

Baureihe Type MD

Druckkraftaufnehmer für Schubkette
Load Cell for Push Chain

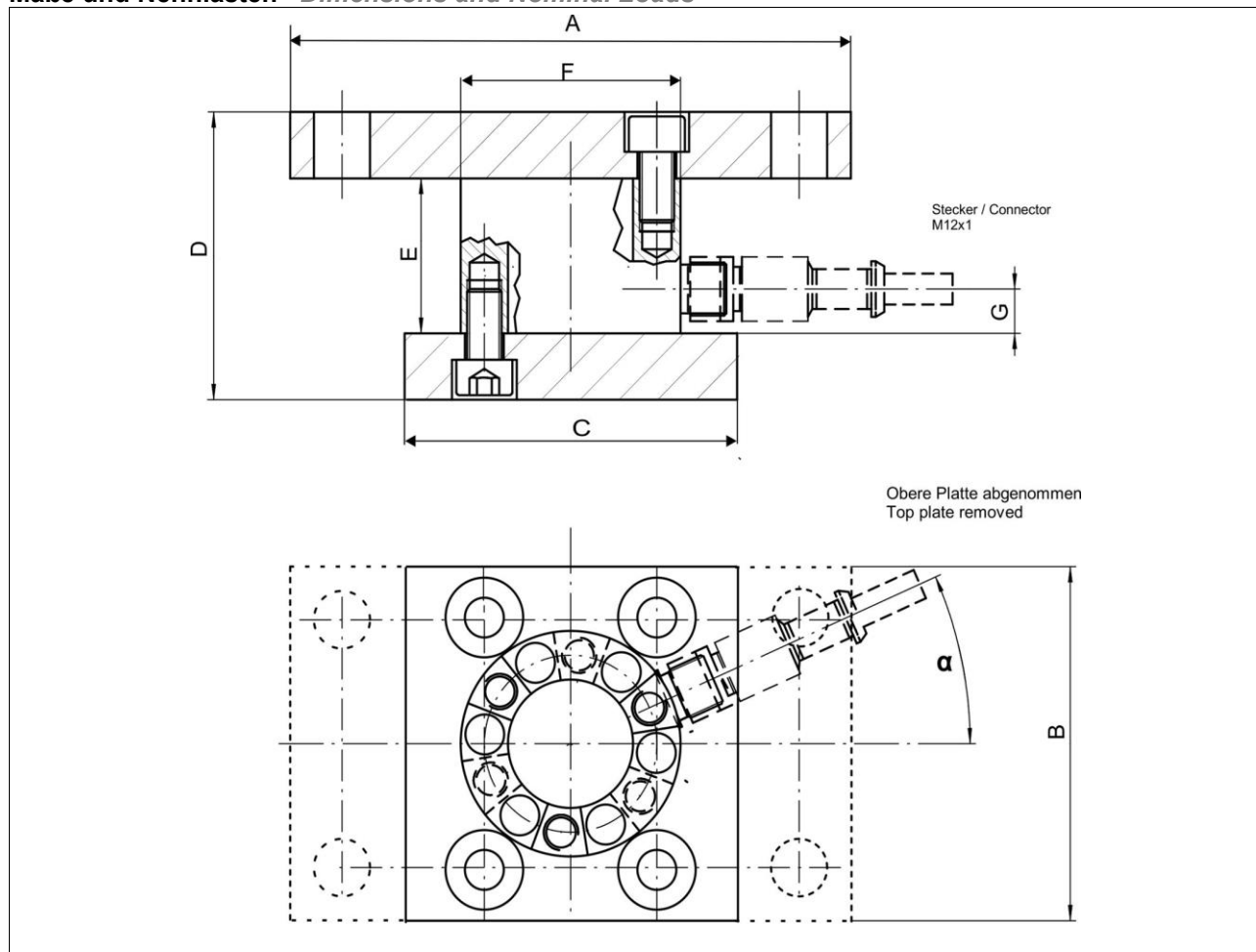
Dieser Druckkraftaufnehmer wurde für den Einsatz auf Schubketten der Fa. SERAPID entwickelt. Er kann ohne zusätzlichen Einbausatz direkt zwischen Schubkette und Podium/Plattform montiert werden. Querkräfte und Biege-momente beeinflussen das Messsignal nicht.

The compression force transducer was developed for the use on push chains of SERAPID.

It can be installed between push chain and podium/platform without additional mounting kit. Transverse forces and bending moments don't influence the output signal.

Genauigkeit Accuracy 1,5 %v.E. 1,5% F.S.

DAS PRODUKT KANN NUR ÜBER SERAPID GROUP BEZOGEN WERDEN
THE PRODUCT CAN BE PURCHASED ONLY THROUGH SERAPID GROUP

Maße und Nennlasten *Dimensions and Nominal Loads*

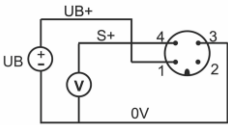
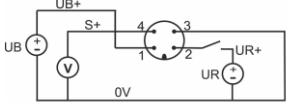
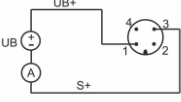
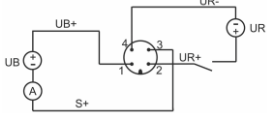
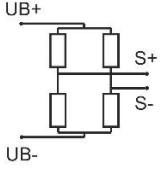
Nennlast <i>Nominal Load</i>	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	α [°]
20 kN flach <i>flat</i>	100	55	100	50	30	Ø 51	10	0
20 kN	100	55	100	65 *	35	Ø 51	10	0
70 kN	130	80	80	65	35	Ø 51	10	24
100 kN	220	120	140	71	31	Ø 108	13	10
200 kN	280	150	150	100	40	Ø 125	12	15

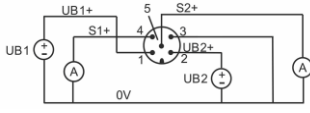
* + 12 mm (da Montage auf Abschlussplatte / *because mounting on top plate*)

Nennlast <i>Nominal Load</i>	Ausgangssignal <i>Output Signal</i>	Schubkette <i>Push Chain</i>	Bestellnummer <i>Order Number</i>
20 kN	4...20 mA (2w)	LL 30	MD-020kN-A1xx
70 kN	4...20 mA (2w)	LL 50	MD-070kN-A1xx
100 kN	4...20 mA (2w)	LL 80	MD-100kN-A1xx
200 kN	4...20 mA (2w)	LL 100	MD-200kN-A1xx

Nennlast <i>Nominal Load</i>	Ausgangssignal <i>Output Signal</i>	Schubkette <i>Push Chain</i>	Bestellnummer <i>Order Number</i>
20 kN	4...20 mA (2w) + test	LL 30	MD-020kN-T1xx
70 kN	4...20 mA (2w) + test	LL 50	MD-070kN-T1xx
100 kN	4...20 mA (2w) + test	LL 80	MD-100kN-T1xx
200 kN	4...20 mA (2w) + test	LL 100	MD-200kN-T1xx

Elektrischer Anschluss Electrical Connection

Ausgang <i>Output</i>	Signal <i>Signal</i>	M12x1 <i>Connector</i>	Kabelfarben <i>Cable Colors</i>
0...10 V 0,5 ...4,5 V 	Versorgung <i>Input</i> UB+ Ausgang <i>Output</i> S+ 0V Schirm <i>Shielding</i>	1 4 3 am Gewinde <i>to thread</i>	braun <i>brown</i> schwarz <i>black</i> blau <i>blue</i>
0...10 V + Test 0...10V + test 	Versorgung <i>Input</i> UB+ Versorgung Relais <i>Input Relay</i> UR+ Ausgang <i>Output</i> S+ Ausgang <i>Output</i> 0V Schirm <i>Shielding</i>	1 2 4 3 am Gewinde <i>to thread</i>	braun <i>brown</i> weiß <i>white</i> schwarz <i>black</i> blau <i>blue</i>
4...20 mA (2L) 4...20 mA (2w) 	Versorgung <i>Input</i> UB+ Ausgang <i>Output</i> S+ Schirm <i>Shielding</i>	1 3 am Gewinde <i>to thread</i>	braun <i>brown</i> blau <i>blue</i>
4...20 mA (2L) + Test 4...20 mA (2w) + test 	Versorgung <i>Input</i> UB+ Versorgung Relais <i>Input Relay</i> UR+ Versorgung Relais <i>Input Relay</i> UR- Ausgang <i>Output</i> S+ Schirm <i>Shielding</i>	1 2 4 3 am Gewinde <i>to thread</i>	braun <i>brown</i> weiß <i>white</i> schwarz <i>black</i> blau <i>blue</i>
mV/V 	Versorgung <i>Input</i> UB+ Versorgung Relais <i>Output</i> S+ Versorgung Relais <i>Input Relay</i> UB- Ausgang <i>Output</i> S- Schirm <i>Shielding</i>	1 2 3 4 am Gewinde <i>to thread</i>	braun <i>brown</i> weiß <i>white</i> blau <i>blue</i> schwarz <i>black</i>

Redundant 4...20 mA(2L)+4...20mA(3L) 4...20mA(2w)+4...20 mA(3w) 	Versorgung <i>Input</i> UB1+ Versorgung <i>Input</i> UB2+ 0V – Kanal <i>channel</i> 2 Ausgang <i>Output</i> S1+ Ausgang <i>Output</i> S2+ Schirm <i>Shielding</i>	1 2 3 4 5 am Gewinde <i>to thread</i>	braun <i>brown</i> weiß <i>white</i> blau <i>blue</i> schwarz <i>black</i> grau <i>grey</i>
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Technische Daten Technical Data

Nennlast <i>Nominal Load</i> F_{nom}	20 kN / 70kN / 100 kN / 200 kN
Grenzlast <i>Limit Load</i>	150 %
Bruchlast <i>Breaking Load</i>	300 %
Ausgangssignal <i>Output Signal</i>	4...20 mA (2L) + test*
Bürde <i>working resistance</i>	$R_b = (UB-6V)/0,024A$
Spannungsversorgung <i>Voltage Supply</i>	11...30 VDC
Genauigkeit <i>Accuracy</i>	1,5 % v.E. %F.S.
Nenntemperaturbereich <i>Nominal Temperature Range</i>	-20 +80°C
Gebrauchstemperaturbereich <i>Service Temperature Range</i>	-20 +80°C
Temperaturkoeffizient <i>TemperatureEffect</i> Nullpunkt <i>zero</i> Spanne <i>span</i>	<0,2 % $F_{nom}/10K$ <0,2 % $F_{nom}/10K$
Nennmessweg <i>Nominal Deflection</i>	< 0,05 mm
Zul. Schwingbreite nach <i>Max. Dynamic Load acc. to</i> DIN 50100	+ 80% F_{nom}
Vibrationsbeständigkeit <i>Vibration Resistance</i>	20g, 100 h, 50...150 Hz
Elektrischer Anschluss <i>Electrical Connector</i>	M12 x 1
Material Messfeder <i>Material Deformation Body</i>	Stahl <i>Steel</i> (70 kN) Aluminium <i>Aluminium</i> (20, 100, 200 kN)

Test-Elektronik* *test-electronics**

Versorgung Relais <i>Voltage Supply Relay</i> UR	19,2 VDC ... 24VDC ... 36 VDC
Leistungsaufnahme Relais <i>Input Power Relay</i>	ca. <i>appr.</i> 110 mW
Signal / Signalhub <i>Signal / Signal Switch</i>	4...16 mA / 4 mA andere Komb. möglich <i>other ratios possible</i>

* erfüllt IEC 61508/61511, SIL3 für Anwendungen in der Bühnentechnik mit redundanter Steuerung

* fulfills IEC 61508/61511, SIL3 for applications in theatres and stages with redundant control system

Technische Änderungen vorbehalten *Subject to change without notice*

05/2026

Primosensor - the **L**orce dimension