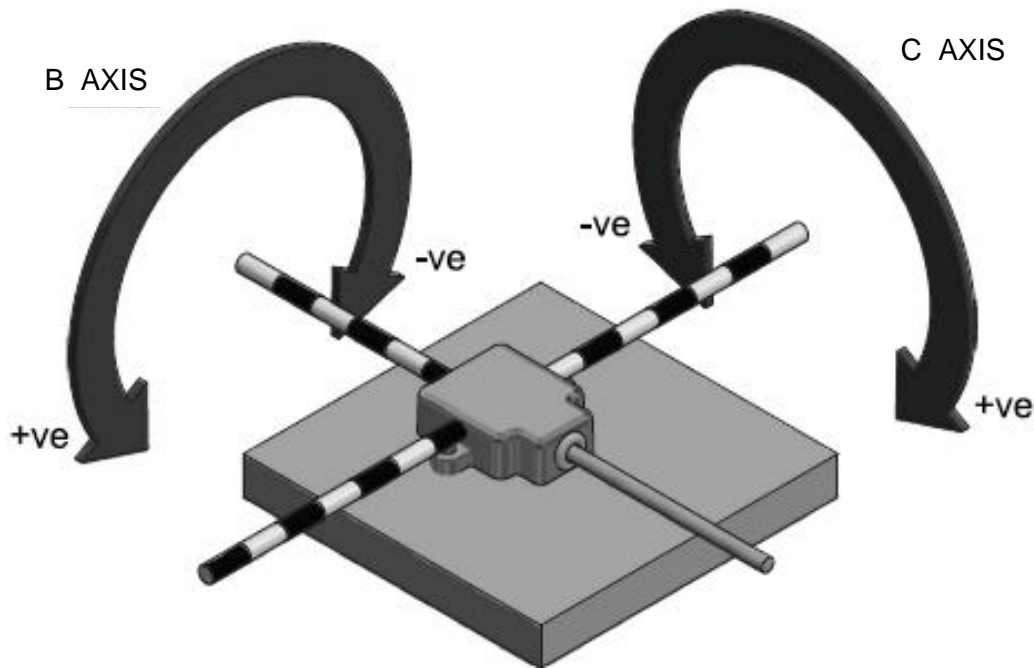


PITCH & YAW SENSOR for Smart-Arm TOOL HOLDERS

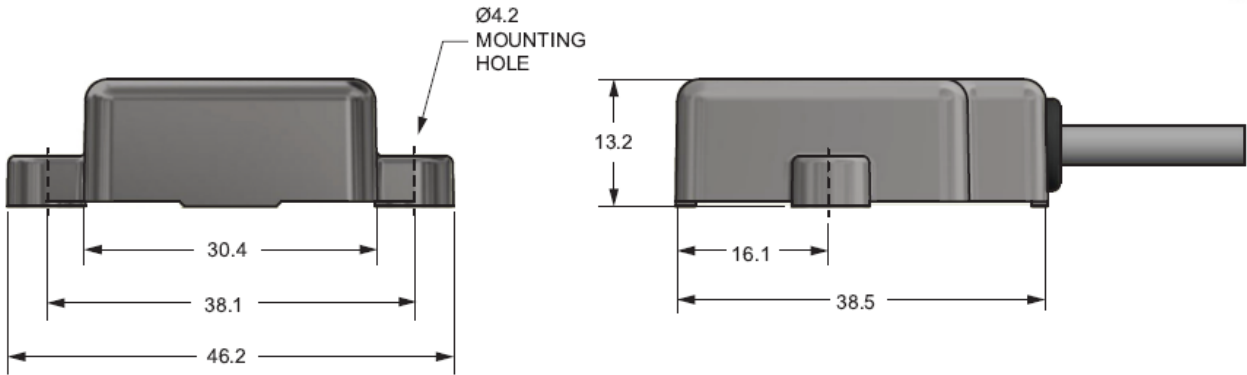
ETA pitch & yaw sensors models BC-AV and BC-AM measure tilt in 2 directions off the horizontal plane. We are calling these 2 axis B and C. When driving fasteners on angles off-vertical with ETA Smart-Arms, this sensor can be incorporated into the tool holder to provide position feedback on the tool angle. Combined with X and Y position feedback, any errors in location or axial alignment can be eliminated. BC sensors are all solid-state, MEMs devices designed to measure 2 axis tilt ($\pm 85^\circ$) in one small rugged sensor, while reporting the data within 0.3 degrees accuracy in analog outputs of 0.5 – 9.5 V DC (BC-AV) or 4 – 20mA (BC-AM). The BC sensor features a miniature metal housing and is epoxy encapsulated for vibration, water and dust resistance. It has an environmental rating up to IP 69K. Working temperature range is -40 to 85° C with a maximum temperature drift of $\pm 1^\circ$. The BC sensor is precisely calibrated to remove non-linearity in the sensing range. It comes with a short cable and a 12mm 4-pin female connector to match ETA analog encoders and Z axis sensors.



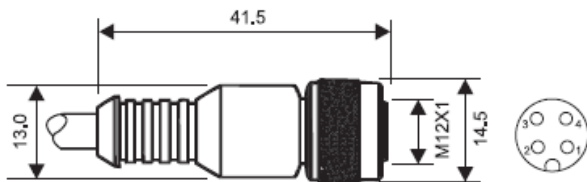
Mounted on Horizontal Surface



Dimensional Data - ALL DIMS IN MILLIMETERS



12mm female molded locking connector



Electrical Data

Accuracy @ 20°C	0.3°
Environmental Protection	Up to IP 69K
Materials	Housing: Zinc die-cast Housing Finish: Black powder coat
Number of Axis	2
Output Current	10 mA Maximum (Voltage Output Units)
Output Format	Analog
Output Type	0.5 to 9.5 VDC (model BC-AV) 4-20 mA (model BC – AM)
Range	+/- 85°
Supply Voltage	12-24 VDC
Temperature Drift	+/- 1° Maximum
Temperature Range	-40° to +85°C
Cable Type	PVC (PUR on request. Consult Factory)
Wire Gauge	24 AWG