

Digital force gauge

DPZS series

Separate sensor model



[Application]

- Measuring of bonding or soldering strength of electronic parts
- Measuring of contact press of touch panel or keyboard
- Measuring of push/pull force of connector pin or slide cap
- Pull testing of pull top can or noodle container lid

[Feature]

- The measured force can be displayed, stored in memory, or output using Imada's load cell (sold separately or standard set).
- Combining with various load cells suited for specific needs, it makes possible for DPZS series to measure in a small area or in a dangerous area where measuring objects may be spreading. DPZ series is unable to use in such areas.
- DPZS series responds to a rapid change of measuring force with the improved responsiveness comparing to DPX-DPU series.
- LED warning is displayed when it is overloaded.
- It equips with the comparator function (setting upper/lower limits) and the data memory function for analyzing measured results.

[DPZS series Available models]

Measuring units	kgf / N / lb or g / N / oz (Selectable)
Display	4 digits LCD, Units, Mode, Warning (With reverse display function)
Measuring time	60 times / sec
Display update	10 times / sec
Maximum capacity	Approx. 200% of F.S. (LED flashing beyond 108 %)
A/D converter	16 bit delta sigma system
CPU	8 bit one-chip microprocessor
Accuracy	+/- 0.2% of F.S. with DPU load cell
Battery use time	8 hours of continuous operation
Operating temperature range	0 to +40 degree Celsius
Power supply	Rechargeable NiCad battery pack (4pcs) or AC adapter
Weight	Approx. 520g
Output	Digital (Serial : RS232C) Mitutoyo Digimatic Analog (Approx. +/-2 V F.S.) Comparator output (Open collector MAX30V10mA) Overload output (Open collector MAX30V10mA)
Comparator function	LED display for below, within, above set values and output
Memory function	Store up to 960 displayed values at anytime
Reverse display	Reversed display of measured values and measuring unit is selected by a switch operation.
External connecting switch	Display hold, Zero clear
Overload warning	LED flashing and output of warning signal at 108% of F.S.
Standard accessory	Load cell DPU series Attachment 8 types (Load cell DPU-2N to 500N) Attachment 6 types, 8 pcs (Load cell DPU-1000N to 5000N) AC adapter (100V, 120V, 230V available) Note 1) Carrying case

Note 1) There are three types of voltage adapters available as commercial power supply varies in the area where the gauge is used. Please specify the confirmed voltage of the commercial power supply when an order is placed.

[DPZS series Available models]

Mode	Capacity	Display	Resolution
DPZS-DPU-2N	2N(200gf)	2.00N(200.0g)	0.001N(0.1gf)
DPZS- DPU-5N	5N(500gf)	5.000N(500.0g)	0.001N(0.1gf)
DPZS- DPU-20N	20N(2kgf)	20.00N(2.000kg)	0.01N(1gf)
DPZS- DPU-50N	50N(5kgf)	50.00N(5.000kg)	0.01N(1gf)
DPZS-DPU-100N	100N(10kgf)	100.0N(10.00kg)	0.1N(10gf)
DPZS- DPU-200N	200N(20kgf)	200.0N(20.00kg)	0.1N(10gf)
DPZS- DPU-500N	500N(50kgf)	500.0N(50.00kg)	0.1N(10gf)
DPZS- DPU-1000N	1000N(100kgf)	1000N(100.0kg)	1N(100gf)
DPZS- DPU-2000N	2000N(200kgf)	2000N(200.0kg)	1N(100gf)
DPZS- DPU-5000N	5000N(500kgf)	5000N(500.0kg)	1N(100gf)
DPZS- DPU-10kN	10kN(1000kgf)	10.00N(1000kg)	0.01kN(1kgf)
DPZS- DPU-20kN	20kN(2000kgf)	20.00N(2000kg)	0.01kN(1kgf)

[Model specification]

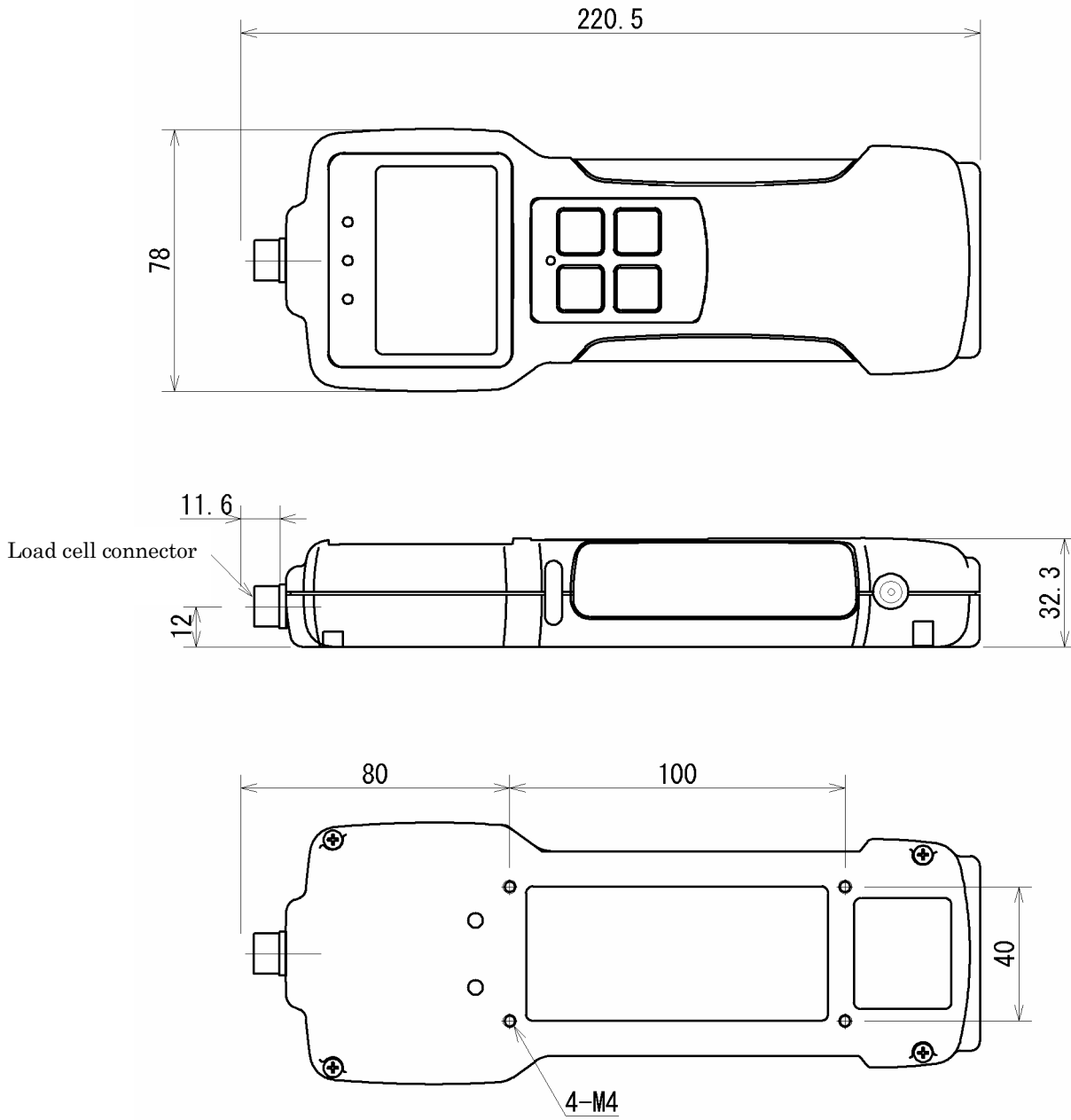
Please specify a load cell model following (DPZS-).

Imada's load cell other than the standard set can also be selected.

Please refer to load cell specification for detail.

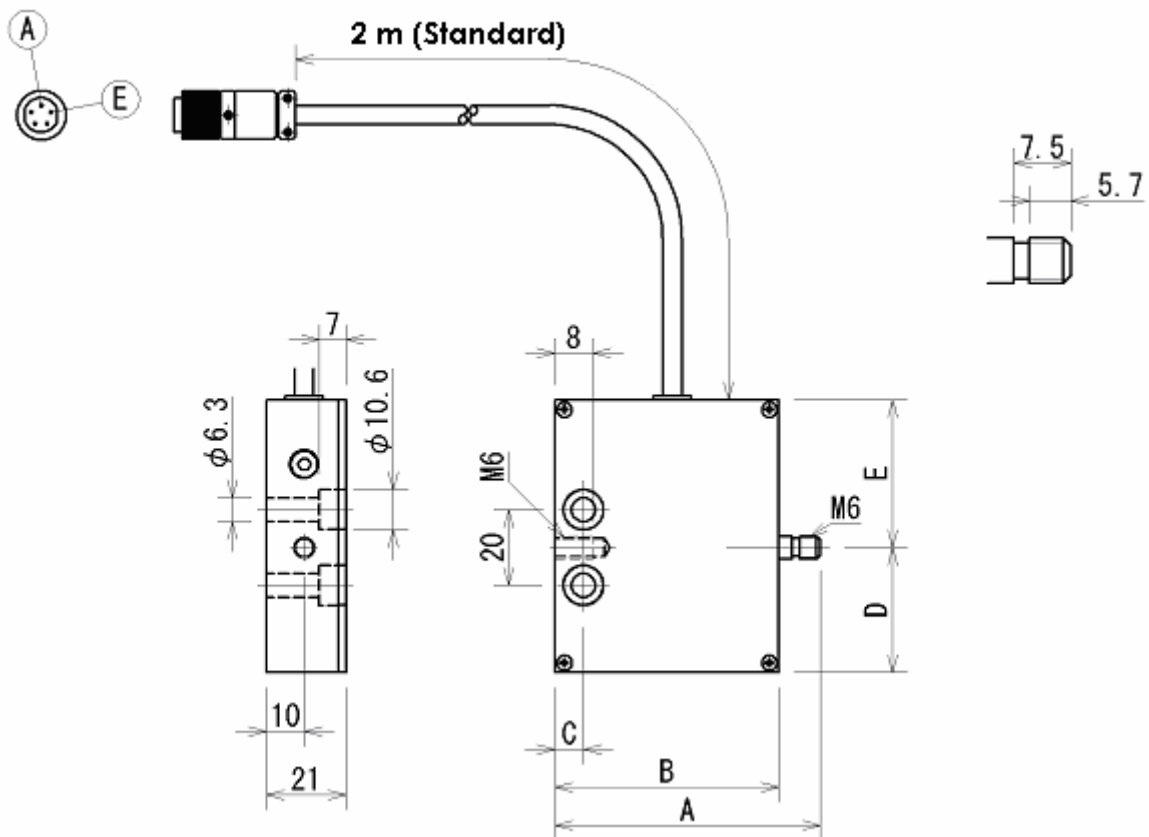
[Dimensional drawing]

DPZS series



Load cell DPU series

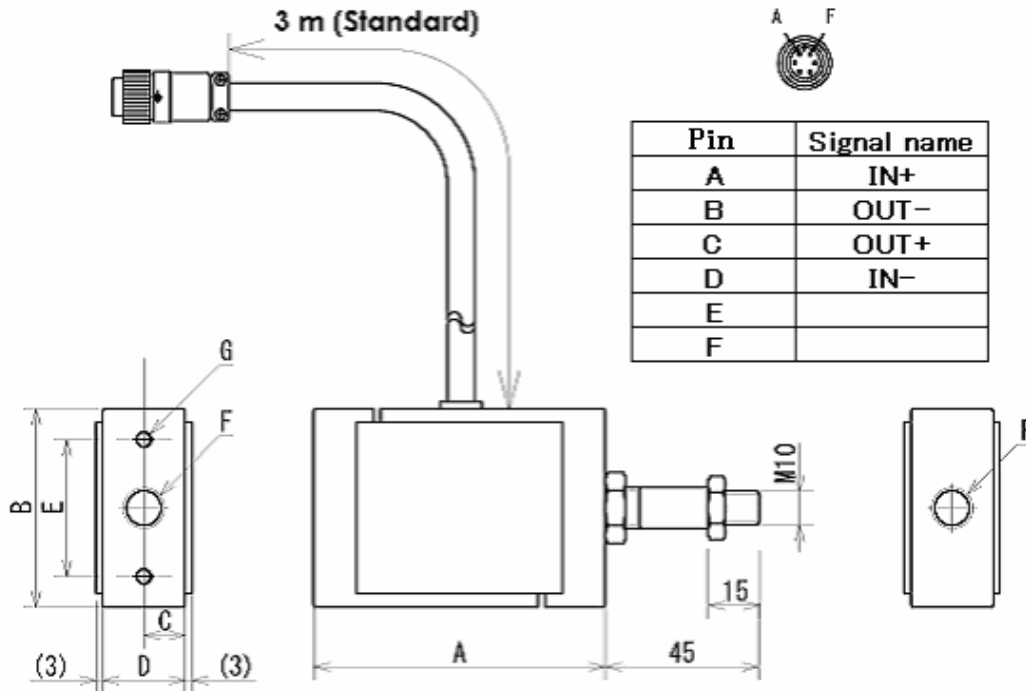
DPU-2N to 500N series



Pin	Signal name
A	IN+
B	OUT-
C	OUT+
D	IN-
E	

Model	A	B	C	D	E
DPU-2N	71	57	12	26	32
DPU-5N	71	57	12	26	32
DPU-10N	71	57	12	26	32
DPU-20N	73	59	7.5	33	39
DPU-50N	73	59	7.5	33	39
DPU-100N	73	59	7.5	33	39
DPU-200N	73	59	7.5	33	39
DPU-500N	73	59	7.5	33	39

DPU-1000N to 20kN series



Model	A	B	C	D	E	F	G	Remark
DPU-1000N	85	58	12	24	40	M12 Depth 15	M5 Depth 8	With the sensing shaft
DPU-2000N	85	58	12	24	40	M12 Depth 15	M5 Depth 8	With the sensing shaft
DPU-5000N	85	58	12	24	40	M12 Depth 15	M5 Depth 8	With the sensing shaft
DPU-10kN	105	78	18	36	60	M18 P1.5 Depth 22	M6 Depth 10	Without the sensing shaft
DPU-20kN	115	88	20	40	60	M18 P1.5 Depth 22	M6 Depth 10	Without the sensing shaft

For other load cells, please refer to their specification for detail.

[Precautions]

- Whether the power is ON or OFF, do not apply excess force, torque, or impact on the sensing shaft.
- Do not use the gauge in the condition of rapid temperature changes, high temperature, high humidity, near water and dusty place.
- The gauge needs to be kept in the exclusive carrying case when it is not used.
- The use of Imada's test stand makes measuring more stable.
- All information is subject to change without prior notice.