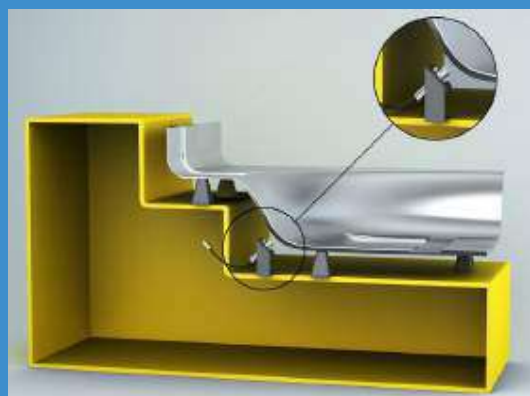




WELD-IMMUNE

INDUCTIVE SENSORS

REVOLUTIONARY PROTECTION FOR LONG LIFE



APPLICATION

Presence sensing ensures correct part placement on welding machine

Weld-Immune inductive sensors ensure that metal panels are correctly located on fixtures prior to welding. The anti-spatter coating, weld-field immunity and impact resistance of these sensors ensure that operation is reliable and downtime negligible, despite the harsh environment. Sensor service-life is increased, while maintenance costs are reduced significantly.

INDUSTRIES

Automotive production and supply,
welding equipment



Welding cell in automotive factory



OEM welding equipment



Automotive production and supply



Welding equipment

Contrinex **Weld-Immune** inductive sensors are ideal for the hostile working environments found in automotive factories and other industrial welding plants. One-piece, stainless-steel construction and best-in-class sensing ranges of up to 16 mm prevent the risk of collision damage. Types with an ACTIVSTONE® coating offer the highest level of weld-spatter resistance, reducing cleaning and maintenance costs.

KEY ADVANTAGES

- ✓ Exceptionally resistant to weld spatter in spot, MIG and MAG applications thanks to Activstone® coating protection
- ✓ Resistant to magnetic interference from medium-frequency weld fields, current up to 15 kA
- ✓ Maximum impact resistance on the Full Inox sensor with one-piece stainless-steel housings and Condet® technology
- ✓ Protection beyond the sensor with coated mounting brackets, spatter-resistant cable and protective tubes

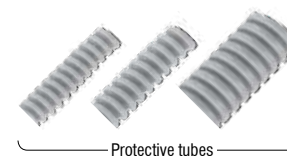
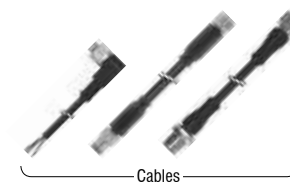


PRODUCT OVERVIEW

IO-Link						
Housing size mm		M8	M12	M18	M30	C23
S _s mm	Full Inox	3	6	10	16	7
	Classics	2	4	8	–	–

ACCESSORIES

Go to pages 100 and 101 to see all the accessories



CHALLENGES



WELD SPATTER

- Reduced sensor performance
- Spatter accumulation
- Difficulty replacing sensors



MAGNETIC FIELDS

- Interference with inductive sensor
- False triggering
- Sensor output locking on



MOVING PARTS

- Mechanical impact with moving workpieces
- Damage to ferrite, electronics and housing
- Frequent machine downtime



ACCESSORIES

For extensive protection, use Activstone® coated mounting brackets, spatter-resistant cables and protective tubes. Uncoated brackets are also available.

SOLUTIONS



ANTI-SPATTER COATING

Activstone® coating on all external surfaces resists weld spatter in spot, MIG and MAG applications.



WELD-FIELD IMMUNITY

Contrinex sensors resist magnetic interference from medium-frequency weld fields, current up to 15 kA.



IMPACT RESISTANCE

With one-piece stainless-steel housings and Condet® technology, Full Inox sensors offer maximum impact resistance.



SENSOR SELECTOR

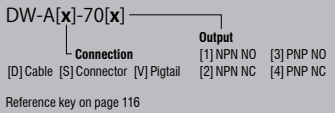
		FULL INOX (SERIES 700)		CLASSICS (SERIES 600)	
		FULL INOX HOUSING + DOUBLE OPERATING DISTANCE		PLASTIC FACE + NORMAL OPERATING DISTANCE	
		COATED	UNCOATED	COATED	UNCOATED
KEY FEATURES	Weld-spatter resistance	✓		✓	
	Magnetic-field immunity	✓	✓	✓	✓
	Impact resistance	✓	✓		
	Long operating distance	✓	✓		
	Factor 1 on steel and aluminum	✓	✓		
SIZE	M8	✓	✓	✓	✓
	M12	✓	✓	✓	✓
	M18	✓	✓	✓	✓
	M30	✓	✓		
	C23	✓			
CONNECTIVITY	Connector M12, 4-pin	✓	✓	✓	✓
	Pigtail M12, 3-pin	✓	✓		
ENCLOSURE RATING	IP67	✓	✓	✓	✓
	IP68	✓	✓		
	IP69K	✓	✓		
HOUSING	Embeddable	✓	✓	✓	✓
	One-piece stainless steel housing	✓	✓		
	Stainless steel housing and plastic sensing face			✓	✓



COMMON FEATURES

Supply Voltage range 10 ... 30 VDC

OUTPUT



ACCESSORIES

Go to pages 100 and 101 for details

FAMILY	OPERATING DISTANCE (mm)	HOUSING SIZE (mm)	HOUSING LENGTH (mm)	HOUSING MATERIAL		CABLE	CONNECTOR	IO-Link	SWITCHING FREQUENCY (Hz)	MOUNTING EMB. / NON-EMB.	AMBIENT TEMPERATURE	DEGREE OF PROTECTION	PART REFERENCE
FULL INOX – SERIES 700 COATED	3	M8	60	Stainless steel V2A			M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AS-703-M8-697
	3	M8	45	Stainless steel V2A		0.2 m PUR	M12		15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-701-M8-696
	3	M8	45	Stainless steel V2A		0.2 m PUR	M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-703-M8-696
	6	M12	60	Stainless steel V2A			M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AS-703-M12-697
	6	M12	50	Stainless steel V2A		0.2 m PUR	M12		15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-701-M12-696
	6	M12	45	Stainless steel V2A		0.2 m PUR	M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-703-M12-696
	10	M18	63.5	Stainless steel V2A			M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AS-703-M18-697
	10	M18	50	Stainless steel V2A		0.2 m PUR	M12		15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-701-M18-696
	10	M18	50	Stainless steel V2A		0.2 m PUR	M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-703-M18-696
	16	M30	63.5	Stainless steel V2A			M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AS-703-M30-697
	16	M30	63.5	Stainless steel V2A		0.2 m PUR	M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-703-M30-696
	16	M30	63.5	Stainless steel V2A		0.2 m PUR	M12		15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-701-M30-696
FULL INOX – SERIES 700 UNCOATED	7	32 × 20 (C23)	8	Stainless steel V2A		0.2 m PUR	M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-703-C23-696
	7	32 × 20 (C23)	8	Stainless steel V2A		0.2 m PUR	M12		15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-701-C23-696
	3	M8	60	Stainless steel V2A			M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AS-703-M8-694
	3	M8	45	Stainless steel V2A		0.2 m PUR	M12		15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-701-M8-695
	3	M8	45	Stainless steel V2A		0.2 m PUR	M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-703-M8-695
	6	M12	60	Stainless steel V2A			M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AS-703-M12-673
	6	M12	50	Stainless steel V2A		0.2 m PUR	M12		15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-701-M12-692
	6	M12	50	Stainless steel V2A		0.2 m PUR	M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-703-M12-695
	10	M18	63.5	Stainless steel V2A			M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AS-703-M18-673
	10	M18	50	Stainless steel V2A		0.2 m PUR	M12		15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-701-M18-692
	10	M18	50	Stainless steel V2A		0.2 m PUR	M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-703-M18-695
	16	M30	63.5	Stainless steel V2A			M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AS-703-M30-673
	16	M30	63.5	Stainless steel V2A		0.2 m PUR	M12	IO-Link	15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-703-M30-695
	16	M30	63.5	Stainless steel V2A		0.2 m PUR	M12		15	Embed.	−25 ... +85°C	IP68 / IP69K	DW-AV-701-M30-695



COMMON FEATURES

Supply Voltage range 10 ... 30 VDC

OUTPUT

DW-A[x]-62[x]

Connection

[D] Cable [S] Connector [V] Pigtail

Output

[1] NPN NO [2] NPN NC [3] PNP NO [4] PNP NC

Reference key on page 116

ACCESSORIES

Go to pages 100 and 101 for details

FAMILY	OPERATING DISTANCE (mm)	HOUSING SIZE (mm)	HOUSING LENGTH (mm)	HOUSING MATERIAL			CABLE	CONNECTOR	IO-Link	SWITCHING FREQUENCY (Hz)	MOUNTING EMB. / NON-EMB.	AMBIENT TEMPERATURE	DEGREE OF PROTECTION	PART REFERENCE
CLASSICS – SERIES 600 COATED	2	M8	66	Stainless steel V2A				M12		15	Embed.	–25 ... +70°C	IP67	DW-AS-623-M8-697
	4	M12	60	Stainless steel V2A				M12		15	Embed.	–25 ... +70°C	IP67	DW-AS-623-M12-697
	8	M18	63.5	Stainless steel V2A				M12		15	Embed.	–25 ... +70°C	IP67	DW-AS-623-M18-697
CLASSICS – SERIES 600 UNCOATED	2	M8	66	Stainless steel V2A				M12		15	Embed.	–25 ... +70°C	IP67	DW-AS-623-M8-694
	4	M12	60	Stainless steel V2A				M12		15	Embed.	–25 ... +70°C	IP67	DW-AS-623-M12-694
	8	M18	63.5	Stainless steel V2A				M12		15	Embed.	–25 ... +70°C	IP67	DW-AS-623-M18-694

PROTECTION BEYOND THE SENSOR

Reduce downtime with accessories that protect the surrounding installation against the challenges of welding environments. Mounting brackets with ACTIVSTONE® coating resist accumulation of weld spatter and so reduce the need for cleaning. A special range of stainless-steel mounting brackets offers exceptionally high mechanical and chemical resistance.

For optimal protection use the long-life cables in spatter-resistant PUR and the high-temperature, spatter-resistant protective tubes to enhance machine availability.

WELD-IMMUNE MOUNTING BRACKETS

		PART REFERENCE	MATERIAL	DIMENSIONS (mm)	COMPATIBLE WITH					
					SENSOR SIZE				CLASSICS SERIES 600	FULL INOX SERIES 700
					M8	M12	M18	M30		
COATED		ASU-0041-120	Steel	L = 38.1 W = 34.9 H = 19.05		✓			✓	✓
		ASU-0041-180	Steel	L = 38.1 W = 38.1 H = 25.4			✓		✓	✓
		ASU-0041-300	Steel	L = 44.45 W = 59.94 H = 38.1				✓	✓	✓
UNCOATED		ASU-3012-080	Stainless steel	SW17 L = 32.4	✓					✓
		ASU-3012-120	Stainless steel	SW22 L = 33.8		✓				✓
		ASU-3012-180	Stainless steel	SW30 L = 33.8			✓			✓

SPATTER-RESISTANT CONNECTING CABLES

	PART REFERENCE	SOCKET			CABLE	
		SIZE	PINS	CONFIG.	MATERIAL	LENGTH
	S12-3FUG-020-NNWN	M12	3	straight	PUR	2 m
	S12-3FUG-050-NNWN	M12	3	straight	PUR	5 m
	S12-3FUW-020-NNWN	M12	3	right angle	PUR	2 m
	S12-3FUW-050-NNWN	M12	3	right angle	PUR	5 m
	S12-3FUG-020-NNWN-12MG	M12	3	straight	PUR	2 m + M12 plug
	S12-3FUG-050-NNWN-12MG	M12	3	straight	PUR	5 m + M12 plug

SPATTER-RESISTANT PROTECTIVE TUBES

	PART REFERENCE	MATERIAL	INNER DIAMETER	OUTER DIAMETER	LENGTH
	APT-0000-010	PTFE	3.5 mm	6 mm	1 m
	APT-0000-100	PTFE	3.5 mm	6 mm	10 m
	APT-0001-010	PTFE	6.5 mm	10 mm	1 m
	APT-0001-100	PTFE	6.5 mm	10 mm	10 m
	APT-0002-100	PTFE	13 mm	17.5 mm	10 m
	APT-0003-100	PTFE	19 mm	23.5 mm	10 m