Smart Valve Positioner
TS900/TS905 Series (Flame proof type)

◢ Description

TS900 Smart Valve Positioner controls the valve stroke in response to an input signal of 4-20mA from the control panel, DCS, or calibrator.

◢ Certified

IECEx Ex EAC KCs CCC Ex NEPSI CE

HART COMMUNICATION PROTOCOL IP66 SIL2

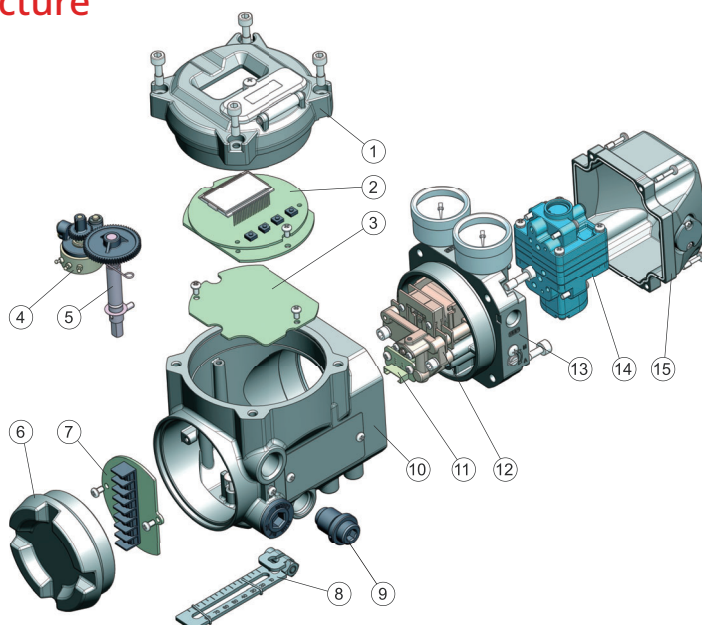SGS TÜV SAAR FUNKTIONALE SICHERHEIT GEPRÜFT FUNCTIONAL SAFETY APPROVED

◢ Features

TS900

TS905

+ Quick and easy auto calibration

+ Large flow pilot valve (Over than 100LPM)

+ Flapper / Nozzle type Torque motor

+ By-pass valve (A/M switch) installed

+ HART communication (HART 7)

+ Partial stroke test (PST) function

+ Alarm function

+ Self diagnostic

◢ Structure

1. Body cover
2. Main PCB
3. PCB guide
4. Potentiometer
5. Main shaft
6. Junction box cover
7. Terminal PCB
8. Feedback lever
9. Drain plug
10. Base body
11. Pressure sensor(Option)
12. Torque motor
13. Air connection block
14. Pilot valve
15. Pilot valve cover

◥ Specifications

Model	TS900	TS905
Input signal	4~20mA DC	
Impedance	500Ω at 20mA DC	
Supply pressure	0.14~0.7MPa	
Stroke	10~150mm(Linear), 0~90°(Rotary)	
Air connection	NPT1/4, G1/4	
Gauge connection	NPT1/8	
Conduit	NPT1/2, M20	
Explosion proof type	II 2G Ex db IIC T5/T6 Gb	
	II 2D Ex tb IIIC T85℃/T100 ℃ Db	
Enclosure	IP66 (EN60529)	
Ambient Temp. — Standard type	-30℃~80℃	
Ambient Temp. — Low temp type	-40℃~80℃	
Ambient Temp. — Explosion proof	-40℃~80℃(T5) / -40℃~70℃(T6)	
Ambient Temp. — LCD operating	-30℃~85℃	
Linearity	±0.5% F.S.	
Sensitivity	±0.2% F.S.	
Hysteresis	±0.5% F.S.	
Repeatability	±0.3% F.S.	
Air consumption	Below 2.3LPM (Sup=0.14MPa)	
Required air quality	Class 3 (ISO 8573-1)	
Flow capacity	Over 100LPM (Sup=0.14MPa)	
Material	Aluminum die cast	Stainless Steel 316
Weight	3.5kg	7.0kg
HART version*	HART 7	
Position transmitter* — Connection type	2 Wire	
Position transmitter* — Supply voltage	9~30V DC	
Alarm switch*	9~30V DC	

* Options

◥ Product code

Model	TS900		C				
Standard type	TS900						
STS316 type	TS905						
Acting type — Linear type		L					
Acting type — Rotary type		R					
Explosion proof type	Ex db IIC T5/T6		C				

Connection type	Conduit entry	Air connection	
	G1/2	PT1/4	1
	G1/2	NPT1/4	2
	NPT1/2	NPT1/4	3
	M20	NPT1/4	4
	M20	G1/4	5

Lever (Linear type)	10 ~ 80mm	1
	70 ~ 150mm	2
	Adapter type(30mm)	3
	Adapter type(70mm)	4
Lever (Rotary type)	M6 x 39L	1
	NAMUR	5

Ambient Temp.	-30℃~80℃	S
	-40℃~80℃	L
	-60℃~80℃ (For Russia EAC)	U

Communication	None	0
	4~20mA Position transmitter	1
	HART	2
	HART with 4~20mA Position transmitter	3

Alarm switch	None	0
	Included Alarm switch	A

Notes:
1. Conduit entry for ATEX/IECEx/CCC/NEPSI should be "NPT1/2" or "M20".

◥ Dimension [Unit:mm]