

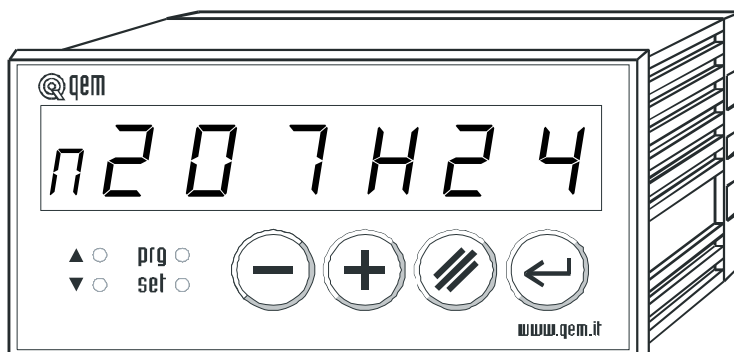
HM 207.24A

User Manual

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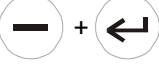


OPERATION DESCRIPTION

The HM 207.24 instrument is a multifunction counting device that supervises the main counting operations of pieces produce. It also checks tool wear and the cyclical lubrication relays. The operating parameters of the HM 207.24 are protected against tampering by an access code. 4 displays are available, selected by pressing a key. If the impulse count exceeds the maximum count capacity, the data displays starts to flash. The “Job end”, “Lubrication shortage”, “Tool wear”, “Effective lubrication”, “Output signal short-circuited” conditions are also indicated.

OPERATOR/MACHINE INTERFACE

KEYBOARD DESCRIPTION

<i>Tasto</i>	<i>Funzione</i>
	Normal Operation: when pressed for 2 seconds, this permits access to the pre-selections. Data introduction: confirms the displayed data.
	Normal Operation: when pressed for 2 seconds, this resets outputs U2 and U3 and the total and partial piece counters, if parameter "A=0" (set-up). Data insertion: zeroes the data displayed.
	Normal operation: each time this is pressed, the displays available can be selected. If held down for 2 seconds, it displays the input/output diagnostics. Data insertion: when pressed repeatedly or continuously, this increases the figure selected on the display (the one that is flashing).
	Normal operation: not used. Data insertion: moves the selection of the figure on the display to the right.
prg ○	On during set-up parameter programming.
set ○	On during pre-selection programming.
▲ ○	On when output U1 is deactivated.
▼ ○	On when output U4 is deactivated.
	Not used
	Access to password protected functions.

INPUT DESCRIPTION

Input characteristics

Refer to the "Electrical characteristics" chapter of the "Hardware structure" file, enclosed to this manual.

<i>Terminal</i>	<i>Name</i>	<i>Logical activation status</i>	<i>Activation mode</i>	<i>Polarisation terminal</i>	<i>Description</i>
4	I1	ON	I	3	CLOCK. Count input (the count increases on the ascent or descent front depending on the "Count increase front" set-up parameter (maximum count frequency = 10 khz).
5	I2	ON	C	3	HOUR COUNTER ENABLING INPUT. When activated, this enables the increase of the hour counter.
6	I3	ON	I	3	PRESSURE SWITCH LUBRICATION. During lubrication, U4 = ON, if activated, it indicates effective lubrication for 5 seconds with the "OIL ON" display.

Key

C = Continuous signal

I = Impulse signal

<i>Terminal</i>	<i>Name</i>	<i>Description</i>
1	+	Transducer positive power supply. Positive voltage is supplied from the instrument to supply the instrument inputs and transducers.
2	-	Transducer negative power supply. Negative voltage is supplied from the instrument to supply the instrument inputs and transducers.
11	GND	Ground connection. We recommend a 4 mm. Ø conductor.
12	Vac	Instrument power supply voltage. Alternate voltage as per the code in your order.
13	Vac	Instrument power supply voltage. Alternate voltage as per the code in your order.

OUTPUT DESCRIPTION

Output characteristics

Refer to the “Electrical characteristics” chapter of the “Hardware structure” file enclosed to this manual.

<i>Terminal</i>	<i>Name</i>	<i>Logical activation status</i>	<i>Activation mode</i>	<i>Polarisation terminal</i>	<i>Description</i>
9	U1	OFF	C	8	PARTIAL PRE-SELECTION OUTPUT. Normally active. It disables itself when the count reaches the partial pre-selection value.
10	U2	OFF	C	8	TOTAL PRE-SELECTION OUTPUT AND OIL ALARM. Normally active. It disables itself when the count reaches the total pre-selection value or at the end of the lubrication time, if input 13 is not activated during lubrication.

Key

C=Continuous signal

Output expansion characteristics (option E)

Refer to the “Electrical characteristics” chapter of the “Hardware structure” file enclosed to this manual.

<i>Terminal</i>	<i>Name</i>	<i>Logical activation status</i>	<i>Activation mode</i>	<i>Polarisation terminal</i>	<i>Description</i>
18	U1	OFF	C	17	TOOL CHANGE INDICATION OUTPUT. Normally active. It disables itself when the piece counter count reaches the tool change pre-selection value.
19	U2	ON	C	17	TIMED LUBRICATION OUTPUT. Normally deactivated. It activates itself at the end of “ timer lubrication interval” set in set-up. It deactivates itself at the end of “lubrication time” set in set-up.


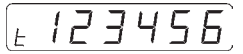



Key

C=Continuous signal


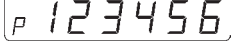



USE

WORK PROGRAMS AND AUXILIARY FUNCTIONS


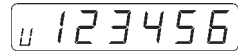



INTRODUCTION TO PRE-SELECTION OF THE TOTAL PIECE COUNTER

Description	Keyboard	Display
<p>Access pre-selection introduction, only when the display shows the count of the total piece counter.</p>	 × 2 sec.	 set ○ =ON
<p>Introduce the pre-selection value of the total piece counter “t”. On confirmation with ENTER, the display returns to displaying the count.</p>	  	set ○ =OFF

INTRODUCTION TO PRE-SELECTION OF THE TOTAL PIECE COUNTER

Description	Keyboard	Display
<p>Access pre-selection introduction, only when the display shows the count of the partial piece counter.</p>	 × 2 sec.	 set ○ =ON
<p>Introduce the pre-selection value of the partial piece counter “p”. On confirmation with ENTER, the display returns to displaying the count.</p>	  	set ○ =OFF

INTRODUCTION TO PRE-SELECTION OF THE TOTAL PIECE COUNTER

Description	Keyboard	Display
<p>Access pre-selection introduction, only when the display shows the count of the tool change piece counter.</p>	 × 2 sec.	 set ○ =ON
<p>Introduce the pre-selection value of the tool change piece counter “u”. On confirmation with ENTER, the display returns to displaying the count.</p>	  	set ○ =OFF

DISPLAYS

Description	Keyboard	Display
Total piece counter count.		
To zero the count, press the CLEAR key.	x 2 sec.	
Partial piece counter count		
To zero the count, press the CLEAR key.	x 2 sec.	
Tool change piece counter count		
To zero the count, press the CLEAR key.	x 2 sec.	
Total hour count.		
N.B. The displays of the partial piece counter count, of the tool change piece counter count and of the total hours count, only appear if enabled in the “active function choice” set-up parameter.		

ALARM DISPLAY

Description	Keyboard	Display
During lubrication, (U4 active), the instrument waits for the interval time to be re-set (13 active), from the pump pressure switch contact; if this does not take place within the time set in the “lubrication interval timer” set-up parameter, lubrication shortage is indicated by the deactivation of output U2 and the following display appears on the display.		
If however, output 13 (pressure switch under pressure) is activated, effective lubrication is indicated by the following display (active for 5 seconds).		
When the partial pre-selection value is reached, output U1 is deactivated and the following display appears on the display.		
To zero the pre-selection, press the key indicated.	x 2 sec.	
When the tool change pre-selection is reached, output U3 is deactivated and the following display appears on the display.		
When the tool has been replaced, zero the display by pressing the key indicated.	x 2 sec.	
When the total pre-selection value is reached, output U2 is deactivated and the following display appears on the display.		
To zero the pre-selection, press the key indicated.	x 2 sec.	