

# Technical Data Sheet TI-F20

## Locking Unit KFP/Z Tie-rod casing

for standard cylinders according to ISO 6431 / VDMA

For detailed functional description refer to „Technical Information TI-F10“. Furthermore important practical advices are given in the „Operating Manual BA-F20“.

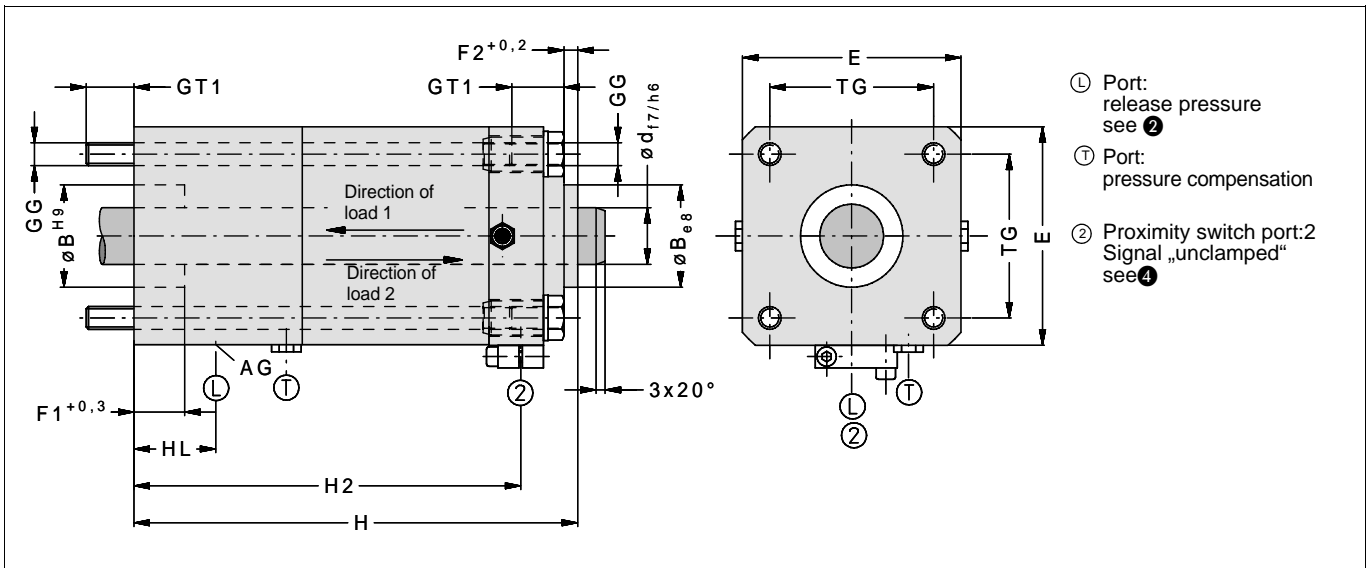


Fig. 1: Dimensions Locking Unit KFP/Z ( CAD-Files download at [www.sitema.com](http://www.sitema.com))

Type Ident Number	d	F	E	H	F1	F2	B	TG	GG	GT1	GT2	AG	VL	HL	H2	Weight
	mm	kN	mm	mm	mm	mm	mm	mm	mm	mm	mm		cm <sup>3</sup>	mm	mm	ca. kg
<b>KFP/Z 40 - 16</b> KFP 040 16 - 20	16	0,5	54	146	22	4	35	38	M6	13,5	14,5	G1/8	8	29	121,5	1
<b>KFP/Z 50 - 20</b> KFP 050 20 - 20	20	0,8	64	173	29	6	40	46,5	M8	15	16	G1/8	13	35	146	2
<b>KFP/Z 63 - 20</b> KFP 063 20 - 20	20	1,4	75	173	29	6	45	56,5	M8	15	16	G1/8	24	32	142	3
<b>KFP/Z 80 - 25</b> KFP 080 25 - 20	25	3,5	96	195	35	6	45	72	M10	15	24	G1/4	54	36	163	5
<b>KFP/Z 100 - 25</b> KFP 100 25 - 20	25	5	115	198	38,5	6	55	89	M10	15	32	G1/4	80	38	166	7
<b>KFP/Z 125 - 32</b> KFP 125 32 - 20	32	7	145	260	50	6	60	110	M12	16	45	G1/4	130	50	221	14
<b>KFP/Z 160 - 40</b> KFP 160 40 - 20	40	11	180	286	55	6	65	140	M16	22	42	G3/8	250	56	247	26

Subject to modification without prior notice

- ① Locking units for other cylinders, other sizes or holding forces available on request.
- ② F is guaranteed as nominal (minimum) holding force for dry or mineral oil wetted shafts.  
The release pressure is min. 5 bar. The permissible working pressure is 10 bar.
- ③ Pneumatic operating volume.

- ④ Proximity switch holders are provided for standard proximity switches M12x1 shielded and with a nominal switching distance of 2 mm.

## Type KFP and KFP/Z

### Pressure media

The compressed air must be dried. Lubrication is not necessary.

### Control

In most applications the actuation suggested in the drawing is used.

During every operational cycle the 3/2- way valve is actuated electrically and releases the locking unit. In all other operational conditions, as well as in cases of power failure, emergency stop, etc. the locking unit is activated, secures the rod and stops the load. In case of pressure failure, the load is secured in the same way. To avoid possible problems, the shaft should not be moved before the proximity switch 2 indicates a "released condition".

### Available sizes

The tie-rod casing KFP/Z is supplied as standard. The KFP with a round casing is available upon request.

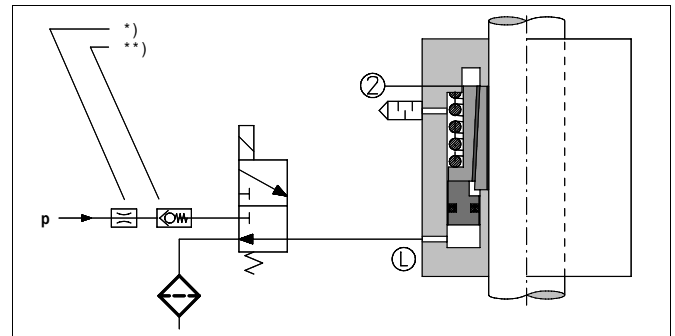


Fig. 2: Schematic diagram of pneumatic circuit

\* If impact noises are audible when pressuring the Locking Unit KFP/Z due to relatively high pressure, they can be suppressed by means of a flow control valve in the p-line.

\*\* If the pressure (p) is not sufficiently constant (e.g. Pressure drop at the beginning of lowering movements) we recommend a check valve in the p-connection of the valve.

**Under no circumstances may the outgoing airflow from port L be impaired by any additional components.**

If a short response time of the Locking Unit KFP/Z is required, the following preconditions must be met:

- Quick exhaust valve
- Short line distances
- correspondingly large valve and line cross-sections
- appropriate control

## Attachment to standard ISO-cylinders

