MARCO®
Smart Weighing Technology Experts
AN ATS COMPANY

CSW 20 INDICATOR SPECIFICATION SHEET

PRODUCT SPECIFICATION

Width:	222mm
Height:	183mm
Depth:	94mm
Weight:	2.5kg (shipping 2.9kg)

Annunciators:	4 LEDS (Motion/Zero/Net/Gross)
Front Panel:	Membrane with tactile metal domes, Beep response, 5 button operation
Internal resolution:	24 bit ADC (1:16,777,215)
Display:	7 Red LED digits 20mm
Input Signal Range:	-6.5 → 6.5 mV/V
Operating Voltage:	230/115Vac (Selectable) 12-28VdC (according to specification)
Power Consumption:	5 - 10W
Maximum Display Resolution (trade):	10,000 (trade)	500,000 (x 10 test mode) (non trade)
Zero Offset Range:	100% of Input Signal Range
ADC Conversion Rate(Hz):	50 (25/100*)
Linearity error (%FS):	< ± 0.0015% (+ digital correction)
Differential non linearity:	< 0.5 LSB
Span temperature coefficient:	1.6 ppm/°C
Zero temperature coefficient:	< 0.005 µV/oC
Common Mode Rejection (@500Hz):	120dB
Power Supply Rejection (@500Hz):	120dB
EC Approvals OIML Class III + IIII s:	Certificate: NWML UK2677

OPTIONS

- 15 bit Analogue Output 4-20mA or 0-10V
- Flash Electronic Tally Record (Alibi device)
- Integrated RF Modem
- ModBus Communications
- 24V DC powered version
- Additional 2 inputs, 2 outputs

KEY FEATURES

- Bright, easy to read, large LED display
- Stainless steel enclosure with swivel bracket for wall/desk mount
- Connections via 5mm press clamps
- Multi point linearity adjustment
- Configuration via front panel or serial communication
- Two serial ports, printer port can be used for remote display
- Memory tares, semi automatic tare and set zero functions
- 3 outputs, 2 inputs as standard
- Trade Approved for any R60 loadcells
- Real time clock as standard
- Versatile print formatting
- PLU's recalling A/N text, set points, part weights and totals
- Multi-drop communications
- Sophisticated fill control with fast cut off and predictive software
- Variety of set point operating modes.
- Accommodates extremes of dead load and signal
- Superb digital weight filtering with fast settle times
- x10 resolution test mode
- Firmware upgrades via serial port

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ENVIRONMENT:

IP Rating:	IP66
Operating Temperature Range:	-10 to +40°C
Storage Temperature Range:	-10 to +70°C
Case:	304 Stainless Steel
EMC Immunity/Emissions:	EN45501, EN50082-2
Cable Glands:	5 off PG11

TRANSDUCER INPUT:

Transducer type (4 or 6 wire):	Resistive, full bridge
Transducer input resistance:	min 43Ω (up to 8 x 350Ω cells)
Excitation voltage:	5 (nominal)vDC
Minimum signal requirement:	1 µV/e (approved) | 0.1 µV/e (non approved)
Input impedance:	⩾ 20 (sense and signal) MΩ

SERIAL COMMUNICATION

Communication Ports:	1. Comms RS232 or RS485 | 2. Printer Port RS232 (TX/Busy)
Baud Rate:	2400, 4800, 9600, 19200, 38400 bits/sec
Protocol:	7/8 data bits, odd/even/no parity,1/2 stop bits
Maximum continuous data rate:	50Hz (test mode)
Communication protocol:	Ascii or ModBus*

I/O

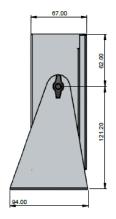|	
Analogue output* 0-10V or 4-20ma*:	15 bit (adjustable range)
	Max drive load for 4-20mA: 500Ω (active)/1200Ω (passive)
Inputs 2 (4*):	Opto coupled inputs. <6V off; >10 –30V on (supply rail on board)
Outputs 3 (5*):	Darlington type transistors. Max OFF voltage 27V;
	Max ON current 60mA. Leakage <0.1ma Switched + or -

* According to specification