GEFRAN

TKDA

DIGITAL AUTOZERO & SPAN OPTION



Main Features

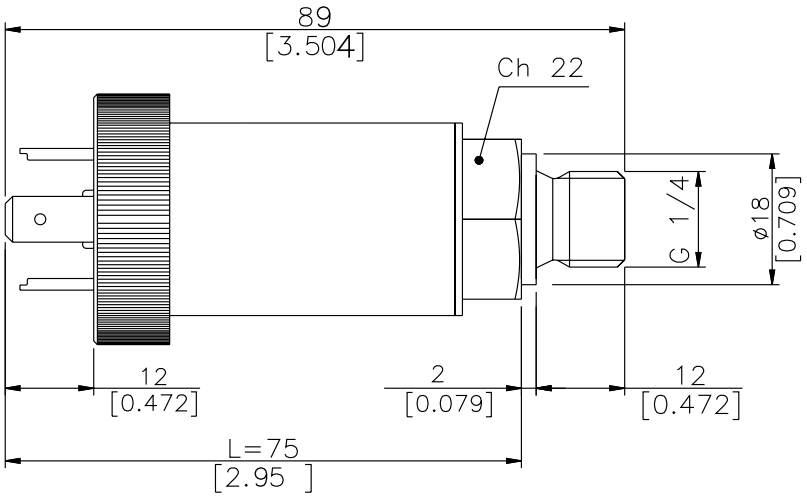
- *Course Magnetic Autozero*
- *Fine Magnetic Autozero*
- *Calibration Signal 80% FS*
- *Magnetic Autospan*
- *Partial reset function*
- *Total reset function*

Digital “Autozero & Span” option makes the pressure transmitter **TK Series** a product extremely innovative and versatile. Designed thanks to the advanced electronics used by TK, this function allows zero and span adjustment in a simple, fast and reliable way, avoiding to use analogue trimmer, potential weak point and source of possible drifts or failures. The starting is user friendly, simply touching the specific target marked on the sensor body with a pen with magnetic head (included as standard).
Within few seconds the operation is concluded, without the need to dismantle or to open the instrument.

TECHNICAL DATA

Autozero	±10%FS max with zero setting within the sensor accuracy class, @ °T Amb.
Autozero Setting Time	1…10 seconds
Fine Autozero Adjustment	Resolution 6 mV (voltage output); 12 μA (current output)
Fine Autozero Adjustment Amplitude	±100 mV (voltage output), ±0.16 mA (current output) by successive steps with maximum setting time 5 sec. per step
Calibration Function	Signal output generation of 80% FS @ °T Amb.
Calibration Function Setting Time	>1 sec. (by contacts closed in CAL position)
Autospan	±10%FS max with span setting within the sensor accuracy class, @ °T Amb.
Autospan Setting Time	1…10 sec. (by contacts closed in CAL position)
Partial Reset	Restore of zero factory setting
Partial Reset Setting Time	30…60 sec
Total Reset	Restore of complete factory setting
Total Reset Setting Time	>60 sec
Function Activation	By pen with magnetic head (PKIT 312)

INSTALLATION DRAWINGS



Dimensions:

TKDA, due to the autozero & span board, is 5 mm (0.197 in) longer, so dimension “L” on TK data sheet becames 75 mm (2.95 in)..

CAL function pin: The activation of CAL function (Calibration and Autospan) is made by closing the contact between the following pin: - 6 pole connector version (V) pin E-F
- 7 pole connector version (P) pin 5-6

Please refer to the standard data sheet for all the remaining mechanical and electrical specifications.

ORDERING INFORMATION

Pressure transmitter **TKDA** ☐ ☐ ☐ ☐☐☐☐ ☐ ☐ ☐

OUTPUT SIGNAL	
Standard	
0,1 ... 10,1 Vdc	**C**
4...20 mA	**E**
0...10 Vdc	**N**
On request	
0,1 ... 5,1 Vdc	**B**
0 ... 5 Vdc	**M**
1 ... 5 Vdc	**P**
1 ... 10 Vdc	**Q**
1 ... 6 Vdc	**R**

PRESSURE CONNECTION	
Standard	
G 1/4 gas male (DIN 3852-A)	**1**
7/16-20 UNF-2A male (SAE 4 for AS4395-E)	**2**
G 1/2A (DIN 16288)	**3**
On request	
G 1/4 gas female	**4**
1/8-27 NPT female	**5**
1/4 - 18 NPT female	**6**
1/4 - 18 NPT male	**7**
M14 x 1,5 male	**8**
1/8 - 27 NPT male	**9**
G 1/4 gas male (DIN 3852-E)	**E**
M12 x 1,5 male	**R**
7/16-20 UNF-2A male (SAE 4 for J1926-2) (*)	**K**
7/16-20 UNF-2A female (SAE 4)	**F**

(*) Max. working pressure: 630 bar (9137 psi)

ELECTRICAL CONNECTION	
Standard	
4-pole connector solenoid	**E (◦)**
Shielded cable	**F (◦)**
4 pole connector M12 x 1	**Z (◦)**
On request	
4-pole connector microsolenoid	**M (◦)**
7 pole connector	**P**
6 pole connector	**V**

(◦) With this kind of connector is available the "Autozero" function only. For special request contact Gefran.

Mechanical and/or electrical characteristics differing from standard may be arranged on request.

RESPONSE TIME	
V	Fast (< 1 msec)

ACCURACY	
H	± 0,25% FSO Typical
M	± 0,5% FSO Typical

MEASUREMENT RANGE					
	bar		**bar**		**psi**
N01U	-1..+1 *	**B03D**	0..30	**V15U**	-15..+15 *
N02U	-1..+2 *	**B04D**	0..40	**V03D**	-15..+30 *
N03U	-1..+3 *	**B05D**	0..50	**V05D**	-15..+50 *
N05U	-1..+5	**B06D**	0..60	**V75U**	-15..+75
N01D	-1..+10	**B01C**	0..100	**V01C**	-15..+100
B03U	0..3	**B16D**	0..160	**P05D**	0..50
B04U	0..4	**B02C**	0..200	**P75U**	0..75
B05U	0..5	**B25D**	0..250	**P01C**	0..100
B06U	0..6	**B35D**	0..350	**P15D**	0..150
B07U	0..7	**B04C**	0..400	**P25D**	0..250
B01D	0..10	**B05C**	0..500	**P03C**	0..300
B16U	0..16	**B06C**	0..600	**P05C**	0..500
B02D	0..20	**B07C**	0..700	**P75D**	0..750
B25U	0..25	**B01M**	0..1000	**P01M**	0..1000
				P15C	0..1500
				P25C	0..2500
				P03M	0..3000
				P05M	0..5000
				P75C	0..7500
				P10M	0..10000
				P15M	0..15000

* only M class

CALIBRATION STANDARDS

Instruments manufactured by Gefran are calibrated against precision pressure calibration equipment wich is traceable to International Standards.

Ex: TKDA - E - 1 - V - B04C - H - V
Pressure transmitter TKDA with digital autozero & span, 4 to 20 mA output signal, G1/4 male pressure connection, 6 pole electrical connector, 0...400 bar pressure range, ± 0.25% FSO accuracy, 1 msec response time

Sensors are manufactured in compliance with:
- EMC 2014/30/EU compatibility directive
- RoHS 2011/65/EU directive

Electrical installation requirements and Conformity certificate are available on our web site: www.gefran.com

GEFRAN spa reserves the right to make any kind of design or functional modification at any moment without prior notice

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