

KTE3000 / KTU3000...CS Series

OEM submersible pressure transducers

FEATURES

- 0...250 to 0...2000 mbar,
0...5 to 0...30 psi gage
- For corrosive media
- 4...20 mA output
- Field interchangeable

SERVICE

Wetted materials: PPS, PVC, ceramic Al_2O_3 ,
PUR¹², NBR¹¹

Housing: protection class IP68
according to EN60529¹

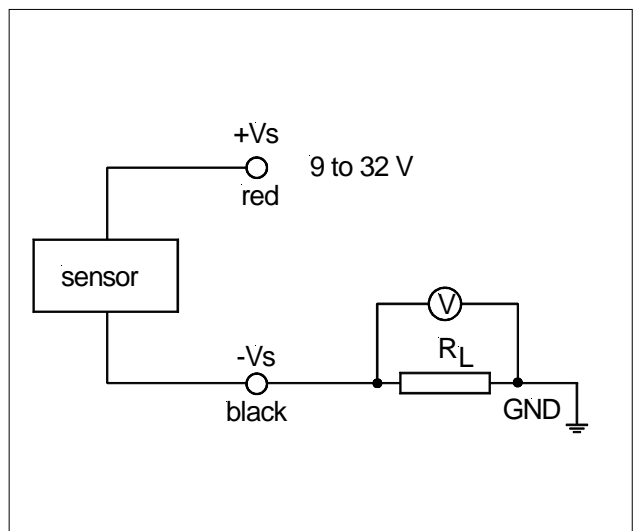


SPECIFICATIONS^{9,10}

Maximum ratings

Supply voltage ² (reverse polarity protection)	9...32 V
Temperature limits	
Storage	-40 to 70°C
Operating	-25 to 70°C
Compensated	0 to 70°C
Vibration (5 to 500 Hz)	10 g _{RMS}
Mechanical shock	50 g
Proof pressure ³	2 x rated pressure

ELECTRICAL CONNECTION



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INDIVIDUAL PERFORMANCE CHARACTERISTICS

(unless otherwise noted, $V_s = 15\text{ V}$, $R_L = 100\ \Omega$, $t_{\text{amb}} = 25^\circ\text{C}$)

Characteristics		Min.	Typ.	Max.	Unit	
Operating pressure	KTEM3250...	0		250	mbar	
	KTEM3400...	0		400		
	KTEM3600...	0		600		
	KTEM31K0...	0		1000		
	KTEM31K6...	0		1600		
	KTEM32K0...	0		2000		
	KTU3005...	0		5	psi	
KTU3010...	0		10			
KTU3015...	0		15			
KTU3020...	0		20			
KTU3030...	0		30			
Zero pressure offset		3.9	4.0	4.1	mA	
Full scale span ⁷		15.9	16.0	16.1		
Thermal effects ⁴ (0 to 70°C)	Offset	0.25 bar / 5 psi		±0.04	±0.08	%FSO/°C
		< 1 bar / 15 psi		±0.03	±0.06	
		all others		±0.02	±0.04	
	Span		±0.02	±0.04		
Thermal effects (-25 to 0°C)	Offset	< 1 bar/15 psi		±0.06		
		all others		±0.03		
	Span		±0.03			
Non-linearity, hysteresis (BSL) and repeatability ⁵			±0.1	±0.2	%FSO	
Output noise (0 < f < 1 kHz)			±0.04			
Long term stability ⁶			±0.2			
Response time (10 to 90 %)			1		ms	
Power supply rejection	Offset		±0.05		%FSO/V	
	Span		±0.05			

Specification notes:

1. The package is an all-sealed housing. For proper function the gage port is vented to the atmosphere through the connecting cable. Thus the vent tube of the cable end must have access to the ambient pressure.
2. The minimum supply voltage is directly proportional to the load resistance seen by the transmitter. For more details see the [load limitation diagram](#).
3. Proof pressure is the maximum pressure which may be applied without causing damage to the sensing element.
4. Thermal effects tested and guaranteed from 0... 70°C relative to 25°C. All specifications shown are relative to 25°C.
5. Non-linearity refers to the **Best Straight Line** fit measured for offset, full scale span and 1/2 full scale span.
6. Long term stability is the change in output after one year or 1 million pressure cycles.
7. Span is the arithmetic difference in transmitter output signal measured at zero pressure and the maximum operating pressure.
8. Tests are in accordance with EN61000-6-2, April 1999.
9. CE-labelling is in accordance with 89/336/EEC.
10. The pressure transmitters must not be used as safety accessories according to article 1, 2.1.3 of the directive 97/23/EC.
11. Other sealing materials available on request.
12. Other cable materials available on request.

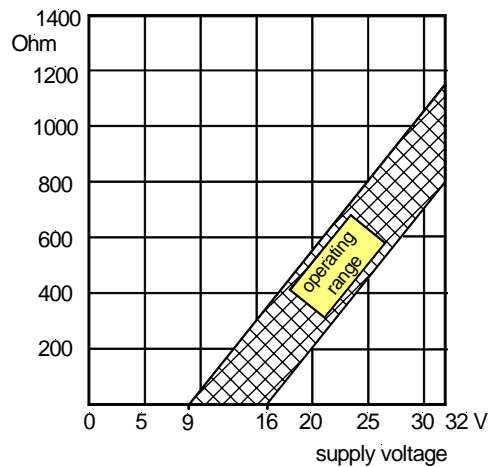
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ELECTROMAGNETIC CAPABILITY⁸

	Test conditions	Criterion	Interference
Radiated, radio frequency electromagnetic field immunity (RFI)	EN61000-4-3: Grade 3 10 V/m, 80 MHz to 1000 MHz 80 % AMC (1 kHz)	A	<1 % FSO
Electrical fast transient / burst immunity (EFT)	EN61000-4-4: Grade 3 ±2 kV	B	<1 % FSO
Electrostatic discharge immunity test (ESD)	EN61000-4-2: Grade 4 ±4 kV, contact discharge ± 8kV, air discharge	B	<1 % FSO
Immunity to conducted disturbances induced by radio-frequency fields	EN61000-4-6: Grade 3 0,15 to 80 MHz 10 V, 80 % AMC (1 kHz)	A	<1 % FSO
Surge immunity	EN61000-4-5: Grade 1 ±0.5 kV, symmetric/asymmetric Grade 2 ±1 kV, asymmetric	B	<1 % FSO

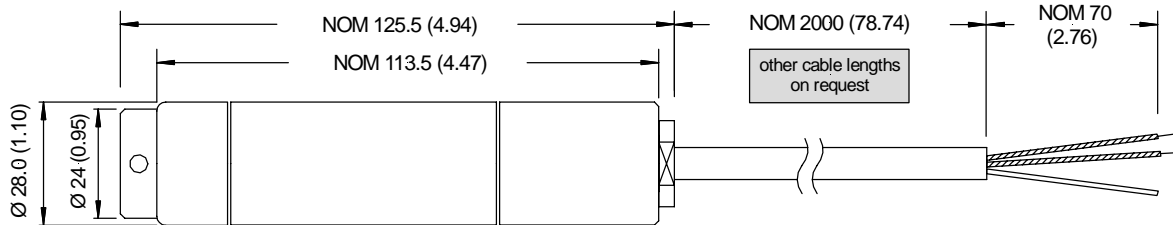
LOAD LIMITATION



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OUTLINE DRAWING

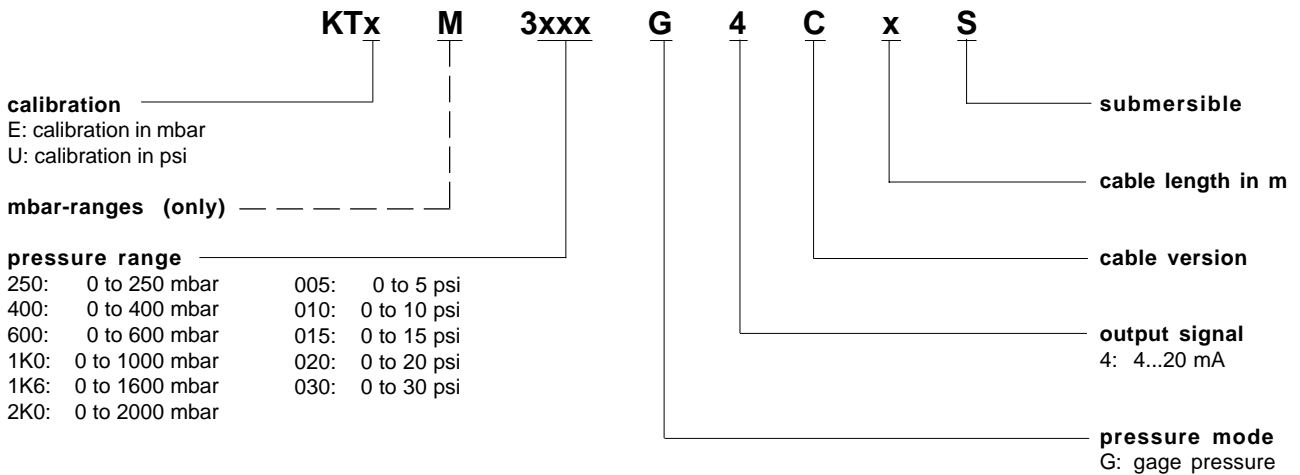


mass: typ. 130 g (without cable)

dimensions in mm (inches)

WIRE CONNECTION	
Color	Electrical connection
red	+Vs
black	-Vs
transparent	vent tube ¹

ORDERING INFORMATION



Note: Other pressure ranges and options are widely available. Please contact your nearest Sensortechincs sales representative.

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