

SIGNAL CONDITIONER INDICATOR

with microprocessor

Mod. AN 401



*easy to use,
compact, convenient*

Software utility for the remote use of the functions of the instrument.

*a computer inside
a panel meter*

Window configuration for the instrument's working parameters



SOME APP

All the units are designed and manufactured by DS Europe



WEIGHING SYSTEM

- Gross weight: it displays the gross weight on the pan.
- Net weight: the tare is cancelled by keyboard or by remote control.
- Error: it displays the difference between the pre-set and the actual values.
- Piece-counter: set the value of a piece, the total quantity of same pieces is counted.
- Levels: 4 threshold levels (\pm) can be set.
- Print: direct connection to a serial printer.

Applications: scales; reservoirs; automatic weighing machines;

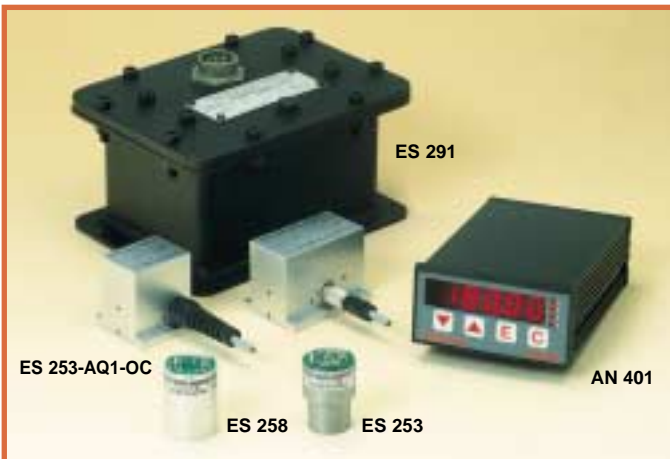
PEAK INDICATOR (version AN 401H)

By a remote control or by a TTL comand, the maximum measured value positive or negative is holden on the display.

For short and fast signals the version AN401H is advised.

All the other functions of the istrument can be used:
4 level alarms; print; computer connection; etc

Applications: power hammers; presses;
punching machines; screwers;
torque sensors; etc.



ANGLE MEASURES BY INCLINOMETER

The Mod AN401 connected to a servoinclinometer Series ES 200 displays the angle directly in sessagesimal degrees.

Software functions can be activated: 4 level alarms; peak indication; printing; etc.

Applications: for industrial, monitoring of angles of cranes, of gondola, of special vehicles;
angle of melting pots, rail installations;
foundations of heavy machineries,
buildings and land-slips.

TORQUE - RPM - ANGLE - POWER

The rotating torque sensors Series TMR200 can be connected directly to the Mod. AN401T.

The torque sensors are complete with optical encoders with resolution: 30' for speed and angle measurements.

The "rotating transformers" without brushes, without wear and friction assure a trouble free operation in industrial applications.

All the software functions can be used: 4 level alarms; indication of the error as difference between a preset value and the actual value; printing, connection to a computer.

Applications: screw machines; fastener systems; web tension control; viscosity control; motors; dynamometers; robotics; conveyor belts.
It is advisable the version AN401T connected to a computer which can display together: torque, RPM, angle of clamping, power.



PLICATIONS

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WEB TENSIOMETERS

The tensiometers Series LCR 200 with amplifier or not are directly connected to the model AN 401 which displays the force of the web applied to the measuring roller.

The tensiometer can rotate the central measuring body so to coincide the force of the web with the sensitive axis of the tensiometer.

All the functions of the software can be activated as: the difference between the preset value and the actual value; 4 level alarms; etc.

Applications: on textile machines; in paper machines; plastic; rubber; metal foils; in printing machines.



LCR 242

LCR 222

AN 401



AN 401

POSITION AND LEVEL (magnetostrictive)

The magnetostrictive transducers Series PM, for linear position and level measurements, are directly connected to the model AN 401.

Strokes up to 3 meters are standards.

All the functions of the software of AN 401 can be activated: zero suppression; count of steps referred to a previously settled level; 4 level alarms or commands; peak indication.

Applications: control of position on machines; oil and air actuators; operating machines; level measurements in reservoirs.

POSITION BY LVDT TRANSDUCERS

The system includes: the LVDT transducer, the model AN 401 and the LVDT conditioner EL 546. This last unit can be supplied in a metal enclosure too.

The system is preferable and convenient for short strokes and very high resolutions down to one micron or less.

Strokes up to ± 100 mm are standard.

Applications: in control of position on machineries; as gauge heads for multiple control of surfaces;



AN 401

EL 546

PRESSURE TRANSDUCERS

The pressure transducers Series LP can be directly connected to the model AN401.

Measuring ranges: up to 1400 bars.

All the main functions of the software can be activated: 4 level alarms; peak levels; pipe pressure suppression; difference between the preset and actual pressure; print; computer connection.

Applications: for oil and air pressure control and where are requested: extreme resistance to water-hammerings; resistance to over-pressures and hostile environments; machine applications; general purpose.



AN 401

LP 655

LP 654

LP 659

LP 651

magnet

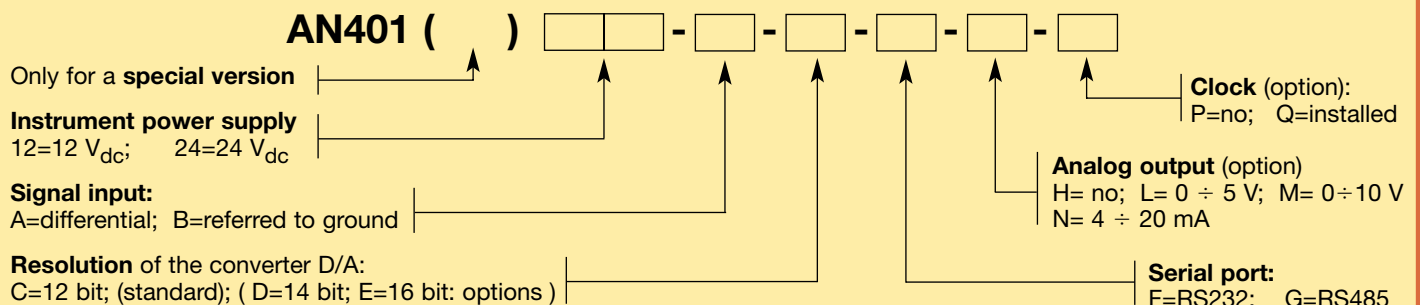
MAIN CONSTRUCTIVE FEATURES

- **4 Units** in an only compact panel meter: *Digital indicator*; *Signal conditioner*; *Power supply* for the external transducer; *Processor* with flash memory, RAM and EEprom memory.
- **Digital indicator** LED with 5 full digits (± 99999).
- **Polarity indication** without loss of a digit.
- **Direct reading** in mechanical units.
- **Analog inputs:** *differential* and high sensivity for not-amplified transducers or *referred to ground* for amplified transducers.
- **Digital inputs:** TTL and serial line for the connection of the instrument to a remote computer: for data exchange, for printing purpose and for an easy calibration (option: Windows software).
- **Internal structure** based on 16 bit processor with external flash memory for the instrument's program; RAM and EEprom memory for the storage of all the parameters and printer customisation.
- **4 Relays:** activated at the preset levels.
- **Setting and calibration** by the front keyboard, by a simple menu or by a PC program which allows: remote measurements, printing, saving of multiple setup, reconfiguration of working parameters (fig. 2-3).
- **Instruction manual:** Complete and detailed.
- **CE Mark** approval.
- **Options:** Clock system to print hour and date; voltage or current outputs, Windows software.
- **External accessory:** mains supply unit Mod PSAN: 220 V_{ac}; 110 V_{ac}; 50 ÷ 60 Hz.

TECHNICAL SPECIFICATIONS

- **Digital indicator:** 5 full digits LED (± 99999) with polarity and free decimal point.
- **Analog to digital converter:** resolution: 16 bit and sampling frequency: 30 Hz.
- **Analog signal inputs:** *differential* with ranges: ± 20 mV; ± 40 mV; ± 80 mV or *referred to ground:* $\pm 2,5$ V; ± 5 V; ± 10 V. Zero and gain regulations.
- **Digital TTL inputs:** 4 used to activate instrument's functions by remote controls.
- **Digital outputs:** RS 232 or RS 485 with data trasmission speed up to 57.600 baud, to connect a computer or to print on a serial printer.
- **Analog outputs:** (options, in alternative): $0 \div \pm 5$ V; $0 \div \pm 10$ V; $4 \div 20$ mA; $0 \div 20$ mA.
- **Level limits:** 4 with relays N/O or N/C. Threshold limits ($\pm 100\%$ FS) and hysteresis regulations. Contacts fully insulated; power: 1A, 20 V_{CC} max.
- **Digital filter:** with bandwidth regulation by software.
- **Peak an hold** functions: (AN401H) by a command it is frozen the peak of the working cycle or the actual value displayed.
- **Power supply** (for the instrument): 12 V_{dc} or 24 V_{dc} ($\pm 20\%$) (200 ÷ 500 mA); as for the order.
- **Excitation of the external transducer:** 8 V_{dc}; 200 mA (supply: 12 V) or 12 V_{dc} 200 mA (supply: 24 V).
- **Operating temperature range:** $0 \div 70^\circ$ C.
- **Overall dimensions:** DIN sizes: 96x48 mm; depth: 147 mm; Panel cut: 92x44 mm.

HOW TO ORDER



specifications and prices may change without notice.

Bulletin 160998 E



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