

# Shear beam To 2,000 kg Model F3201

WIKA data sheet FO 51.72



## Applications

- Floor scales
- Weigh feeders
- Platform scales
- Laboratory technology
- Stage construction

## Special features

- Measuring ranges 0 ... 500 to 0 ... 2,000 kg
- 3,000 intervals per OIML R60 Class C
- Stainless steel, hermetically sealed and welded, Ingress protection: IP68 and IP69K
- High long-term stability
- High side load tolerance



Shear beam, model F3201

## Description

Shear beams are suitable for static and dynamic measuring requirements. They serve for determining shear forces in diverse fields of application.

These shear beams are used in industrial weighing and laboratory technology, and also in the process industry.

The F3201 shear beams are made of stainless steel, whose properties are particularly suitable for the fields of application in scales, laboratory technology and stage construction. An mV/V signal is provided as the output signal.

## Notes

To avoid overloading, the shear beam should be electrically connected and the measured value monitored during assembly.



The measuring force must be introduced through the centre and free of transverse force. When assembling the shear beam, care should be taken that the support surface is flat.

Compatible force introduction pieces are available as an option.

## Specifications per VDI/VDE/DKD 2638

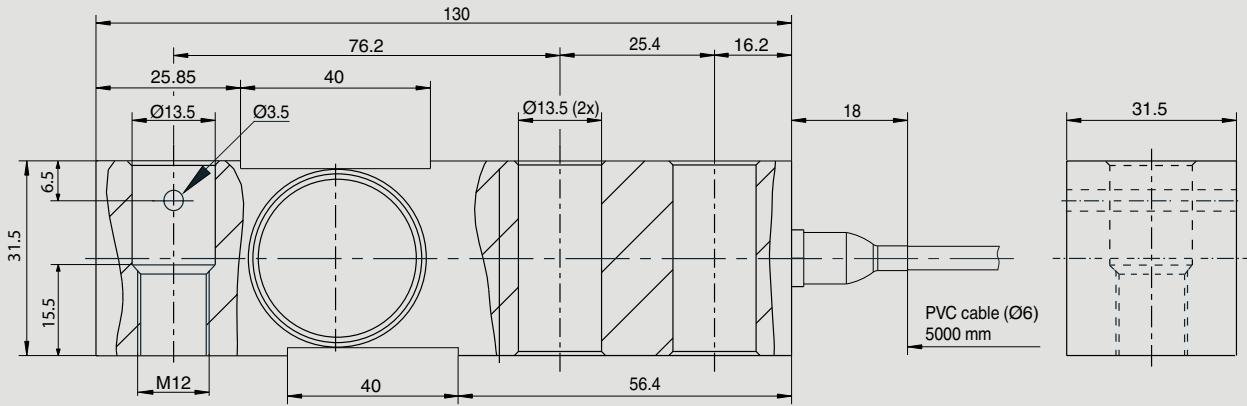
Model F3201	
Rated load $F_{nom}$ kg	500, 750, 1,000, 2,000
Relative linearity error $d_{lin}$	0.017 % $F_{nom}$
Accuracy class	3,000 intervals per OIML R60 Class C
Relative creep, 30 min.	< $\pm 0.016$ % $F_{nom}$
Relative reversibility error $v$	$\pm 0.015$ % $F_{nom}$
Temperature effect on zero signal $TK_0$	$\leq \pm 0.012$ %/10 K
Temperature effect on characteristic value $TK_C$	$\leq \pm 0.02$ %/10 K
Force limit $F_L$	150 % $F_{nom}$
Breaking force $F_B$	200 % $F_{nom}$
Material of the measuring body	Stainless steel
Rated temperature range $B_{T, nom}$	-10 ... +40 °C
Operating temperature range $B_{T, G}$	-30 ... +70 °C
Input resistance $R_e$	400 $\pm$ 20 $\Omega$
Output resistance $R_a$	350 $\pm$ 3 $\Omega$
Insulation resistance $R_{is}$	$\geq 5,000$ M $\Omega$
Output signal (rated characteristic value) $C_{nom}$	2.0 mV/V
Electrical connection	Measuring cable $\varnothing$ 6 x 5 m
Excitation voltage $B_{U, nom}$	DC 10 V ... 15 V
Ingress protection (per IEC/EN 60529)	IP68 and IP69K
Weight	0.9 kg

## Approvals

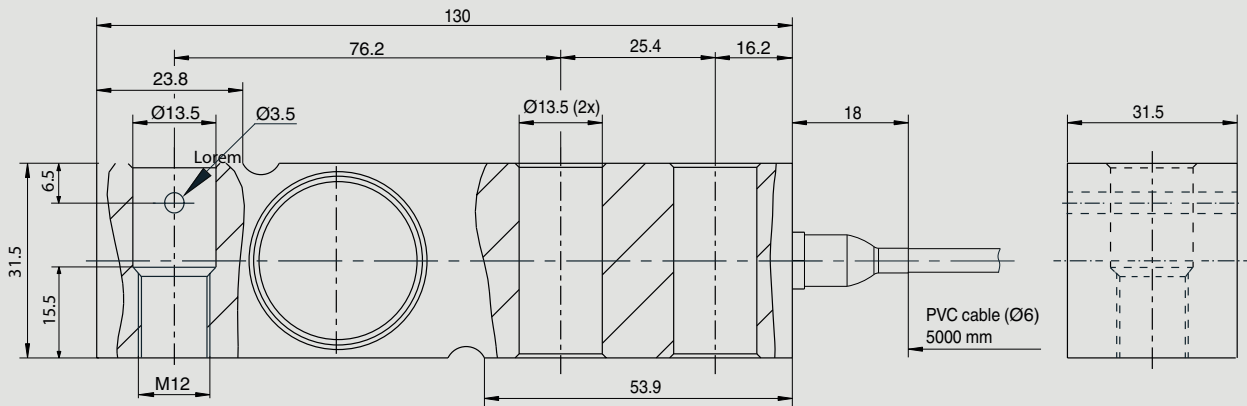
Logo	Description	Country
	EU declaration of conformity	European Union
	RoHS-directive	
	International Organization of Legal Metrology	International

# Dimensions in mm

## 500 kg

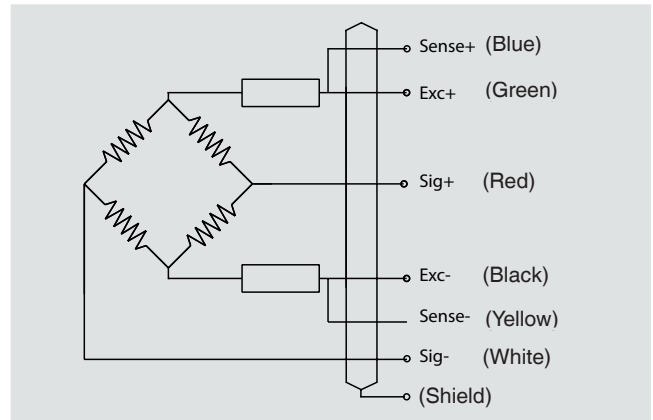


## 750 ... 2.000 kg

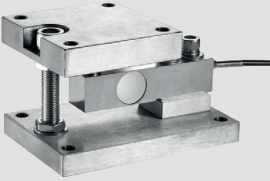
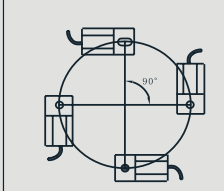
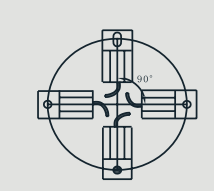
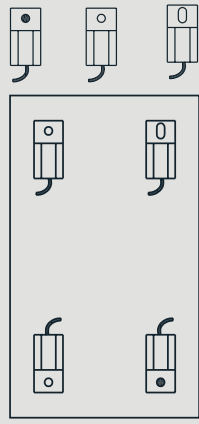


# Pin assignment

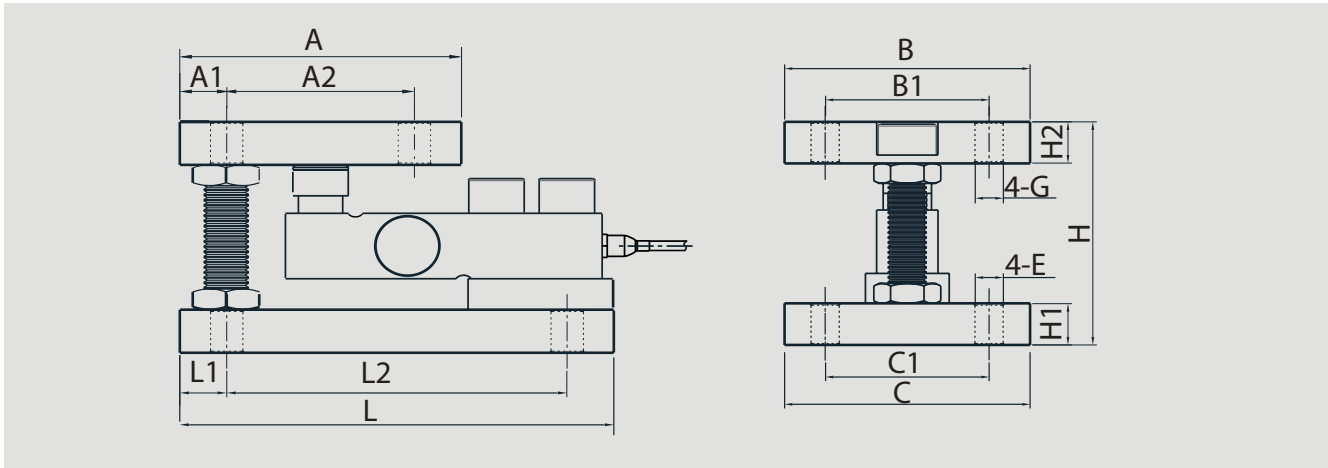
Electrical connection	
Excitation voltage (Exc+)	Green
Excitation voltage (Exc-)	Black
Signal (Sig+)	Red
Signal (Sig-)	White
Sense (+)	Blue
Sense (-)	Yellow
Shield $\oplus$	Shield



## Accessories

	Description
<p><b>AZK02</b></p> 	<p><b>Mounting kit</b></p> <ul style="list-style-type: none"> <li>■ Material: Steel or stainless steel</li> <li>■ Weight: 7 kg</li> </ul> <p><b>Mounting options</b></p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;">  <p>Tangential mounting</p> </div> <div style="text-align: center;">  <p>Radial mounting</p> </div> </div> <div style="text-align: center; margin-top: 20px;"> <p>Fixed    Full-floating    Semi-floating</p>  </div>
<p><b>AZK01</b></p>	<p>Mounting options as for AZK02. In addition to the AZK02 installation kit, base plates, load feet and rubber elements are also available. Dimensions on request.</p>

## Dimensions in mm



Rated load in kg	Dimensions in mm															
	L	L1	L2	A	A1	A2	B	B1	C	C1	H	H1	H2	ØG	ØE	
500 / 750 / 1,000 / 2,000	168	15	136	100	15	70	100	70	100	70	94	20	20	13.5	11	

### Ordering information

Model / Rated load / Approvals, certificates / Relative linearity error / Temperature range / Output signal / Electrical connection /

### Options

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The specifications given in this document represent the state of engineering at the time of publishing.

We reserve the right to make modifications to the specifications and materials.

