

# Manöverdon (Electrical Actuator type ITQ 600 - 900)



### **Product Overview**

- 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 reserted by meter start, upless lever padiesked to provent
  - Drive force automatically resorted by motor start, unless lever padlocked to prevent this occurring.
- External mechanical stopper Prevents over run of travel angle when limit switch fails.
- Removable drive bushing and ISO5211 mounting base (F07~F16) for easy mounting on valve.



## 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

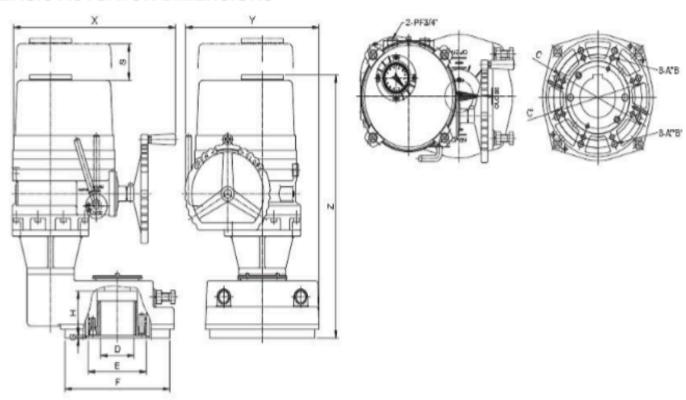


#### **TECHNICAL DATA**

Туре	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 600	100	40	21 / 18	22 / 20	0.52 / 0.58	F	F07	7	10
ITQ 900	160	30	26 / 22	25 / 23	0.85 / 0.90	F	F07/F10	15	12

Wiring diagram included with delivery

### **BASIC ACTUATOR DIMENSIONS**



Туре	Flange ISO5211	С	A	В	D(key)	D(square)	Е	F	G	н	s	X	Y	Z
ITQ 600	F25/F30	Ø254/Ø298	M16/M20	30/35	Ø120	• 100	Ø 216	Ø 350	5	114	225	516	417	668
ITQ 900	F25/F30	Ø254/Ø298	M16/M20	30/35	Ø120	• 100	Ø 216	Ø 350	5	114	225	516	417	668



#### **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					
ст	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						
Fail safe unit						

MECHANICAL							
EX	Explosion proof (Ex d II B T4)						
ALS	S Auxiliary limit switches (max. 2 for each travel end)						
ATS	ATS Auxiliary torque switches (max. 2 for each travel end)						