ATI **ActoTEK** AUTOMATION IS OUR BUSINESS !!

Work with
* Honeywell
* Johnson controls
* Siemens..
* Many others

Multi-Con Valve Actuator
0(2)~10Vdc/4~20mA/24VAC, 10~ 40mm Stroke

ALX67.XXX

Type designation

ALX67.225240SAS

Valves makers; None: ATI
JC: Johnson, SAL: Sauter-L, SAS:Sauter-S, SI:Siemens,
SW:Satchwell, SN:Saginomiya, SS:Samson, SB:Siebe,TA:TA,
TR:Trend, HW:Honeywell, RTK-RTK, NA=NARA,XXX=Option
Force: 240 Kg/f,2400Nf
Running time:1=10s,2=30s,3=60s, 4=120s, 5=200s, 6=400s
Supply:1=110Vac,2=24Vac,3=220Vac, 4=380Vac, 8=24Vdc
Travel:1=10mm,2=20mm,3=30mm, 4=40mm, 5=50mm
Type of connecting Bracket
Input signals:2=on/off, 3= 3-Pos.220vac,5-4~20mA,6=0~10vdc
    7=0~20vdc, 8=3-pos/24vdc, 9=0~135Ω
Valve Actuator
Type of drive unit: :AQL..,AQR..ACR..
Product group: Actuator

Description

Electrical actuator, raise lower travel is adjustable from 15~50mm by pressing start butten while initialization process. Control signals 0...10Vdc or 4..20mA are select -able on the PCB to meet the conventional controllers or DDC/PLCs connected to central supervisory system.

Application

In heating, ventilating, air conditioning and other industrial installations for control of 2-port or 3-port valves to be controlled by electrical remote control. signals from electronic controllers or DDC/PLCs.

Ordering Example
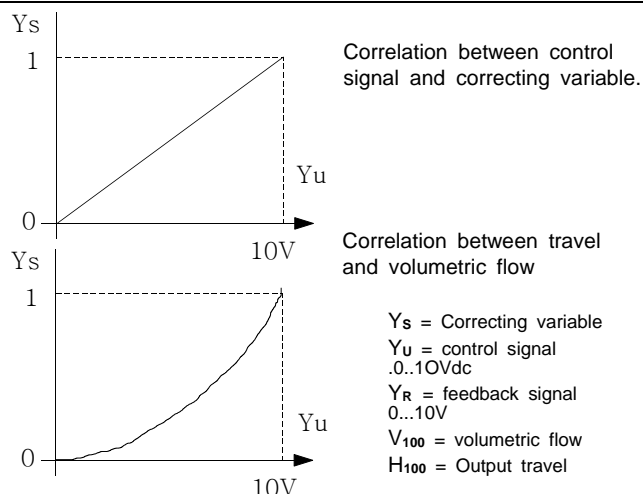
When ordering, please give full designation and type

* See summary of types

Technical Data

Supply voltage	-24Vav±20%
Frequency	50/60Hz
Power source	Synchronous motor
Power consumption	8VA
Running time	*See summary of types
Model of control	Proportional(std)
Travel /raise lower	10~ 40mm, adjustable
Noise level	<35[dB]
Nominal Torque	1800~ 4000Nf

Control signal(V)
    Voltage 0~10Vdc
    Current 4~20mA
Aux output signals
Switching capacity 10(3)A 24~250Vac
Resistance 0~1000Ω

Permissible amb.temp.
Operation -15...+50℃
Transport & storage -30...+65℃
Permissible amb.humid. Class D to DIN40040
Protection class/ housing IP54 to DIN 40050
Max. medium temp. +80℃
Cable entry glands PG11

Estimated life time
-Drive motor 40,000,000 cycles
-Gear train 80,000,000 cycles
-Weight 2.2Kg

Function

The actuator is controlled by a standard signal of 0...10 Vdc/4~20mA received from electronic controller or DDC /PLC unit. It provides electronic position control.

Correlation between control signal and correcting variable.

Correlation between travel and volumetric flow

Y_S = Correcting variable
Y_U = control signal .0..1OVdc
Y_R = feedback signal 0...10V
V_{100} = volumetric flow
H_{100} = Output travel

Summary of Types

20mm Stroke

Type Nr	Force	R-time	Aux.units			
	Nf	60Hz	0	1	2	3
ALX67.2251200	1200	200s	0	SW	140Ω	1000Ω
ALX67.2251800	1800	200s	0	SW	140Ω	1000Ω
ALX67.2252400	2400	200s	0	SW	140Ω	1000Ω
ALX67.2253000	3000	200s	0	SW	140Ω	1000Ω
ALX67.2253500	3500	200s	0	SW	140Ω	1000Ω
ALX67.2254000	4000	200s	0	SW	140Ω	1000Ω
ALX67.2255000	5000	200s	0	SW	140Ω	1000Ω

40mm Stroke

Type Nr	Force	R-time	Aux.units			
	Nf	60Hz	0	1	2	3
ALX67.4261200	1200	400s	0	SW	140Ω	1000Ω
ALX67.4261800	1800	400s	0	SW	140Ω	1000Ω
ALX67.4262400	2400	400s	0	SW	140Ω	1000Ω
ALX67.4653000	3000	400s	0	SW	140Ω	1000Ω
ALX67.4263500	3500	400s	0	SW	140Ω	1000Ω
ALX67.4264000	4000	400s	0	SW	140Ω	1000Ω
ALX67.4265000	5000	400s	0	SW	140Ω	1000Ω

Design Features

Actuators are supplied as separate units. Assemblying them requires neither special tools nor adjustments.
- Maintenance free electrical actuator with reversible synchronous motor.
- Selector switches are provided to change the direction of rotation or change of signals.
- A blockingproof gear train with self- lubrication sintered metal bearings make less troubles.
- Quick mounting bracket for diifferent devices make easy installation.
- Constant speed and output torque.
- Gear box is made of aluminum die cast and coated with special materials.
- Important gears are made of sintered metal and properly heat treated.

- Drive unit (AQLXX)
- Pinion holder
- Manual lever
- Rack gear spindle
- Overload unit
- Upper bracket
- Linkage
- Yoke bolts
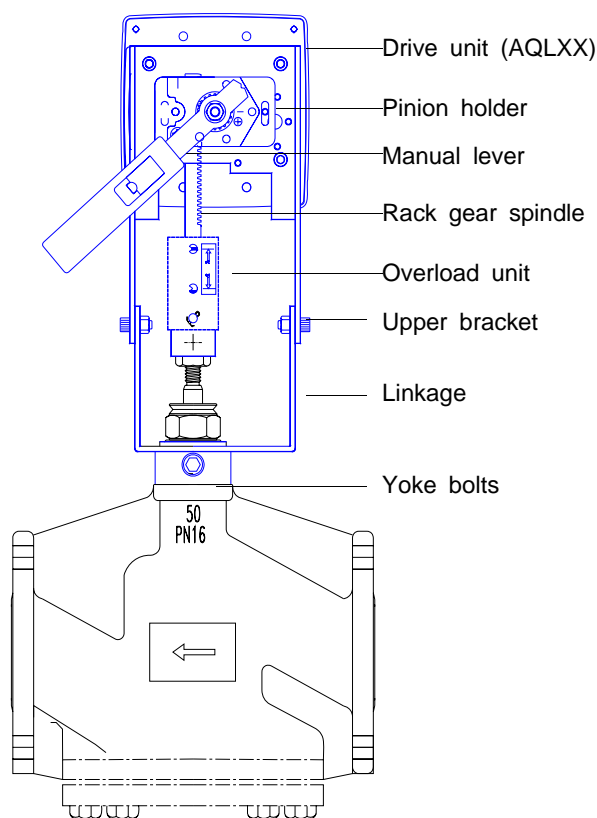
Application Advice

For further information on the complete regulating unit consist of actuator and equipment to be operated also refer to the Data Sheet of the various type of valves, 43000 ...44999.
Observe the permissible temperatures. For details refer to <Application > and <Technical Data>

Data Sheet 34001 contains basic system data on POLYTEK.

All hints and explanations given in this sheet must be observed.

Mounting and Installation Advice
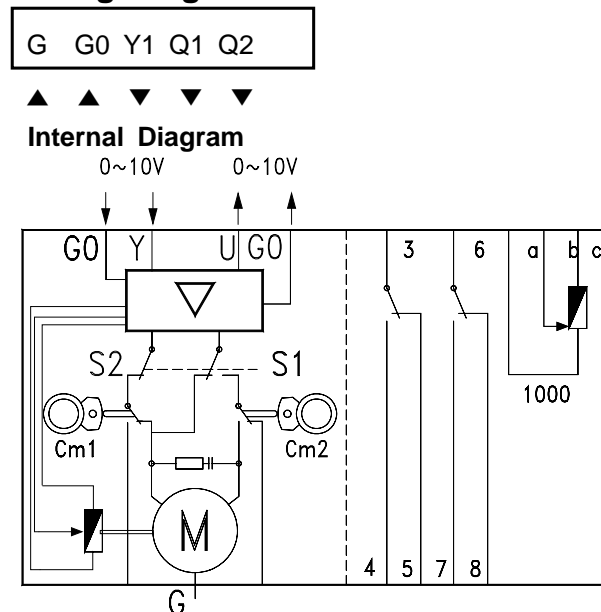

a   b   c   d
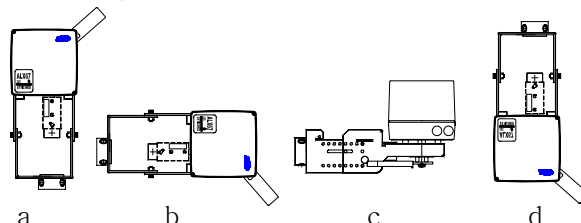
Commissioning Advice

.When commissioning the installation, check the wiring and make a functional test.
Motor rotation can also be changed by changing the terminals as shown below.

Wiring diagram

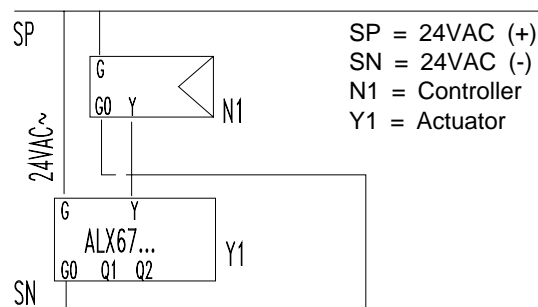G   G0 Y1 Q1 Q2

▲   ▲   ▼   ▼   ▼

Internal Diagram

G0 = (SN)Ground
G = Supply(SP)
Y1 = Input signal
Q1 = Position (On)
Q2 = Position (Off)
U = Feedback

11   =switch contact
12   =switch contact
Cml =cam sw~top
Cm2 =cam sw~bottom
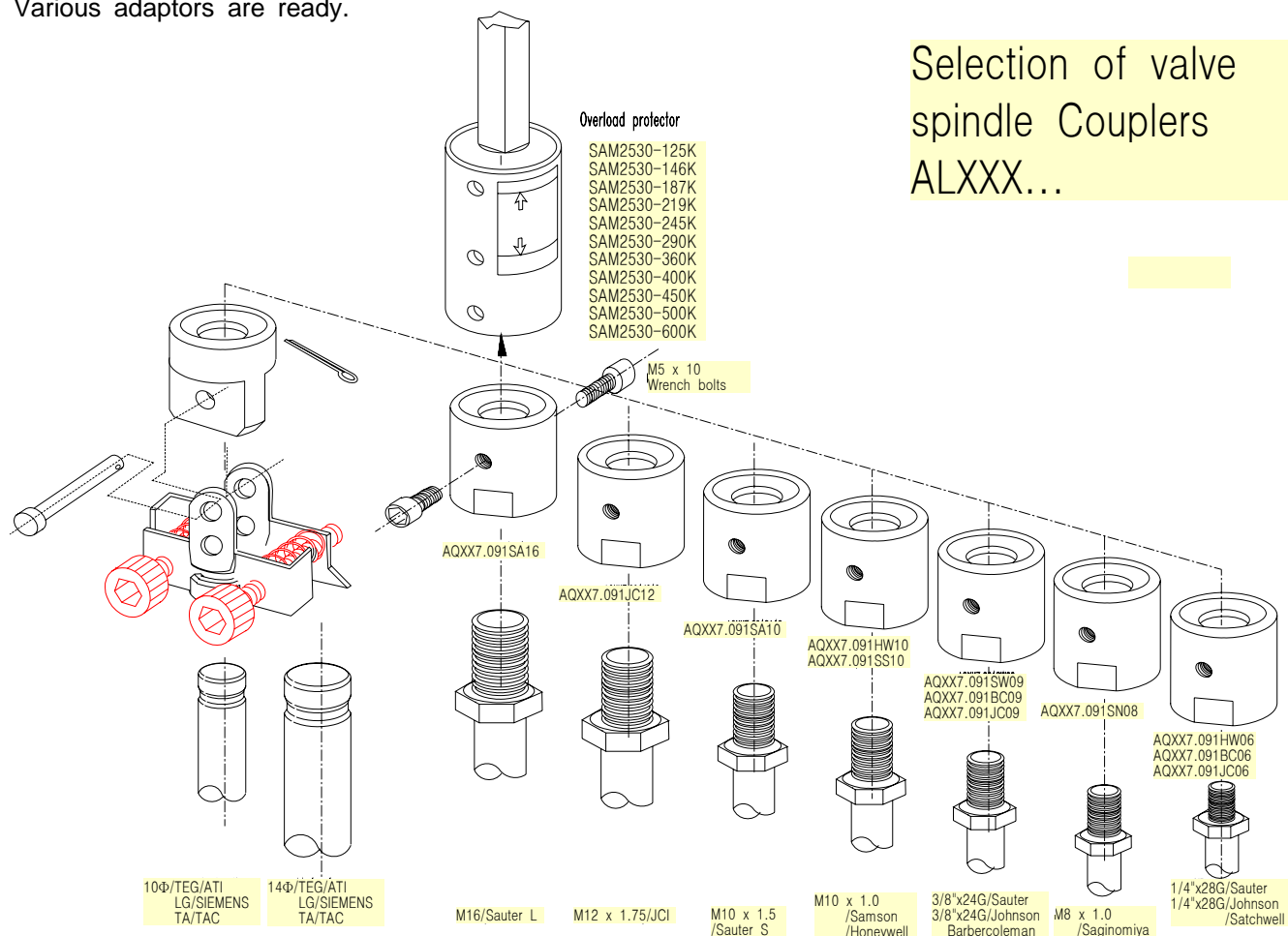21   =Potentiometer 1
        140R or 1000Ω

Device connection

SP = 24VAC (+)
SN = 24VAC (-)
N1 = Controller
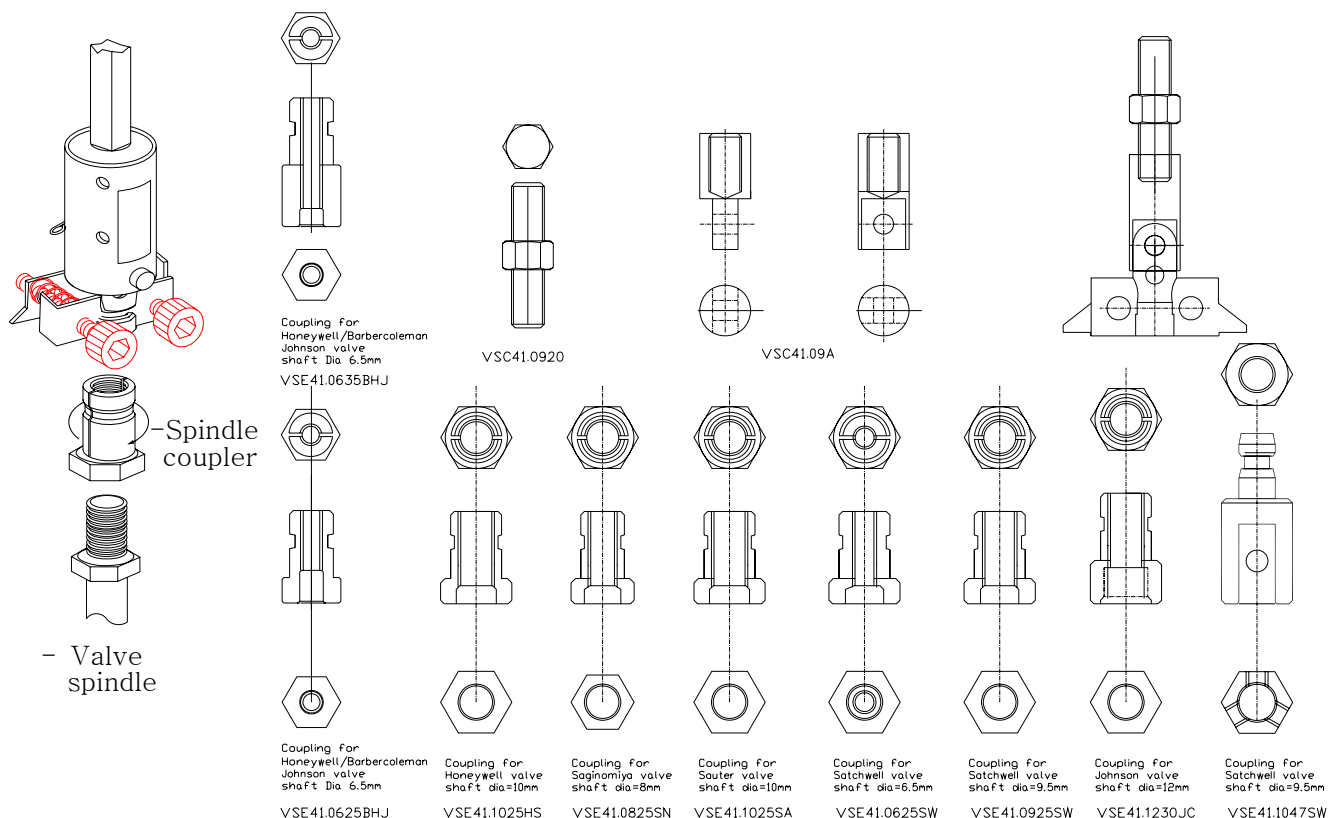Y1 = Actuator

ACCESSORIES

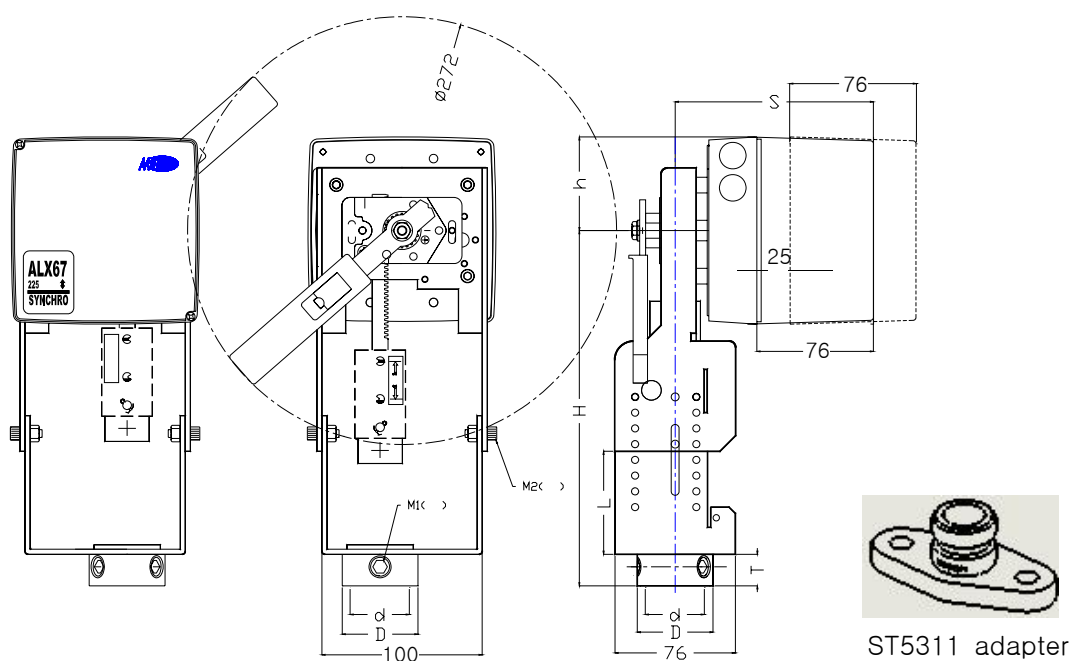- Selection of spindle adaptors

* Various adaptors are ready.

Overload protector

SAM2530-125K
SAM2530-146K
SAM2530-187K
SAM2530-219K
SAM2530-245K
SAM2530-290K
SAM2530-360K
SAM2530-400K
SAM2530-450K
SAM2530-500K
SAM2530-600K

Selection of valve
spindle Couplers
ALXXX…

M5 x 10
Wrench bolts

AQXX7.091SA16

AQXX7.091JC12

AQXX7.091SA10

AQXX7.091HW10
AQXX7.091SS10

AQXX7.091SW09
AQXX7.091BC09
AQXX7.091JC09

AQXX7.091SN08

AQXX7.091HW06
AQXX7.091BC06
AQXX7.091JC06

10Φ/TEG/ATI
LG/SIEMENS
TA/TAC

14Φ/TEG/ATI
LG/SIEMENS
TA/TAC

M16/Sauter L

M12 x 1.75/JCI

M10 x 1.5
/Sauter S

M10 x 1.0
/Samson
/Honeywell

3/8"x24G/Sauter
3/8"x24G/Johnson
Barbercoleman

M8 x 1.0
/Saginomiya

1/4"x28G/Sauter
1/4"x28G/Johnson
/Satchwell

- Selection of spindle couplers

* ATI standard spindle couplers are made for all brands of valves in the control market.

Coupling for
Honeywell/Barbercoleman
Johnson valve
shaft Dia 6.5mm

VSE41.0635BHJ

VSC41.0920

VSC41.09A

–Spindle
coupler

– Valve
spindle

Coupling for
Honeywell/Barbercoleman
Johnson valve
shaft Dia 6.5mm

VSE41.0625BHJ

Coupling for
Honeywell valve
shaft dia=10mm

VSE41.1025HS

Coupling for
Saginomiya valve
shaft dia=8mm

VSE41.0825SN

Coupling for
Sauter valve
shaft dia=10mm

VSE41.1025SA

Coupling for
Satchwell valve
shaft dia=6.5mm

VSE41.0625SW

Coupling for
Satchwell valve
shaft dia=9.5mm

VSE41.0925SW

Coupling for
Johnson valve
shaft dia=12mm

VSE41.1230JC

Coupling for
Satchwell valve
shaft dia=9.5mm

VSE41.1047SW

Dimension

ST5311 adapter

	d	H	h	L	T	M1	Remarks
ATI/TEG	44	~270	60	45/65	24.5	M8	* 2 STEP adjustable to stroke
Siemens	44	~270	60	45/65	24.5	M8	* 2 STEP adjustable to stroke
Honeywell	38	~270	60	35/45	22	M8	* 3 STEP adjustable to stroke
Johnson	50	~360	60	45/65	35	M8	* 5 STEP adjustable to stroke
Samson	30	~270	60	20/25	20	M5	* Valves without yoke
Sauter-S	38	~270	60	45	24.5	M8	* 1 STEP reduced stroke
Sauter-L	55	~360	60	85	35	M10	* 1 STEP reduced stroke
Satchwell	32	~360	60	45/65	24.5	M8	* 4 STEP adjustable to stroke
Siebe	32	~270	60	30/45	24.5	M8	* 3 STEP adjustable to stroke
Staefa	*	~360	60	45/85	24.5/35	M8/M10	* Not available for magnetic valves
Trend	48	~270	60	45	24.5	M8	* 3 STEP adjustable to stroke
RTK	*	~360	60	45/65	24.5	M8	* Require additional adapter
TA/TAC	44	~270	60	45	24.5	M8	* 3 STEP adjustable to stroke
YAMATAKE	38	~270	60	30/45	22	M8	* Only for raise/lower valves