PROTEK
Processteknik GH AB

Electrical Actuator type ITQ 6000-9000

STANDARD SPECIFICATION

Enclosure	Weatherproof IP67, NEMA 4X and 6, O-ring sealed
Main power supply	110 / 220 VAC / 1 phase / 50/60 Hz, 380 / 440 VAC / 3 phases / 50/60 Hz ± 10%, 24 VDC
Duty cycle ON/OFF	S2: 10 – 30 min
Duty cycle modulating	S4: 30-50%, 300-1200 start/hour
Motor	Induction motor
Limit switches	4 pcs. Adjustable travel switches (SPDT 250VAC/10A rating)
Torque switches	2 pcs. 1 for open and 1 for closing (SPDT 250VAC/10A rating except for ITQ 010)
Stall protection/ set. Temp.	Built in thermal protection, open 150°C ± 5°C, 97°C ± 15°C
Travel angle	90° ± 5° (0° - 100°)
Position indicator	Continious mechanical indicator with arrow
Manual override	De-clutchable
Self locking	Provided by double worm gearing (no brake)
Mechanical stopper	1 each for each travel end (open and close), external and adjustable
Space heater	5W (110/220VAC) for anti-condensation
Cable entries	2 – PF x ¾" TAP
Terminal block	Screw and lever push type (spring loaded)
Ambient temperature	Basic actuator: -20°C – +70°C, c/w control options: -10°C – +60°C
Ambient humidity	90% RH max. (non-condensing)
Anti vibration	XYZ 10g. 02-34Hz. 30 minutes
Housing	Hard anodized aluminum casting
External coating	Dry powder polyester

- **Self locking** - Provided by double worm gearing to keep position of valve unchanged against reverse torque from valve.
- **Motor** - Specially designed induction motor to generate high starting torque and high efficiency equipped with thermal protector to prevent damage from over heating.
- **Torque switches** - Protects actuator from damage caused by overload from the driven valve over the whole travel. 1 for each open/close.
- **Manual override** - Auto / Manual switchable lever and hand wheel engagement for emergency manual operation. Drive force automatically resorted by motor start, unless lever padlocked to prevent this occuring.
- **External mechanical stopper** - Prevents over run of travel angle when limit switch fails.

TECHNICAL DATA

Type	Torque (Nm)	Duty cycle S4 (%)	Operating time (sec.) 50 Hz / 60 Hz	Max. bore size Key / Square (ø) / (•)	Rated current (A) 1 fase 220 50 Hz / 60 Hz	Motor insulation class	ISO 5211 mounting flange	Weight (Kg)	No. of hand wheel turns
ITQ 6000	6000	25	178 / 149	120 / 100	2.95 / 3.15	F	F25/F30	152	39
ITQ 9000	9000	25	178 / 149	120 / 100	3.15 / 3.85	F	F25/F30	152	39

Wiring diagram included with delivery

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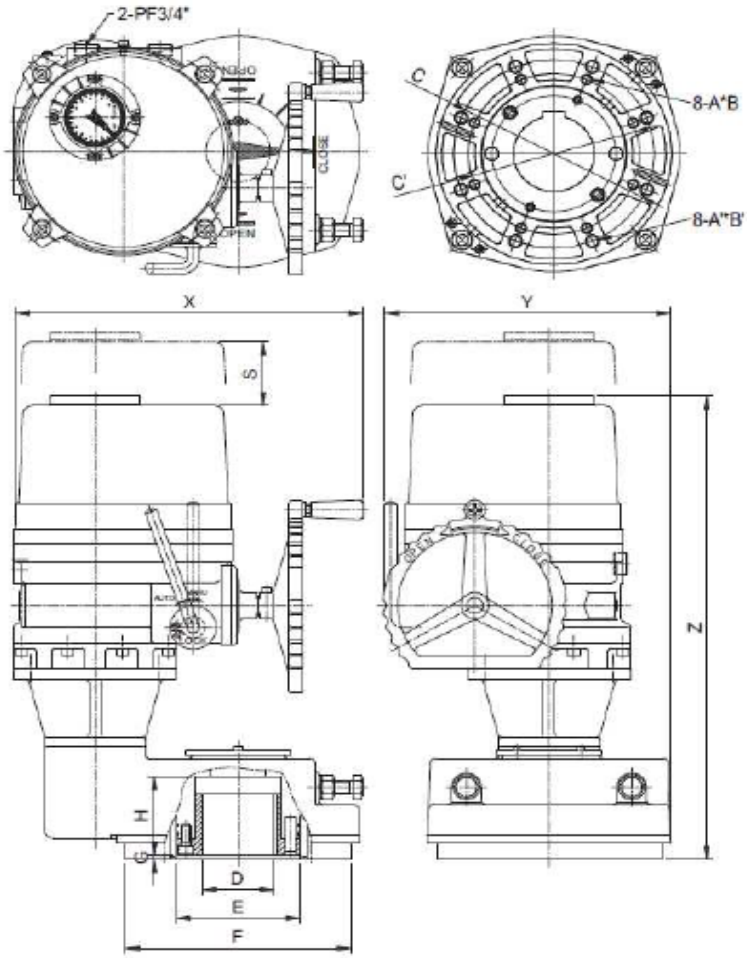
BASIC ACTUATOR DIMENSIONS

Type	ITQ 6000	ITQ 9000
Flange	F25	F25
ISO5211	F30	F30
C	⌀ 254	⌀ 254
	⌀ 298	⌀ 298
A	M16/M20	M16/M20
B	30/35	30/35
D(Key)	⌀ 120	⌀ 120
D(Squ.)	□ 100	□ 100
E	⌀ 216	⌀ 216
F	⌀ 350	⌀ 350
G	5	5
H	114	114
S	225	225
X	532	532
Y	417	417
Z	668	668

(mm)



OPTIONS

REMOTE MONITORING AND CONTROL	
PK	Potentiometer kit (output signal: 0-1 kΩ) High resolution potentiometer and precisely machined gearing are directly engaged with drive shaft to feed back continious position of valve
CT	Current transmitter (output signal: 4-20 mA) Zero / span adjustment Convertable DIP switch (4 wire to 2 wire)
RPC	Remote position controller (by input and output signal) Input: 4-20 mA, 0-10VDC, 2-10VDC, 1-5VDC, 0-5VDC Output: 4-20 mA Auto-calibration Reverse operating direction
Local control unit	LP4 / LM4 / ICM1 / ICM2 / ICM3
Fail safe unit	BP for 1 Phase (ITQ 0160~0500)

MECHANICAL		
EX	Explosion proof (Ex d II B T4)	
ALS	Auxiliary limit switches (max. 2 for each travel end)	
ATS	Auxiliary torque switches (max. 2 for each travel end)	Except ITQ 010
EXT	Extended travel angle (up to 120°, 135°, 180°, 270°)	

ICM -Integral Control Module

ICM1 - Local Lamp Indication
ICM2 - LCD Display
ICM3 - LCD Display IP68