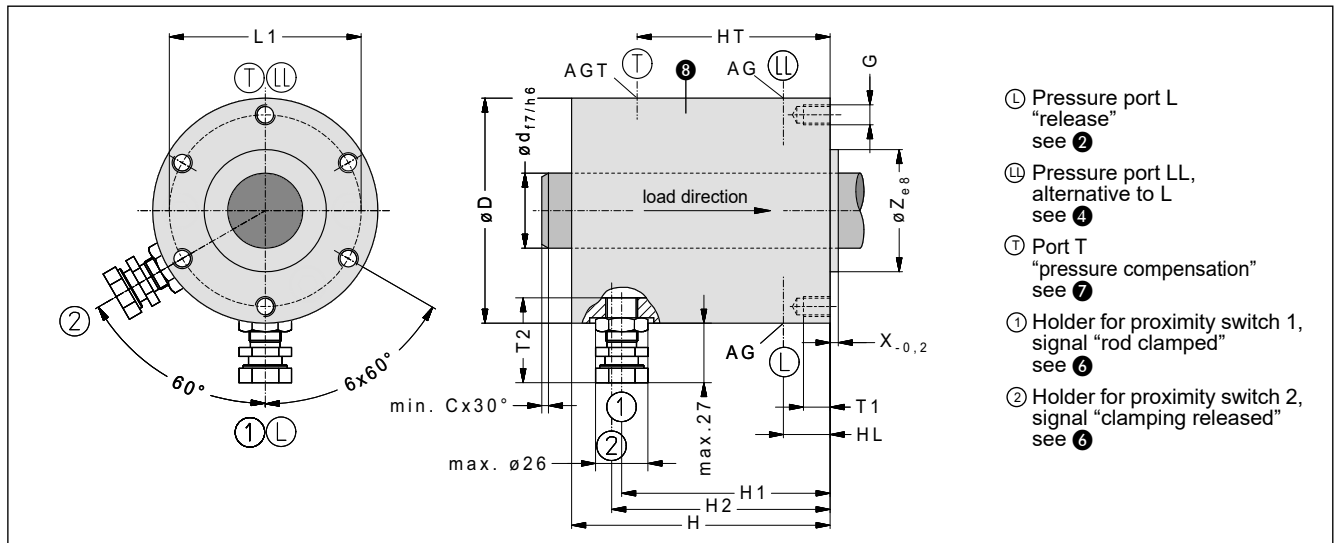


## Technical Data Sheet TI-S11 Safety Locks series KRG

Load direction compressive (to mounting surface)

General information, particularly regarding purpose, function, choosing the right type, attachment and control is provided in "Technical Information TI-S10".

Further important practical advice is given in "Operating Manual BA-S11".



- ① Pressure port L "release" see 2
- ② Pressure port LL, alternative to L see 4
- ③ Port T "pressure compensation" see 7
- ④ Holder for proximity switch 1, signal "rod clamped" see 6
- ⑤ Holder for proximity switch 2, signal "clamping released" see 6

Fig. 1: Dimensions Safety Lock KRG (download CAD files from [www.sitema.com](http://www.sitema.com))

Type	Ident.-No. (order no.)	d mm	C mm	M kN	F100 kN	H mm	D mm	Z mm	X mm	L1 mm	G	AG / AGT	T1 mm	T2 mm	V cm <sup>3</sup>	HL mm	HT mm	H1 mm	H2 mm	Weight ca.kg
KRG 22	KRG 022 10	22	4	10	4	139	78	40	3	60	6 x M6	G1/8	12	32	2	40	88.5	114.5	120.5	4.4
KRG 28	KRG 028 10	28	4	20	6	161	98	50	3	80	6 x M8	G1/8	16	34	3	49	109.5	140	134	8.1
KRG 36	KRG 036 10	36	4	50	10	194	120	70	4	100	6 x M10	G1/4	20	34	8	44	129	164	169.5	15
KRG 45	KRG 045 10	45	4	75	10	218	127	75	4	105	6 x M10	G1/4	20	34	10	46	138	183	190.5	18
KRG 56	KRG 056 10	56	4	100	15	226	155	95	4	130	6 x M12	G1/4	22	34	15	52	158	190	197	27
KRG 70	KRG 070 10	70	4	150	17	258	170	110	4	145	6 x M12	G1/4	22	34	19	55	178	219	228	36
KRG 90	KRG 090 10	90	5	250	32	291	210	125	5	180	6 x M16	G1/4	30	34	29	57	216	250	261	61
KRG 110	KRG 110 10	110	5	400	32	370	265	150	5	230	6 x M16	G1/4	30	34	38	57	278	321.5	332	126

Subject to modification without prior notice

① M is the admissible load the mass to be secured exerts on the Safety Lock. The holding force for dry or hydraulic-oil wetted rods is at least 2 x M. Forces exceeding 2 x M may cause damages, because the rod will be totally blocked also in the case of an overload and will not

② P-The necessary pressure to keep the clamping released is 100 bar. The admissible operating pressure is 160 bar.

③ The Safety Lock has the advantage that it does not release under load. The Safety Lock can normally be released in this case only if release pressure is applied and the load is simultaneously lifted, i.e. if the load has already been transferred safely elsewhere. To ensure this safety advantage, the load must have a minimum value during operation. This minimum value depends on the operating pressure which is applied. At 100 bar, the minimum value is F100. If the load in the application is less than F100 (at 100 bar), the clamping can be released by only applying pressure and not lifting the load. For other pressure levels, please contact SITEMA.

④ On delivery, port LL is closed off by a plug screw. It may be used alternatively to port L and is useful for filling / air-bleeding the pressure chamber. As a general recommendation is to connect an auto-bleeder at the free port (see "Technical Information TI-Z10").

⑤ Hydraulic operating volume.

⑥ Proximity switch holders are provided for standard inductive proximity switches (M12 x 1, nominal switching distance of 2 mm, flush mountable, NO (normally open). Exception: KRG 22: M8 x 1 nominal switching distance of 1.5 mm). The dimension T2 indicates how deep the proximity switch immerses in the Safety Locks KRG measured from the holder's top.

For easier service, the proximity switch holders have a depth stop and are pre-adjusted when delivered from the factory. The switches only need to be inserted to the stop and then clamped.

The proximity switches are not included in the standard scope of delivery but are available as accessories.

⑦ Internal volume changes during switching are compensated at port T. It is plugged with an air filter which, in a dry and clean factory environment, offers sufficient protection against dust etc.

If, however, moisture or aggressive media are present, a pressureless hose instead of the filter must be installed to connect the Safety Lock with clean atmosphere (e.g. a clean pressureless container).

⑧ The surface of the housing parts is primed black, the front sides are treated with corrosion protection wax.