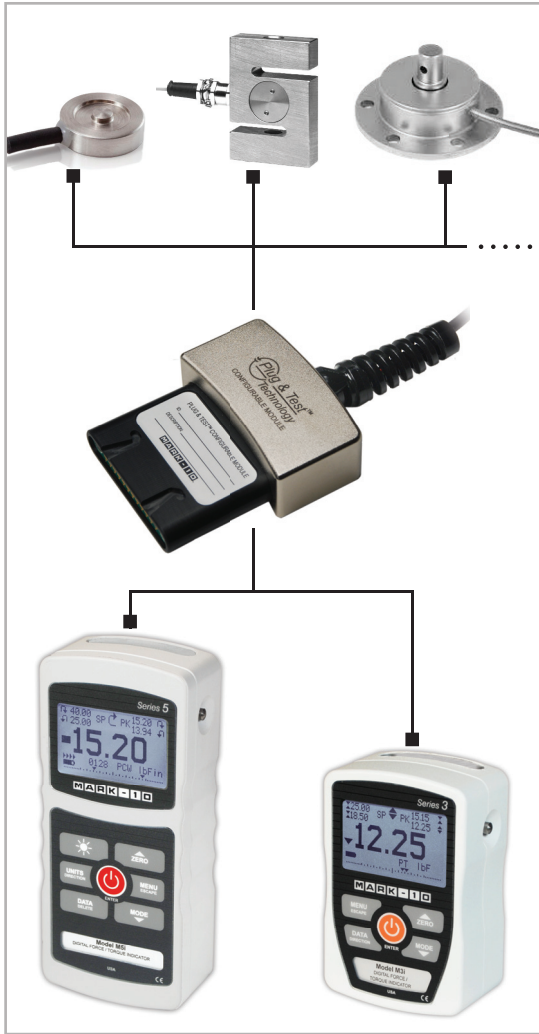


Data Sheet

Plug & Test™ Adapter Model PTA

32-1165 REV 1

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Connect common strain gage-based load cells, force sensors, and torque sensors to our Models 7i, 5i and 3i indicators with this user-configurable adapter and software.

Sensor capacity and resolutions may be programmed via an included software utility, which includes a library of common force capacities from 0.12 to 750,000 lbf (0.5 N to 4,000 kN), and torque capacities from 10 ozFin to 40,000 lbFft (7 Ncm to 57,000 Nm). An identification number may be programmed, which is displayed upon indicator power-up or the indicator's Information screen.

Through Plug & Test™ technology, all configuration and calibration information is saved within the adapter. This flexibility allows for interchangeability between multiple sensors with any Mark-10 indicator.

Features

- Compatible with strain gage-based load cells, force sensors, and torque sensors
- Screw terminal block allows for easy connection of sensor wires
- Software configuration utility is included, for easy programming of sensor capacity, resolution, and identification number
- Program the adapter via USB or RS-232 through the indicator
- Supplied with a strain relief, user-writable identification label, and Resource CD with software

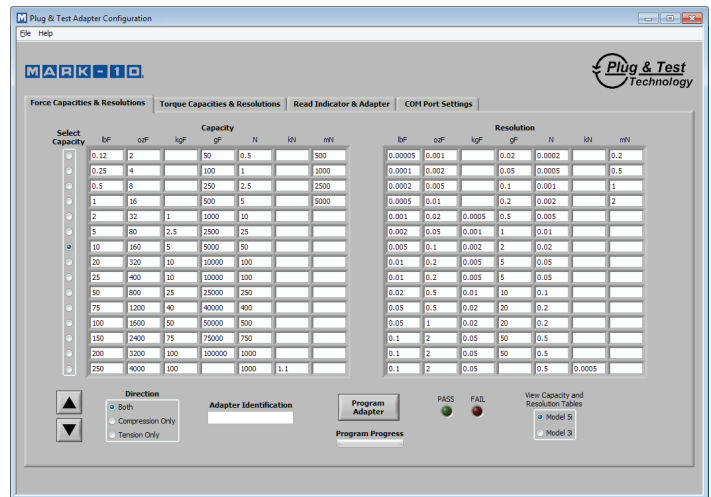
Requirements

- Sensor type: Full bridge
- Sensor resistance: 300 - 1000 ohms
- Sensor sensitivity: 1 - 3 mV/V full scale
- Mark-10 indicator with firmware version 1.0.9 or later*



^ Cover is removed to expose the PCB with labelled wire connections and screw terminal block.

* The PTA adapter *cannot be configured* using older indicator versions. The PTA adapter *can be used* with older indicator versions, however, the adapter *cannot be calibrated* for single-direction load cells, such as load button and thru hole type load cells.



^ Software utility features a library of force and torque capacities. Programming of capacity, resolution, and identification number is done via USB through any Mark-10 indicator.



Force Capacities & Resolutions

Capacity									Resolution With Model 7i / 5i indicator									Resolution With Model 3i indicator				
lbF	ozF	kgF	gF	N	kN	mN	T*	t*	lbF	ozF	kgF	gF	N	kN	mN	T*	t*	lbF	kgF	gF	N	kN
0.12	2	-	50	0.5	-	500	-	-	0.0005	0.001	-	0.02	0.0002	-	0.2	-	-	0.0001	-	0.05	0.0005	-
0.25	4	-	100	1	-	1000	-	-	0.001	0.002	-	0.05	0.0005	-	0.5	-	-	0.0002	-	0.1	0.001	-
0.5	8	-	250	2.5	-	2500	-	-	0.002	0.005	-	0.1	0.001	-	1	-	-	0.0005	-	0.2	0.002	-
1	16	-	500	5	-	5000	-	-	0.005	0.01	-	0.2	0.002	-	2	-	-	0.001	-	0.5	0.005	-
2	32	1	1000	10	-	-	-	-	0.01	0.02	0.0005	0.5	0.005	-	-	-	-	0.002	0.001	-	0.01	-
5	80	2.5	2500	25	-	-	-	-	0.02	0.05	0.001	1	0.01	-	-	-	-	0.005	0.002	-	0.02	-
10	160	5	5000	50	-	-	-	-	0.05	0.1	0.002	2	0.02	-	-	-	-	0.01	0.005	-	0.05	-
20	320	10	10000	100	-	-	-	-	0.1	0.2	0.005	5	0.05	-	-	-	-	0.02	0.01	-	0.1	-
25	400	10	10000	100	-	-	-	-	0.1	0.2	0.005	5	0.05	-	-	-	-	0.02	0.01	-	0.1	-
50	800	25	25000	250	-	-	-	-	0.2	0.5	0.01	10	0.1	-	-	-	-	0.05	0.02	-	0.2	-
75	1200	40	40000	400	-	-	-	-	0.25	0.5	0.01	20	0.2	-	-	-	-	0.1	0.05	-	0.5	-
100	1600	50	50000	500	-	-	-	-	0.25	1	0.02	20	0.2	-	-	-	-	0.1	0.05	-	0.5	-
150	2400	75	75000	750	-	-	-	-	0.1	2	0.05	50	0.5	-	-	-	-	0.2	0.1	-	1	-
200	3200	100	100000	1000	-	-	-	-	0.1	2	0.05	50	0.5	-	-	-	-	0.2	0.2	-	2	-
250	4000	100	-	1000	1	-	-	-	0.1	2	0.05	-	0.5	0.0005	-	-	-	0.2	0.2	-	2	-
300	4800	150	-	1500	1.5	-	-	-	0.2	5	0.1	-	1	0.001	-	-	-	0.5	0.2	-	2	-
500	8000	250	-	2500	2.5	-	-	-	0.2	5	0.1	-	1	0.001	-	-	-	0.5	0.2	-	2	-
750	12000	400	-	4000	4	-	-	-	0.5	10	0.2	-	2	0.002	-	-	-	1	0.5	-	5	-
1000	16000	500	-	5000	5	-	-	-	0.5	10	0.2	-	2	0.002	-	-	-	1	0.5	-	5	-
1500	24000	750	-	7500	7.5	-	-	-	1	20	0.5	-	5	0.005	-	-	-	2	1	-	10	-
2000	-	1000	-	-	10	-	1	1	1	-	0.5	-	-	0.005	-	0.0005	0.0005	2	1	-	-	0.01
2500	-	1000	-	-	10	-	1	1	1	-	0.5	-	-	0.005	-	0.0005	0.0005	2	1	-	-	0.01
3000	-	1500	-	-	15	-	1.5	1.5	2	-	1	-	-	0.01	-	0.001	0.001	5	2	-	-	0.02
5000	-	2500	-	-	25	-	2.5	2.5	2	-	1	-	-	0.01	-	0.001	0.001	5	2	-	-	0.02
7500	-	4000	-	-	40	-	4	4	5	-	2	-	-	0.02	-	0.002	0.002	10	5	-	-	0.05
10000	-	5000	-	-	50	-	5	5	5	-	2	-	-	0.02	-	0.002	0.002	10	5	-	-	0.05
15000	-	7500	-	-	75	-	7.5	7.5	10	-	5	-	-	0.05	-	0.005	0.005	20	10	-	-	0.1
20000	-	10000	-	-	100	-	10	10	10	-	5	-	-	0.05	-	0.005	0.005	20	10	-	-	0.1
25000	-	10000	-	-	100	-	10	10	10	-	5	-	-	0.05	-	0.005	0.005	20	10	-	-	0.1
30000	-	15000	-	-	150	-	15	15	20	-	10	-	-	0.1	-	0.01	0.01	50	20	-	-	0.2
50000	-	25000	-	-	250	-	25	25	20	-	10	-	-	0.1	-	0.01	0.01	50	20	-	-	0.2
75000	-	40000	-	-	400	-	40	40	50	-	20	-	-	0.2	-	0.02	0.02	100	50	-	-	0.5
100000	-	50000	-	-	500	-	50	50	50	-	20	-	-	0.2	-	0.02	0.02	100	50	-	-	0.5
150000	-	75000	-	-	750	-	75	75	100	-	50	-	-	0.5	-	0.05	0.05	200	100	-	-	1
200000	-	100000	-	-	1000	-	100	100	100	-	50	-	-	0.5	-	0.05	0.05	200	100	-	-	1
250000	-	100000	-	-	1000	-	100	100	100	-	50	-	-	0.5	-	0.05	0.05	200	100	-	-	1
300000	-	150000	-	-	1500	-	150	150	200	-	100	-	-	1	-	0.1	0.1	500	200	-	-	2
500000	-	250000	-	-	2500	-	250	250	200	-	100	-	-	1	-	0.1	0.1	500	200	-	-	2
750000	-	400000	-	-	4000	-	400	400	500	-	200	-	-	2	-	0.2	0.2	1000	500	-	-	5

* T = US ton
t = metric ton

Torque Capacities & Resolutions

Capacity									Resolution With Model 7i / 5i indicator								Resolution With Model 3i indicator						
lbFin	ozFin	lbFft	Ncm	Nm	Nmm	kgFmm	gFcm	kgFm	lbFin	ozFin	lbFft	Ncm	Nm	Nmm	kgFmm	gFcm	kgFm	lbFin	ozFin	Ncm	Nm	kgFmm	kgFm
-	10	-	7	-	70	7	700	-	-	0.005	-	0.005	-	0.05	0.005	0.5	-	-	0.01	0.01	-	0.01	-
-	20	-	14	-	140	14	1400	-	-	0.01	-	0.01	-	0.1	0.01	1	-	-	0.02	0.02	-	0.02	-
-	50	-	35	-	350	35	3500	-	-	0.02	-	0.02	-	0.2	0.02	2	-	-	0.05	0.05	-	0.05	-
-	100	-	70	-	700	70	7000	-	-	0.05	-	0.05	-	0.5	0.05	5	-	-	0.1	0.1	-	0.1	-
-	1000	-	700	-	7000	700	70000	-	-	0.5	-	0.5	-	5	0.5	50	-	-	1	1	-	1	-
12	192	1	135	1.35	-	-	-	-	0.005	0.1	0.0005	0.1	0.001	-	-	-	-	0.01	0.2	0.1	-	-	-
20	320	1.5	220	2.2	-	-	-	-	0.01	0.2	0.001	0.1	0.001	-	-	-	-	0.02	0.5	0.2	-	-	-
25	400	2	290	2.9	-	-	-	-	0.02	0.2	0.002	0.2	0.002	-	-	-	-	0.02	0.5	0.2	-	-	-
50	800	4	570	5.7	-	-	-	-	0.02	0.5	0.002	0.5	0.005	-	-	-	-	0.05	1	0.5	-	-	-
100	1600	8	1150	11.5	-	-	-	-	0.05	1	0.005	0.5	0.005	-	-	-	-	0.1	2	1	-	-	-
150	-	12.5	1700	17	-	1700	-	-	0.1	-	0.01	1	0.01	-	1	-	-	0.2	-	2	-	2	-
200	-	16	2200	22	-	2200	-	-	0.1	-	0.01	1	0.01	-	1	-	-	0.2	-	2	-	2	-
250	-	20	2800	28	-	2800	-	-	0.2	-	0.02	2	0.02	-	2	-	-	0.2	-	2	-	2	-
400	-	32	4500	45	-	4500	-	-	0.2	-	0.02	2	0.02	-	2	-	-	0.5	-	5	-	5	-
500	-	40	5800	57	-	5800	-	-	0.2	-	0.02	2	0.02	-	2	-	-	0.5	-	5	-	5	-
600	-	50	6900	69	-	6900	-	-	0.5	-	0.05	5	0.05	-	5	-	-	1	-	10	-	10	-
1000	-	80	11500	115	-	11500	-	-	0.5	-	0.05	5	0.05	-	5	-	-	1	-	10	-	10	-
1500	-	125	17000	170	-	17000	-	-	1	-	0.1	10	0.1	-	10	-	-	2	-	20	-	20	-
2000	-	150	22000	220	-	22000	-	-	1	-	0.1	10	0.1	-	10	-	-	2	-	20	-	20	-
2500	-	200	29000	290	-	29000	-	-	1	-	0.1	20	0.2	-	20	-	-	2	-	20	-	20	-
5000	-	400	57000	570	-	58000	-	-	2	-	0.2	20	0.2	-	50	-	-	5	-	50	-	100	-
6000	-	500	69000	690	-	69000	-	-	5	-	0.5	50	0.5	-	50	-	-	5	-	50	-	100	-
10000	-	800	115000	1150	-	-	-	115	5	-	0.5	50	0.5	-	-	-	0.05	10	-	100	-	-	0.1
15000	-	1250	170000	1700	-	-	-	170	10	-	1	100	1	-	-	-	0.1	20	-	200	-	-	0.2
20000	-	2000	220000	2200	-	-	-	220	10	-	1	100	1	-	-	-	0.1	20	-	200	-	-	0.2
50000	-	4000	570000	5700	-	-	-	580	20	-	2	200	2	-	-	-	0.5	50	-	500	-	-	1
100000	-	8000	-	11500	-	-	-	1150	50	-	5	-	5	-	-	-	0.5	100	-	-	10	-	1
150000	-	12500	-	17000	-	-	-	1700	100	-	10	-	10	-	-	-	1	200	-	-	20	-	2
200000	-	15000	-	22000	-	-	-	2200	100	-	10	-	10	-	-	-	1	200	-	-	20	-	2
500000	-	40000	-	57000	-	-	-	5800	200	-	20	-	20	-	-	-	5	400	-	-	50	-	10