Hydraulic brake system

${ }^{1)}$ Dimensions and weight depend on thickness of brake disk.

| KTR-STOP ${ }^{\circledR}$ XS-xx-F |  |  |  |
| :---: | :---: | :---: | :---: |
| Total weight | approx. $20,5 \mathrm{~kg}$ | Max. operating pressure | 200 bar |
| Width of brake pad | 70 mm | Thickness of brake disk | $10 \mathrm{~mm}-30 \mathrm{~mm}$ |
| Surface of each brake pad organic | $8.000 \mathrm{~mm}^{2}$ | Pressure port | G 1/8 |
| powder metal | $5.800 \mathrm{~mm}^{2}$ | Oil bleed | G 1/8 |
| Max. wear of each brake pad | 5 mm | Backlash on axles - towards mounting surface | 5 mm |
| Nominal coefficient of friction ${ }^{2)}$ | $\mu=0,4$ | Backlash on axles - away from mounting surface | 5 mm |
| Total brake piston surface - complete brake | $11 \mathrm{~cm}^{2}$ | Min. diameter of brake disk ØDA | 300 mm |
| Volume with 1 mm stroke - complete brake | $1,1 \mathrm{~cm}^{3}$ | Operating temperature | $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$ |


| Types of brakes |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of brake ${ }^{\text {3) }}$ | Clamping force $\mathrm{F}_{\mathrm{C}}[\mathrm{kN}]$ | Power loss ${ }^{4)}$ [\%] | Opening pressure [bar] | Weight ${ }^{1)}$ [kg] | Braking torque [ Nm ] with brake disk $\varnothing$ [mm] |  |  |
|  |  |  |  |  | 315 | 560 | 800 |
| KTR-STOP XS-3-F | 3 | 5,5 | 40 | 20,5 | 270 | 560 | 850 |
| KTR-STOP XS-6-F | 6 | 6,5 | 80 | 20,5 | 540 | 1130 | 1710 |
| KTR-STOP XS-9-F | 9 | 12 | 130 | 20,5 | 820 | 1700 | 2570 |
| KTR-STOP XS-12-F | 12 | 11 | 160 | 20,5 | 1090 | 2270 | 3420 |
| KTR-STOP XS-15-F | 15 | 8 | 190 | 20,5 | 1370 | 2840 | 4280 |

${ }^{2)}$ The coefficient of friction each depends on the application or material of the brake pad, respectively. Please consult with KTR.
${ }^{3)}$ Other types of brakes on request
${ }^{4}$ ) With 1 mm stroke ( 0.5 mm wear of pad on each side)


## Calculation of brake disk

```
DCmax = DA - 195
    Dav}=\mp@subsup{D}{A}{}-8
```

Connection dimensions of brake


$$
\begin{array}{l|l}
\mathrm{F}_{\mathrm{b}}=\mathrm{F}_{\mathrm{c}} \cdot 2 \cdot \mu & \mathrm{~F}_{\mathrm{b}}=\text { Braking force }[\mathrm{kN}] \\
\mathrm{F}_{\mathrm{c}}=\text { Clamping force }[\mathrm{kN}] \\
\mathrm{M}_{\mathrm{b}}=\mathrm{z} \cdot \mathrm{~F}_{\mathrm{b}} \cdot \frac{\mathrm{D}_{\mathrm{av}}}{2} & \mathrm{M}_{\mathrm{b}}=\text { Braking torque }[\mathrm{kNm}] \\
\mathrm{z} & =\text { Number of brakes } \\
\mathrm{D}_{\mathrm{av}} & =\text { Effective diameter of brake }[\mathrm{m}]
\end{array}
$$

## Optional

Various colours available

- Sensor indicating wear of pad and condition
- Temperature sensor

Alternative materials of brake pad

