DS600

Non-Contact, Single Probe Double Sheet Detector for Non-Ferrous Metals

A COMPLETE SYSTEM REQUIRES:

Control: DS600 (Qty 1)
Probe: P80T30P (Qty 1)
Cable: CBL600-5 or CBL600-15 (Qty 1)
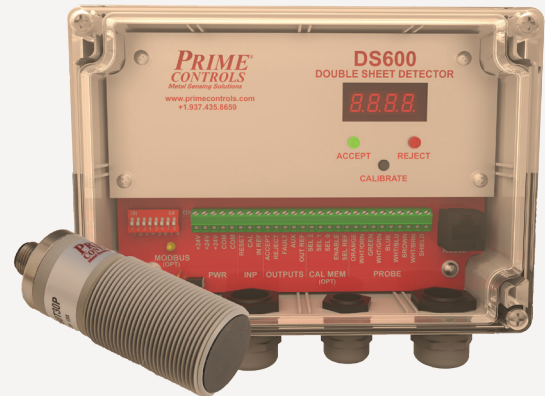*Mounting bracket and nose available if needed.*
**Gateway available for Premium^PLUS models with industrial communications

FEATURES:

- Single non-contact probe
- One-button and remote calibration
- Detects wide range metal thickness
- Well suited for automation and robotic applications
- Calibration memory
  (available with Premium & Premium^PLUS models)
- Modbus communication
  (available with Premium^PLUS model)

ABOUT THE DS600:

Meet the newest addition to our line of Double Sheet Detection controls. The DS600 system paired with a non-contact single probe sensor detects non-ferrous metals (such as 300 Series Stainless Steel and Aluminum) with thicknesses ranging from .025mm-3.81mm (.001"-.150"). By measuring the effects of eddy currents on the non-ferrous metal near its face, the DS600 is able to detect the metal thickness and prevent double sheets or improper thickness from entering machines – ultimately diminishing costly repairs and downtime. This is especially important for automotive metal stampers, where the industry is utilizing more and more non-ferrous metals to reduce the weight of vehicles. Unlike other single probe double sheet detectors on the market, the DS600 system does not need to make contact with the metal it measures helping to avoid surface defects to the product.

Housed in an IP65-rated enclosure, the DS600 unit is thoroughly protected in the typical shop floor environment. This system is well suited for automation applications such as robotics, automated de-stackers, sheet feeders and in-fixture (Poke-A-Yoke) where sensing from only one side is possible.

For applications that require more than simply detecting single or double sheets, we offer Premium systems with additional features.

DS600 PREMIUM

The DS600 Premium is a hands-off product that includes an eight-slot calibration memory feature, easily selected through discrete I/O, for quick change-overs with no recalibration required. This model also provides threshold adjustments and variable timing during the detection process for better gauging of metal thickness and more defined measurements.
Model: DS600-P

DS600 PREMIUM^PLUS

With all the features of the DS600 Premium, the DS600 Premium^PLUS also offers additional memory (64-slot calibration memory), memory backup and industrial communications capabilities to get the most out of the Double Sheet Detector.
Model: DS600-PC

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PRIME CONTROLS
Metal Sensing Solutions

METAL SENSITIVITY:
Non-Ferrous Metals
(300 Series Stainless Steel, Aluminum, Brass, etc.)

THICKNESS RANGE:
.025mm-3.81mm (.001"-.150")

CAPABILITIES:
Single/double sheet detection, part present detection, local or remote calibration, up to 64 stored calibrations, variable output delay, source or sink inputs and outputs

DISPLAY:
Four-digit seven-segment display
Accept, reject, communication LEDs

CONNECTIONS:
Industrial 35º, 3.81mm pitch, screw connect terminal blocks
Five position M12, A-coded circular communication connector

INPUTS:
All inputs may be sourcing or sinking
RESET - Clear double detect
CALIBRATE - Initiate remote calibration

OUTPUTS:
All outputs may be sourcing or sinking
ACCEPT - Single sheet detected
REJECT - Double sheet detected
FAULT - Fault detected
AUX - Auxiliary, reserved

CALIBRATION MEMORY SELECT INPUTS (OPTIONAL):
SEL0-2 - Select between eight unique calibration settings
ENABLE - Enable memory selection

COMMUNICATION (OPTIONAL):
MODBUS - Modbus RTU serial communication

POWER:
+22-26 VDC, 250mA

HOUSING:
IP65, NEMA 1, 2, 3, 4, 4x, 12, 13
Back mount, polycarbonate design

DIMENSIONS:
171mm x 121mm x 42mm

MOUNTING:
Four .172" diameter through holes with .313" counter bores
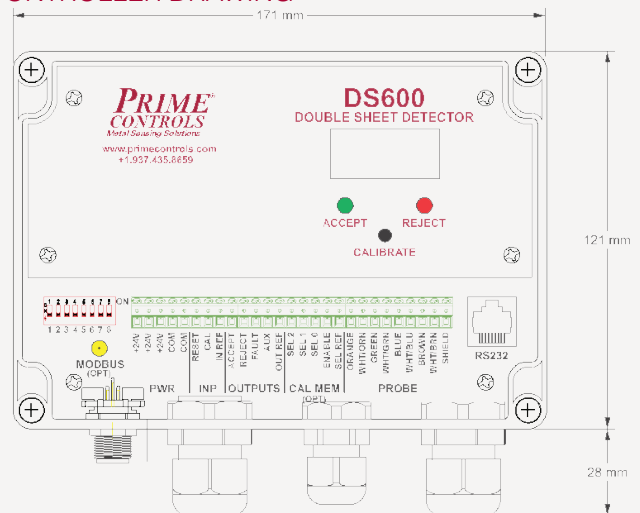
PROBE:
P80T30P, 30mm PVC threaded body

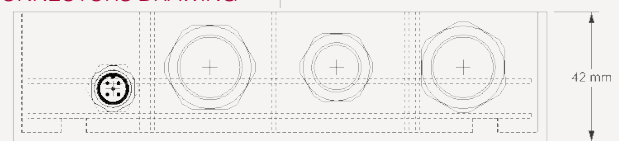## PROBE BRACKET:
BR30PL Spring loaded bracket

CABLES:
CBL600-5 5m, CBL600-15 15m *(custom lengths available)*
High-flex PUR cable

CONTROLLER DRAWING

CONNECTORS DRAWING

PROBE DRAWING

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