

Electrical contact devices K5500 for pressure and temperature gauges

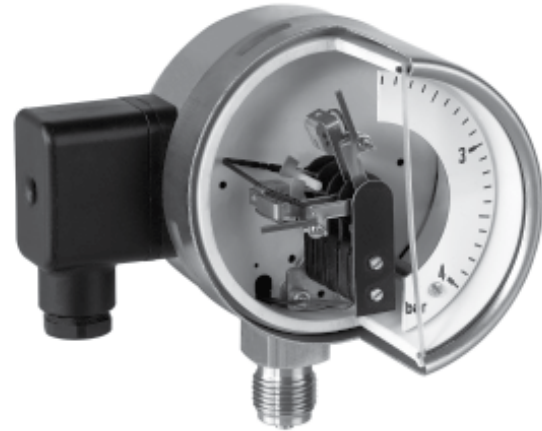
According to DIN 16085 and DIN 16196

FEATURES

- Intrinsically safe with inductive contacts
- Inductive and magnetic spring contacts
- Up to 3 contacts
- Switch rating up to 1 A 250 VAC
- For dry or liquid filled gauges

TYPICAL USED IN

- Pressure gauges
T5500-KF, T6500-KF
P5500, P6500
F5503
F5509, F6509
- Temperature gauges
S5500



MEASURING TYPE:	PRESSURE				DIFFERENTIAL PRESSURE		TEMPERATUR	
Measuring Principle:	Bourden tube		Diaphragm		Diaphragm		Gas actuated	
MODEL:	T5500-KF		P5500		F5503 / F5509		S5500	
Dial Size:	100	160	100	160	100	160	100	160
Min Range:	in bar		in mbar		in mbar		in °C	
- 1 inductive	1	1	50 ¹⁾		100		no limitations	
- 2 inductive	1,6	1,6	100		100		no limitations	
- 1 magnetic spring	1	1	160		100		no limitations	
- 2 magnetic spring	1,6	1,6	250		100		no limitations	
- 3 magnetic spring	4	2,5	400		100		no limitations	
Note 1) For liquid filled gauges min. span is 100 mbar								

TECHNICAL SPECIFICATIONS OF THE CONTACTS		
	MAGNETIC SPRINGS CONTACT	INDUCTIVE PROXIMITY CONTACT
Max. Contacts:	3	2
Switching Functions:	1 closes at increasing process pressure 2 opens at increasing process pressure 3 change over (SPDT) with max. 2 contacts	1 initiator damped at increasing process pressure (relay energized) 2 initiator free at increasing process pressure (relay de-energized)
Contact Assignment:	Contact 1 left hand setpoint Contact 2 right hand setpoint with 2 contacts and middle setpoint with 3 contacts Contact 3 right setpoint with 3 contacts	
Adjustable Range:	Full Range	
Hysteresis (Deadband):	±2 to 4 % F.S.	

Electrical contact devices K5500 for pressure and temperature gauges

According to DIN 16085 and DIN 16196

ELECTRICAL SPECIFICATION

	MAGNETIC SPRINGS CONTACT	INDUCTIVE PROXIMITY CONTACT	
Standard:		DIN EN 60947-5-6 (NAMUR)	
Design:		SJ2-N or SJ2-SN ²⁾	SI2-K08-Y1
Making and breaking current:	Max. 1 A/250 VAC (see switching capacity graph)		
Nominal current:	Max. 0,6 A		
Load:	Max. 30 W/50 VA (see switching capacity graph)		
Current consumption non actuated:		≥ 3 mA	≥ 2,1 mA
actuated:		≤ 1 mA	≤ 1,2 mA
Internal inductance L:		≤ 100 µH	≤ 266 µH
Internal capacitance C:		≤ 30 nF	≤ 41 nF

Note 2) Only to be used in conjunction with a suitable and/or approved amplifier

ELECTRICAL CONNECTION

Location:	Left sided, others on request
Material:	Polyamide 6
Number of Terminals:	6 + PE
Max. Wire Size:	2,5 mm ²
Cable Connection:	M20x1,5
Protection according EN 60529/IEC 529:	IP54 IP65 for filled or fillable version

GENERAL SPECIFICATION

Material of Contacts:	Silver palladium (AgPd 80/20), min 24 VDC Optional Sinidur gold plated, max 12 VDC	-
Accuracy:	150 % compared to gauges without contacts according to EN 837-1, EN 837-3, DIN 16001, DIN 16003 or EN 13190	
Min./Max. Temperatures:	Ambient: -20 to 70 °C Storage: -40 to 70 °C	
Min./Max. Temperatures: (ATEX)	Ambient: -20 to 60 °C Storage: -40 to 70 °C	
Filling Fluids:	Korasilon (Magnetic spring contacts)	White oil (Inductive proximity contacts)
Mounting:	Integral in gauge housing	
Additional weight:	Amplifier relay for inductive contacts Ex and standard	



Electrical contact devices K5500 for pressure and temperature gauges

According to DIN 16085 and DIN 16196

MAGNETIC SPRING CONTACTS

Contact code	Switch function at increasing process pressure	typical diagram (at zero position)
Single contact		
M1000	Contact closes	
M2000	Contact opens	
Dual contact		
M1100	Contact 1 closes Contact 2 closes	
M2200	Contact 1 opens Contact 2 opens	
M1200	Contact 1 closes Contact 2 opens	
M2100	Contact 1 opens Contact 2 closes	
Triple contact		
M1110	Contact 1 closes Contact 2 closes Contact 3 closes	
M2220	Contact 1 opens Contact 2 opens Contact 3 opens	
M1220	Contact 1 closes Contact 2 opens Contact 3 opens	
M2110	Contact 1 opens Contact 2 closes Contact 3 closes	
M1210	Contact 1 closes Contact 2 opens Contact 3 closes	
M2120	Contact 1 opens Contact 2 closes Contact 3 opens	
M1120	Contact 1 closes Contact 2 closes Contact 3 opens	
M2210	Contact 1 opens Contact 2 opens Contact 3 closes	

INDUCTIVE PROXIMITY CONTACTS

Contact code	Switch function at increasing process pressure	Equivalent circuit diagram (at zero position)	Position of control vane (at zero position)
Single contact			
I1000	Current flows		
I1000SN			
I2000	No current flows		
I2000SN			
Dual contact			
I1100	Contact 1 current flows Contact 2 current flows		
I1100SN			
I2200	Contact 1 no current flows Contact 2 no current flows		
I2200SN			
I1200	Contact 1 current flows Contact 2 no current flows		
I1200SN			
I2100	Contact 1 no current flows Contact 2 current flows		
I2100SN			

MICROSWITCH SPDT ²⁾

Contact code	Temperature
	S5500
Q3	all ranges (no case filling)
Q33	

Note 2) Max. Rating 3 A 250 VAC / 400 mA 30 VDC

