

Il nuovo codice sarà fornito solo ad esaurimento del vecchio - The new code will be supplied only when the old will be out of stock - Der neue Kode wird nur angegeben, wenn der alte nicht mehr lieferbar ist - Le nouveau code sera fourni uniquement lorsque le vieux stock sera écoulé - El nuevo código será suministrado sólo cuando se agoten las existencias del antiguo - O novo código irá ser fornecido apenas quando o antigo esgotar stock

## ACTIVE SAFETY



OPAS



SKUDO

\*  $F_{1i} =$

Isothermal end force at 100% Cu



p. 16

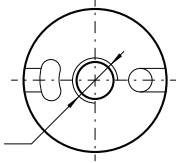
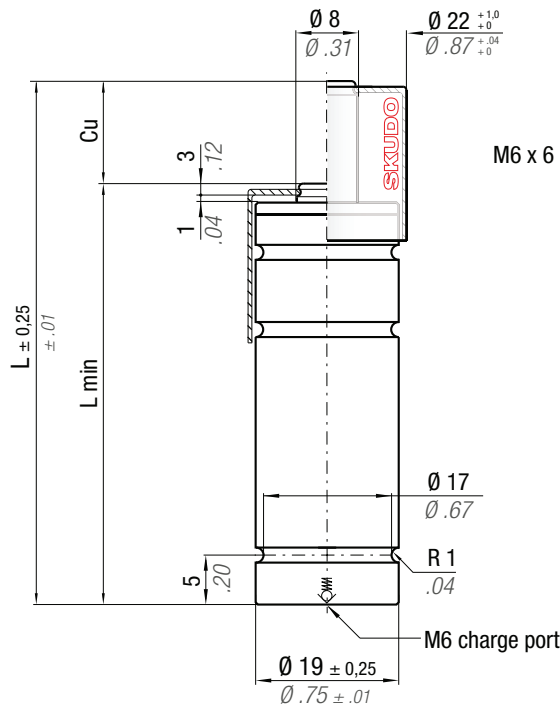
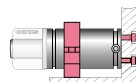
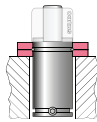
\*\*  $F_{1p} =$

Polytropic end force at 100% Cu



Force color code	P		F <sub>0</sub> Initial force ± 5% at +20°C +68°F	
	bar	psi	daN	lb
OR	10	145	5	11
PR	20	290	10	22
GR	60	870	30	67
BU	100	1450	50	112
RD	140	2030	70	157
YW	180	2610	90	202
BK	10-180	145-2610	5-90	11-202

NOT FOR

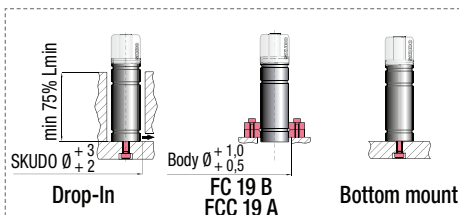


N <sub>2</sub>	0 - 80 °C 32 - 176 °F	$\Delta P$ ± 0,33 %/°C	<b>P max</b> 180 bar 2610 psi	<b>P min</b> 10 bar 145 psi	<b>S</b> 0,50 cm <sup>2</sup> 0,078 in <sup>2</sup>	<b>SPM</b> ~ 100 - 150 (at 20°C)	<b>Max Speed</b> 1,8 m/s	<b>Maintenance kit</b> Disposable
----------------	--------------------------	---------------------------	-------------------------------------	-----------------------------------	---	--	-----------------------------	--------------------------------------

CODE PHASING OUT from 05/2019	NEW	Cu		L		L min		F <sub>1i</sub> * End force *		F <sub>1p</sub> ** End force **		V <sub>0</sub>		PED 2014/68/EU		
		mm	inch	mm	inch	mm	inch	daN	lb	daN	lb	cm <sup>3</sup>	in <sup>3</sup>		~Kg	~lb
MS90-007-A-...	MS90-007-B-...	7	0.28	62	2.44	55	2.17	1.19 x F <sub>0</sub>		1.35 x F <sub>0</sub>		2,6	0.16	0,07	0.15	✓
MS90-010-A-...	MS90-010-B-...	9,7	0.38	67,4	2.65	57,7	2.27	1.22 x F <sub>0</sub>		1.40 x F <sub>0</sub>		3,1	0.19	0,08	0.18	✓
MS90-012-A-...	MS90-012-B-...	12	0.47	72	2.83	60	2.36	1.24 x F <sub>0</sub>		1.44 x F <sub>0</sub>		3,5	0.21	0,08	0.18	✓
MS90-022-A-...	MS90-022-B-...	22	0.87	92	3.62	70	2.76	1.30 x F <sub>0</sub>		1.52 x F <sub>0</sub>		5,5	0.34	0,09	0.20	✓
MS90-035-A-...	MS90-035-B-...	35,1	1.38	118,2	4.65	83,1	3.27	1.33 x F <sub>0</sub>		1.57 x F <sub>0</sub>		8,1	0.49	0,11	0.24	✓
MS90-047-A-...	MS90-047-B-...	47	1.85	142	5.59	95	3.74	1.34 x F <sub>0</sub>		1.60 x F <sub>0</sub>		10,4	0.63	0,12	0.26	✓
MS90-060-A-...	MS90-060-B-...	60,5	2.38	172	6.77	111,5	4.39	1.35 x F <sub>0</sub>		1.61 x F <sub>0</sub>		13,4	0.82	0,14	0.31	✓
MS90-077-A-...	MS90-077-B-...	77	3.03	205	8.07	128	5.04	1.36 x F <sub>0</sub>		1.62 x F <sub>0</sub>		16,6	1.01	0,15	0.33	✓
MS90-097-A-...	MS90-097-B-...	97	3.82	245	9.65	148	5.83	1.37 x F <sub>0</sub>		1.64 x F <sub>0</sub>		20,6	1.26	0,17	0.37	✓
MS90-122-A-...	MS90-122-B-...	122	4.80	295	11.61	173	6.81	1.37 x F <sub>0</sub>		1.65 x F <sub>0</sub>		25,5	1.56	0,20	0.44	✓

**WARNING REMOVE SKUDO**

Upside down mounting



## HOW TO ORDER

p. 53

## INSTALLATION GUIDELINE

p. 205