ECKART®
[HYDRAULIK · PNEUMATIK]

[GATEWAY
to new technologies.]

Rotary actuator E3

Hydraulic / 210 bar

... for the mobile application

The rotary actuator E3 is as specially constructed for the mobile application. This engine goes after the gear principle and needs, in case of its compact construction, a small place. The Eckart E3 finds in almost all sectors its application. Automotive engineering, building – and civil engineering, tool machines and so on.

For example staging:

If the rotary actuator is the beaaring for the complete bearing pressure and the rotating mechanism integrated. Therefore the working platform must not be mounted separately. Furthermore has the rotary actuator a hole, where tubes or cables can put through. In case of safety regulations reasons can there be put through a screw with the screws will be the plates from the brackets or from the working platform extra fixed. Even by a damage of the rotary actuator, for example in axial direction can the working platform not be detached.

That even by a sideways action of the working platform in each between position, a waggle of the platform not hap-pens, will be for first the turning threads free from backlash, second the ball bearing free from backlash build in, and thirdly there will be not used any both-way compact seals.

Furthermore Eckart offers valve block, which can be moun-ted with hollow screws on to the pressure connection holes. The valve has furthermore the following functions:

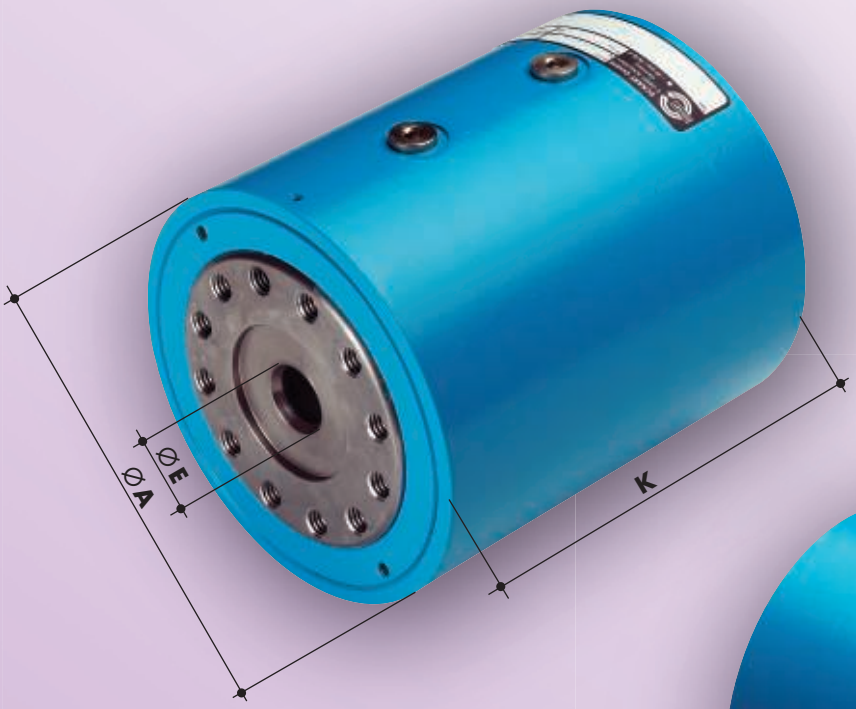
- Loading hold function
  if the working platform wants to lower in case of dia-gonally position.
- Clamp function
  that the working platform does not shake by any hol-ding position.
- Overpressure function
  that overpressure, is it in case of the hydraulic system or in case of temperature range, does not destroy the actuator.

icfluidpower
Innovations | Hydraulic Components

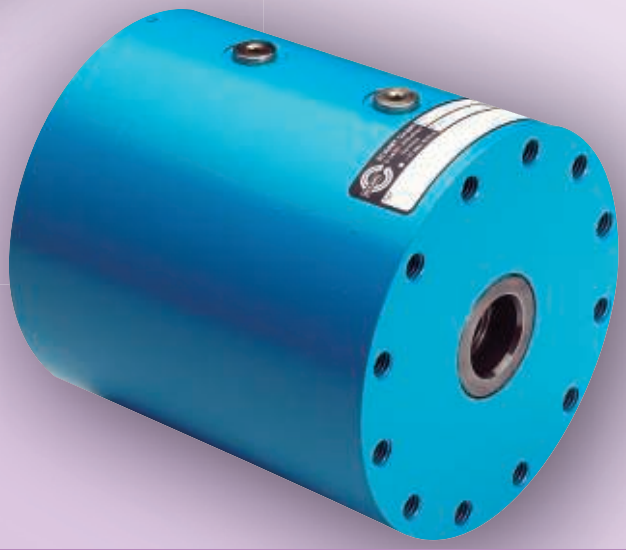
IC-Fluid Power, Inc.
63 Dixie Hwy.
Rossford, OH 43460 USA

Tel. +1.419.661.8811
Fax +1.419.661.8844
E-Mail us@icfluid.com
http:// www.icfluid.com

Eckart E3 – your advantages at one view



- ultra compact, robust construction
- exact, almost free from backlash positioning
- no leckage in the inside, in case of that double shaft- and piston-sealing (lip seal)
- hydraulic seals concerning the newest stand of technic
- any intermediate angle possible
- high bearing charge



- one- or both-way attachment of the load possible
- the torque is the same in both directions
- all parts are out of high strength steels
- continuous shaft hole
- flange thread in metric or inch possible
- non-standard options on request

Size (Piston-Ø, in mm)			70	95	125	150	170
Max. Torque at 3,045 psi		[Nm] lbf-in]	400 3540	720 6372	1,250 11,063	2,500 22,126	3,600 31,862
Spec. Torque		[Nm/bar] [lbf-in]	1.90 1.16	3.43 2.09	5.95 3.63	11.90 7.26	17.14 10.46
Angle of Rotation (+4°tolerance)			180° / 360°	180° / 360°	180° / 360°	180° / 360°	180° / 270°
Required Minimum Operating Pressure			10 bis 15 bar / 10 to 15 bar (145 to 217 psi)				
Max. Allowable Operating Pressure			210 bar (3,045 psi)				
Temperature Range			-25°C to +70°C (-13°F to +158°F)				
Absorption Volume / Displacement		[cm³/1°] [in³/1°]	0.518 0.032	0.932 0.057	1.962 0.120	3.371 0.206	5.012 0.306
Weight ca.	Angle	180° [kN] [lbf]	9.6 21.2	14.4 31.7	27.1 59.7	42.7 94.1	65.0 143.3
		360° [kN] [lbf]	125 27.6	19.2 42.3	37.0 81.6	57.7 127.2	76.6 (270°) 168.9
Max. Radial Load FR		[kN] [lbf]	8.00 1,798	18.00 4,046	36.00 8,093	44.00 9,891	58.00 13,038
Max. Axial Load Fax1		[kN] [lbf]	8.00 1,798	18.00 4,046	36.00 8,093	46.00 10,341	58.00 13,038
Max. Axial Load Fax2		[kN] [lbf]	0.80 179.9	1.90 427.1	3.70 831.8	4.30 966.7	5.90 1326.4
Max. Moment Capacity M		[Nm] lbf-in]	1,000 8,850	2,500 22,126	5,700 50,449	8.500 75,231	12,000 106,209
Outer Diameter (Ø A)		[mm] [in]	105 4.13	135 5.31	170 6.69	197 7.76	230 9.06
Shaft Through Hole (Ø E)		[mm] [in]	13 0.51	19 0.75	35 1.38	46 1.81	63.5 2.50
Length (K at 180°)		[mm] [in]	168.4 6.63	155 6.10	189 7.44	224 8.82	255 10.04
Length (K at 360°)		[mm] [in]	227.8 9.87	213 8.39	268 10.55	316 12.44	307.4 (270°)