Huba Differential Pressure Transmitter 694

Huba Control

Features

- Compact construction
- Fast, easy mounting
- Housing incorporates integral bracket for wall or ceiling mounting. Snap-on cover with a single screw
- Available with or without LCD display - Available with or without root-
- extracted output
- Attractive price/performance ratio



The differential pressure transmitters of the Type 694 series incorporate a proven ceramic fulcrum lever technology. They deliver adjusted and temperature compensated sensor signals, available as standard voltage or current outputs. They are ideal for registering low air flow in air conditioning systems and for the measurement of the pressures in laboratory, environmental and clean-room applications

SPECIFICATIONS

Medium Air and neutral gases

Pressure range -0.5 ... +0.5 mbar / 0 ... 1 – 50 mbar -50 ... +50 Pa / 0 ...

Tolerable overload on one side 100 mbar 10'000 Pa 40 inH 20 1000 mmWC

For ± type max.: 100 mbar on P1, 4 mbar on P2 10'000 Pa on P1, 400 Pa on P2 40 inH 20 on P1, 1.6 inH 20 on P2 1000 mmWC on P1, 40 mmWC on P2

Rupture pressure 2 x overload at ambient temperature 1.5 x overload at 70 °C

Setting range Zero point ±10% fs Full scale 40 ... 100% fs

Materials in contact with medium Housing: Polycarbonate PC Diaphragm: Silicone Sensor: Al 2O3 (96%) / glass

Temperature Medium and ambient 0 ... +70 °C Storage -10 ... +70 °C No condensation

Output

3-wire

Power Supply

0.02A

0...10 V 13.5... 33 VDC/ 24 VAC ±15% 13.5... 33 VDC/ 24 VAC ±15% 0 ... 20 mA 4 ... 20 mA 13.5... 33 VDC/ 24 VAC ±15% 2-wire 4 ... 20 mA 11.0 ... 33 VDC

Load 3- wire 0...10V

> 10k Ohm 0 ...20 mA < 400 Ohm 4 ...20 mA < 400 Ohm

2wire 4-20 mA ≤ supply voltage – 11 V [Ohm]

Current consumption At nominal pressure 3- wire 0...10V <10 mA 0...20 mA <30 mA 4 ...20 mA <30 mA

2-wire 4 ... 20 mA 20 mA

Dynamic response Suitable for dynamic measurements Response time < 10 ms

Load cycle < 10 Hz

Electrical connection

Screw terminals for wire and stranded conductors up to 1.5 mm², cable gland with built-in strain relief PG11

Polarity reversal protection

Short circuit proof and protected against polarity reversal. Each connection is protected against crossover up to max. supply voltage.

Protection standard Without cover IP00 / With cover IP 54 or IP 65

Pressure connections Connection pipe Ø 6.2 mm

Installation arrangement

Recommended and factory adjustment: Vertical, with pressure connections downwards (± types forcible)

Horizontal with cover downwards. Signal approximately 13 Pa higher than actual pressure

Horizontal with cover upwards. Signal approximately 13 Pa lower than actual pressure

Mounting Mounting bracket (integrated in case)

Display Liquid-crystal, 3 digit

Tests / Admissions ETL

CE conform

Weight Without display approx. 90 g / With display approx. 100g

Packaging Single packaging in cardboard

Acez Instruments Pte Ltd | www.acez.com.sg

Calibrator

Humidity

Instruments

Proof / IS

Ж

Environment

Portable

Traceable Calibration

Ask about

A - 2 potentiometers for full scale and zero point adjustment

Housing with built-in fixing brackets C - Self-retaining screw in cover and angled surface for easy cable entry

Versions

В-

TC zero point: (% fs) 2)

max. $\pm 0.6 \sqrt{\frac{Pfs}{P}} + 1.5$



ACCURACY

Transmitter Type Parameter		Unit	± 0.5 mbar	0 1 mbar	0 3 mbar	0 5 mbar	0 10-50 mbar
Tolerance zero point 1)	max.	% fs	± 1.0	± 1.0	± 0.7	± 0.7	± 0.7
Tolerance full scale 1)	max.	% fs	± 1.0	± 1.0	± 0.7	± 0.7	± 0.7
Resolution		% fs	0.2	0.2	0.1	0.1	0.1
Total of linearity, hysteresis and repeatibility	max.	% fs	± 3.0	± 2.0	± 1.0	± 1.0	± 0.6
Long term stability acc. to DIN IEC 60770		% fs	± 1.0	± 1.0	± 1.0	± 1.0	± 1.0
TC zero point 2)	typ.	% fs/10 K	± 0.2	± 0.2	± 0.2	± 0.1	± 0.1
TC zero point 2)	max.	% fs/10 K	± 1.0	± 1.0	± 0.5	± 0.4	± 0.4
TC sensitivity 2)	typ.	% fs/10 K	± 0.3	± 0.3	± 0.2	± 0.1	± 0.1
TC sensitivity 2)	max.	% fs/10 K	± 0.6	± 0.6	± 0.5	± 0.5	± 0.2

with root-extracted output (2 ... 100% pressure)

Absolute	error:	(%	of	full	scale)	

-0.5 +0.5 mbar / 0 1 mbar	0 3-5 mbar
max. ±0.6√ Prs + 1.5	max. ±0.3 √ Pfs + 1.5

Test conditions: 25°C, 45% RH, Power supply 24 VDC TG z.p. / TC s. 0 ... 70°C

ORDERING TABL	E				694.	9	Х	Х	Х	Х	Х	Х	Х	Х	Х
Pressure ranges ³⁾	mbar (hPa) -0.5/+ 0.5 0 1 0 3 0 5 0 10 0 16 0 25 0 50	Pa -50/+50 0 100 0 300 0 500 0 1000 0 1600 0 2500 0 5000	mmWC(mmH ₂ O) -5+5 010 050 0100 0160 0250 0500	InchH ₂ O -0.2 +0.2 0 0.4 0 1.2 0 2 0 4 0 6.4 0 10 0 20			3 1 1 1 1 1 1	1 1 2 3 4 5 6 7							
Unit of pressure	mbar (hPa) Pa mmWC (mmH ₂ O) InchH ₂ O								0 2 3 1						
Output signal/ adjustment	Linear Linear Square root extraction	Full scale and zero point adjustable by customer					1			1 2 4 3					
Outputs ⁴⁾ and power supply	0 10 V 0 20 mA 4 20 mA	13.5 33 VDC / 2 13.5 33 VDC / 2 13.5 33 VDC / 2 13.5 33 VDC / 2	4 VAC ±15 % 4 VAC ±15 % 4 VAC ±15 % 4 VAC ±15 %	3-wire cable 3-wire cable 3-wire cable			1			J	1 3 4 5				
Display 3 digit	Without In pressure unit chosen abo In % fs	ve								1	5	0 1 2			
Pressure connections/ pressure orifices	Connection pipe Ø 6.2 mm Connection pipe Ø 6.2 mm Connection pipe Ø 6.2 mm Connection pipe Ø 6.2 mm		without pressure or pressure orifice on pressure orifice on pressure orifice on	ifice P1 P2 P1 and P2									1 2 3 4		
Version	IP 54: Without connection kit IP 54: With connection kit (metal), 90°C IP 54: With connection kit (plastic) IP 65: Without connection kit IP 65: With connection kit (metal), 90°C		angled including tu straight including tu angled including tu	angled including tube 2m long (Fig.1) ⁵⁾ straight including tube 2m long (Fig.2) ⁵⁾ angled including tube 2m long (Fig.1) ⁵⁾										0 1 2 3 4	
Variation (optional)	IP 65: With connection kit (plastic) straight including tube 2m long (Fig.2) ⁵⁾ Of pressure range or output signal Indicate W and state on order (e.g. 0 9 mbar / Out 0 10V)													5	W
Accessories	Connection kit for vent duct Connection kit for vent duct DIN-rail mounting adaptor Calibration certificate	(metal), 90°C (plastic)	angled including tu straight including tu	be 2m long (Fig.1) $^{5)}$ ibe 2m long (Fig.2) $^{5)}$		Orc 104 100 112 104	der 1 4312 0064 2854 455	no. 2 4 1							
MODEL	DESCRIPTION														
694	Pressure, vacuum and differ	ential transmitter. (K	indly provide full mod	el from the orderina	selec	tion t	able	e)							

Calibrator

Pressure

Humidity

Recorder & Dataloggers

Air Flow

Level & Flow

Portable Instruments

EX Proof / IS