

For more efficiency.

**PROMESS**

Assembly and Sensor Technology

# KAM-B Force Transducer

## Applications

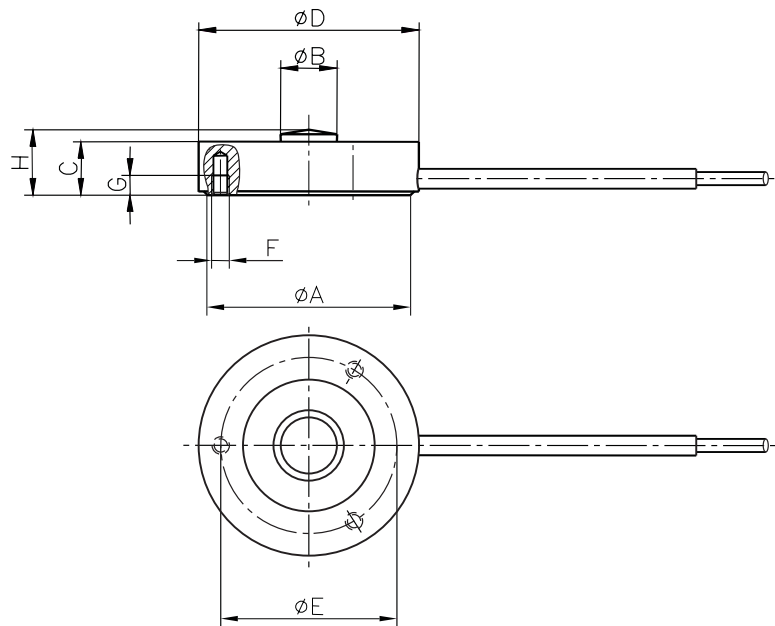
- Measuring of pressure forces in machinery and system
- "Load cookies"

## Features

- Membran force transducer 1kN up to 100kN
- High accuracy class: 0.5 up to 2%  $F_{nom}$
- Made from stainless steel
- Environmental protection IP 65



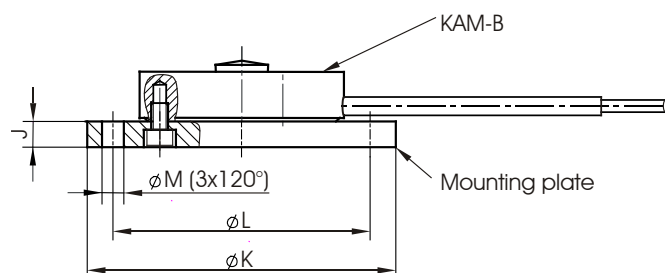
## Dimensions (mm)



| Rated Force in kN | A    | B    | C    | D    | E    | F    | G | H    | Weight |
|-------------------|------|------|------|------|------|------|---|------|--------|
| 1 ... 10          | 29.4 | 8.1  | 8.1  | 31.8 | 25.4 | M2.5 | 3 | 9.9  | 40g    |
| 20 ... 50         | 35.0 | 10.7 | 14.0 | 38.1 | 31.5 | M2.5 | 3 | 16.0 | 50g    |
| 100               | 48.0 | 15.2 | 22.4 | 50.8 | 42.0 | M4.0 | 6 | 25.4 | 300g   |

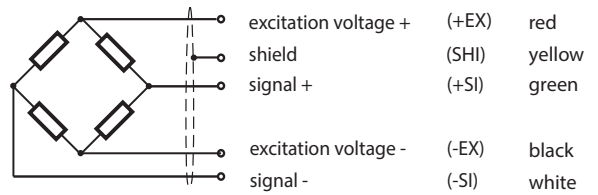
## Appliances for Installation and Mounting

| Rated Force in kN | J  | K  | L  | M   |
|-------------------|----|----|----|-----|
| 1 ... 10          | 4  | 48 | 40 | 3.4 |
| 20 ... 50         | 7  | 58 | 47 | 4.1 |
| 100               | 14 | 78 | 64 | 5.8 |



## Wiring Code

Cable length 1.5m



## Specifications

| Accuracy Class  | % F <sub>nom</sub> | 0.5         | 1                     |
|---|--------------------|-------------|-----------------------|
| Rated force (F <sub>nom</sub> )                               | kN                 | 1/ 2/ 5/ 10 | 20/ 50/ 100           |
| Maximum operating force (F <sub>G</sub> )                     | % F <sub>nom</sub> |             | 150                   |
| Breaking force (F <sub>B</sub> )                              | % F <sub>nom</sub> |             | > 300                 |
| Lateral force limit (F <sub>Q</sub> )                         | % F <sub>nom</sub> |             |                       |
| Rated characteristic value (C <sub>nom</sub> )                | mV/V               |             | 1.5 ± 0.05            |
| Relative deviation of zero signal                             | %                  |             | 3                     |
| Reference excitation voltage (U <sub>ref</sub> )              | VDC                |             | 10                    |
| Input resistance (R <sub>e</sub> )                            | Ω                  |             | 380 ± 30              |
| Output resistance (R <sub>a</sub> )                           | Ω                  |             | 352 ± 1.5             |
| Insulation resistance (R <sub>is</sub> )                      | Ω                  |             | > 5 x 10 <sup>9</sup> |
| Relative linearity error (d <sub>lin</sub> )                  | %                  | ≤ 0.5       | ≤ 1                   |
| Relative reversibility error (v)                              | %                  | ≤ 0.5       | ≤ 1                   |
| Temperature effect on zero signal (TK <sub>0</sub> )          | %/10K              | ≤ 0.5       | ≤ 1                   |
| Temperature effect on characteristic value (TK <sub>c</sub> ) | %/10K              | ≤ 0.5       | ≤ 1                   |
| Relative creep over 30 minutes (d <sub>cr, F+E</sub> )        | %                  |             |                       |
| Reference temperature (T <sub>ref</sub> )                     | °C                 |             | +23                   |
| Rated temperature range (B <sub>T, nom</sub> )                | °C                 |             | -15 ... +70           |
| Operating temperature range (B <sub>T, G</sub> )              | °C                 |             | -15 ... +70           |
| Storage temperature range (B <sub>T, S</sub> )                | °C                 |             | -20 ... +100          |
| Environmental protection (EN 60529)                           |                    |             | IP 65                 |

All data according to VDI/VDE/DKD 2638

## Order Example

| Type Code      | Description                                    |
|----------------|--|
| KAM-B/10kN/0.5 | Force transducer 10kN with 0.5% accuracy class |
|                | Accuracy class                                 |
|                | Rated load                                     |
|                | Model  |

## Accessoires / Options

|                | Type Code | Description                                   |
|----------------|-----------|---|
| Mounting plate | XKM 290   | for 1kN up to 10kN                            |
|                | XKM 291   | for 20kN up to 50kN                           |
|                | XKM 292   | for 100kN                                     |
| ATEX           | KAM-B-EX  | for 1kN ... 10kN. Please note ATEX-datasheet! |