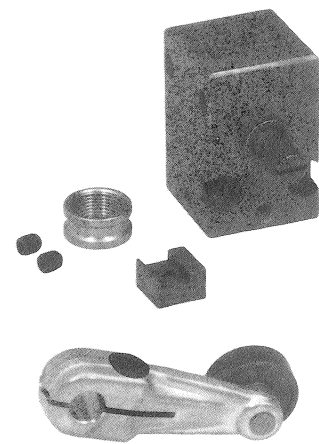
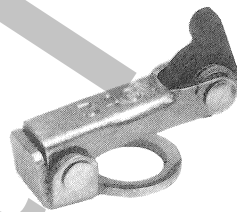
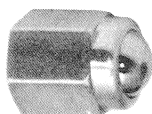


Humphrey TAC-TAC²-TAC³ Manual/Mech. Operators

These operators are used to convert TAC, TAC², and TAC³ push-button valves to manual or mechanical operation.



34B Ball Operator

Model 34B ball operator threads onto the collar of any TAC Series push-button valve. The ball is not retained until threaded onto valve. The 0.078-inch thickness of the #8-60 or #8-600 mounting bracket plus the 0.015-inch thickness of the lockwasher properly spaces the 34B to prevent prestroking of the button. Stroke is 0.093-inch. Actuating forces are shown in the accompanying chart. Weight: 0.88 oz. (24.8 gms.).

34C Cam Operator

Model 34C operator's actuating force varies by valve type and pressure as shown in the accompanying chart. Adjustment of cam roller height is made through the use of a mounting bracket and locknuts. The cam surface should release roller quickly for best valve response. Weight: 1 oz. (38.4 gms.).

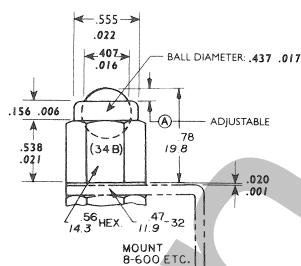
34CW Cam Operator with One-Way Actuation

Model 34CW cam operator actuates valve when the pawl is contacted from lever side. The pawl then folds out of the way in the opposite direction. The spring-loaded Nylatron pawl has high tensile strength and excellent wear characteristics and is self-lubricating. Actuation forces are shown in accompanying chart. Weight: 1 oz. (38.4 gms.).

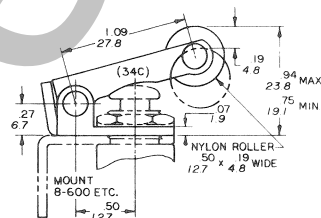
34CH Heavy-Duty Cam Operator

Model 34CH heavy-duty cam operator is for use with all TAC series valves except TAC³ valves. Its spline actuator shaft adapts to Cam Roller 28-60A (Order cam roller separately) and other commercially available actuator styles. The mean stroke is 15° each for prestroke, fully open, and over-stroke. Dimensions: 1.5"H x 1"W x 1"D. Weight: 3 oz. (85 gms.).

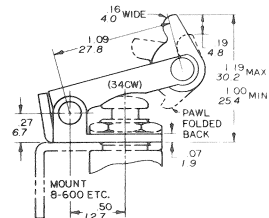
34B



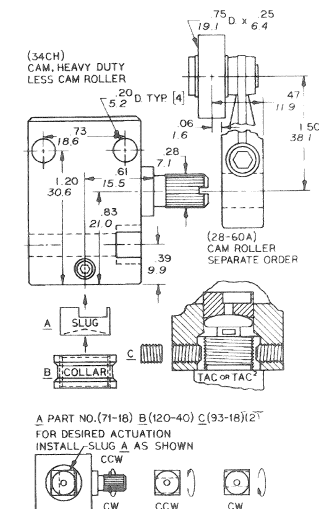
34C



34CW

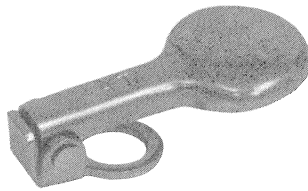


34CH



34CH Assembly Instructions

- Position square **slug** into 34CH for desired actuation. The slug drill point rests on valve button.
- Thread **collar** fully onto valve.
- Insert valve/collar behind slug and secure by tightening #8-32 set screws at 90°.
- Mount 34CH, not valve, to equipment.
- Attach cam roller to spline actuator.



34T Fingertip Operator

Model 34T fingertip operator may be used with any TAC Series push-button valve to provide easier actuation. Actuation forces are shown in accompanying chart.



34F Foot, Knee, or Hand Operator

Model 34F foot, knee, or hand operator may be used with any TAC Series push-button valve except the TAC³. To install, disassemble the 34F by removing screws. Mount valve shoulder to bracket and retain with locknut

and lockwasher. Back and sides are left open for plumbing. Non-skid rubber pads on both sides. Mount to equipment with two 0.187-inch Dia. holes on 1.625-inch centers, 0.562 inches from back.

Specification

Force To Actuate in Ounces/Grams

Models 34C & 34CW

VALVED PRESSURE	30 psig	(2.1 bars)	60 psig	(4.2 bars)	100 psig	(7.0 bars)
2P	15	425	16	454	18	510
3P	19	539	27	765	38	1077
4P	22	624	22	624	23	652
4PP	6	170	7	198	8	227
31P	40	1134	44	1247	52	1474
41P	44	1247	52	1474	67	1899
41PP	26	737	28	794	34	964
42P	49	1389	66	1871	94	2665
42PP/PA	14	397	17	482	22	624
ESB	7	198				
34CH*	40	1134 Maximum				

*Use with TAC/TAC² Only.

Force to Actuate in Ounces/Grams

Model 34B†

VALVED PRESSURE	30 psig	(2.1 bars)	60 psig	(4.2 bars)	100 psig	(7.0 bars)
2P	32	907	36	1021	48	1361
3P	38	1077	54	1531	76	2155
4P	44	1247	44	1247	46	1304
4PP	12	340	14	397	16	454
31P	64	1814	72	2041	88	2495
41P	87	2466	104	2948	135	3827
41PP	52	1474	57	1616	67	1899
42P	97	2750	132	3742	189	5358
42PP/PA	26.5	751	34	964	43.5	1233
ESB	13	369				
34CH	40	1134 Maximum				

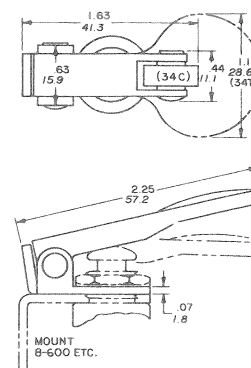
†Same force required to push valve button.

Force To Actuate in Ounces/Grams

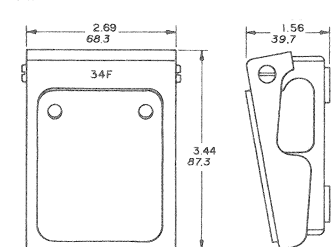
Model 34T

VALVED PRESSURE	30 psig	(2.1 bars)	60 psig	(4.2 bars)	100 psig	(7.0 bars)
2P	10	284	12	340	14	397
3P	14	397	18	510	29	822
4P	16	454	16	454	17	482
4PP	5	142	6	170	7	198
31PP	28	794	32	907	40	1134
41P	32	907	38	1077	50	1418
41PP	19	539	21	595	25	709
42P	35	992	48	1361	69	1956
42PP/PA	10	284	13	369	16	454
ESB	5	142				

34T



34F



Humphrey TAC Air Valves

TAC & TAC²

#10-32 and 1/8-inch ports 2-way, 3-way

VALVES

	2 WAY	3 WAY	NORM. CLOSED	NORM. OPEN	DETENTED	SPRING RETURN	MOUNT. BASE (see access.)	PANEL MOUNT. NUTS	FKM** Seals	BRASS BODY	BOTTOM INLET
OPTION CODE											VAI
MODEL											
2P	STD	NA	STD	NA	NA	STD	OS	STD	Specify	STD	STD
2V	STD	NA	NA	NA	STD	NA	OS	STD	Specify	STD	STD
2VR	STD	NA	STD	NA	NA	STD	OS	STD	Specify	STD	STD
3P	NA	STD	STD	NA	NA	STD	OS	STD	Specify	STD	STD
3V	NA	STD	NA	NA	STD	NA	OS	STD	Specify	STD	STD
3VR	NA	STD	STD	NA	NA	STD	OS	STD	Specify	STD	STD
31P	*	STD	STD	*	NA	STD	OS	STD	Specify	STD	NA
31PPX	*	STD	NA	NA	STD	NA	OS	STD	Specify	STD	NA
31V	*	STD	STD	NA	STD	NA	OS	STD	Specify	STD	NA
31VR	*	STD	STD	*	NA	STD	OS	STD	Specify	STD	NA

*Plug exhaust port on 31 series for 2-way. For Normally Open, plumb Supply to appropriate port.

**Fluoroelastomer

Order example: 2P

OS indicates part must be ordered separately.

REMEMBER: Option Codes marked STD, NA are not used as part of the Model Number when ordering.

TAC & TAC²

#10-32 and 1/8-inch ports 4-way

VALVES

	NORM. CLSD/ NORM. OPEN 2 POS	NORM. CLSD/ NORM. OPEN 3 POS/OPN CTR	DETENTED	SPRING RETURN	3 DETENTED POSITIONS	3 SPRING RETURN POSITIONS	DETENT SPRING CTR'D DETENT	MOUNT. BASE (see access.)	PANEL MOUNT. NUTS	BRASS BODY	FKM* Seals	BOTTOM INLET
OPTION CODE												VAI
MODEL												
4P	STD	NA	NA	STD	NA	NA	NA	OS	STD	STD	Specify	NA
4PP	STD	NA	STD	NA	NA	NA	NA	OS	STD	STD	Specify	NA
4PPX	STD	NA	STD	NA	NA	NA	NA	OS	STD	STD	Specify	NA
4V	STD	NA	STD	NA	NA	NA	NA	OS	STD	STD	Specify	NA
41P	STD	NA	NA	STD	NA	NA	NA	OS	STD	STD	Specify	NA
41PP	STD	NA	STD	NA	NA	NA	NA	OS	STD	STD	Specify	NA
41PPX	STD	NA	STD	NA	NA	NA	NA	OS	STD	STD	Specify	NA
41V	STD	NA	STD	NA	NA	NA	NA	OS	STD	STD	Specify	NA
41TD3	NA	STD	NA	NA	STD	NA	NA	OS	STD	STD	Specify	STD
41TS3	NA	STD	NA	NA	NA	STD	NA	OS	STD	STD	Specify	STD
41TDS3	NA	STD	NA	NA	NA	NA	STD	OS	STD	STD	Specify	STD
41RD3	NA	STD	NA	NA	STD	NA	NA	OS	NA	STD	Specify	STD
41RS3	NA	STD	NA	NA	NA	STD	NA	OS	NA	STD	Specify	STD
41RDS3	NA	STD	NA	NA	NA	NA	STD	OS	NA	STD	Specify	STD

For 42 Series TAC³ Valves, see TAC³ Air Piloted and Push-Button Valves, p. 12 of Humphrey Price List.

*Fluoroelastomer

Order example: 41P-VAI

OS indicates part must be ordered separately.

REMEMBER: Option Codes marked STD, NA are not used as part of the Model Number when ordering.

AIR/MANUAL/MECHANICAL OPERATORS

OPERATORS

Air Pilot Operators

	Fluoroelastomer Seals
OPTION CODE	VAI
MODEL	
34A	NA
34AS	Specify
34AR	Specify
34ASR	NA
341A	NA
341AS	Specify
341AR	Specify
341ASR	NA

Order example: 341AR-VAI

NOTE: Valves and Accessories are shipped detached, ready to be mounted according to specific application requirements.
REMEMBER: Option Codes marked STD, NA are not used as part of the Model Number when ordering.

Manual & Mechanical Operators

MODEL
34B
34C
34CW
34CH
28-60A
34F
34T

Order example: 34F

Humphrey TAC and TAC² Manual Air Valves

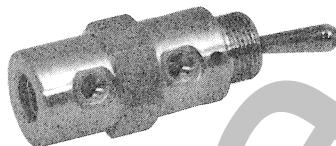
Although these toggle, rocker, and push-pull valves have their primary application in general industrial and instrumentation applications (including control panels), they are also widely used in mobile equipment and adapt well to vehicle dashboards. V and PPX models are 2-position, 3-way and 4-way valves; V models have single-direction throw with pinned lever. 41T and 41R models are rugged, 3-position, 4-way valves which can be used as a 2-position or 3-position valve.



2V 3V

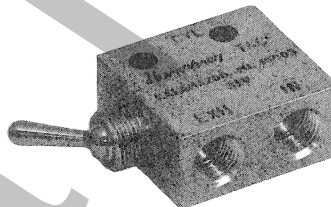
Model 2V is a 2-position, 2-way, normally closed, detented valve, having a single direction throw with pinned lever. The 2V has no exhaust port and will trap downstream pressure if supply pressure is maintained but not exceeded. IN and CYL port threads are #10-32 female. Alternate IN is 1/8-inch NPT male. These valves are furnished with locknuts and lockwashers for 15/32-32 x 9/32 toggle collar threads. Weight: 1.25 oz. (35.2 gms.).

Model 3V is a 3-way version of the 2V valve.



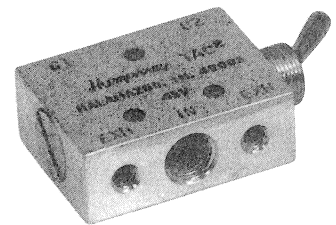
4V

Model 4V is a 2-position, 4-way, normally closed/normally open, detented valve, which can be converted to 3-way by plugging one CYL port with Humphrey PF fitting. IN and CYL ports are #10-32 female. These valves have single-direction throw with pinned lever and are furnished with locknuts and lockwashers for 15/32-32 x 9/32 toggle collar threads. Weight: 2.38 oz. (67.3 gms.).



31V

Model 31V is a 2-position, 3-way, normally closed, detented valve with single-direction throw with pinned lever. It can be used as a 2-way valve by plugging the exhaust port. Ports are 1/8-inch NPT. The 31V valve can be mounted with two #10 screws or with body threads for bracket or panel mounting. Dimensions: 1.31"H x 1.25"W x 0.63"D. Weight: 4.25 oz. (120.5 gms.).

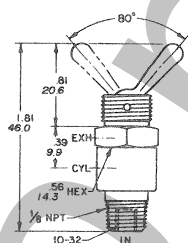


41V

Model 41V is a 2-position, 4-way, normally closed/normally open, detented valve with single-direction throw with pinned lever. Exhaust may be captured by removing port flow controls and using Humphrey BF or BF1 fittings. Exhaust may be muffled with Humphrey 150-30A muffler. Exhaust ports have #10-32 threads; all other ports have 1/8-inch NPT threads. Furnished with exhaust port flow controls. The 41V may be mounted with three #6 screws or with body threads for bracket or panel mounting. Dimensions: 1.65"H x 1.25"W x 0.63"D. Weight: 5.25 oz. (148.8 gms.).

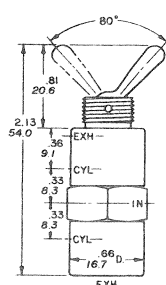


2V/3V

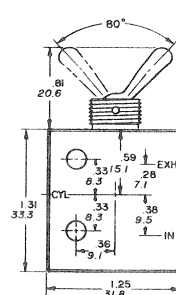


NOTE:
MOUNTING
THREAD IS
15/32 - 32 x 9/32

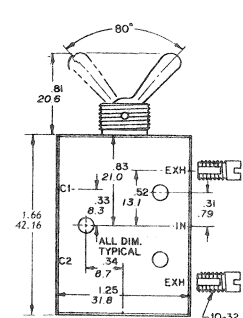
4V

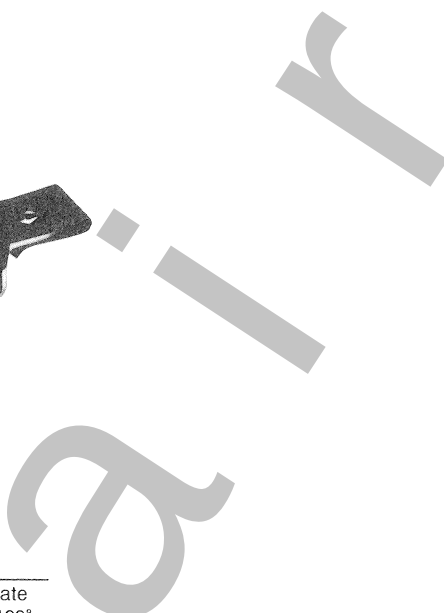


31V

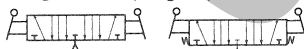


41V





port. These valves have separate unthreaded exhaust ports at 180° and rugged matte black toggle or rocker actuators. All models may be side mounted. Toggle valves may be panel mounted with two supplied locknuts (0.187-inch and 0.93-inch thick) and lockwasher. Flow is 7.5 scfm at 125 psig. Weight: 3 oz. (85 gms.)



Specifications

OPERATING SPEEDS:
TAC & TAC²: to 900 CPM
TAC³: to 600 CPM

MATERIALS:
Brass, Stainless Steel, Delrin, Buna N

LUBRICATION Recommended

FILTRATION Recommended,
40 Microns Minimum

Air Flow to Atmosphere

41T

Humphrey TAC Air Valves

TAC & TAC²

#10-32 and 1/8-inch ports 2-way, 3-way

VALVES

	2 WAY	3 WAY	NORM. CLOSED	NORM. OPEN	DETENTED	SPRING RETURN	MOUNT. BASE (see access.)	PANEL MOUNT. NUTS	FKM** Seals	BRASS BODY	BOTTOM INLET
OPTION CODE											VAI
MODEL											
2P	STD	NA	STD	NA	NA	STD	OS	STD	Specify	STD	STD
2V	STD	NA	NA	NA	STD	NA	OS	STD	Specify	STD	STD
2VR	STD	NA	STD	NA	NA	STD	OS	STD	Specify	STD	STD
3P	NA	STD	STD	NA	NA	STD	OS	STD	Specify	STD	STD
3V	NA	STD	NA	NA	STD	NA	OS	STD	Specify	STD	STD
3VR	NA	STD	STD	NA	NA	STD	OS	STD	Specify	STD	STD
31P	*	STD	STD	*	NA	STD	OS	STD	Specify	STD	NA
31PPX	*	STD	NA	NA	STD	NA	OS	STD	Specify	STD	NA
31V	*	STD	STD	NA	STD	NA	OS	STD	Specify	STD	NA
31VR	*	STD	STD	*	NA	STD	OS	STD	Specify	STD	NA

*Plug exhaust port on 31 series for 2-way. For Normally Open, plumb Supply to appropriate port.

**Fluoroelastomer

Order example: 2P

OS indicates part must be ordered separately.

REMEMBER: Option Codes marked STD, NA are not used as part of the Model Number when ordering.

TAC & TAC²

#10-32 and 1/8-inch ports 4-way

VALVES

	NORM. CLSD/ NORM. OPEN 2 POS	NORM. CLSD/ NORM. OPEN 3 POS/OPN CTR	DETENTED	SPRING RETURN	3 DETENTED POSITIONS	3 SPRING RETURN POSITIONS	DETENT SPRING CTR'D DETENT	MOUNT. BASE (see access.)	PANEL MOUNT. NUTS	BRASS BODY	FKM* Seals	BOTTOM INLET
OPTION CODE												VAI
MODEL												
4P	STD	NA	NA	STD	NA	NA	NA	OS	STD	STD	Specify	NA
4PP	STD	NA	STD	NA	NA	NA	NA	OS	STD	STD	Specify	NA
4PPX	STD	NA	STD	NA	NA	NA	NA	OS	STD	STD	Specify	NA
4V	STD	NA	STD	NA	NA	NA	NA	OS	STD	STD	Specify	NA
41P	STD	NA	NA	STD	NA	NA	NA	OS	STD	STD	Specify	NA
41PP	STD	NA	STD	NA	NA	NA	NA	OS	STD	STD	Specify	NA
41PPX	STD	NA	STD	NA	NA	NA	NA	OS	STD	STD	Specify	NA
41V	STD	NA	STD	NA	NA	NA	NA	OS	STD	STD	Specify	NA
41TD3	NA	STD	NA	NA	STD	NA	NA	OS	STD	STD	Specify	STD
41TS3	NA	STD	NA	NA	NA	STD	NA	OS	STD	STD	Specify	STD
41TDS3	NA	STD	NA	NA	NA	NA	STD	OS	STD	STD	Specify	STD
41RD3	NA	STD	NA	NA	STD	NA	NA	OS	NA	STD	Specify	STD
41RS3	NA	STD	NA	NA	NA	STD	NA	OS	NA	STD	Specify	STD
41RDS3	NA	STD	NA	NA	NA	NA	STD	OS	NA	STD	Specify	STD

For 42 Series TAC³ Valves, see TAC³ Air Piloted and Push-Button Valves, p. 12 of Humphrey Price List.

*Fluoroelastomer

Order example: 41P-VAI

OS indicates part must be ordered separately.

REMEMBER: Option Codes marked STD, NA are not used as part of the Model Number when ordering.

AIR/MANUAL/MECHANICAL OPERATORS

OPERATORS

Air Pilot Operators

	Fluoroelastomer Seals
OPTION CODE	VAI
MODEL	
34A	NA
34AS	Specify
34AR	Specify
34ASR	NA
341A	NA
341AS	Specify
341AR	Specify
341ASR	NA

Order example: 341AR-VAI

NOTE: Valves and Accessories are shipped detached, ready to be mounted according to specific application requirements.

REMEMBER: Option Codes marked STD, NA are not used as part of the Model Number when ordering.

Manual & Mechanical Operators

MODEL
34B
34C
34CW
34CH
28-60A
34F
34T

Order example: 34F