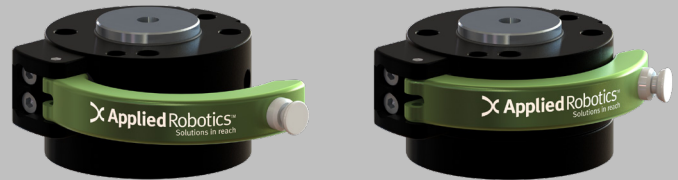


EPSILON XCHANGE™ Tool Changer Manual Tool Changer

EM is a manual tool changer for exchanging robotic end-of-arm tooling (EOAT) between operations.

Advantages:

- Integrated Operating Lever Makes it Toolless
- High Strength Aluminum Alloy Body
- High Energy Density (Payload to Weight Ratio)
- Intuitive Operation
- High Connection Repeatability
- Easy and Ergonomic Insertion
- Long Life (Over 5000 Changes)
- Prevention Against Accidental Release (Dual Safety Mechanism)
- Optional Connection of Utility Modules



SPECIFICATIONS

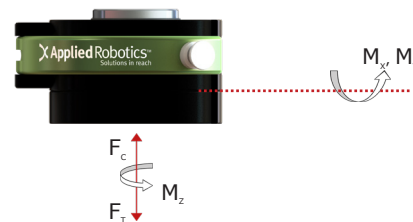
Model	Recommended Payload **	Tensile Force (F _T)	Compressive Force (F _C)	Operating Moment (M _x , M _y)	Operating Torque (M _z)	Repeatability	Mass of Robot Side	Mass of Tool Side	Locking Force	Locking Stroke
	kg (lb)	N (lb)	kN (kip)	Nm (in-lb)	Nm (in-lb)	mm (in)	kg (lb)	kg (lb)	N (lb)	mm (in)
EM040*	8 (17.6)	540 (121)	48 (11)	50 (443)	54 (478)	± 0.02 (± 0.001)	0.13 (0.29)	0.05 (0.11)	4 - 50 (0.9 - 11.2)	0 - 0.80 (0 - 0.03)
EM050	18 (39.7)	700 (157)	80 (18)	70 (620)	80 (708)	± 0.02 (± 0.001)	0.25 (0.55)	0.10 (0.22)	4 - 50 (0.9 - 11.2)	0 - 1 (0 - 0.04)
EM063	20 (44.1)	800 (180)	160 (36)	100 (885)	100 (885)	± 0.02 (± 0.001)	0.41 (0.90)	0.20 (0.44)	5 - 60 (1.1 - 13.5)	0 - 1 (0 - 0.04)
EM080	25 (55.1)	1,000 (225)	219 (49)	130 (1,151)	140 (1,239)	± 0.02 (± 0.0001)	0.74 (1.63)	0.35 (0.77)	6 - 70 (1.3 - 15.7)	0 - 1 (0 - 0.04)
EM100	40 (88.2)	1,200 (270)	377 (85)	180 (1,593)	180 (1,593)	± 0.02 (± 0.001)	1.30 (2.87)	0.55 (1.21)	8 - 80 (1.8 - 18.0)	0 - 1 (0 - 0.04)
EM125	52 (114.6)	2,000 (450)	626 (141)	320 (2,832)	300 (2,655)	± 0.02 (± 0.001)	2.80 (6.17)	1.20 (2.65)	10 - 100 (2.2 - 22.5)	0 - 1 (0 - 0.04)

* No Optional Utility Module Available

** Based on 1 G of acceleration

Operating Temperature: **-30 to 120 °C (-22 to 248 °F)**

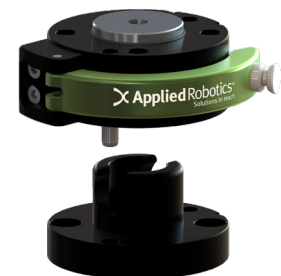
Noise Emissions (Sound Pressure): **≤ 70 dB(A) in any direction**



PRODUCT SUMMARY



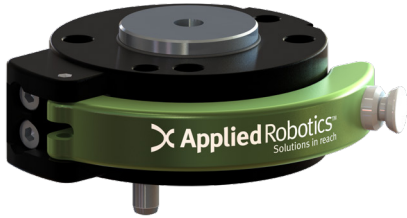
Applied Robotics XCHANGE™ manual tool changing technology allows for exchanging robotic end-of-arm tooling (EOAT) between operations. The integrated operating lever adds efficiency and simplicity to processes that require frequent connection/disconnection of tooling, while also reducing the probability of human errors introduced by tool connection methods.



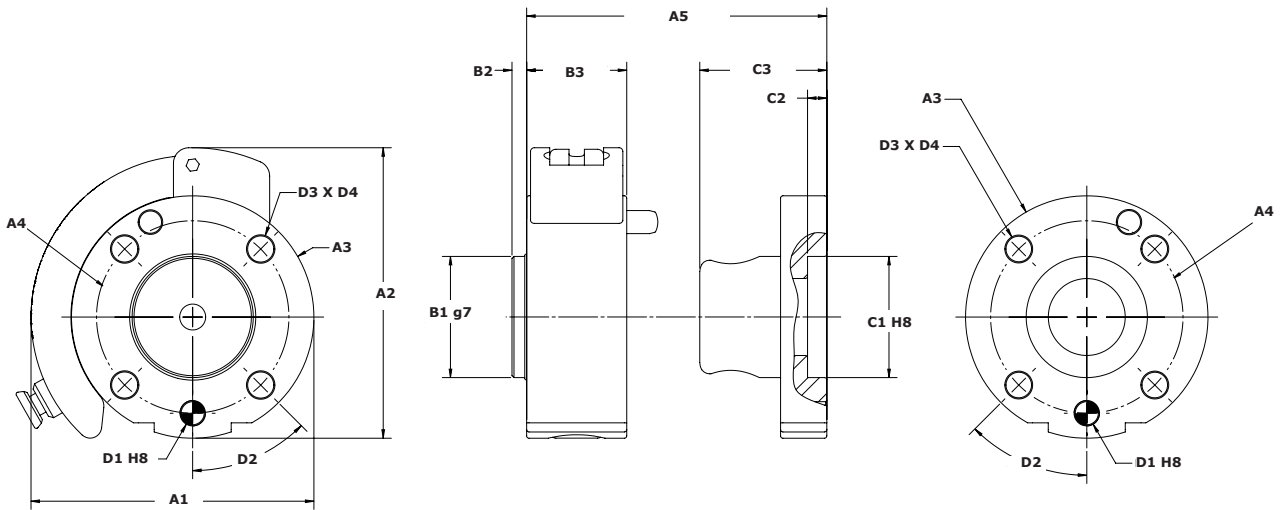
Applied Robotics™
Solutions in reach

PRODUCT INFORMATION

ROBOT SIDE ADAPTOR



TOOL SIDE ADAPTOR



MODEL	Overall Dimensions					Robot Side Dimensions			Tool Side Dimensions			Bolting Pattern				
	A1	A2	A3	A4	A5	B1	B2	B3	C1	C2	C3	D1	D2	D3	D4-A	D4-B
EM040	57 (2.24)	62.5 (2.46)	50 (1.97)	40 (1.57)	32 (1.26)	25 (0.98)	3.8 (0.15)	22 (0.87)	25 (0.98)	5 (0.20)	28 (1.10)	6 (0.24)	45°	4	M6	M8
EM050	73.3 (2.89)	75.6 (2.98)	63 (2.48)	50 (1.97)	38 (1.50)	31.5 (1.24)	3.8 (0.15)	26 (1.02)	31.5 (1.24)	5 (0.20)	33 (1.30)	6 (0.24)	45°	4	M6	M8***
EM063	90 (3.54)	87.24 (3.43)	80 (3.15)	63 (2.48)	45 (1.77)	40 (1.57)	3.8 (0.15)	32 (1.26)	40 (1.57)	5 (0.20)	38.5 (1.52)	6 (0.24)	45°	4	M6	M8
EM080	110 (4.33)	113.5 (4.47)	100 (3.94)	80 (3.15)	47 (1.85)	50 (1.97)	3.8 (0.15)	32 (1.26)	50 (1.97)	6 (0.24)	39 (1.54)	8 (0.31)	30°	6	M8	M10
EM100	147 (5.39)	140 (5.51)	125 (4.92)	100 (3.94)	50 (1.97)	63 (2.48)	3.8 (0.15)	35 (1.38)	63 (2.48)	6 (0.24)	41 (1.61)	8 (0.31)	30°	6	M8	M10
EM125	174 (6.85)	180 (7.09)	160 (6.30)	125 (4.92)	70 (2.76)	80 (3.15)	3.8 (0.15)	50 (1.97)	80 (3.15)	8 (0.31)	64 (2.52)	8 (0.31)	30°	6	M10	M12

* Dimensions are in millimeters (inches).

** Interfacing to the tool changer adaptors can be done either by bolting through the adaptor (ISO 9409-1 specification, D4-A) or by bolting directly into the adaptor (D4-B).

*** The EM050 Tool Side Adaptor is also available with a bolt directly into version: M6 threads on the 50 mm bolt pattern (ISO 9409-1) Specification.

**** All dimensions are descriptive and subject to variation for technical upgrading. We reserve the right to make variations without prior notification.



Applied Robotics, Inc.
 648 Saratoga Road, Glenville, NY 12302 USA
 Tel: +1 518 384 1000
www.appliedrobotics.com
info@appliedrobotics.com



05.2021_Rev.03_US