

HL 620

RADIO TRANSMISSION SYSTEMS

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- ▷ The radio impulse and data transmission system has been developed to make best use of radio communication technology in transmitting timing signals, offering exceptional performance at a competitive price.
- ▷ **LONG DISTANCE CAPABILITY AND PRECISION** of the timing signals are the two most prevalent features of this new system that uses digital communications technology currently employed in cellular telephone systems.
- ▷ **LONG OPERATING LIFE** is possible through the use of low-consumption recent generation electronic components.
- ▷ Each HL 620 system can use any one of 12 user-selectable digital "channels". A special channel is dedicated to the transmission of serial data (RS 232) to send short messages to remote display boards or other peripheral devices.

Recommended use

- No radio timing system can provide the "miracle" cure, as no one can predict how each system will react to the particularities of your regional topography or radio environment. All radio systems are susceptible to interference.
- For these reasons we recommend to all timing system operators who use wireless impulse transmission equipment to consider the installation of an additional timer (i.e Chronoprinter) linked in parallel to the transmitter.



Overcome any obstacle
with the new wireless
timing technology from
TAG Heuer

PHOTOCELLS

HL 2-31/32/34/35



- ▷ **General**
 - Infrared type photocell using a coded modulated frequency of 50 kHz. Triggering detection by frequency discrimination
- ▷ **Operating type and Distance limits**
 - HL 2-31 Reflector type, up to 20 meters
 - HL 2-32 Double Photocell, Transmitter/Receiver Type, up to 80 Meters
 - HL 2-34 Double Photocell, Reflector Type, up to 12 Meters
 - HL 2-35 Transmitter/Receiver Type, up to 80 Meters
- ▷ **Output Trigger**
 - Optocoupled normally open working contact. Adjustable Impulse of 0,01 to 2 seconds
 - On the HL 2-34, impulse duration is a function of how long the two infrared elements are simultaneously obscured
- ▷ **Reaction Time**
 - Less than 0,5 ms
- ▷ **Precision**
 - +/- 0,02 ms for repetitive impulses
- ▷ **Internal Power**
 - 3 alkaline batteries type UM3 or AA
- ▷ **External Power**
 - For the HL 2-31 and HL 2-35, 6-12V DC via 4-pole bayonet type jack
- ▷ **Autonomy at 20° C**
 - HL 2-31 and HL 2-34, about 100 hours
 - HL 2-35 and HL 2-32, about 100 hours on "LOW" and 50 hours on "HIGH" position
- ▷ **Operating Temperature**
 - -20° C to +70° C
- ▷ **Indicators**
 - HL 2-31 and HL 2-34
Alignment LED
Battery condition LED
 - HL 2-35 and HL 2-32
Alignment LED and Lens Indicator.
Battery condition LED
- ▷ **Mounting**
 - Fitted for standard photographic 1/4" tripod or TAG Heuer mounting brackets HL 4/HL 4-3

- ▷ **Dimensions**
 - Hot-lacquered black aluminum case 150 x 80 x 40 mm
 - (HL 2-34, 150 x 280 x 40 mm)
- ▷ **Weight**
 - HL 2-31, 500 gr. with reflector
 - HL 2-32, 1'700 gr. complete set
 - HL 2-35, 800 gr. complete set
 - HL 2-34, 1'300 gr. with reflector
- ▷ ALL PHOTOCELL SETS ARE DELIVERED IN THEIR OWN TRANSPORT SHIPPING CASE

HL 620 RADIO TRANSMISSION SYSTEMS



- ▷ **Mean Operating Frequencies**
 - 433,800 MHz (Europe)
 - 469,500 MHz (USA)
- ▷ **Radiated Power Output**
 - 0,5 W
- ▷ **Range**
 - 30 km under optimal conditions (direct view)
- ▷ **Precision**
 - Fixed delay of 100 ms +/- better than 1/100'000th/sec.
- ▷ **Power Supply**
 - Internal: 6 V rechargeable (NI-MH) batteries
 - External: 12-18 V DC
- ▷ **Autonomy**
 - 24 hours with 1 trigger or message transmission every second. More than 12 hours at -20° C
- ▷ **Transmitter**
 - 12 switch selectable transmit codes
 - 1 banana plug input (normally open working contact)
 - 9 pin jack for DATA (RS 232) transmission
 - 1 switch: IMPULSE/OFF/RS 232 (DATA)
 - 1 red LED for battery condition

- 1 audible signal for each triggered impulse
- 1 POWER jack to recharge the batteries or for external power
- 1 BNC antenna jack
- ▷ **Receiver**
 - 12 switch selectable receive codes
 - 6 different opto-isolated outputs, thus 2 outputs with banana connectors (for use with up to 6 different transmitters)
 - 1 RS 232 output for DATA (9 pin jack)
 - 1 ON/OFF switch
 - 1 LED red for battery condition
 - 1 LED green indicator for signal reception strength (NORMAL)
 - 1 LED red indicator for minimal signal reception strength LOW
 - 1 audible signal for each triggered impulse
 - 1 POWER jack to recharge the batteries or for external power
 - 1 BNC antenna jack
- ▷ **Operating Temperature**
 - -20° C to +60° C
- ▷ **Weight**
 - Transmitter: 800 gr.
 - Receiver: 800 gr.
- ▷ **Dimensions**
 - Transmitter: 90 x 62 x 191 mm. Receiver: same
- ▷ **Complete Set Includes**
 - 1 Transmitter
 - 1 Receiver
 - 1 Charger
 - 2 Antennas
 - Plastic Carry Case
- ▷ **Options**
 - Additional transmitters
 - Additional chargers
 - 50 Ohm Coaxial antenna extension cable (2 or 3 m)
- ▷ **Antenna**
 - 1/2 Flexible wave