SCANRECO
Radio Remote Control

Spare part data sheet

Code (SAP No.)	
Item no	47600
Description	Manuever Lever / Black L2

Product description:
Manuever Lever L2

Illustrations:

SCANRECO
Radio Remote Control

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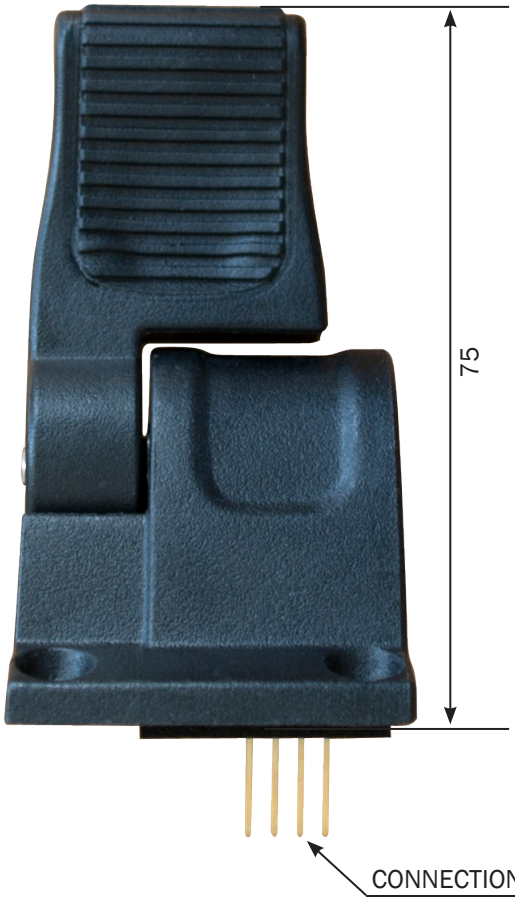
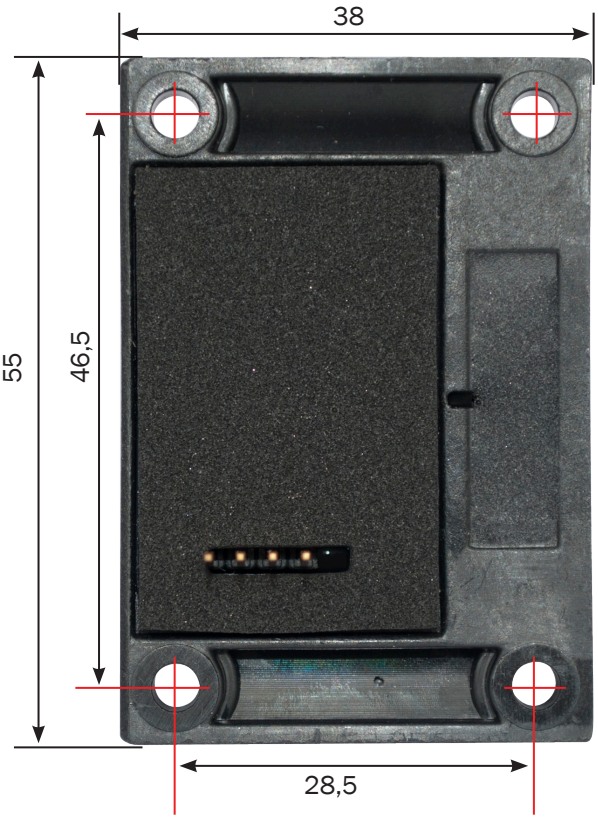




Introduction of L2.

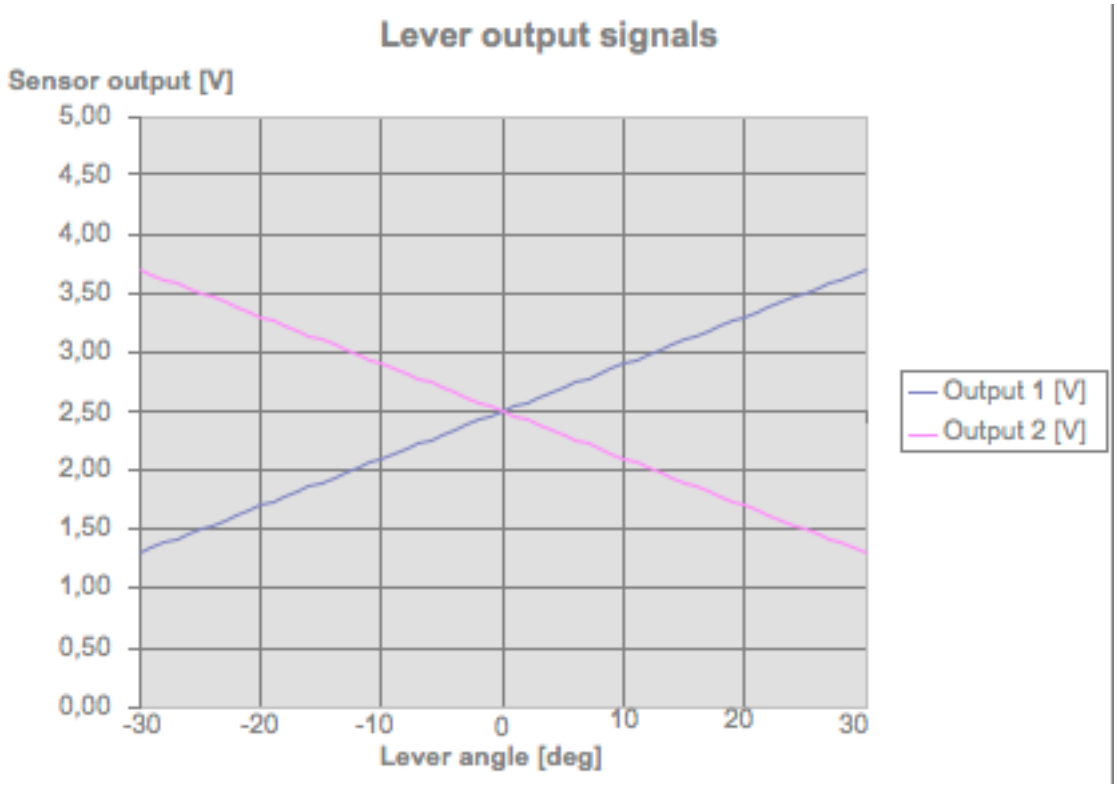
Developed for applications where ergonomics and system integrity are paramount, the L2 is an compact, low profile linear lever that provides smooth, precise fingertip control in one axis. The L2 is sealed to IP67 to enable it to operate in extreme environments. With all the components contained within the handle it is ideal for mounting in low profile panels and arm rests. Installation time has been reduced through the use of a standard electronic connector, and the linear lever has been designed for maintenance-free operation.
Typical applications include remote control chest packs and the control of cranes and machines for heavy duty industrial applications, mobile hydraulic, offshore applications, or material handling equipment.

Mechanical Design

Mechanical dimensions	
Maximum height	74.5 mm
Dimension base plate	38 x 55 mm
Mounting hole	Four 3.5mm in 46 x 29 mm
Weight	≤ 58 g
Number of axis	One
Lever action	Spring return to centre (±0.5°)
Maximum play (centre position)	±0.5°
Deflection	±30° ±1°
Lever spring breakout force	Approx. 1.0N ±10% (Measured on the top of lever)
Lever spring force (end position)	Approx. 3.5N ±10% (Measured on the top of lever)
Material	Plastic

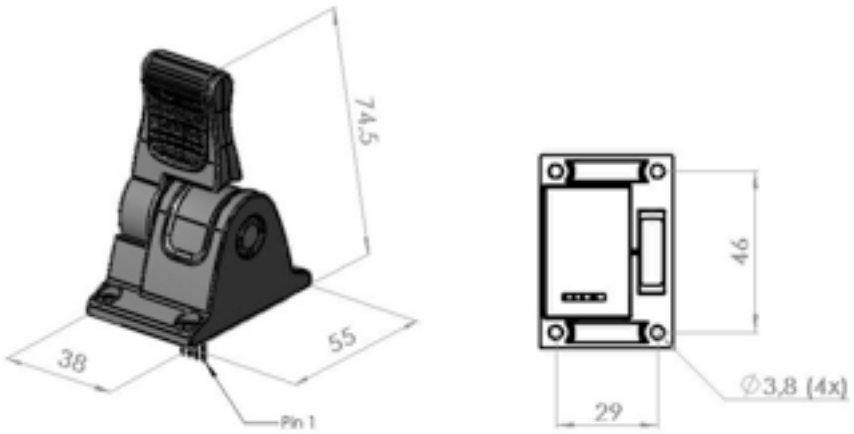
Electrical Design

Short circuit protection	Outputs shall be short circuit protected.
Output voltage 1 in zero position	2.50V ±60mV (Opposite polarity to output 2)
Output voltage 2 in zero position	2.50V ±60mV (Opposite polarity to output 1)
Output voltage 1 in + 3° position	2.60V ±60mV (Opposite polarity to output 2)
Output voltage 2 in + 3° position	2.60V ±60mV (Opposite polarity to output 1)
Output voltage 1 in - 3° position	2.40V ±60mV (Opposite polarity to output 2)
Output voltage 2 in - 3° position	2.40V ±60mV (Opposite polarity to output 1)
Output voltage 1 in max position	3.60V + 100mV - 60mV(Opposite polarity to output 2)
Output voltage 2 in max position	1.40V + 60mV - 100mV (Opposite polarity to output 1)
Output voltage 1 in min position	1.40V + 60mV - 100mV (Opposite polarity to output 2)
Output voltage 2 in min position	3.60V + 100mV - 60mV(Opposite polarity to output 1)
Output sum (Output 1 + Output 2)	Supply voltage ± 4%



Output voltage is proportional to supply voltage. Defined output voltage above is specified with supply voltage +5.0V ±1%.

Sink/source capability	±10mA (Without output deviation)
Supply voltage	5 V ± 5%
Current consumption	13.5mA ±10%
Power on time	< 100µs (output within ±10%)
Linearity deviation	<1% (of signal at full deflection) deviation from ideal straight line.
Connector	4-pin male (2,54 mm spacing)



Pin1: +5V
Pin2: GND
Pin3: Output voltage 1
Pin4: Output voltage 2

Operating Life

Operating life (Allowing ±1.5 degrees play in zero position)	>5 million operations
Mechanical life (Allowing ±2.9 degrees play in zero position)	>15 million operations
Reliability	Max 1‰ faulty units after 2 years of normal use.

Environment

Operating temperature (full function)	-40°C to +80°C
Storage temperature	-40°C to +80°C
Environmental protection	IP67 (above mounting panel)
EMC Immunity level	>100 V/m
EMC Radiated emission	EN55022 Class B
ESD Immunity level	>14 kV air, >8kV contact, according to IEC 61000-4-2
Electromagnetic fields	±30mT homogeneous magnet field measured on the top of lever at right angel to mounting plate.
Free fall	1 m concrete IEC 60068-2-32
Chock, handling	IEC 60068-2-31, procedure 1
Salt spray	Scanreco cycle +2/+60 C, (10+10min) x 150