

Application

IQAN-LM

IQAN-LM is especially suitable for continuous duty machine operations such as in forestry and construction work. The combination of a mini lever and armrest provide substantial ergonomic benefits.

IQAN-LL

IQAN-LL is designed for rough handling. The ergonomic design gives good support to the arms and wrists and assures a comfortable grip from several angles. The design allows operators to quickly become familiar with the lever.

Design and function

Both levers are designed for in-cab use, one type for connection to both 12 VDC and 24 VDC systems. All inputs and outputs are protected against short circuit to ground and to main power supply.

The IQAN levers are connected to other modules through a CAN bus which makes data exchange more efficient, simplifies installation and increases noise immunity.

A number of different handle types are available. A LED indicator shows supply voltage and internal operation.

The lever units are lightweight with small installation dimensions and have low, well-adapted actuating forces.

All proportional inputs are of contactless inductive type with neutral position sensors to provide high safety and reliability.



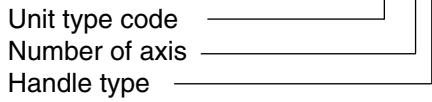
Technical data

IQAN levers

Order code

IQAN-LM

Example IQAN-LM-3D



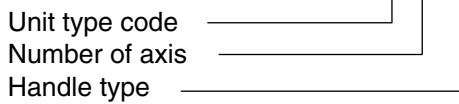
Unit type code: product description
LM - lever mini

Number of axis: 2 - X, Y
3 - X, Y, Z

Handle type: A - diameter 15 mm
D - with rocker for Z axis

IQAN-LL

Example IQAN-LL-2N2T



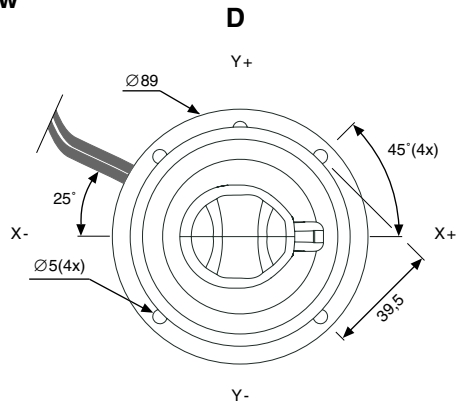
Unit type code: product description
LL - lever large

Number of axis: 2 - X, Y
3 - X, Y, Z

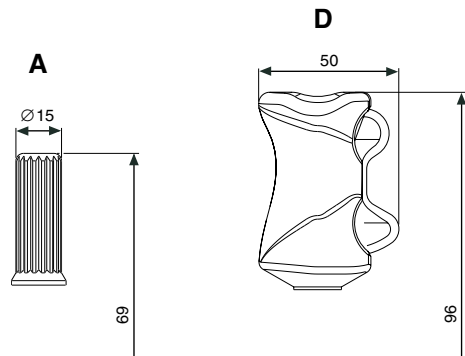
Handle type: E2 - straight handle, 2 buttons
G - with rocker for Z axis
U - without handle
N0 - banana-shaped handle, no buttons
N2 - banana-shaped handle, 2 buttons
N2T - banana-shaped handle, 2 buttons, trigger switch
N4 - banana-shaped handle, 4 buttons

IQAN-LM

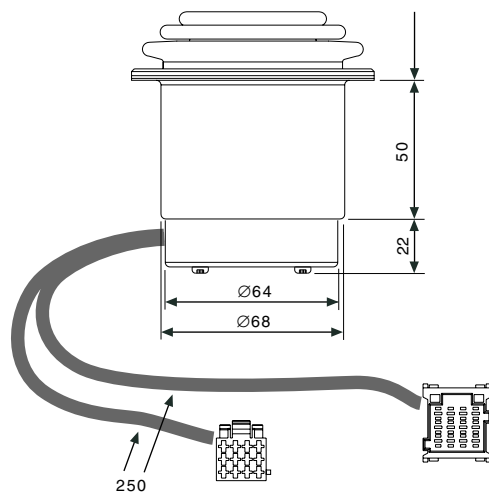
Top view



Handle types

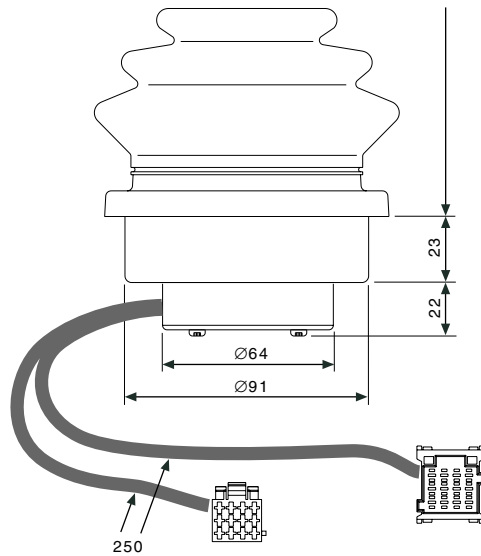
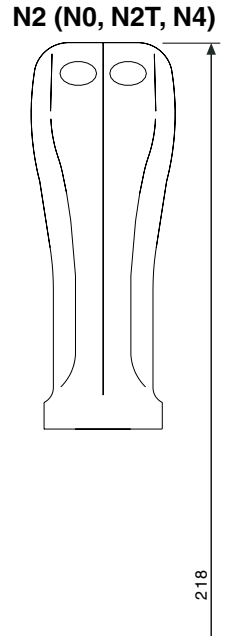
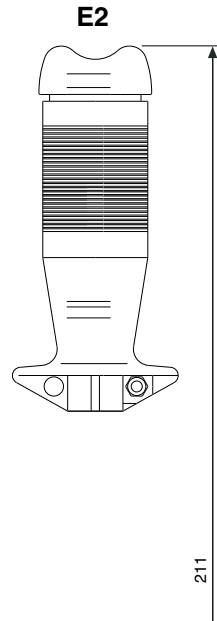
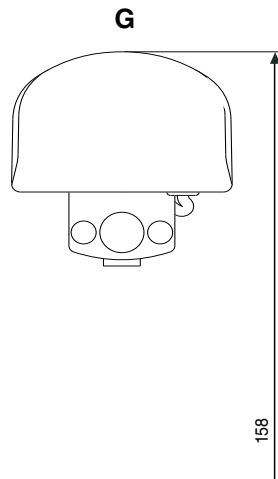
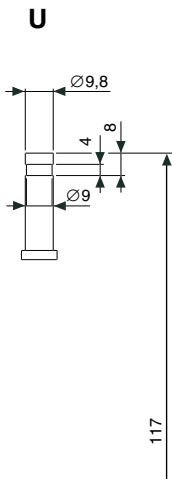
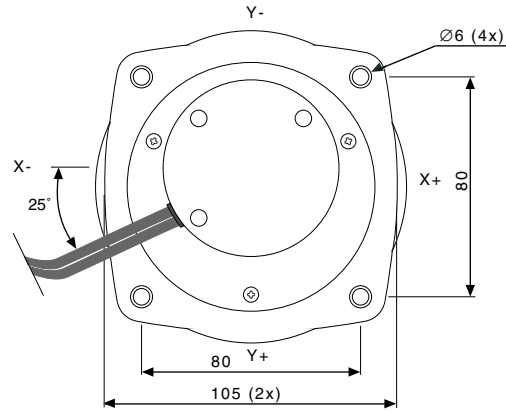


Base unit



IQAN-LL

Bottom view



Technical data**IQAN levers****General**

Weight	LM 0,4 Kg, LL 0,9 Kg
Rated power supply	12 – 24 VDC
Min/max power	9 / 32 VDC
Operating temperature	-30 to +70 °C
Protection	in-cab use IP65 (type A) IP44 (type D)
Current consumption (idle)	57 mA (28 VDC), 46 mA (14 VDC)
Data interface	Parker ICP (IQAN CAN Protocol)

Axis sensors

Number	max 3 pcs, inductive
Resolution	9 bit

Neutral position detection

Signal	IR-sensor, on/off
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Digital inputs

Number	10 pcs, 4 internal, 6 external (may differ according to handle)
Signal range	0 – 5 VDC 0 – 32 VDC
Active range	"0" = 0,0 – 1,0 VDC, "1" = 2,0 – 32,0 VDC

Analog inputs

Number	2 pcs
Signal range	0 – 5 VDC 0 – 32 VDC
Active range	0,5 – 4,5 VDC
Resolution	5 mV

Digital outputs

Number	1 pc (on behalf of 1 digital input)
Signal	200 mA

Environmental Protection**EMI**

ISO 11452-2 (immunity vs EM field)
ISO 14982 (radiated emission)
ISO 11452-4 (immunity vs injected RF)
ISO 7637-2 (immunity vs supply transients)

ESD

EN 61000-4-2

Mechanical environment

IEC 68-2-64 Fh (random)
IEC 68-2-27 Es (shock)
IEC 68-2-29 Eb (bump)

Climate environment

IEC 68-2-18 Rb3 (water)
IEC 68-2-30 Db (var1, damp, cyclic)
IEC 68-2-3 Ca (damp, heat steady state)
IEC 68-2-2 Bb (heat)
IEC 68-2-1 Ab (cold)
IEC 68-2-14 Nb (change of temperature)

