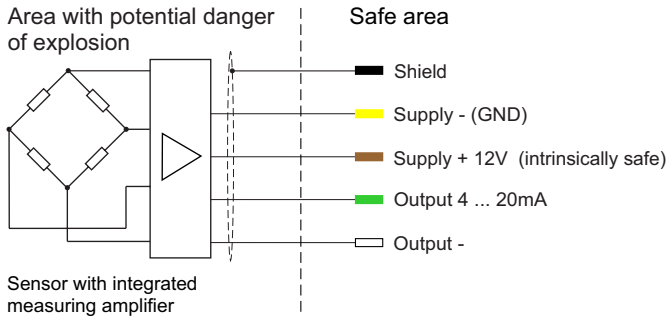




# Force transducers for ATEX-zones with integrated amplifier



**No additional safety barriers are necessary!**

Type-series		Application
<b>KAB-E-EX</b> Bending beam Force transducer/ load cell 50 N ... 10 kN/ 5 kg ... 1000 kg		Scales Vessel weighing Mechanical engineering
<b>KAD-E-EX; KAD-S-E-EX; KAD-T-E-EX</b> Force transducer/ load cell 5 kN ... 50 kN; 5 kN ... 50 kN; 5 kN ... 20 kN/ 0.5 t ... 5 t; 0.5 t ... 5 t; 0.5 t ... 2 t		Scales Vessel weighing Filling measurement
<b>KAM-E-EX</b> Force transducer compression 1 kN ... 200 kN		Mechanical engineering Automation Press- and joining technology
<b>KAF-E-EX</b> Tension/ compression Force transducer 1 kN ... 10 kN (only with counter plate XKM 037) 20 kN ... 500 kN		Material testing Mechanical engineering
<b>KAS-E-EX</b> Force transducer/ load cell 200 kg ... 5000 kg		Scales Mechanical engineering
<b>KAL-E-EX</b> Load pin free dimensions 1 kN ... 5000 kN		Transp. and hoisting devices Oil production facilities Coal mining
<b>KAU-E-EX</b> Force transducer/ load cell 100 kN ... 5000 kN / 10 t ... 500 t/		Scales Weighing container
<b>KAK-S-E-EX</b> Tension Force transducer 10 t ... 50 t		Assembly technique Guying technology Load measurements in ropes

## Classification according to EU-Type Examination Certificate TÜV 10 ATEX 555 391 X

	TÜV NORD certified		TÜV NORD certified			
	Category 1		Category 2		Category 3	
Application zone	Zone 0	Zone 20	Zone 1	Zone 21	Zone 2	Zone 22
Atmosphere	G	D	G	D	G	D
Safety level	very high		high		standard	
Sufficient safety	by 2 preventive measures in the case of 2 errors		by frequent equipment disturbances in the case of 1 error		by error free operation	
Approximate value for the time of reaction	> 1000 h/a		10 to 1000 h/a		< 10 h/a	
Intrinsic safety	ia		ia		ic	
Explosion group	Group [Ignition energy] IIC [20μJ]					
Temperature group (for gases)	Temperature Group [max. surface temperature] T4 [135 °C]					
Maximally permissible surface temperature	T200 °C (<Glowing temperature of coal dust)					
Ambient temperature range	-20 °C to +60 °C					
Intrinsically safe electric circuit	U <sub>i</sub> = 12 V I <sub>i</sub> = 100 mA P <sub>i</sub> = 0,65 W					
Signal output	4 ... 20 mA					

Type code	Labeling	Description
XKC 307	Zone 0	Gas: II 1G Ex ia IIC T4 Ga -20 °C < Ta < 60 °C
XKC 310	Zone 20	Dust: II 1D Ex ia IIIC T200 °C Da -20 °C < Ta < 60 °C
XKC 308	Zone 1	Gas: II 2G Ex ia IIC T4 Gb -20 °C < Ta < 60 °C
XKC 311	Zone 21	Dust: II 2D Ex ia IIIC T200 °C Db -20 °C < Ta < 60 °C
XKC 309	Zone 2	Gas: II 3G Ex ic IIC T4 Gc -20 °C < Ta < 60 °C
XKC 312	Zone 22	Dust: II 3D Ex ic IIIC T200 °C Dc -20 °C < Ta < 60 °C

### Hints:

1. In type of protection intrinsic safety EX ia IIC/ IIIC only for connection to certified intrinsically safe electric circuits.
2. Metallic process connection parts must be included in the local equipotential bonding.
3. The intrinsically safe electric circuit is galvanically connected to the earth potential, potential equalisation must exist along the intrinsically safe electric circuit.