

Technical Information

Sensor

MCX120A String Potentiometer (Yo-Yo) Sensor



Revision history*Table of revisions*

Date	Changed	Rev
September 2015	Conversion to Danfoss layout	DA
July 2013	Feature and Options list and Dimension drawing	CA
March 2011	Added PLUS+1® Compliant	BB
January 2011	Connection diagram	BA
January 2011	Typo	AB
January 2011	Replaces BLN-96-9242-E	AA

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Technical Information MCX120A String Potentiometer (Yo-Yo) Sensor

Overview
Description

The MCX120 String Potentiometer (Yo-Yo) Sensor uses a 10-turn potentiometer as the sensing element for length measurement. It is designed for use as a feedback sensor in for example measuring the cutting depth of a planer.

Features

- Rugged housing
- Easy to install
- Internal "Snap-Back" protection
- MS connector
- Length measurement up to 400 mm
- Moisture and corrosion resistant
- Withstands vibration and shock

Ordering information
Reference

Part number	Total resistance	Connector
500394	1 k Ω	6 pin MS

Theory of operation

The sensor consists of a 10-turn potentiometer, a spring mechanism and a spooled steel cable.

The potentiometer with a total resistance of 1 k Ω (\pm 10 %) converts the cable length into a usable electrical signal.

With the complete retracted cable the resistance between B and C is about 800 Ω , during pulling the cable the resistance is reduced down to minimum about 300 Ω .

The calibration of the sensor is done in the connected control unit.

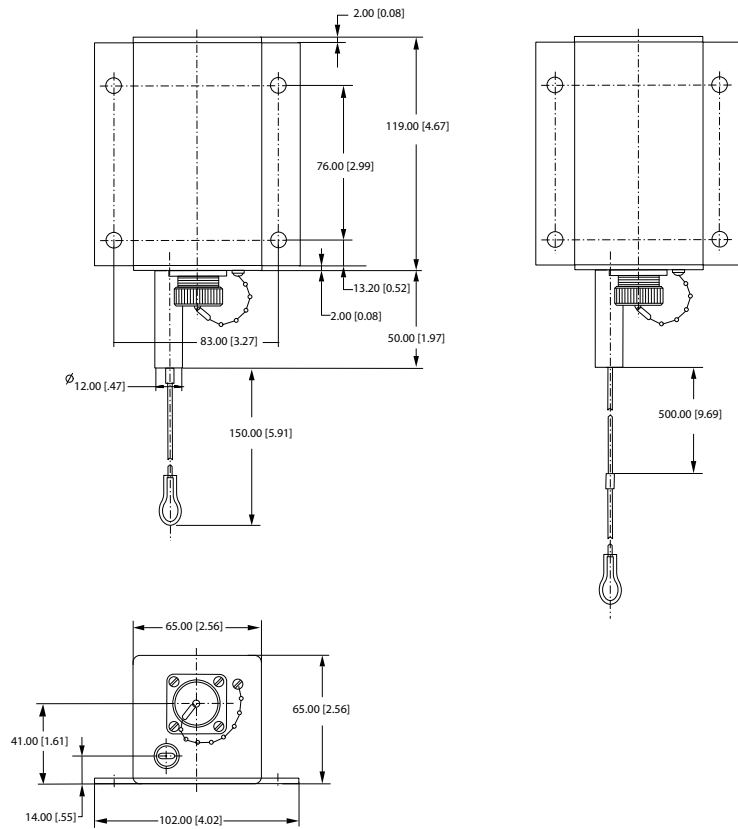
Technical data**Electrical***Specifications*

Input voltage	4.5 to 12 Vdc
Resistance tolerance	± 10 % related to RTOTAL
Linearity	± 0,2 %
Load 2W	70° C (158° F)

Installation

Dimensions

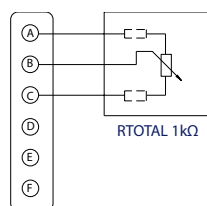
MCX120A String Potentiometer (Yo-Yo) Sensor: Retracted; and Extended



Technical Information MCX120A String Potentiometer (Yo-Yo) Sensor

Installation
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Part Number	Type	Cable length
KW01009	Unshielded	2 to 10 ft
KW01026	Shielded	2 to 10 ft

Wiring
Connection diagram


P200 048



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