

- 2-wire, 4-20 mA transmitter
- Standard NEMA 3R weatherproof enclosure, optional NEMA 4X enclosure available
- Wide range of zero offset and span adjustments
- RFI, EMI noise immune



Type AVPT
Positioner Transmitter

Type AVPT - Positioner Transmitter

The Type AVPT Position Transmitter provides fast and accurate position indication of single or double acting actuators. It provides a 4-20 mA feedback signal that corresponds to the actual position of a pneumatic final control element. The AVPT utilizes the same housing and connecting linkage as the Type AV Positioner.

The mechanical input to the AVPT is supplied by an adjustable linkage connected to the actuator. As the actuator changes position, the linkage rotates the transmitter's drive arm and gears which provide input to the 4-20 mA Position Transmitter Assembly. This produces a 4-20 mA DC output signal proportional to the position.

Model Number

AVPT20200	Standard NEMA 3R, Part Number 680D001U01
AVPT2020N	NEMA 4X Enclosure Rating Part Number 680D011U02

Instruction Bulletin Part Number PN24951

Type AVPT Positioner Specifications

Weight	1.9 kg (4.18 lb),
Temperature limits	Operating and storage: -20°C to 82°C (-4°F to 180°F)
Humidity limits	Operating and storage: 0% to 95% noncondensing

Type AVPT Position Transmitter Specifications

Total resistance	2000 Ω, ±20% potentiometer
Power rating	1 W up to 70°C (158°F), 0 W at or above 125°C (257°F)
Wiper rate of change	9.9 Ω nominal per degree of cam rotation
Temperature effect	0.05% (500 ppm) per °C (0.03% (278 ppm) per °F) maximum
Maximum voltage	35 VDC or 30 VAC across the potentiometer ends

Accessories

Mounting Kits, for diaphragm actuators with yoke mounting bosses (includes mounting bracket, linkage and hardware)

- For stem size 0.375 to 0.75 inch
(9.53 - 19.1 mm), adjustable stud length
2.687 inch (68.2 mm) - Pt. #5327321_12
- For stem size 0.75 to 1.0 inch (19.2 - 25.4 mm),
adjustable stud length 3.437 inch (87.3 mm) -
Pt. #5327321_13
- For stem size 0.375 to 1.0 inch
(9.53 - 25.4 mm), adjustable stud length
3.406 inch (86.5 mm) - Fisher -
Pt. #5327321_14

Mounting Bracket, for reciprocating valves (contained in above kits) - Pt. #5400266_1

Connecting Link, adjustable length 12 inch (304.8 mm) contained in above kits - Pt. #5312449__4

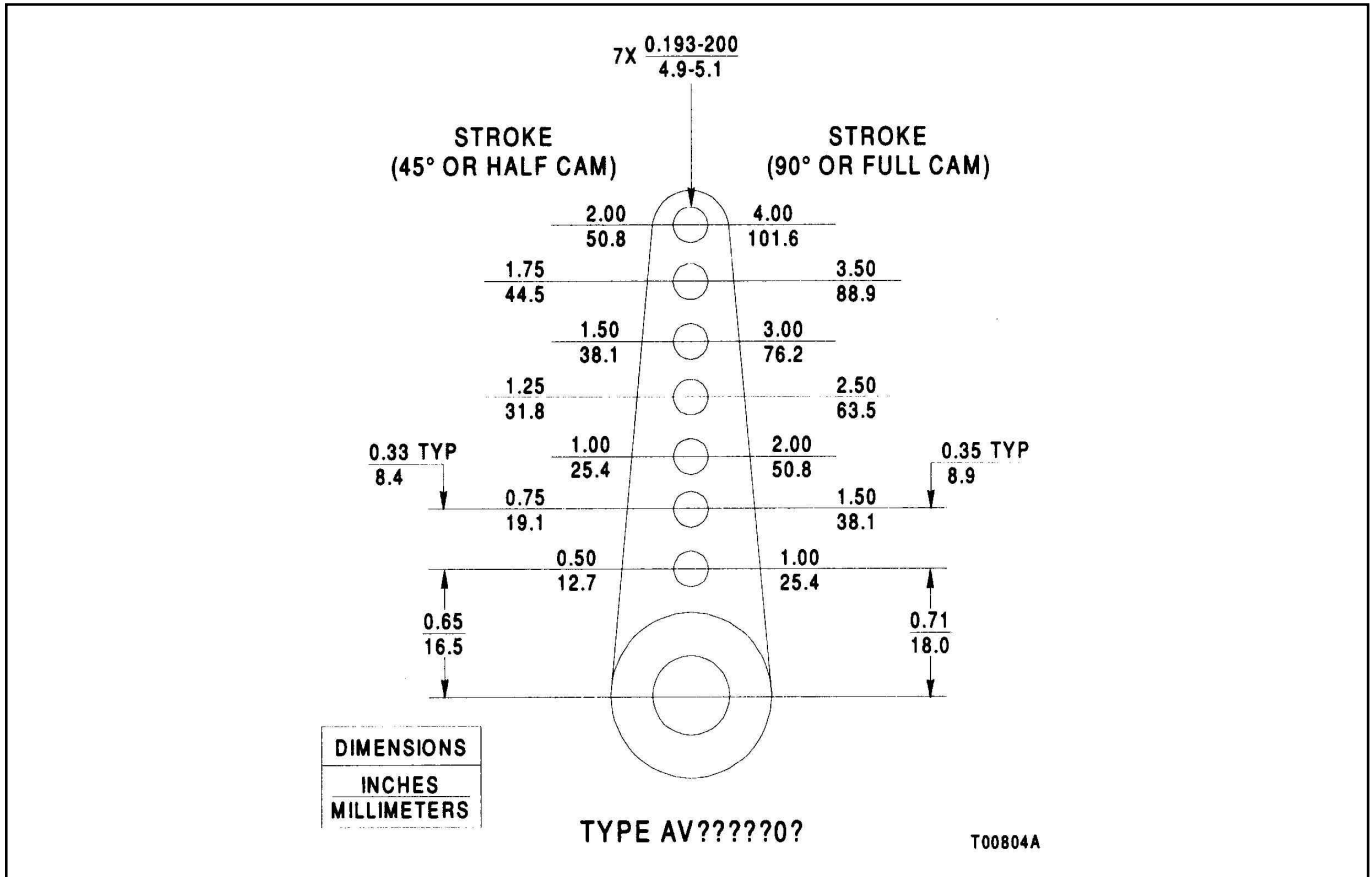


Figure 1. Drive Arm Connections

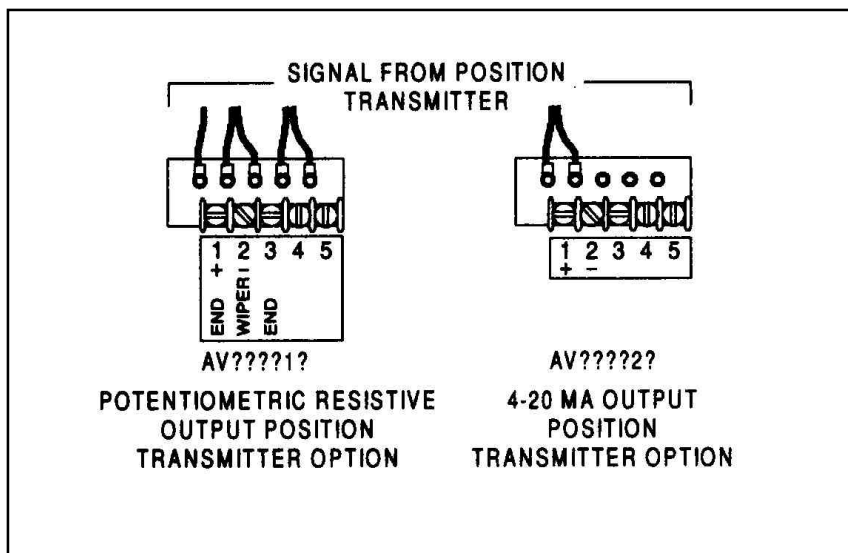


Figure 2. Electrical Connections

Table 1. Mounting Kit Number 5327321_121 - Valve Stem Diameter 0.375 to 0.750 in.

Item	Part No.	Description	Note
1	5400266_1	Positioner mounting bracket	
2	0.250-20 x 0.750	Screw, socket hd (3)	
3	0.25	Lock washer, reg spring (3)	
5	0.312-18 x 0.625	Cap screw, hex socket hd (2)	
6	0.312	Lock washer, reg spring (2)	
7	R6440-005	Type 347 stainless steel wire, 0.300 diameter, 6-in.	
8	19934_248	Spacer	2
9	0.190-32 x 1.125	Screw, pan hd machine	2
10	5312449_4	Connecting link, 12-in. (cut to fit)	
11	0.190-32 x 0.875	Screw, pan hd machine (2)	2

Item	Part No.	Description	Note
12	197120_5	Nut, elastic stop (2)	
13	5311690_1	Adjustable stud, 2.69 in.	
14	5311690_2	Adjustable stud, 3.43 in.	
21	0.375	Lock washer, med spring (3)	
22	0.375-24	Nut, hex jam	
23	5311687_2	Stem clamp, 0.375 – 0.750-in. dia	
25	5311691_1	Clamp plate, 0.375 – 0.750-in. dia.	2
27	0.375-16 x 1.50	Screw, hex skt hd cap (2)	2
28	0.375-16	Nut, hex jam (2)	
29	0.125 dia x 0.750	Groove pin, type 1	2

Notes:

1. Position transmitter mounting kits for piston actuators with linear (reciprocating) motion.
2. When fastening Item 10 to drive arm at first hole (nearest drive shaft), use Items 8 and 9 and omit 1 of Item 11.

Table 2. Mounting Kit Number 5327321_131 - Valve Stem Diameter 0.750 to 1.000 in.

Item	Part No.	Description	Note
1	5400266_1	Positioner mounting bracket	
2	0.250-20 x 0.750	Screw, socket hd (3)	
3	0.25	Lock washer, reg spring (3)	
5	0.312-18 x 0.625	Cap screw, hex socket hd (2)	
6	0.312	Lock washer, reg spring (2)	
7	R6440-005	Type 347 stainless steel wire, 0.300 diameter, 6-in.	
8	19934_248	Spacer	2
9	0.190-32 x 1.125	Screw, pan hd machine	2
10	5312449_4	Connecting link, 12-in. (cut to fit)	

Item	Part No.	Description	Note
11	0.190-32 x 0.875	Screw, pan hd machine (2)	2
12	197120_5	Nut, elastic stop (2).	
14	5311690_2	Adjustable stud, 3.43 in.	
21	0.375	Lock washer, med spring (3)	
22	0.375-24	Nut, hex jam	
24	5312483_1	Stem clamp, 0.750 – 1.00-in. dia.	
26	5312471_1	Clamp plate, 0.750 – 1.00 in. dia.	
27	0.375-16 x 1.50	Screw, hex skt hd cap (2)	2
29	0.125 dia x 0.750	Groove pin , type 1	

Notes:

1. Position transmitter mounting kits for piston actuators with linear (reciprocating) motion.
2. When fastening Item 10 to drive arm at first hole (nearest drive shaft), use Items 8 and 9 and omit 1 of Item 11.

Table 3. Mounting Kit number 5327321_14

- For Use on Fischer Actuators (note 1) Valve Stem 0.375 to 0.750 in. (See Fig. 3)

Item	Part No.	Description	Note
1	5400266_1	Positioner mounting bracket	
2	0.250-20 x 0.750	Screw, socket hd (3)	
3	0.25	Lock washer, reg spring (3)	
5	0.312-18 x 0.625	Cap screw, hex socket hd (2)	
6	0.312	Lock washer, reg spring (2)	
7	R6440-005	Type 347 stainless steel wire, 0.300 diameter, 6-in.	
8	19934_248	Spacer	2
9	0.190-32 x 1.125	Screw, pan hd machine	2
10	5312449_4	Connecting link, 12-in. (cut to fit)	

Item	Part No.	Description	Note
11	0.190-32 x 0.875	Screw, pan hd machine (2)	2
12	197120_5	Nut, elastic stop (2).	
14	5311690_2	Adjustable stud, 3.43 in.	
21	0.375	Lock washer, med spring (3)	
22	0.375-24	Nut, hex jam	
24	5312483_1	Stem clamp, 0.750 – 1.00-in. dia.	
26	5312471_1	Clamp plate, 0.750 – 1.00 in. dia.	
27	0.375-16 x 1.50	Screw, hex skt hd cap (2)	
29	0.125 dia x 0.750	Groove pin, type 1	

Notes:

1. Position transmitter mounting kits for piston actuators with linear (reciprocating) motion.
2. When fastening Item 10 to drive arm at first hole (nearest drive shaft), use Items 8 and 9 and omit 1 of Item 11.

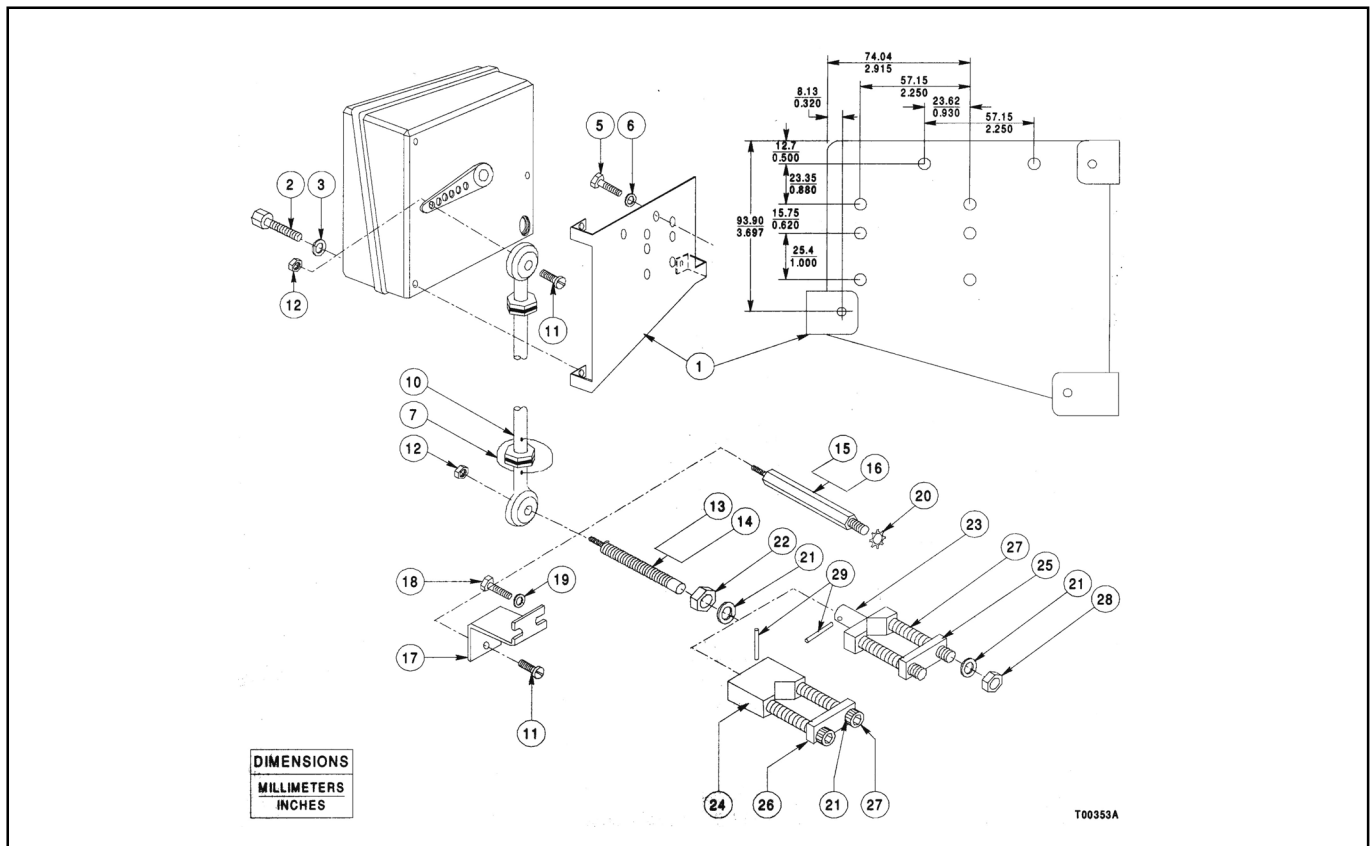


Figure 3. Mounting Kits

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Printed in USA (3.12.06)

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