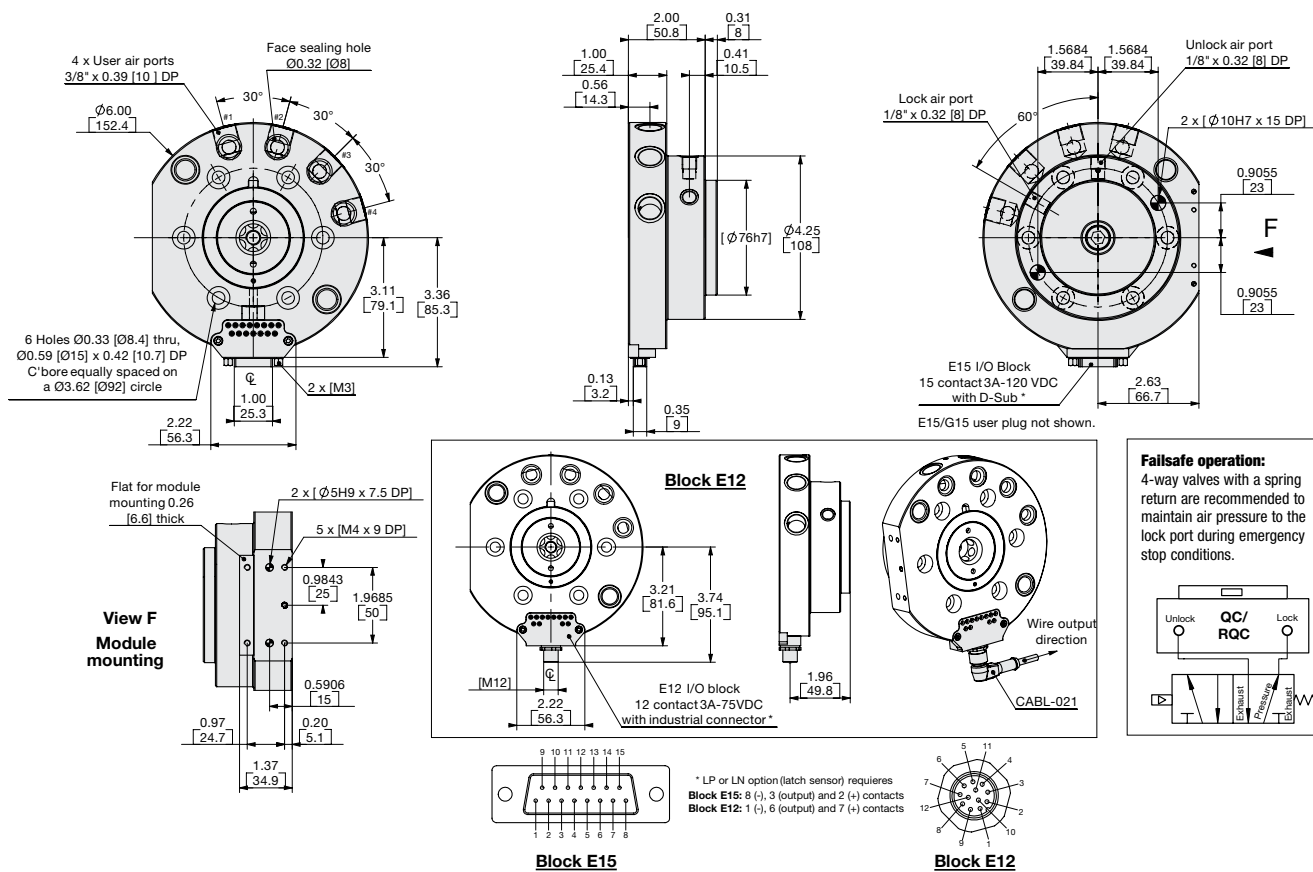
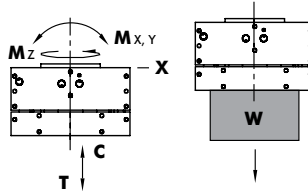
Displacement: 25.4 cm<sup>3</sup> [1.55 in<sup>3</sup>]

### Loading Capacity

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

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

Max. Moment (**M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>**): 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). LOCAL TOLERANCE ±.0005" OR ±.013MM

☉ METRIC THREADS COURSE PITCH

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

METRIC (MM)  
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[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]

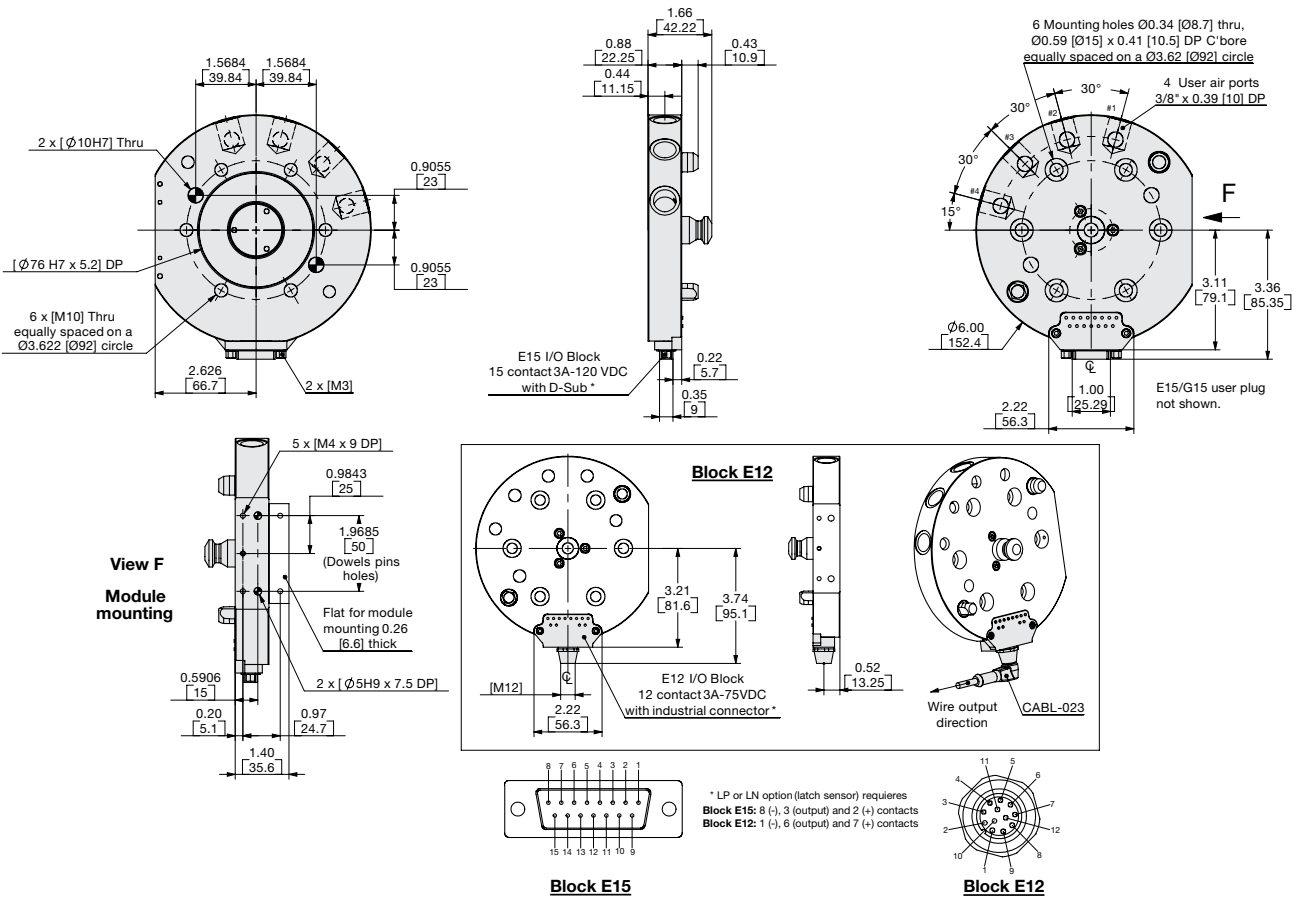
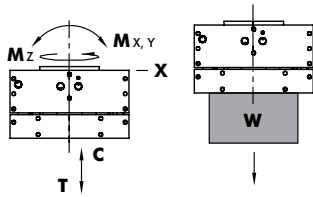
Weight: 1.0 Kg [2.3 lbs]

### Loading Capacity

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

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

Max. Moment (**M<sub>x</sub>/M<sub>y</sub>/M<sub>z</sub>**): 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]

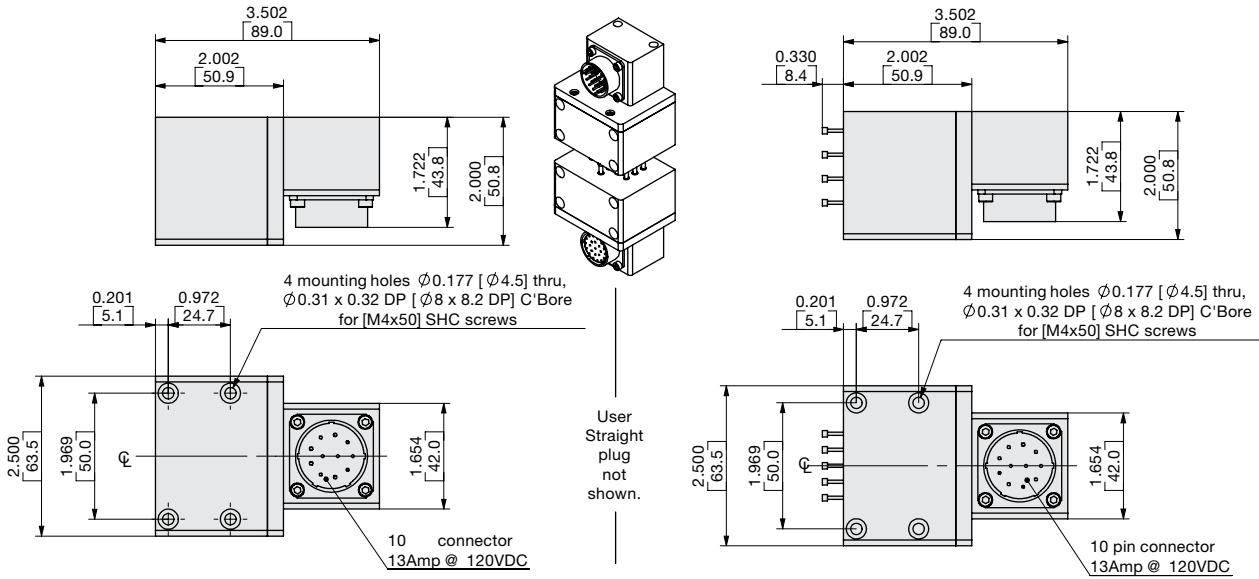
METRIC THREADS  
COURSE PITCH

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[0.0] = [±.13]  
[0.00] = [±.013]

# QC/TP SERIES

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



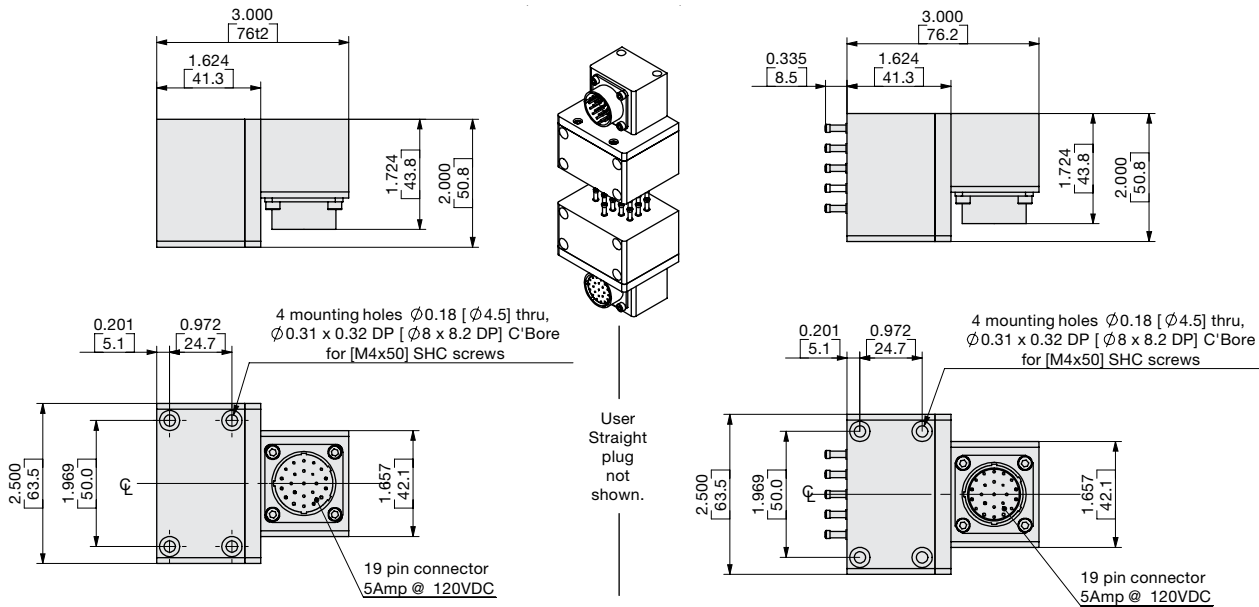
Flat for module mounting not shown: See QC or TP drawings.

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



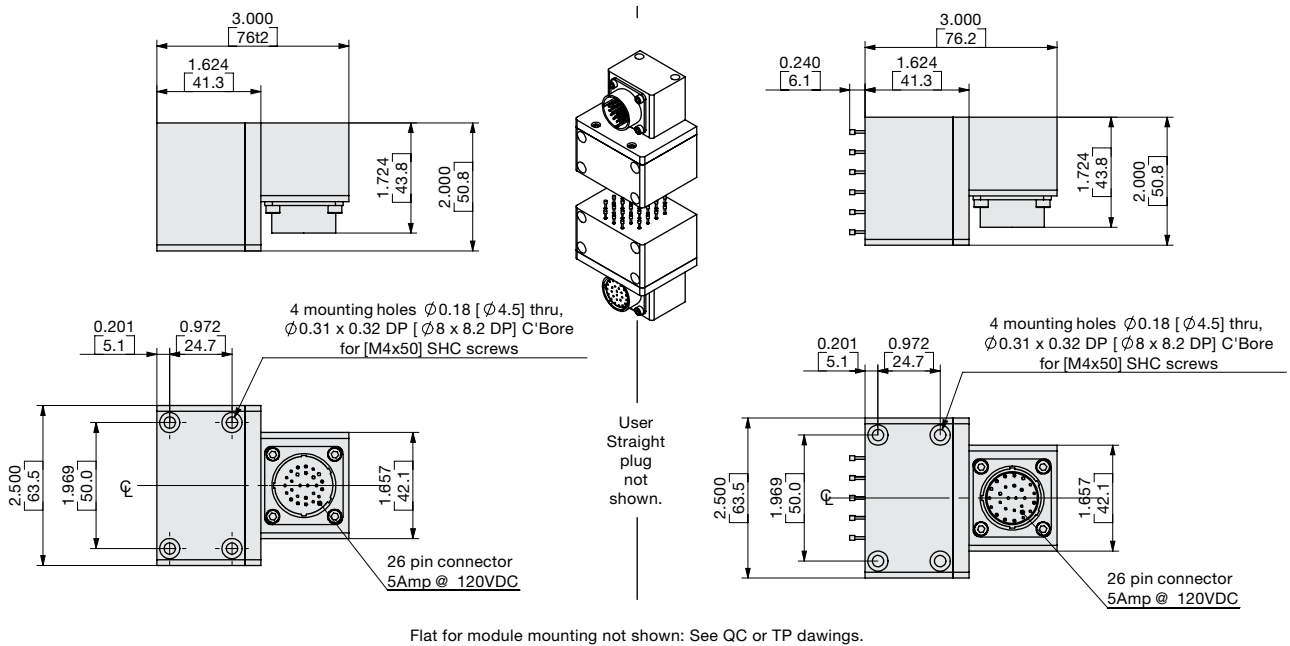
Flat for module mounting not shown: See QC or TP drawings.

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.

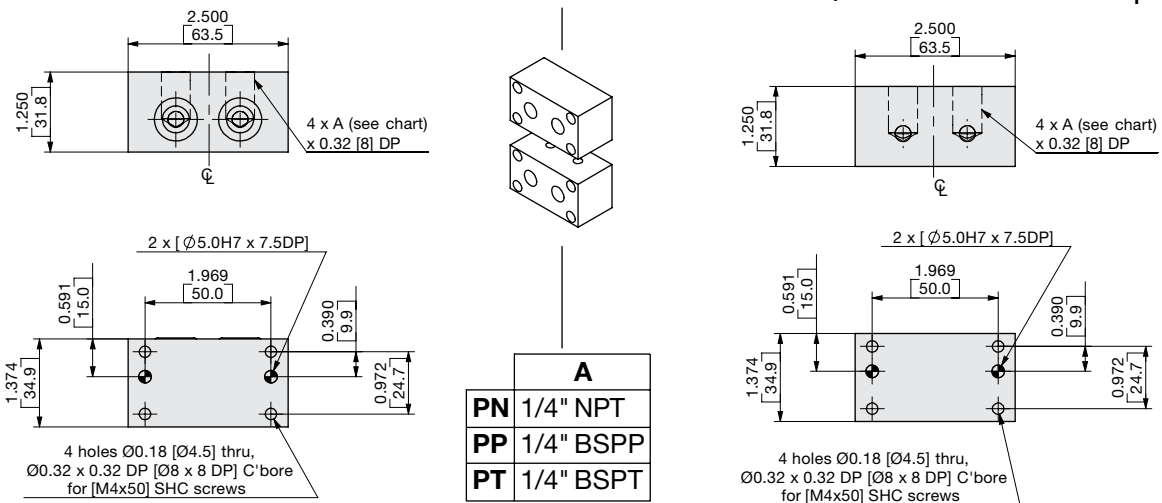
## Automatic Tool Changers | Dimensions | 26-Pin Module 5Amp @ 120VDC Electric Module



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.



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	---

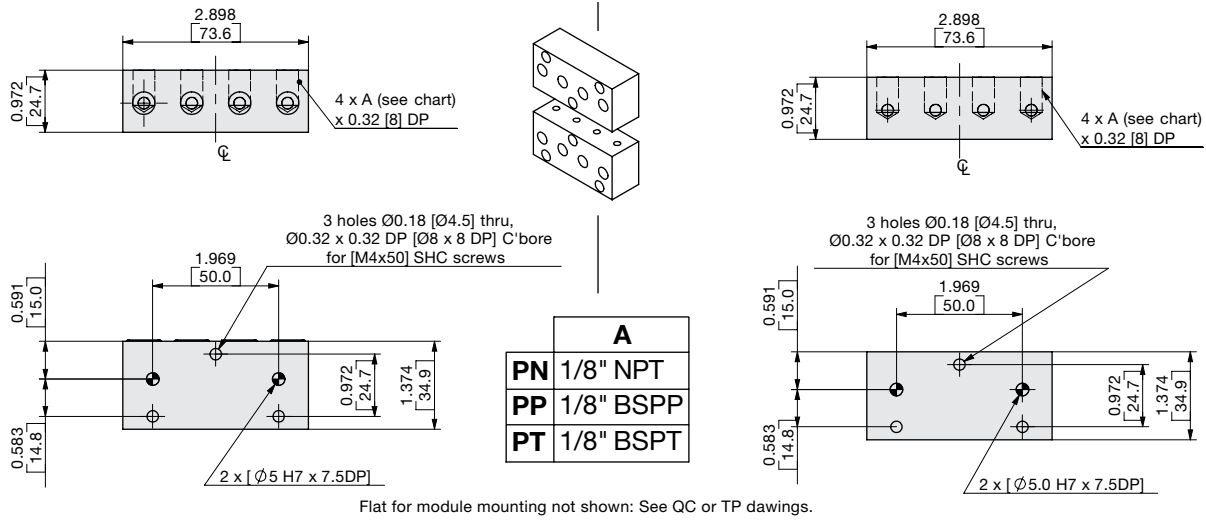
For **QC/TP-150**

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**

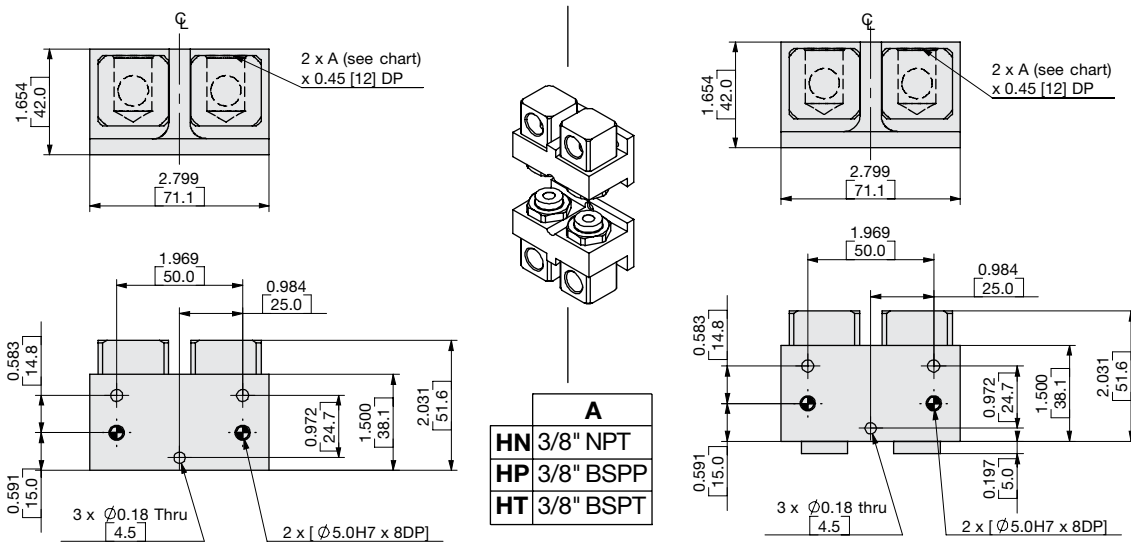
For **QC/TP-150**

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

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

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**

For **QC/TP-150**

Module	Robot Side	Tool Side
<b>HN38</b>	<b>KHN38-QC60</b>	<b>KHN38-TP60</b>

Module	Robot Side	Tool Side
<b>HN38</b>	<b>KHN38-QC150</b>	<b>KHN38-TP150</b>

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

# QC/TP SERIES

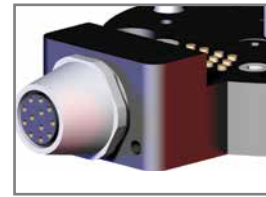
## Automatic Tool Changers | Dimensions | Sub-D Conn and User Plug IO Block



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.