AST Gruppe
Angewandte System Technik

KAN-DZ
Force Transducer

Application

- Measurement of compression and tension forces
- Suitability for force measuring devices according DIN/EN/ISO376

Features

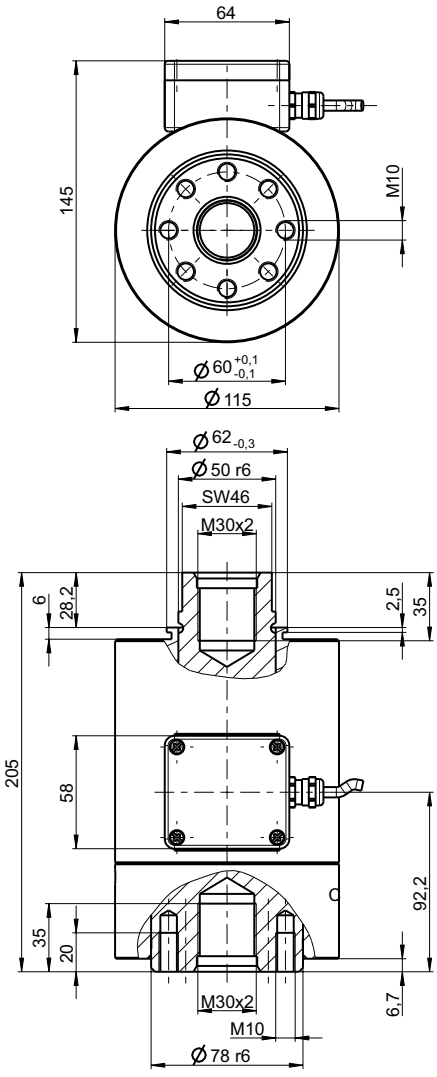
- 100kN and 200kN
- High accuracy
- Hermetically sealed enclosure (IP 67)
- Accessoires: rod end bearings, spherical nut/seat

Options

- Integrated amplifier with standard signal
- CANopen interface

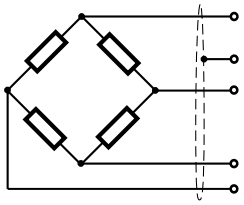
Dimensions (mm)

Rated Load in kN	Weight
100/ 200	approx. 10kg



Wiring Code

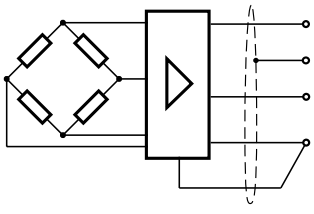
Cable length 3m



excitation voltage +	(+EX)	brown
shield	(SHI)	black
signal +	(+SI)	green
excitation voltage -	(-EX)	yellow
signal -	(-SI)	white

Compressive load is positive change of signal.

with integrated amplifier



supply voltage +	(UB)	brown
shield	(SHI)	black
signal +	(OUT)	green
ground / signal -	(0V)	yellow
programming interface	(PRG)	white

(0V and PRG to be connected by customer)

Specification

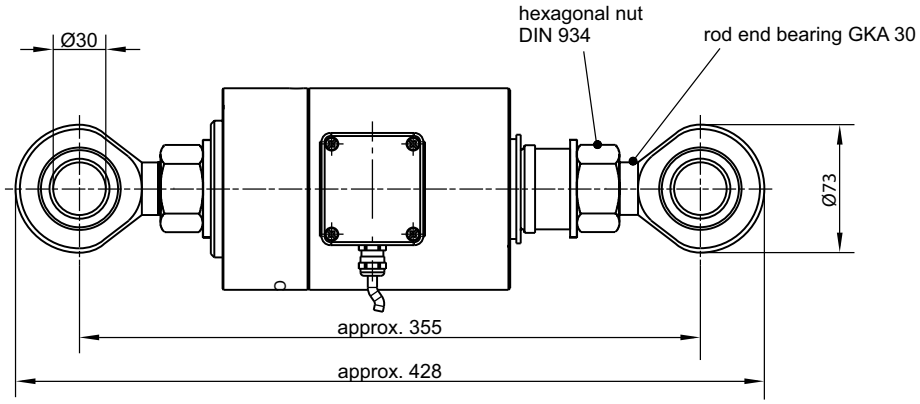
Accuracy Class	**% F_{nom}**	**0.1**	**0.2[1] with Integrated Amplifier**	
Rated force (F_{nom})	kN	100/ 200	100/ 200	
Maximum operating force (F_G)	% F_{nom}	150	150	
Breaking force (F_B)	% F_{nom}	> 300	> 300	
Lateral force limit (F_Q)	% F_{nom}	100	100	
Rated characteristic value (C_{nom})	mV/V	2.000 ± 0.002		
Relative deviation of zero signal	%	≤ 1		
Reference excitation voltage (U_{ref})	VDC	20		
Input resistance (R_e)	Ω	380 ± 30		
Output resistance (R_a)	Ω	352 ±1.5		
Insulation resistance (R_{is})	Ω	> 5 x 10^9		
Relative linearity error (d_{lin})	%	≤ 0.10	0.10	
Relative reversibility error (v)	%	≤ 0.10		
Temperature effect on zero signal (TK_0)	%/10K	≤ 0.05	0.20	
Temperature effect on characteristic value (TK_C)	%/10K	≤ 0.10		
TK of output signal under load	%/10K		0.10	
Relative creep over 30 minutes ($d_{cr, F+E}$)	%	≤ 0.10		
Tolerance of output signal	%		0.10	
Tolerance of zero signal	%		≤ 0.1	
Reference temperature (T_{ref})	°C	+23	+23	
Rated temperature range ($B_{T, nom}$)	°C	-20 ... +60	-20 ... +60	
Operating temperature range ($B_{T, G}$)	°C	-30 ... +70	-30 ... +70	
Storage temperature range ($B_{T, S}$)	°C	-40 ... +70	-40 ... +70	
Environmental protection (EN 60529)		IP 67	IP 67	
Supply voltage	VDC		19 ... 28	11 ... 15
Input current	mA		35 (at 24V)	20 (at 12V)
Output signal for compressive force (0...F_N)				
Alternatively:				
- Voltage output signal (max. load: 5mA)	V		0 ... 10	0 ... 5
- Current output	mA		0 (4) ... 20	0 (4) ... 20
- Maximum resistance	Ω		300	100
Output signal for tensile/compressive force (-F_N ... F_N)				
Voltage output signal (max. load: 5mA)			-10 ... +10	-5 ... +5

1) Accuracy class 0.1 upon request
All data according to VDI/VDE/DKD 2638

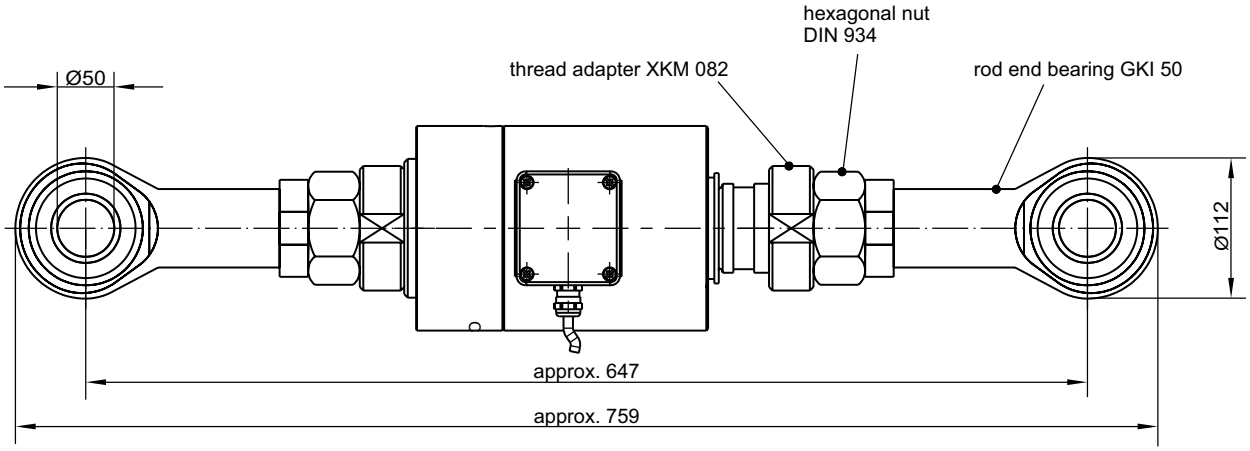
Order Example

Type Code	**Description**
KAN-DZ-E/100kN/0.2/24V/0...10V	Force transducer 100kN accuracy class 0.2 % and integrated amplifier
	Output signal
	Supply voltage
	Accuracy class
	Rated force
	E = Integrated amplifier
	Model

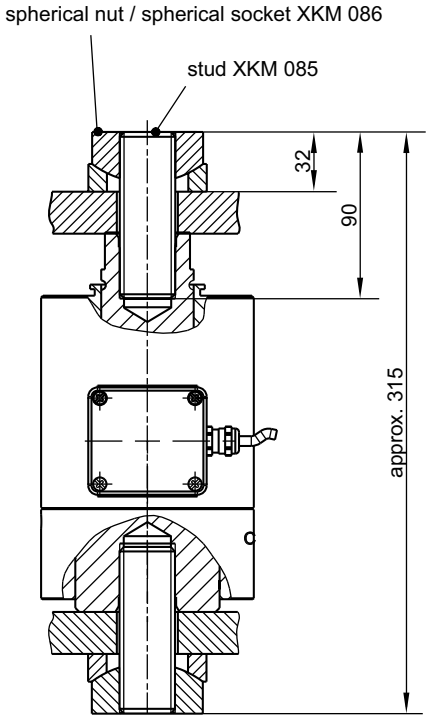
Appliances for Installation and Mounting



KAN-DZ 100kN with rod end bearings GKA 30 with male thread

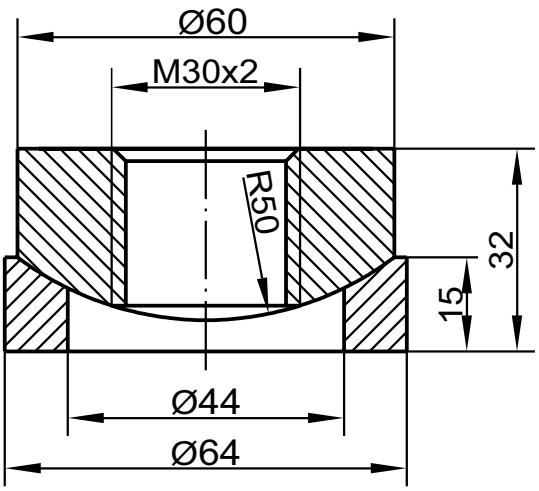


KAN-DZ 200kN with thread adapters XKM 082 and rod end bearing GKI 50 with female thread



KAN-DZ 100kN/200kN
with stud XKM 085 and
spherical nut /socket XKM 086

Appliances for Installantion and Mounting



Accessoires / Options

	Type Code	Description
Rod end bearings	GKA 30 GKI 50	with external thread matching for KAN-DZ 100kN with external thread matching for KAN-DZ 200kN (only with thread adapter XKM 082)
Spherical nut/ socket	XKM 086	for KAN-DZ 100kN/ 200kN (only with stud XKM 085)
Load button	XKM 161	K30-125 for KAN-DZ 100kN/ 200kN