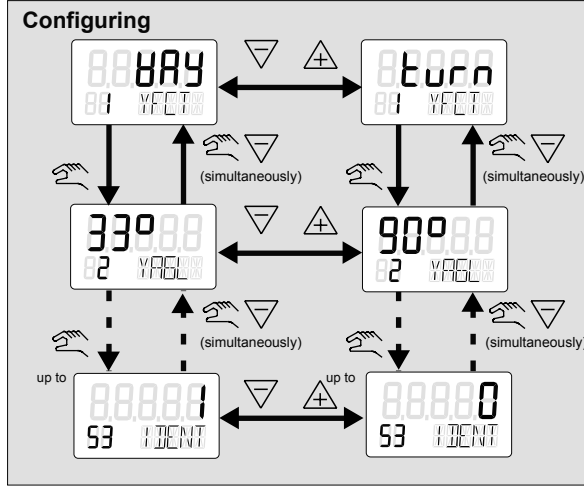
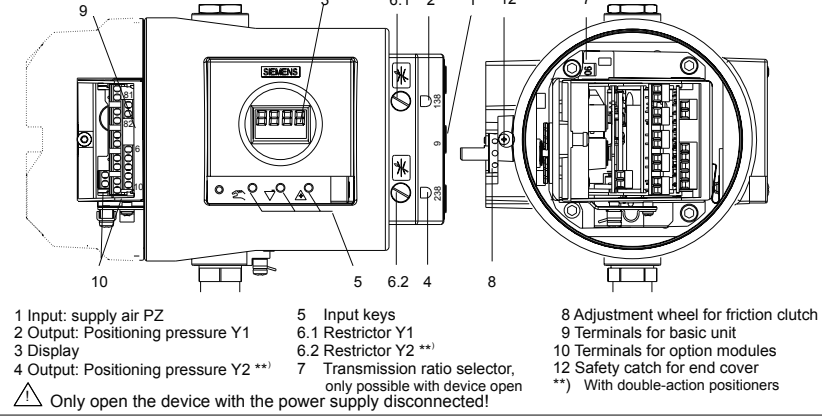


**View of device (open cover)**



**Changing the input level**

Mode	Display
<b>P-manual mode</b> Change position using $\nabla/\Delta$	Potentiometer setting [%]  Not initialized (can be reached using preset) 
<b>Configure</b> Change parameter name using $\nabla/\Delta$ and $\nabla/\Delta$ Change value using $\nabla/\Delta$	Parameter value  Parameter number  Parameter name 
<b>Manual mode</b> Change position using $\nabla/\Delta$	Position [%]  Error code  Mode and Setpoint [%] 
<b>Automatic mode</b>	Position [%]  Error code  Mode and Setpoint [%] 
<b>Diagnosis</b>	Diagnosis value  Diagnosis number  Diagnosis name 

**Automatic initial start-up (starting with factory setting)**

Step	Meaning
1.) Rotary actuator  Linear actuator 	 Press for > 5 s Remaining steps carried out automatically
2.)	 Press for > 5 s Remaining steps carried out automatically
3.)	Direction of action is determined
4.)	Checking of travel and adjustment of zero and stroke (from stop to stop)
5.)	Determination and Display of positioning time down (dxx.x), up (uxx.x) Stop with $\nabla$ Pressing the $\Delta$ key initiates leakage measurement
6.)	Determination of minimum increment length
7.)	Optimization of transient response
8.)	Initialization terminated successfully (travel in mm for linear actuators) (angle of rotation for part-turn actuators) Continue using: $\nabla/\Delta$

(The gray values in the top display line are examples)

Possible messages		
Display	Meaning	Measures
 	<b>Actuator does not move</b>	Acknowledge message using $\nabla/\Delta$ Check restrictor (6) and open if necessary Drive actuator to working range using $\nabla/\Delta$ Restart initialization
	<b>Down tolerance band violated</b>	Change gearing (7) Continue using $\Delta$ or adjust sliding clutch to display  Continue using $\Delta$ or for "WAY" using: $\nabla$
	<b>Once the slipping clutch has been adjusted</b>	Linear actuator: Set pick-up lever into vertical position using $\nabla/\Delta$ Continue using $\nabla/\Delta$
	<b>Up tolerance band violated</b>	Acknowledge message using $\nabla/\Delta$ Set the next highest travel value on the lever Restart initialization Additionally possible with rotary actuators: Adjust using $\nabla/\Delta$ up to display:  Continue using $\nabla/\Delta$
	<b>Up/down span insufficient</b>	Acknowledge message using $\nabla/\Delta$ Set the next lowest travel value on the lever Restart initialization
 	<b>Actuator does not move</b> <b>Positioning time is possible to adjust</b>	Adjust positioning time using restrictor(s) Continue using $\Delta$ or $\nabla$

See Manual for further messages

Parameter name	Function	Parameter values (Bold = factory setting)	Unit
1.YFCT	Type of actuator	turn (part-turn actuator) <b>WAY</b> (linear actuator) LWAY (linear actuator without sine correction) ncSt (part-turn actuator with NCS) -ncSt (ditto, inv. direction of action) ncSL (linear actuator with NCS) ncSLL (ditto, and lever)	
2.YAGL 1)	Rated angle of rotation of feedback <b>Set transmission ratio selector (7) appropriately (see view of device)</b>	33° 90°	Degrees
3.YWAY 2)	Stroke range (optional setting) If used, the value must correspond with the set of the leverage ratio on the actuator  Driver pin must be set to the value of the actuator travel or, if this value is not scaled, to the next larger scale value.	<b>OFF</b> 5   10   15   20 (short lever 33°) 25   30   35 (short lever 90°) 40   50   60   70   90   110   130 (long lever 90°)	mm
4.INITA	Initialization (automatically)	<b>noInI</b>   no / ###.#   Strt	
5.INITM	Initialization (manually)	<b>noInI</b>   no / ###.#   Strt	
6.SDIR	Setpoint direction	<b>rISE</b> FALL	rising falling
7.TSUP	Setpoint ramp up	<b>Auto</b> / 0 ... 400	s
8.TSDO	Setpoint ramp down	0 ... 400	s
9.SFCT	Setpoint function	<b>Lin</b> 1 - 25 1 - 33 1 - 50 n1 - 25 n1 - 33 n1 - 50 FrEE	Linear Equal-percentage 1:25, 1:33, 1:50 Inverse equal-percentage 1:25, 1:33, 1:50 Freely adjustable
10.SL0 3) 11.SL1 et. up to 29.SL19 30.SL20	Setpoint turning point at 0% 5% to 95% 100%	0.0 ... 100.0	%
31.DEBA	Dead band of controller	<b>Auto</b> / 0.1 ... 10.0	%
32.YA	Start of manipulated variable limiting	<b>0.0</b> ... 100.0	%
33.YE	End of manipulated variable limiting	0.0 ... <b>100.0</b>	%
34.YNRM	Standardization of manipulated variable	To mech. travel To flow <b>MPOS</b> FLOW	
35.YCLS	Tight closing with manipulated variable	Without uP do uP do	Without Top only Bottom only Top and bottom
36.YCDO	Value for tight closing, bottom	<b>0.0</b> ... 100.0	%
37.YCUP	Value for tight closing, top	0.0 ... <b>100.0</b>	%
38.BIN1 4)	Function of BI 1 None Only message Block configuring Drive valve to position YE Drive valve to position YA Block movement Partial-Stroke-Test	<b>OFF</b> on -on bLoc2 uP -uP doWn -doWn StoP -StoP PST -PST	NO contact NC contact
39.BIN2 4)	Function of BI 2 None Only message Drive valve to position YE Drive valve to position YA Block movement Partial-Stroke-Test	<b>OFF</b> on -on uP -uP doWn -doWn StoP -StoP PST -PST	NO contact NC contact
40.AFCT 5)	Alarm function Without A1=min, A2=max A1=min, A2=min A1=max, A2=max	<b>OFF</b> normal Π, ΠΠ Π̄, Π̄Π̄ inverted ΠΠ Π̄Π̄ Π̄Π̄ Π̄Π̄	
41.A1	Response threshold of alarm 1	0.0 .. <b>10.0</b> .. 100.0	%
42.A2	Response threshold of alarm 2	0.0 .. <b>90.0</b> .. 100.0	%
43.YFCT 5)	on fault Fault + not automatic Fault + not automatic + BI ("+" means logical OR operation)	normal 4 4n 4nB inverted 4 4n 4nB	
44.YTIM	Monitoring time for fault message "control deviation"	<b>Auto</b> / 0 ... 100	s
45.YLIM	Response threshold for fault message "control deviation"	<b>Auto</b> / 0 ... 100	%
46.YSTRK	Limit for stroke integral	0 ... 1.00E9	
47. PRST	Preset (factory setting) "no" nothing activated "Strt" start of factory setting after pressing key for 5s "oCAY" display following successful factory setting CAUTION: preset results in "NO INI"	<b>no</b> Strt oCAY	
48. XDIAG	Activating for extended diagnostics off single-stage alarm two-stage alarm three-stage alarm	<b>OFF</b> On1 6) On2 6) On3 6)	
49. FSTY	Safety position: parameterized safety setpoint last setpoint open venting valve	<b>FSVL</b> FSSP FSAC	
50. FSTI	Monitoring time for setting safety position	0 ... 100 ( <b>30</b> )	s
51. FSVL	Safety setpoint	<b>0.0</b> ... 100.0	%
52. STNR	Station number	0 ... <b>126</b>	
53. IDENT	PROFIBUS ident number interchangeable to other positioner full functional range	0 <b>1</b>	

Parameter name	Function	Parameter values (Bold = factory setting)	Unit
A. 4 PST 6)	Partial-Stroke-Test with the following parameters: A1. STPOS Start position A2. STTOL Start tolerance A3. STEP Step height A4. STEPD Step direction A5. INTRV Test interval A6. PSTIN Partial-Stroke-Test reference step time A7. FACT1 Factor 1 A8. FACT2 Factor 2 A9. FACT3 Factor 3	<b>0.0</b> ... 100.0 0.1 .. <b>2.0</b> .. 10.0 0.1 .. <b>10.0</b> .. 100.0 <b>uP</b> / do / uP do <b>OFF</b> / 1 ... 365 <b>noInI(C)##/##/FdInI/rEAL</b> 0.1 .. <b>1.5</b> .. 100.0 0.1 .. <b>3.0</b> .. 100.0 0.1 .. <b>5.0</b> .. 100.0	% % %  days s
b. 4 DEV 6)	Generally fault of valve with the following parameters: b1.TIM Time constant b2. LIMIT Limit b3. FACT1 Factor 1 b4. FACT2 Factor 2 b5. FACT3 Factor 3	<b>Auto</b> / 1 ... 400 0.0 .. <b>1.0</b> .. 100.0 0.1 .. <b>5.0</b> .. 100.0 0.1 .. <b>10.0</b> .. 100.0 0.1 .. <b>15.0</b> .. 100.0	s %
C. 4 LEAK 6)	Pneumatic leakage with the following parameters: C1. LIMIT Limit C2. FACT1 Factor 1 C3. FACT2 Factor 2 C4. FACT3 Factor 3	0.0 .. <b>30.0</b> .. 100.0 0.1 .. <b>1.0</b> .. 100.0 0.1 .. <b>1.5</b> .. 100.0 0.1 .. <b>2.0</b> .. 100.0	%
d. 4 STIC 6)	Stiction (Slip stick effect) with the following parameters: d1. LIMIT Limit d2. FACT1 Factor 1 d3. FACT2 Factor 2 d4. FACT3 Factor 3	0.1 .. <b>1.0</b> .. 100.0 0.1 .. <b>2.0</b> .. 100.0 0.1 .. <b>5.0</b> .. 100.0 0.1 .. <b>10.0</b> .. 100.0	%
E. 4 DEBA 6)	Monitoring for dead band with the following parameter: E1. LEVEL3 Threshold	0.0 .. <b>2.0</b> .. 10.0	%
F. 4 ZERO 6)	Zero shift with the following parameters: F1. LEVL1 Threshold 1 F2. LEVL2 Threshold 2 F3. LEVL3 Threshold 3	0.1 .. <b>1.0</b> .. 10.0 0.1 .. <b>2.0</b> .. 10.0 0.1 .. <b>4.0</b> .. 10.0	% % %
G. 4 OPEN 6)	Shift of upper end stop with the following parameters: G1. LEVL1 Threshold 1 G2. LEVL2 Threshold 2 G3. LEVL3 Threshold 3	0.1 .. <b>1.0</b> .. 10.0 0.1 .. <b>2.0</b> .. 10.0 0.1 .. <b>4.0</b> .. 10.0	% % %
H. 4 TMIN 6)	Monitoring for lower temperatur limit with the following parameters: H1. TUNIT Temperature unit H2. LEVL1 Threshold 1 H3. LEVL2 Threshold 2 H4. LEVL3 Threshold 3	°C / °F -40 ... 90 / -40 ... 194 -40 ... 90 / -40 ... 194 -40 ... 90 / -40 ... 194	
J. 4 TMAX 6)	Monitoring for upper temperature limit with the following parameters: J1. TUNIT Temperature unit J2. LEVL1 Threshold 1 J3. LEVL2 Threshold 2 J4. LEVL3 Threshold 3	°C / °F -40 ... 90 / -40 ... 194 -40 ... 90 / -40 ... 194 -40 ... 90 / -40 ... 194	
L. 4 STRK 6)	Monitoring for stroke integral with the following parameters: L1. LIMIT Limit of strokes L2. FACT1 Factor 1 L3. FACT2 Factor 2 L4. FACT3 Factor 3	<b>1</b> ... <b>1 000 000</b> 0.1 .. <b>1.0</b> .. 40.0 0.1 .. <b>2.0</b> .. 40.0 0.1 .. <b>5.0</b> .. 40.0	
O. 4 DCHG 6)	Monitoring for direction change with the following parameters: O1. LIMIT Limit of direction changes O2. FACT1 Factor 1 O3. FACT2 Factor 2 O4. FACT3 Factor 3	<b>1</b> ... <b>1 000 000</b> 0.1 .. <b>1.0</b> .. 40.0 0.1 .. <b>2.0</b> .. 40.0 0.1 .. <b>5.0</b> .. 40.0	
P. 4 PAVG 6)	Calculation for average value of position with the following parameters: P1. TBASE Time basis for average value P2. STATE Condition of calculation P3.LEVL1 Threshold 1 P4. LEVL2 Threshold 2 P5. LEVL3 Threshold 3	<b>0.5h</b> / 8h / 5d / 60d / 2.5y <b>ldLE</b> / rEF./###.# / Strt 0.1 .. <b>2.0</b> .. 100.0 0.1 .. <b>5.0</b> .. 100.0 0.1 .. <b>10.0</b> .. 100.0	% % % %

HINTS:

- Parameter appears only if "turn" or "WAY" is selected; at "turn", you cannot select 33°
- Parameter does not appear if "turn", "LWAY" or "ncS\_" has been selected with YFCT
- Turning points only appear with selection SFCT = "FrEE"
- NC contact means: action with opened switch or Low level  
NO contact means: action with closed switch or High level
- Normal means: High level without fault  
Inverted means: Low level without fault
- Parameters A up to P only appears if parameter 48.XDIAG is activated with On1, On2 or On3. The contents of the parameters A up to P appears also only if the selected parameter is activated with On.