

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

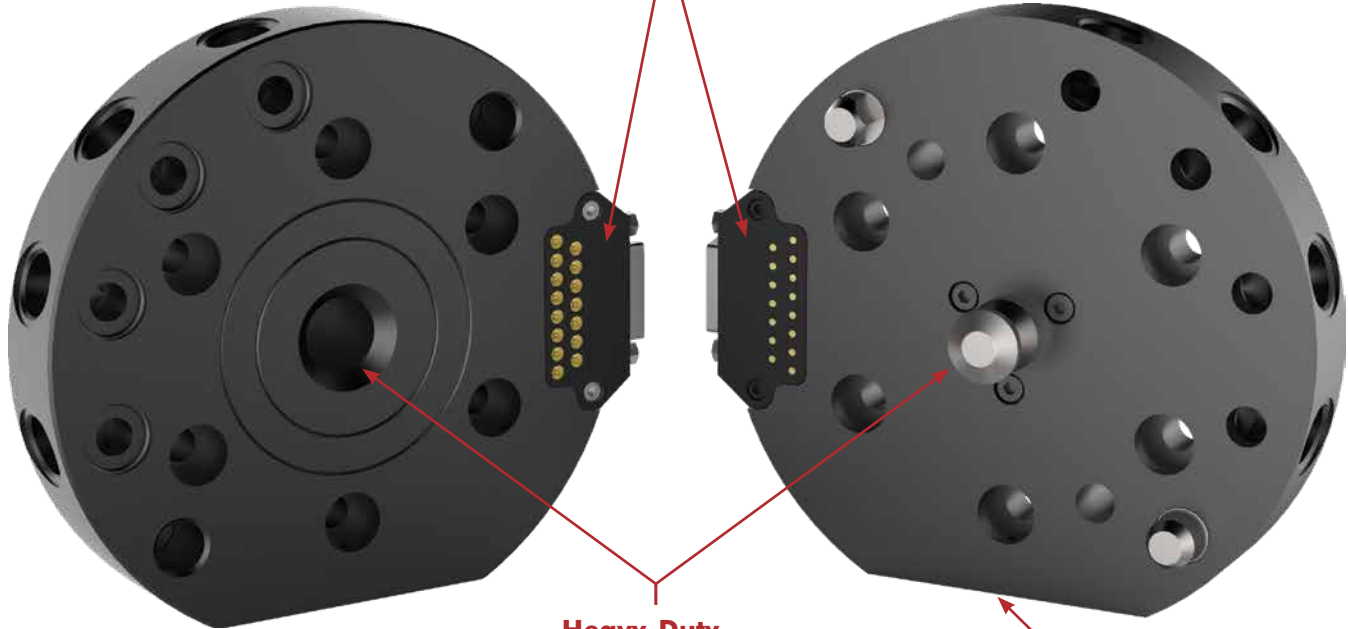
Self lubricating dynamic seals

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

Mounting Information



Robot Half Adaptor

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



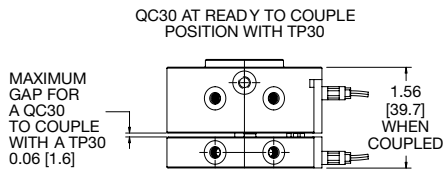
Tool Half Adaptor

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



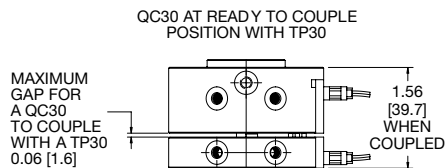
QC-30

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



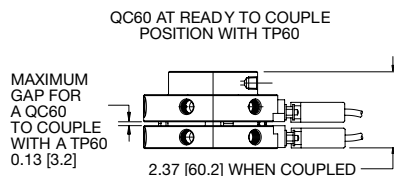
QC-60

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



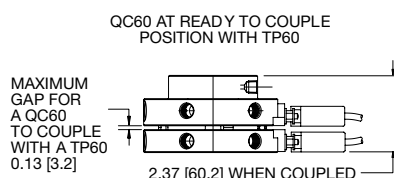
QC-60-10P

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

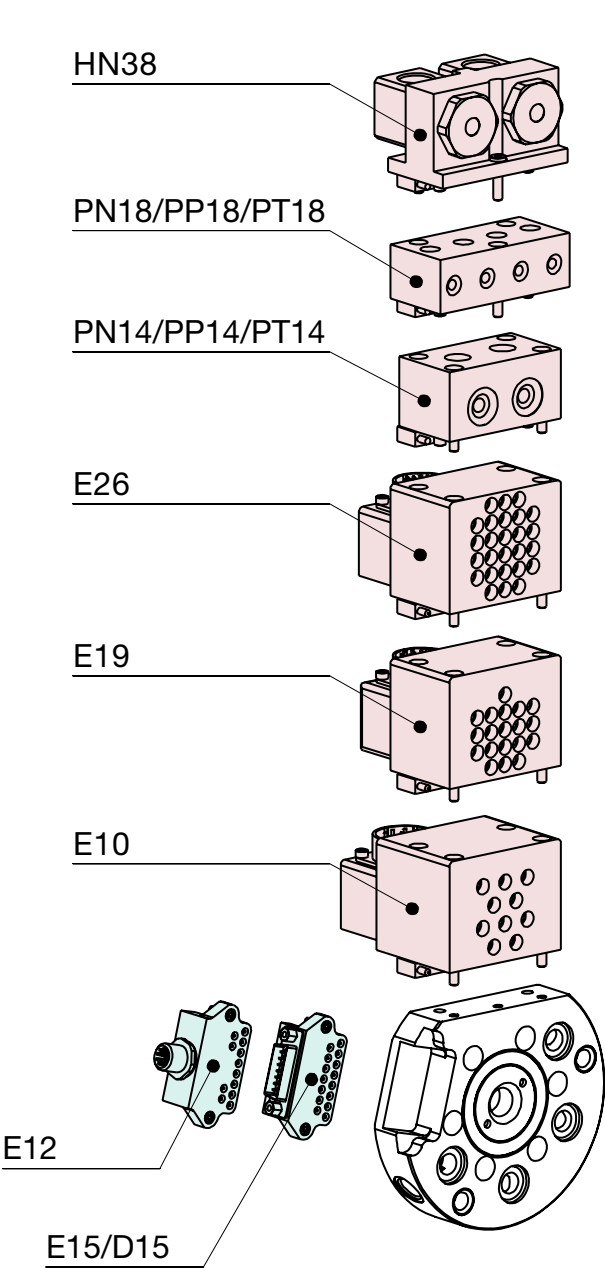
Robot Adaptor Module

Tool Adaptor Module

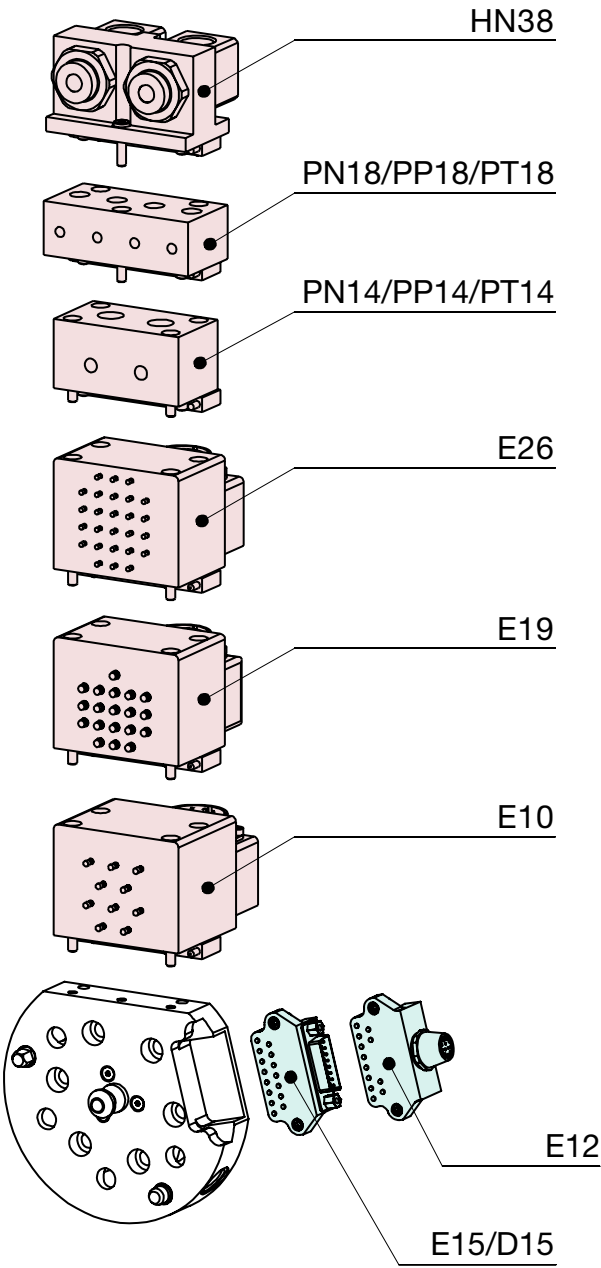
QC/TP SERIES

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	I/O Block	Optional Modules	10-Port (for QC/TP-60 only)
QC	60	M	E15	PN18	10P
"QC" Robot Side Adaptor Module "TP" Tool Side Adaptor Module	"30" 13.6kg [30 lb] Max. Payload "60" 27kg [60 lb] Max. Payload "150" 68kg [150 lb] Max. Payload	"Blank" NPT Port "M" BSPP Port "A" BSPT Port	"0" No I/O Block "E15" 15-pin, Sub-D "D15" (2) x E15 (QC/TP-30 only) "E12" 12-pin, Turck	Optional modules below are used with QC/TP-60 and QC/TP-150 only "E26" 26-PIN 5A Module "E19" 19-PIN 5A Module "E10" 10-PIN 13A Module "PN18" 4 X 1/8" NPT Pneumatic Port "PP18" 4 X 1/8" BSPP Pneumatic Port "PT18" 4 X 1/8" BSPT Pneumatic Port "PN14" 2 X 1/4" NPT Pneumatic Port "PP14" 2 X 1/4" BSPP Pneumatic Port "PT14" 4 X 1/4" BSPT Pneumatic Port "HN38" 2 X 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]

Max. Moment Rating: 22.6 Nm [200 in.-lbs]

Weight of QC Unit only: 0.23 Kg [0.50 lbs]

Weight of Coupled Units: 0.34 Kg [0.75 lbs]

Bore Ø: 25.4 mm [1.00 in]

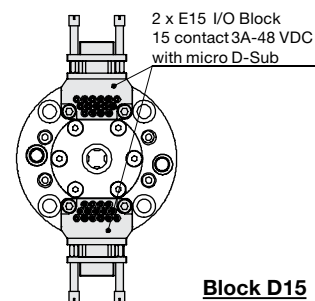
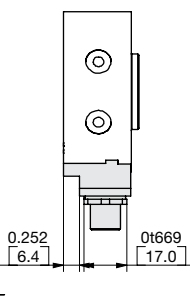
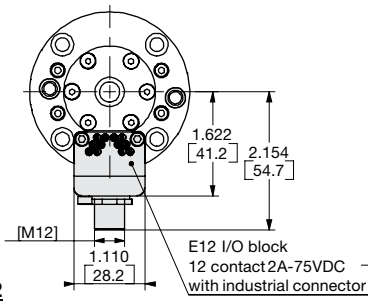
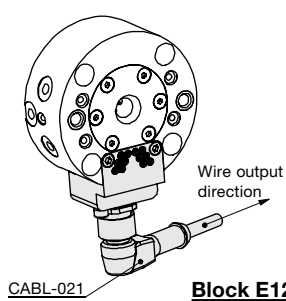
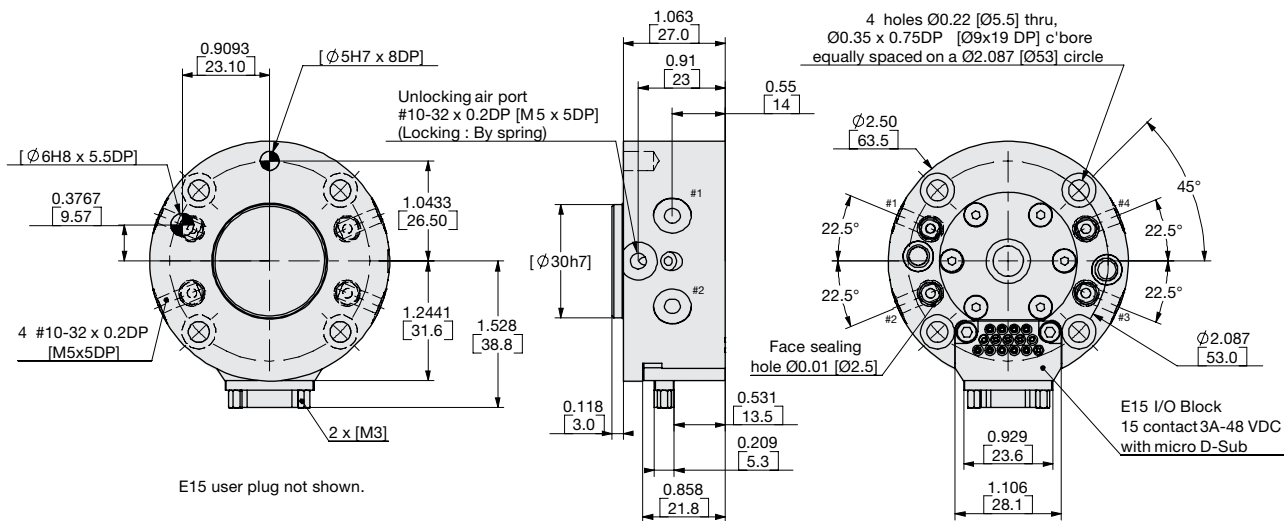
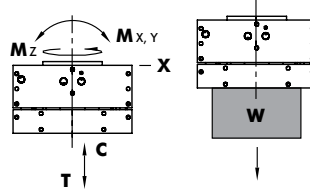
Displacement: 3.9 cm³ [0.24 in³]

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]

TP-30 (TOOLING SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

TP-30 Specification:

Max. Payload: 13.6 Kg [30 lbs]

Max. Moment Rating: 22.6 Nm [200 in.-lbs]

Weight of TP Unit only : 0.11 Kg [0.25 lbs]

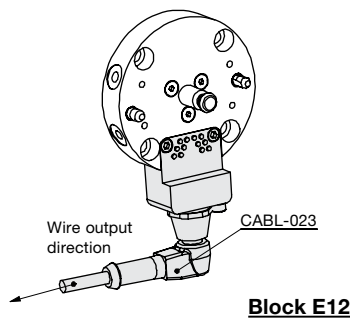
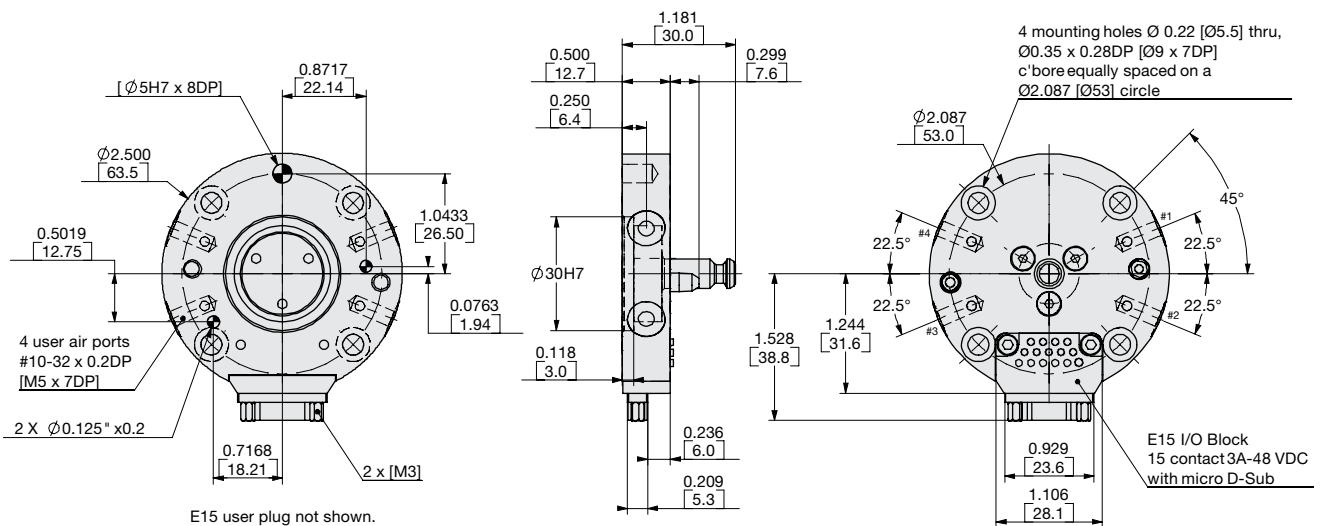
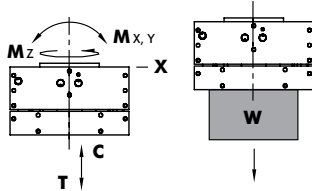
Weight of Coupled Units: 0.34 Kg [0.75 lbs]

Loading Capacity

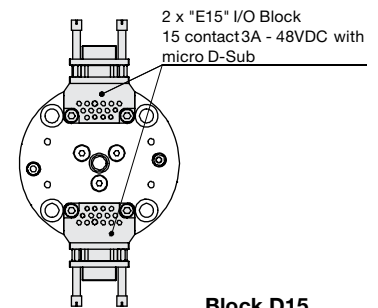
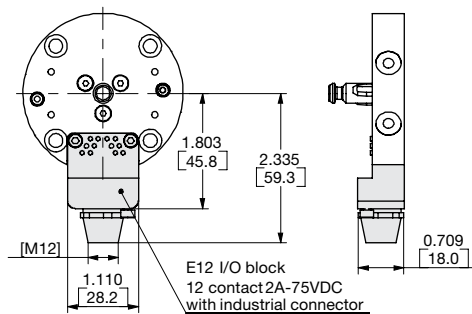
Max. Tensile **T**: 311 N [70 lb]

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

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



Block E12



Block D15

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COURSE PITCH

IMPERIAL ([IN.])
0.00 = $\pm .01$
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[0.00] = $\pm .013$

QC-60 (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

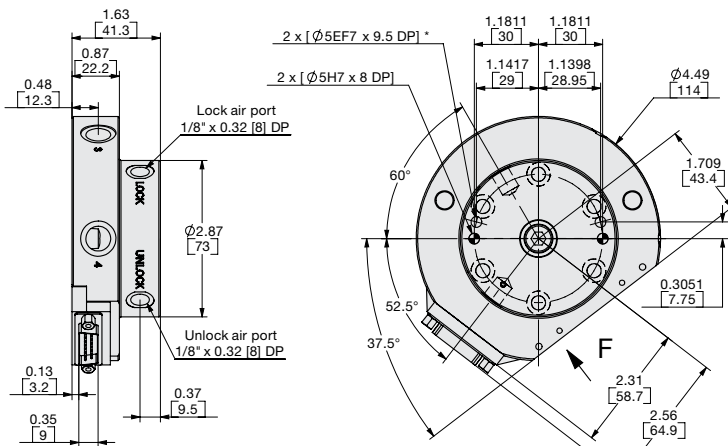
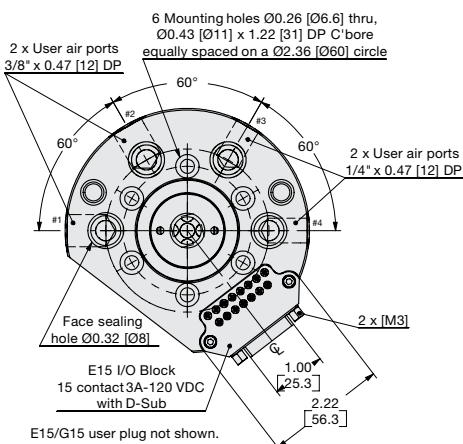
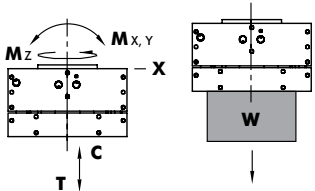


QC-60 Specification:

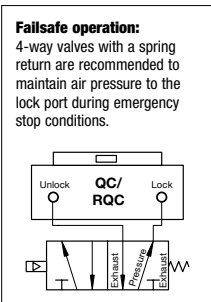
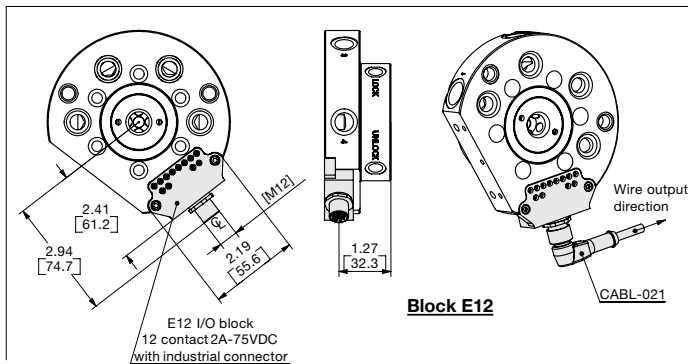
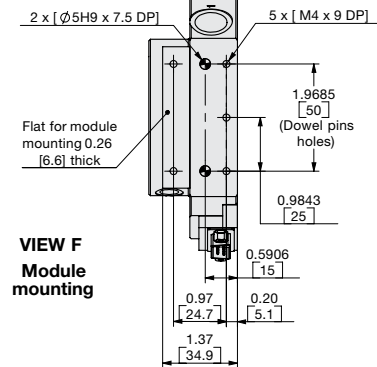
- Max. Payload: 27 Kg [60 lbs]
- Max. Moment Rating: 88.1 Nm [780 in.-lbs]
- Weight of QC Unit only: 0.86 Kg [1.9 lbs]
- Weight of Coupled Units: 1.27 Kg [2.8 lbs]
- Bore Ø: 44.5 mm [1.75 in]
- Displacement: 9.2 cm³ [0.56 in³]

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



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±.0005" OR ±.013MM

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COURSE PITCH

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TP-60 (TOOLING SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

TP-60 Specification:

Max. Payload: 27 Kg [60 lbs]

Max. Moment Rating: 88 Nm [780 in.-lbs]

Weight of TP Unit only: 0.41 Kg [0.90 lbs]

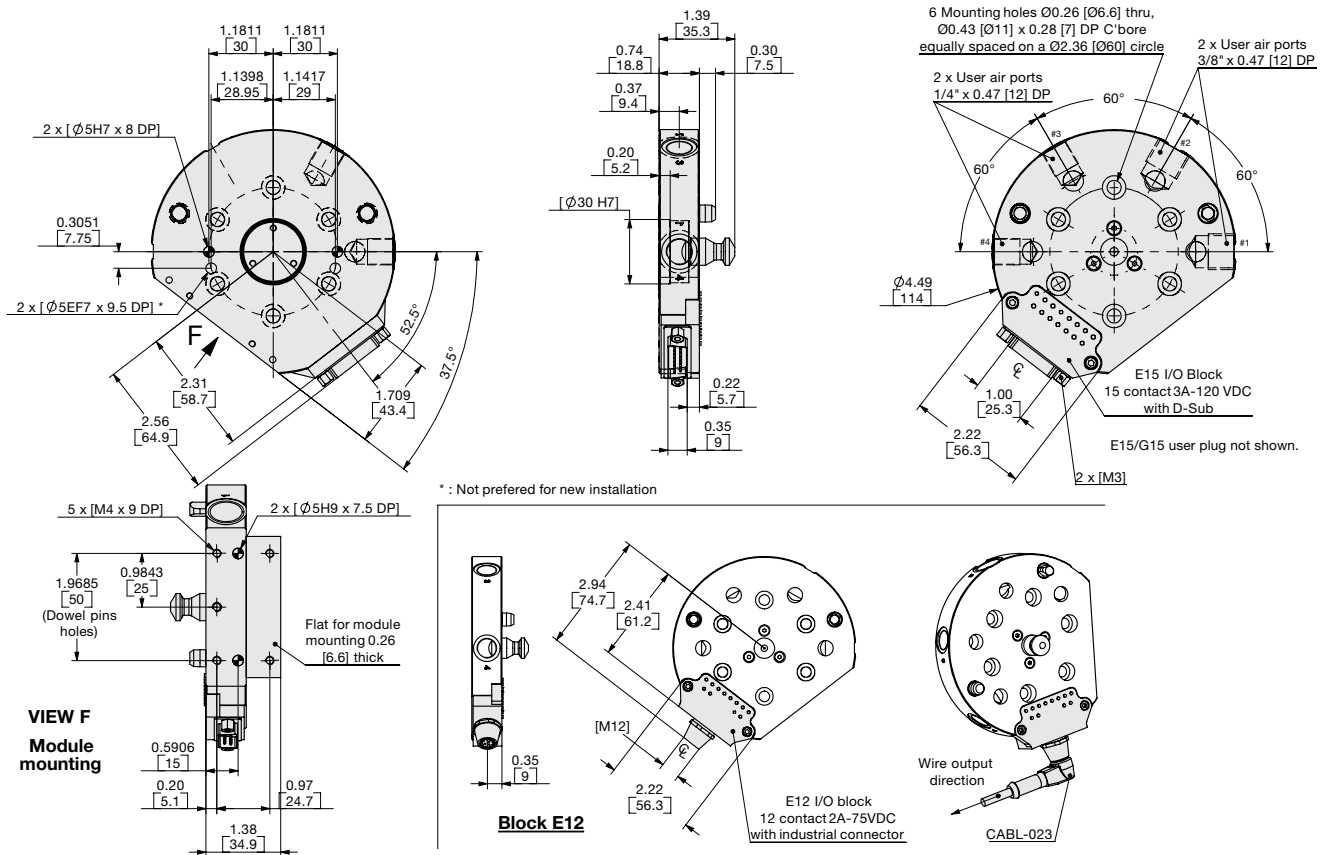
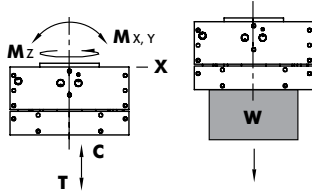
Weight of Coupled Units: 1.27 Kg [2.8 lbs]

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.]



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COURSE PITCH

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[0.0] = [±.13]
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QC-60-10P (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

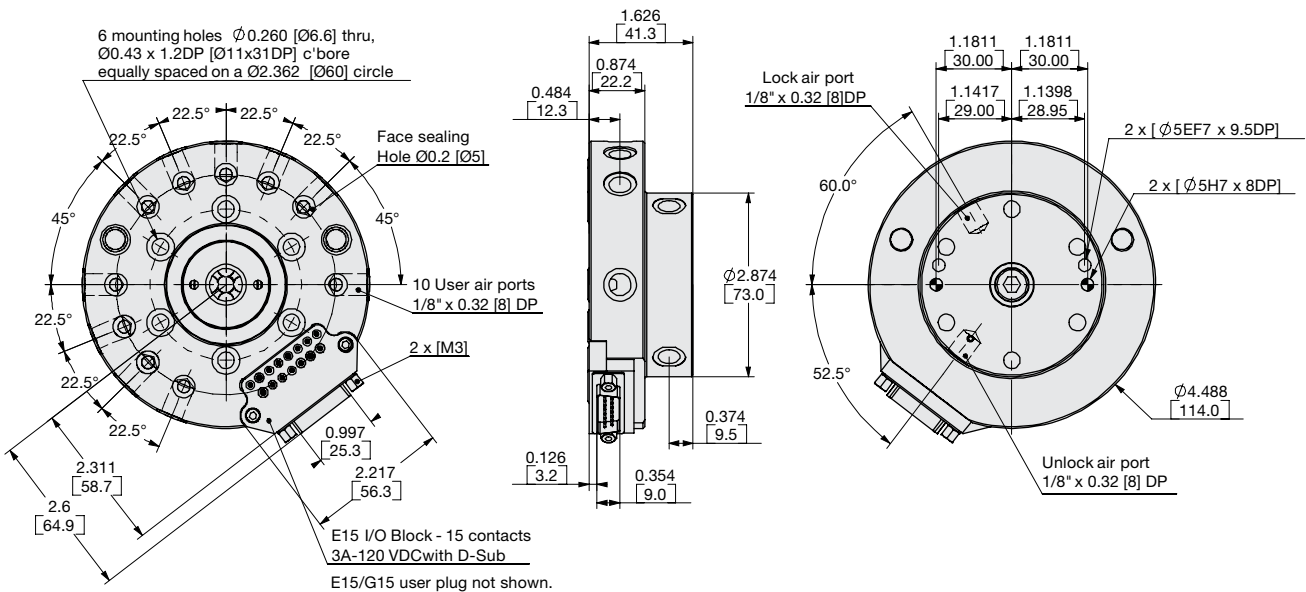
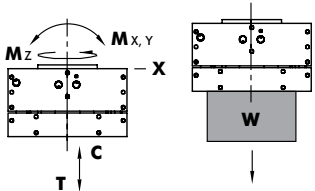


QC-60-10P Specification:

- Max. Payload: 27 Kg [60 lbs]
- Max. Moment Rating: 88.1 Nm [780 in.-lbs]
- Weight of QC Unit only: 0.86 Kg [1.9 lbs]
- Weight of Coupled Units: 1.27 Kg [2.8 lbs]
- Bore Ø: 44.5 mm [1.75 in]
- Displacement: 9.2 cm³ [0.56 in³]

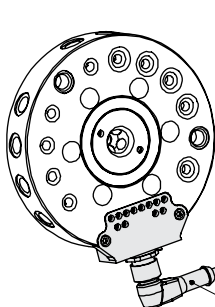
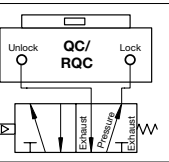
Loading Capacity

- 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.]



Failsafe operation:

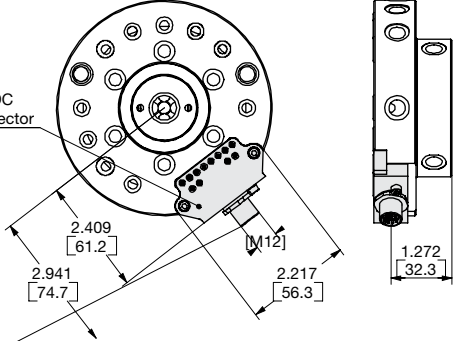
4-way valves with a spring return are recommended to maintain air pressure to the lock port during emergency stop conditions.



Wire output direction
CABL-021

E12 I/O block
12 contact 3A-75VDC
with industrial connector

Block E12



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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]

Max. Moment Rating: 88 Nm [780 in.-lbs]

Weight of TP Unit only: 0.41 Kg [0.90 lbs]

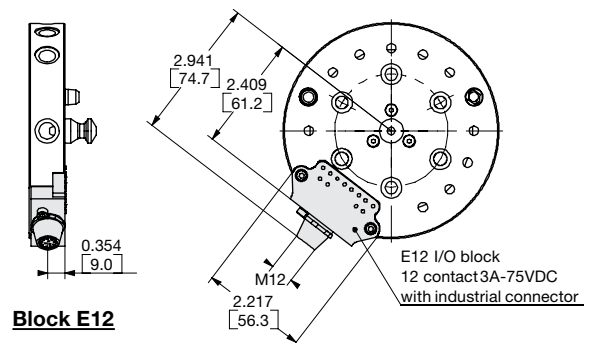
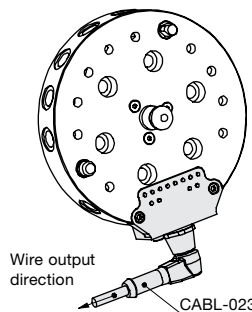
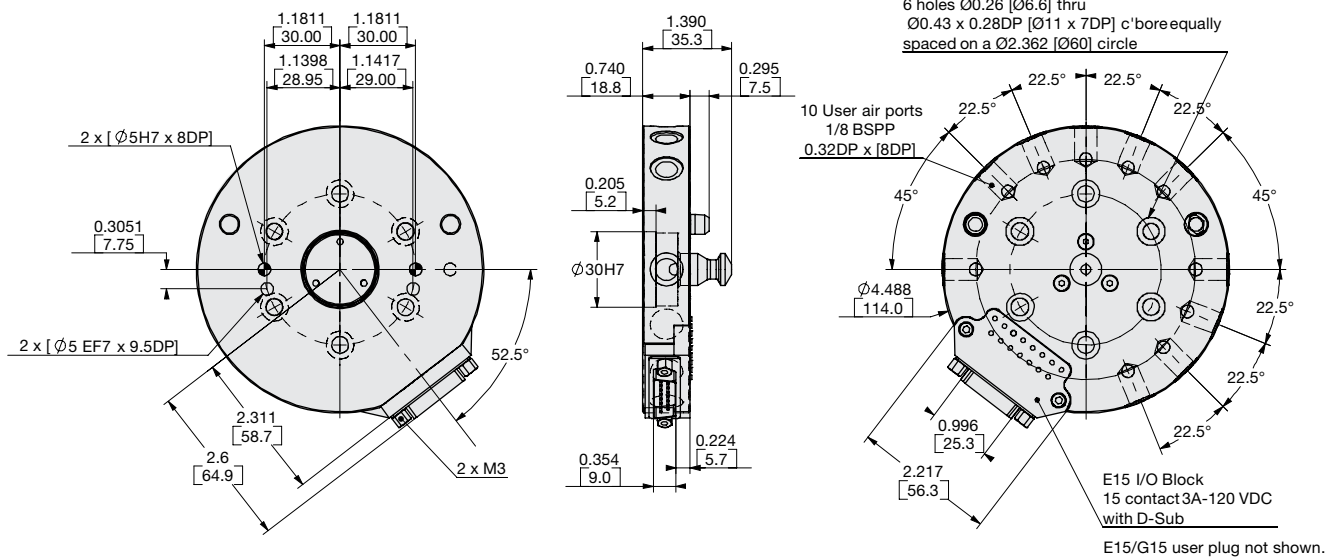
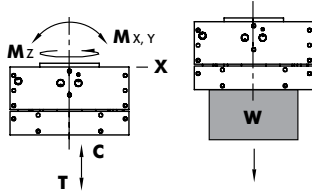
Weight of Coupled Units: 1.27 Kg [2.8 lbs]

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.]



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THIRD ANGLE PROJECTION

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

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

QC-150 (ROBOT SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions



QC-150 Specification:

Max. Payload: 68 Kg [150 lbs]

Max. Moment Rating: 215 Nm [1900 in.-lbs]

Weight of QC Unit only: 2.2 Kg [4.8 lbs]

Weight of Coupled Units: 3.2 Kg [7.1 lbs]

Bore Ø: 66.8 mm [2.63 in]

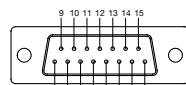
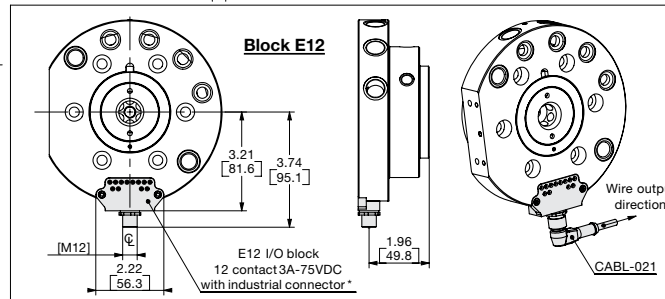
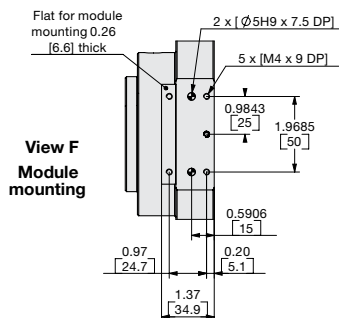
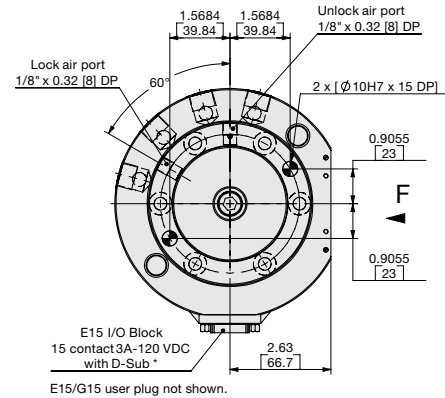
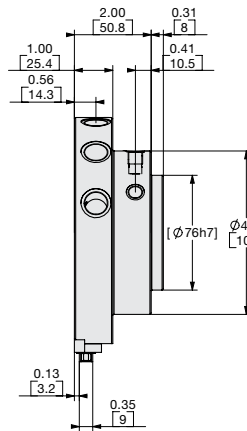
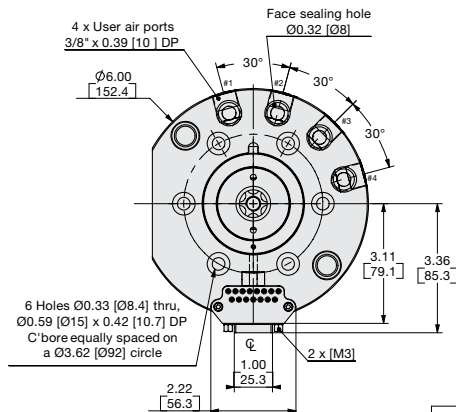
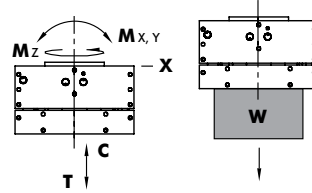
Displacement: 25.4 cm³ [1.55 in³]

Loading Capacity

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

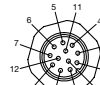
Max. Compressive **C**: 1334 N [300 lb]

Max. Moment (**M_x/M_y/M_z**): 214 Nm [1900 in.-lb.]



Block E15

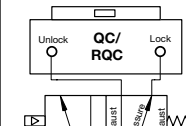
* LP or LN option (latch sensor) requires
Block E15: 8 (-), 3 (output) and 2 (+) contacts
Block E12: 1 (-), 6 (output) and 7 (+) contacts



Block E12

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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COURSE PITCH

IMPERIAL ([IN.])
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METRIC (MM)
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[0.0] = [±.13]
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TP-150 (TOOLING SIDE)

Automatic Tool Changers | Technical Specifications | Dimensions

TP-150 Specification:

Max. Payload: 68 Kg [150 lbs]

Max. Moment Rating: 215 Nm [1900 in.-lbs]

Weight of TP Unit only: 1.0 Kg [2.3 lbs]

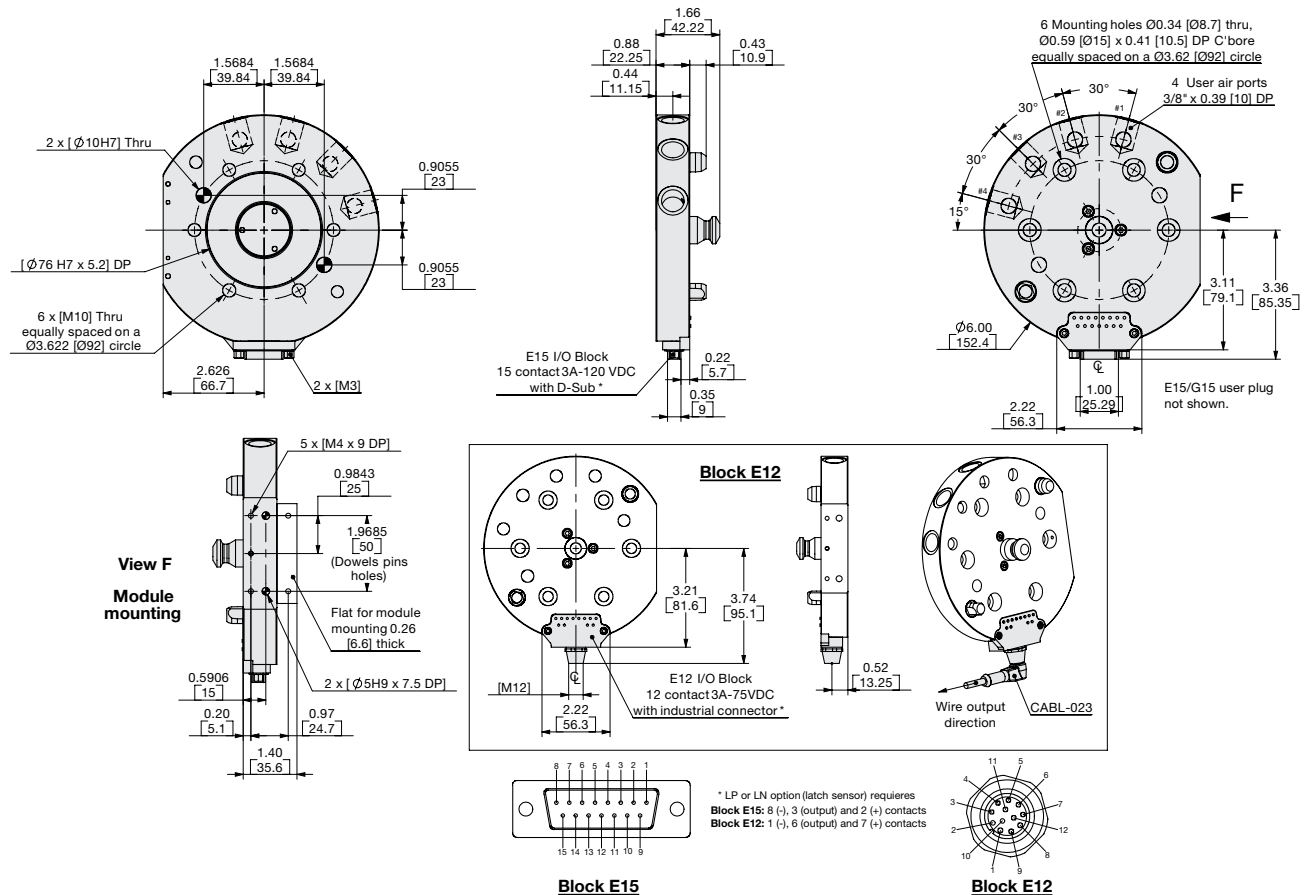
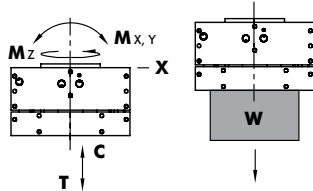
Weight of Coupled Units: 3.2 Kg [7.1 lbs]

Loading Capacity

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

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

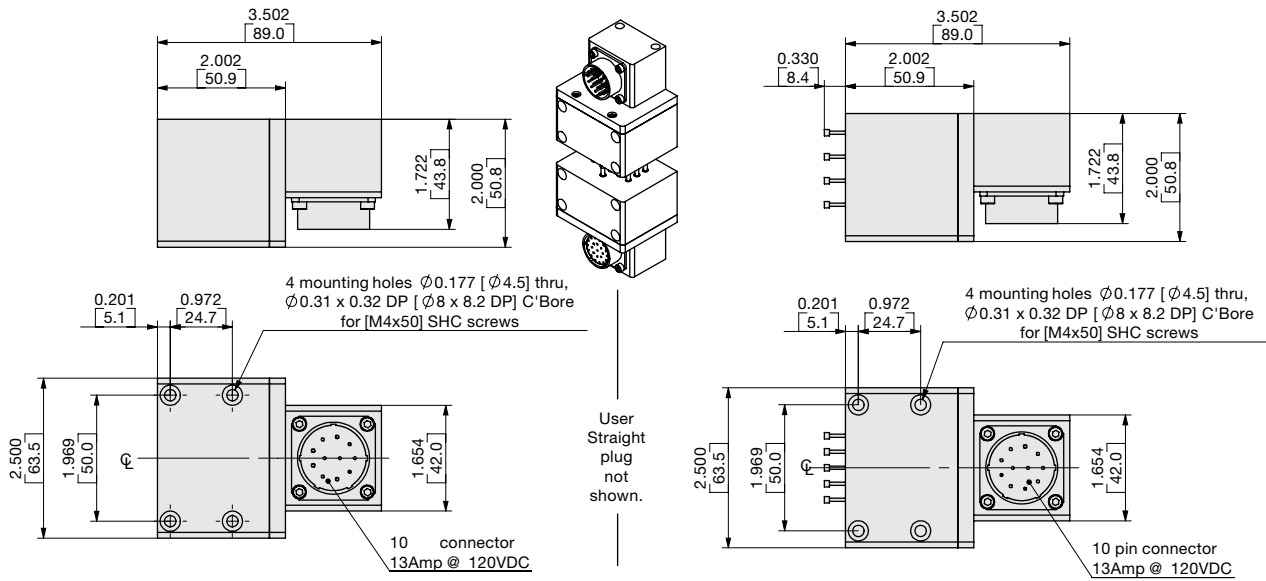
Max. Moment (**M_x/M_y/M_z**): 214 Nm [1900 in.-lb.]



UNLESS OTHERWISE NOTED ALL TOLERANCES ARE AS SHOWN BELOW

QC/TP SERIES

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



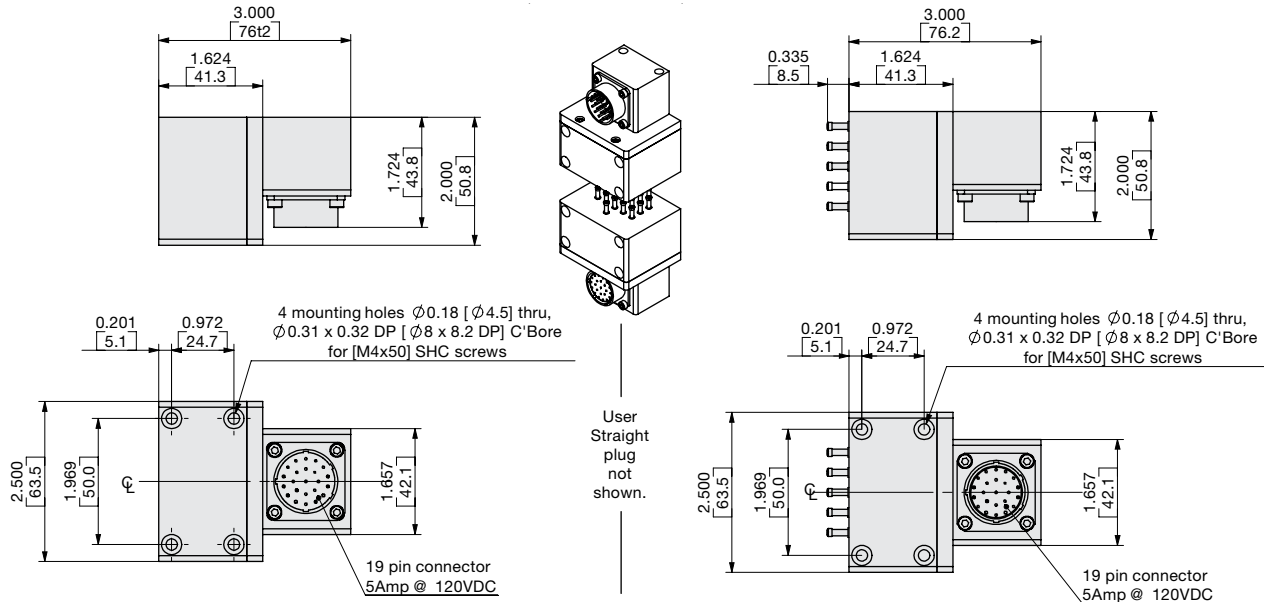
Flat for module mounting not shown: See QC or TP drawings.

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



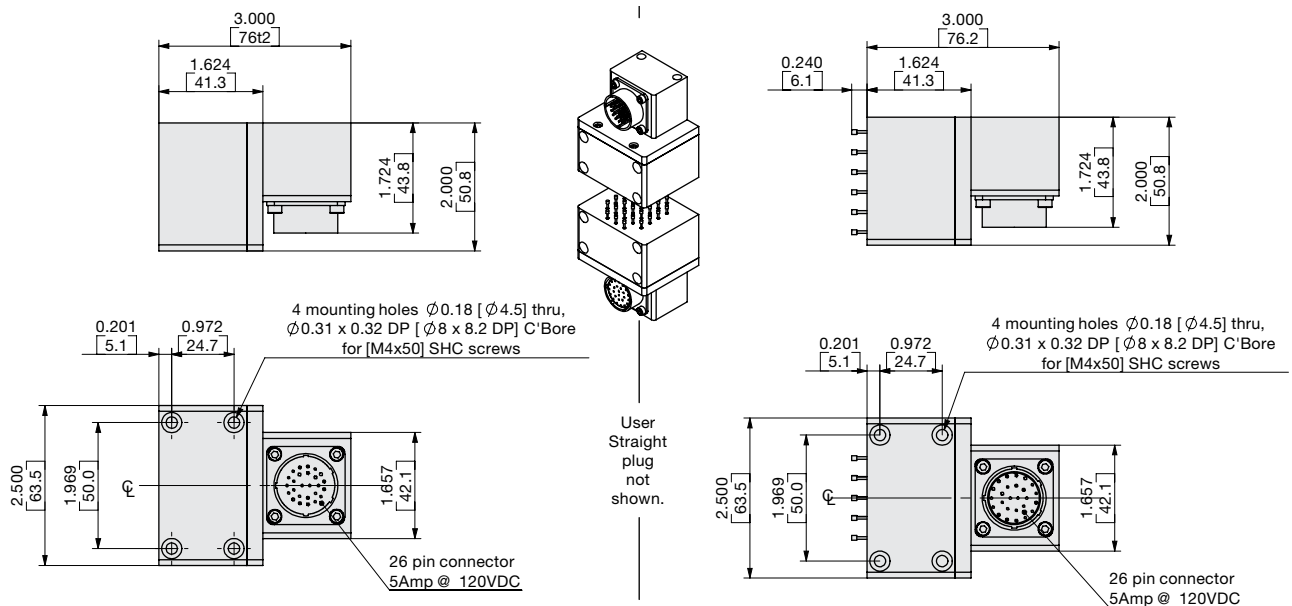
Flat for module mounting not shown: See QC or TP drawings.

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



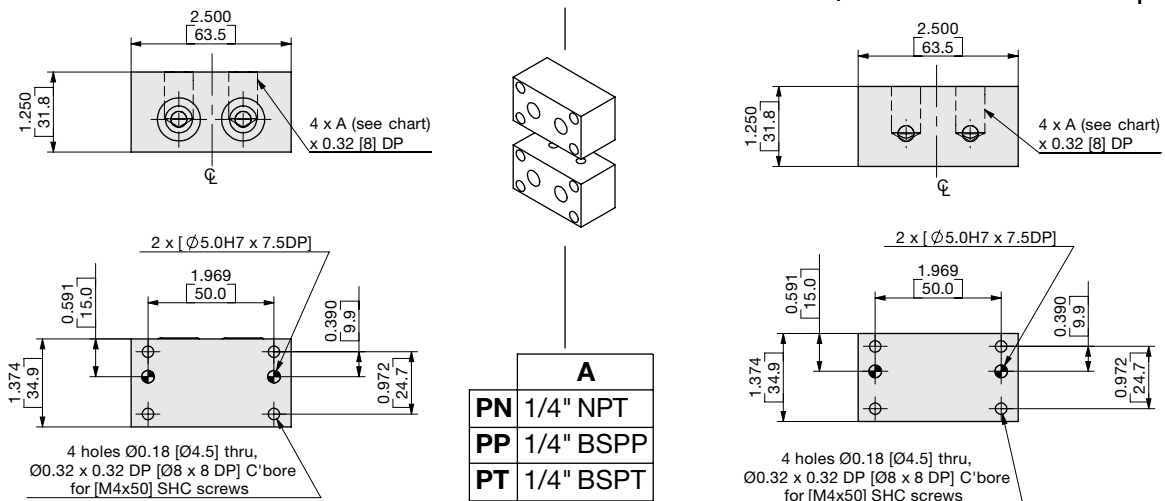
Flat for module mounting not shown: See QC or TP drawings.

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	---

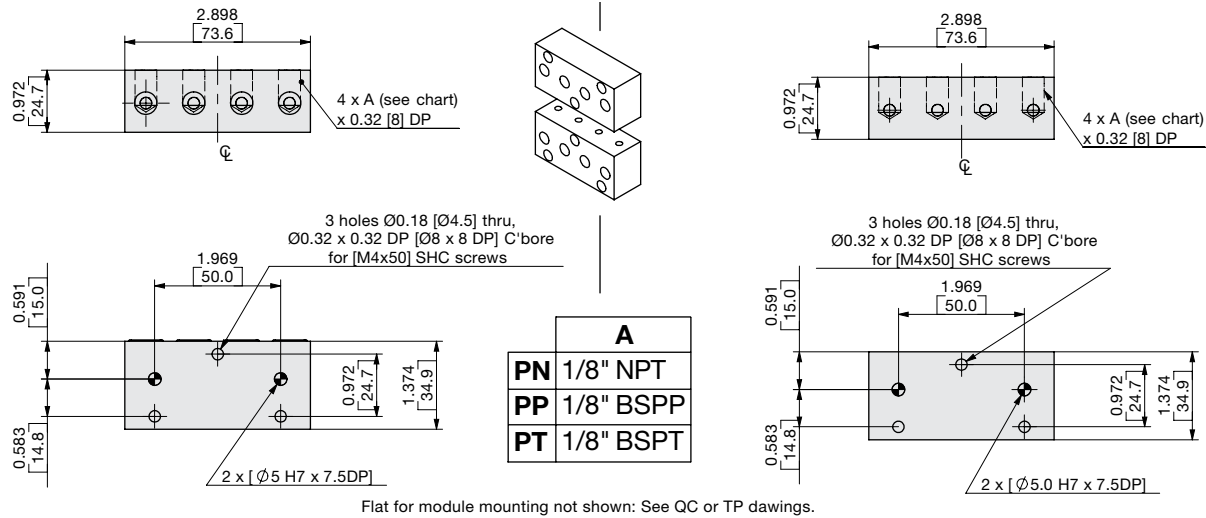
For **QC/TP-150**

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**

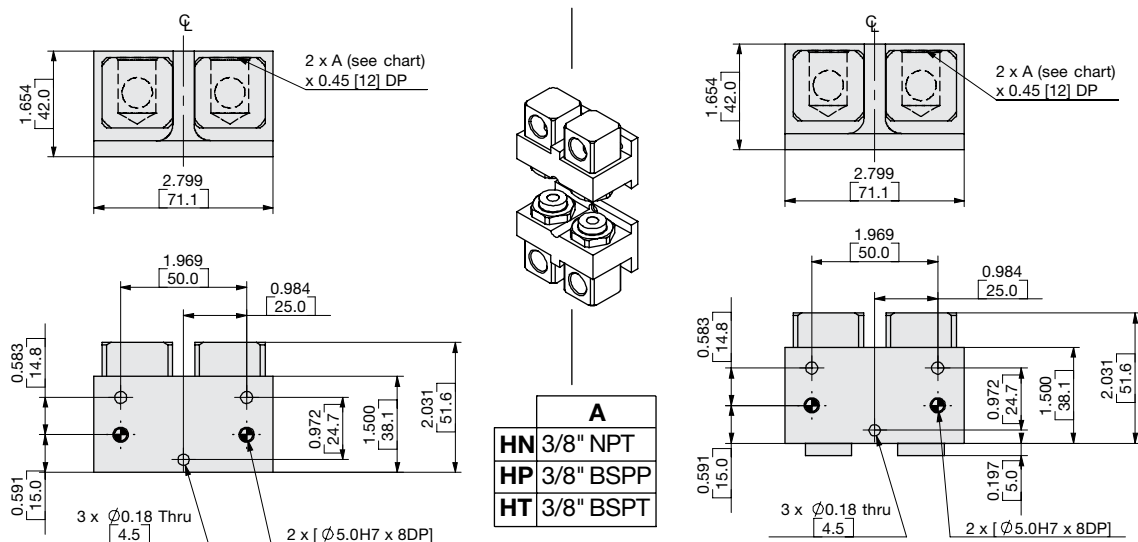
Module	Robot Side	Tool Side
PN18	KPN18-QC60	KPN18-TP60
PP18	KPP18-QC60	KPP18-TP60
PT18	KPT18-QC60	KPT18-TP60
Seal Kit	SLKT-391	---

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

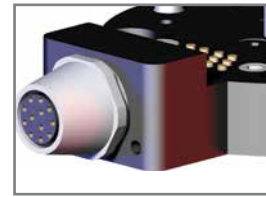
Automatic Tool Changers | Dimensions | Sub-D Conn and User Plug IO Block



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-TP150

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-TP150

See individual datasheets for dimensions.