

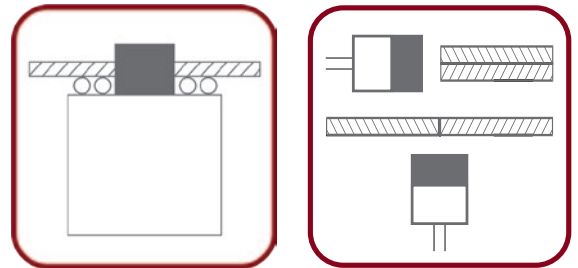
Universal-Detector System XA100

for standardized current /
voltage sensors

- Complete process-safe solution
- Universal applicability through sensor variety:
Weld Seam Detection, Double Sheet Detection,
Butt Joint Detection, Wire detection, Control of
Crystalline Solar Cells and Battery Electrodes
- Easy setup by key operation or via control input
- LCD display for visualization of nominal / current values,
operational / error messages
- Compact enclosure:
Control unit for screw-on mounting,
pluggable connections,
protection class IP54

THE ROLAND PLUS

- ▶ Innovative Sensor Ideas
- ▶ Solutions for the mechanical engineering



UNIVERSAL DETECTOR SYSTEM XA100

During the automatic supply of sheet metals from a stack to a processing machine it can unintentionally happen that more than one sheet is picked up and transported. This can result in damage to the machine, tool damage, expensive repairs and production loss. The XA100 Universal Detection System can reliably prevent from such incidents.

Additionally it can be used in processing of strips and other long products (e.g. cables and wires), when assembled from individual segments to larger structures (e.g. Band coils with cross welded wires, cable coils with junctions).

When using sensors of the WF series, it is also possible to detect double layers in crystalline solar wafers and electrodes of Li-Ion batteries.

The System

The XA100-S System consists of the Control unit, Sensor and Cable.

The sensors of the series WF, AA and NS9N can be connected. The device software supports the most different modes of operation for the respective applications, double layer control with WF and AA sensors, as well as the weld seam sensors of the NS9N series.

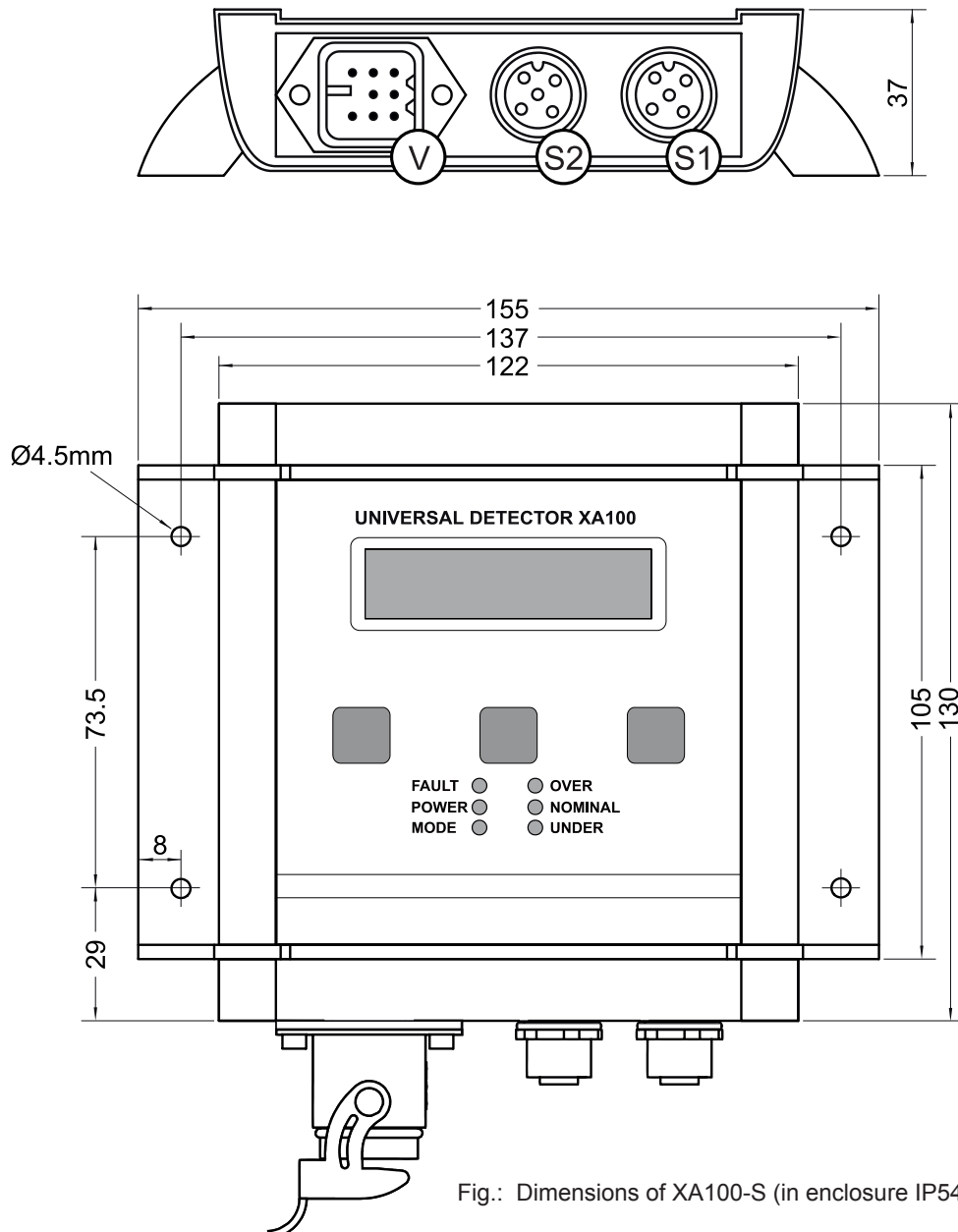
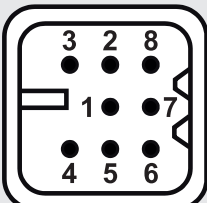
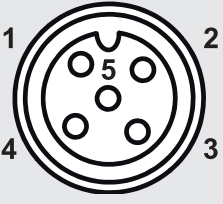


Fig.: Dimensions of XA100-S (in enclosure IP54)

Technical Data

Control unit XA100-S	
Supply voltage	24 V DC / max. 180 mA without sensor / max. 300 mA with sensor
Power consumption	approx. 4.3 Watt without sensor / max. 7.2 Watt with sensor
Fuse	315 mA semi-time-lag
Power / switching indication	6 LEDs
Display	LCD display, 2 lines, 16 chars. each
Ambient temperature	0° - 50°C (32° - 122°F) during operation
Switching outputs 0-1-2 - Sheet	Opto coupler output sourcing (PNP)
Temperature depending drift of switching point	± 0.02 % / °C
Switching capacity	max. 50V, max. 10mA
Measurement period	Sensor specific
Enclosure	Aluminum enclosure, machine frame mounting
Class of protection	IP54
Weight of XA100-S	approx. 0.6 kg (1.32 lbs)
Connections	Plug connection
Dimensions	130 x 155 x 37 mm (H x W x D)
Sensor supply voltage	24 V DC per sensor 100 mA

Supply connection - Allocation of supply socket				
Connection at unit				Suppliers / types / notes
Enclosure HAN 3A, EMI-type, metrical 7-pin insert and PE, Pin contacts at control unit				Harting u.a.
	Pin 1	+24V DC	Internal Pin 2	
	Pin 2	Earth / GND	Internal Pin 3	
	Pin 3	Teach-In	Internal Pin 4	
	Pin 4	Over	Internal Pin 5	Weld seam detected (upper threshold value) / 2-sheet
	Pin 5	Nominal	Internal Pin 6	Weld seam detected / 1-sheet
	Pin 6	Under	Internal Pin 7	Weld seam detected (lower threshold value) / 0-sheet
	Pin 7	+24V DC f. I/O	Internal Pin 8	
	Pin 8	PE	Internal Pin 1	

Sensor socket - Allocation of sensor socket S1 and S2					
Connection at unit			Cable black	Cable grey	Suppliers / types / notes
	Pin 1	+24V DC	brown	brown	Power supply
	Pin 2	4 - 20 mA	white	white	Input Current
	Pin 3	Earth / GND	blue	green	
	Pin 4	2 - 10 V	black	yellow	Input Voltage
	Pin 5	PLC - Output	grey	grey	Mode / Output Current (only S2)

Further information can be found in the manual.

Order data

Control unit:		
Order information	Description	
XA100-S*	Control unit in aluminum enclosure	
XA100U-S**	Supply voltage is 20 ... 28 V DC Enclosure with protection class IP65	
* with current input / ** with voltage input (in preparation)		
Sensors:		
Order information	Description	
NS9N-AAD40X8-SC	Weld Seam Sensor	
AA90x60-453F5S	Eagle Eye AA Sensors with plug connections	
AA90x60-902F8S		
AA150x100-902F8S		
WA14x15AQ453S	NF-Metal Sensor	suited for Schmalz SWG
WF14x15AQ162S	NF-Metal Sensor	
WF14x15AQ153S	Li-Ion Sensor	
WF14x15AQ453S	Solar Cell Sensor	
Cables:		
Order information	Description	
SC5M12S-GG	Sensor cable for connecting the sensor NS9N-AAD...-SC to the control unit XA100-S	
SCWFM12S-GG (sensor side straight)	Sensor cable for connecting the eddy current sensor AA (Eagle Eye) to the control unit XA100-S	
SCWFM12S-GW (sensor side angled)		
SCWFM8S-GG (sensor side straight)	Sensor cable for connecting the sensors WF 14 to the control unit XA100-S	
SCWFM8S-GW (sensor side angled)		
SCWAM8S-GG (sensor side straight)	Sensor cable for connecting the sensor WA14 to the control unit XA100-S	
Standard cable length is 5 m, others on request!		
Accessory:		
Order information	Description	
S0003515	Harting connector, complete	



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