



Load Cell Sensor for Gear Shift

SEN_LC150

The sensors have been designed for measurement the compression and the tension forces applied by the rider to change the gears, in professional motorsport racing Motorbike. The product can be connected to the Data acquisition system or to the Engine Control Management as well. An autosport wired connector type can be available as customer dedicated version. The features of product like its frequency response and the temperature compensation and others, suggest the use to the hi-level application, or where a high resolution measures are required. The version to be used in JUNIOR GP M2 for a plug & play to the wiring Harness CBL0006, has a dedicated PN and wires length.

For more informations, please contact :

All values refer to standard conditions (20°C, 100 KPa)
Sometimes, MecTronik can changes the data without notice

MecTronik S.r.l. - Via dell'artigianato, 5 - 37053 - Cerea (VR)

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TECHNICAL SPECIFICS

RANGE	+/- 1500	N
OVERLOAD	+/- 1750	N
ACCURACY	<1%	%
SUPPLY VOLTAGE	5.....24	V
SUPPLY CURRENT	24	mA
ANALOG OUTPUT	0.....5	V
OFFSET	2.5 (+/- 25mV)	V
SENSITIVITY	1.483	mV/N
THERMAL EFFECTS	+/-0,01% FS/°	%
MATERIAL	STAINLESS STEEL AND ALLUMINIUM	
WEIGHT	35	g
PROTECTION	IP67	
VIBRATION	MIL – STD-810C, curveL, 20G	G
OPERATING TEMP	-20.....+125	°C
COMPENSATED TEMP	-10.....+125	

CALIBRATION TABLE

FORCE (N)	OUTPUT (V)	
-1500	0,3	*NOTE
0	2,5	
+1500	4,7	*NOTE

The voltage is increased during the compression of the sensor

Sensor Gain	600	N/V
Sensor Offset	2,5 (+/- 25mV)	V

***NOTE:** Check the correct Values into the calibration Sheet of the single Product. Small differences between products should be corrected in function of the Data reported in the calibration document.

CABLE - COLOURS WIRES - PINOUT

3x26AWG - SPEC 55 TYCO WITH DR25 SLEEVE

FOR PRD0071 ONLY – JST 04T-JWPF-VSLE-S

COLOUR	FUNCTION	JST PIN
RED	SUPPLY	3
BLUE	GND	1
WHITE	ANALOG OUTPUT	2
	N.C.	4

Mating Part to be used in wiring harness : JST - 04R-JWPF-VSLE-S

COMMERCIAL INFO

SHORT NAME	RANGE	ORDER CODE
SEN LC150	+/- 1500N	PRD0071
SEN_LC150-MT2	+/- 1500N	PRD0072

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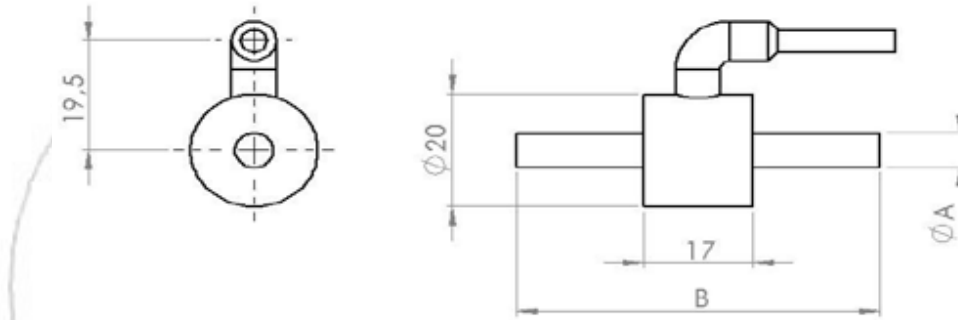
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DIMENSIONS



THREAD

ØA = M8 - RIGHT+LEFT HAND THREAD

CABLE LENGTH

SHORT NAME	ORDER CODE	CABLE LENGTH
SEN_LC150	PRD0071	600mm ***
SEN_LC150-MT2	PRD0072	300mm

*** FREE WIRES

NOTES :

THE SENSOR IT'S DESIGNED FOR DATA RECORDING. IF USER WANTS TO USE IT IN ACTIVE CONTROL SYSTEM, HE MUST ASSUME ALL RESPONSIBILITY AND MUST VALIDATE THE PRODUCTS AND THE APPLICATION OF THE RULES OF SAFETY, INDIPENDENTLY.

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CALIBRATION SHEET

Date : _____

SENSOR SN. _____

LAYOUT INSPECTION :

FAIL

PASS

PINOUT INSPECTION :

FAIL

PASS

CALIBRATION DATA :

	Value	Volts	Note
OFFSET			
+1500 N			Compression
-1500 N			Tension

Signature

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