KTR-STOP ${ }^{\circledR}$ S-xx-F
Passive floating caliper brake

Hydraulic brake system

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

| KTR-STOP ${ }^{\circledR}$ S-xx-F |  |  |  |
| :---: | :---: | :---: | :---: |
| Total weight | approx. $90 \mathrm{~kg}-100 \mathrm{~kg}^{1)}$ | Max. operating pressure | 200 bar |
| Width of brake pad | 125 mm | Thickness of brake disk | $20 \mathrm{~mm}-40 \mathrm{~mm}$ |
| Surface of each brake pad organic | $28.700 \mathrm{~mm}^{2}$ | Pressure port | G 1/4 |
| powder metal | $26.800 \mathrm{~mm}^{2}$ | Oil bleed | G 1/8 |
| Max. wear of each brake pad | 6 mm | Backlash on axles - towards mounting surface | 5 mm |
| Nominal coefficient of friction ${ }^{2)}$ | $\mu=0,4$ | Backlash on axles - away from mounting surface | 10 mm |
| Total brake piston surface - complete brake | $69 \mathrm{~cm}^{2}$ | Min. diameter of brake disk $\varnothing \mathrm{D}_{\mathrm{A}}$ | 500 mm |
| Volume with 1 mm stroke - complete brake | 6,9 $\mathrm{cm}^{3}$ | Operation temperature | $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$ |


| Types of brakes |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of brake ${ }^{3)}$ | Clamping force $\mathrm{F}_{\mathrm{C}}[\mathrm{kN}]$ | $\begin{gathered} \text { Power loss }{ }^{4)} \\ {[\%]} \end{gathered}$ | Opening pressure [bar] | Weight ${ }^{1)}$ [kg] | Braking torque [ Nm ] with brake disk $\varnothing$ [mm] |  |  |
|  |  |  |  |  | 500 | 710 | 1000 |
| KTR-STOP ${ }^{\circledR}$ S-20-F | 20 | 4,5 | 40 | 90 | 2900 | 4600 | 6900 |
| KTR-STOP ${ }^{\text {® }}$ S-40-F | 40 | 6,5 | 90 | 90 | 5900 | 9200 | 13900 |
| KTR-STOP ${ }^{\text {® }}$ S-60-F | 60 | 7,0 | 130 | 100 | 8800 | 13900 | 20800 |
| KTR-STOP ${ }^{\text {® }}$ S-80-F | 80 | 5,0 | 170 | 100 | 11800 | 18500 | 27800 |

${ }^{2)}$ The coefficient of friction each depends on the application or material of the brake, 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

## up to $\varnothing \mathrm{D}_{\mathrm{A}}=1000 \mathrm{~mm}$

$\mathrm{D}_{\mathrm{C} \text { max. }}=\mathrm{D}_{\mathrm{A}}-305$

$$
D_{a v}=D_{A}-130
$$

from $\varnothing D_{A}=1000 \mathrm{~mm}$ to $\varnothing \mathrm{D}_{\mathrm{A}}=1800 \mathrm{~mm}$
$\left|\mathrm{D}_{\mathrm{C} \text { max. }}=\mathrm{D}_{\mathrm{A}}-295\right|$
$D_{a v}=D_{A}-120$
from $\varnothing D_{A}=1800 \mathrm{~mm}$
$D_{C}$ max. $=D_{A}-285$
$D_{a v}=D_{A}-110$

## 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

