

SENSORS FOR SHEETMETAL APPLICATIONS

Double-sheet detection is an important part of quality control to prevent two or more sheets of metal from entering metal processing machines at one time. Failure to detect double sheets of metal or double blanks can damage tools and dies, resulting in costly repairs and downtime. While many solutions are in the market none are easy to setup and operate as the Swiss-engineered **Contrinex DW-618** series Double Sheet Detector.

The Contrinex Double Sheet Detector deploys the patented Condet® technology to effectively discriminate between one and two sheets of steel of defined thickness. This discrimination aids in the prevention of double feeds into blanking and forming processes which ultimately prevents damage to destackers, robot loaders and press feeders.



Sensing Range	3 mm - 5 mm
Sensitivity	0.8 mm - 1.2 mm per sheet
Voltage	10 – 30 VDC
Output	200 mA/PNP/N. O.
Temperature	-13F to +158F
Power Up Delay	10 msec
Switching Frequency	100 Hz
Degree of Protection	IP 67 & 69k
Short Ckt. Protected	Yes
Rev. Polarity Protected	Yes
Pressure Resistant	40 bars
LED Indication	Yes, 360 degree viewable
Housing (including face)	Stainless Steel (304)
Connection	Euro style 12mm connector

Further, this systems is embedded in a nearly indestructible one-piece 304 stainless housing. Unlike competitive solutions that require an additional controller and/or multiple probe heads to function, the Contrinex solution is completely self-contained in a compact M30 barrel. No cumbersome programming required. The sensor activation is non-contact, however the robust design prevents internal damage from accidental impact that is very common in stamping and gripper applications.

Part Number: DW-AS-713-M30-618

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Space constraints often limit prox sensors in **Gripper Pads, Stamping Dies** and **End-of-Arm Tooling**. In these low-profile applications it is critical to confirm the presence of the part before processing the next step. Failure to confirm the existence of the part results in misloading, incorrect welds and fixture damage. While other solutions exist in the market they typically feature a plastic contact face which quickly wears out in such hostile environments. In fact, it is estimated that nearly 70% of proximity sensor failures are a result of direct impact to the face.



The Swiss company Contrinex has developed an innovative solution found in its full-stainless **C23 Flat Pack** sensor. The Contrinex C23 Flat Pack deploys the patented Condet® technology to detect metallic objects *through* a nearly indestructible stainless contact face. Most importantly it does this without any loss of range, allowing for flexibility and variability in position.

Not only is this little sensor the most rugged of its kind, it is also programmable using the IO-Link protocol. IO-Link works on all existing industrial networks and allows configuration such as; normally open or closed, trigger delay, cycle counting and temperature check.

Part Numbers: DW-AD-701-C23, DW-AV-701-C23-276, DW-AD-703-C23, DW-AV-703-C23-276

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Weld-immune inductive sensors are designed for use near weld-sensing applications. These presence and proximity sensors are installed in harsh welding environments are exposed to strong magnetic fields, high heat, sparks and weld slag.

Sheetmetal welding is a standard operation and is highly automated. Given the danger to workers, these robotic cells rely on an advanced sensor network to control timing and placement of the workpieces without any human involvement.



Electromagnetic fields are common to the welding process can cause standard inductive sensors to fail. Fortunately, the Contrinex **DW-661** and **DW-673** series feature magnetic-field-immune electronics that allows the sensor to function without false signals in these environments, ensuring accurate Factor 1 detection of steel and aluminum sheetmetal targets.

In addition, these sensors feature an economical Teflon coating or impact-proof Stainless Steel housing, which allows for simple maintenance and long life.

Part Numbers: DW-AS-703-M*-673, DW-AS-603-M*-661, DW-AS-C44-660

