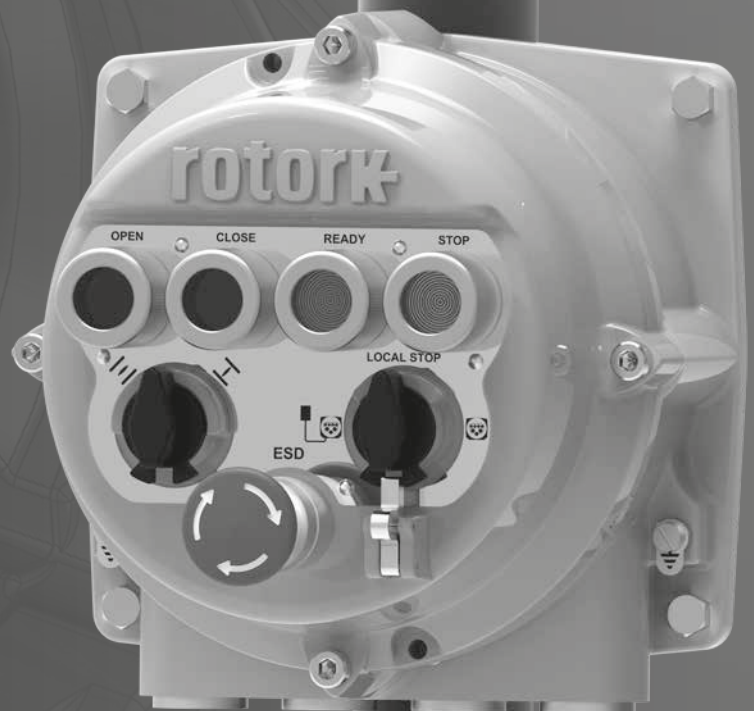


# rotork®

Keeping the World Flowing  
for Future Generations

## Local Hand Station

Installation and Maintenance Instructions



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## 1. Introduction

**⚠ This manual contains important safety information. Please ensure it is thoroughly read and understood before installing, operating or maintaining the equipment.**

This manual provides instruction on:

- Electrical (local and remote) operation.
- Preparation and installation of the junction box between the actuator and the Digital control unit.
- Subsequent commissioning and adjustment of the Basic Settings for correct valve operation.
- Commissioning and adjustment of the Configuration Settings to suit site-specific control and indication requirements.
- Maintenance – Troubleshooting.
- Sales and Service.

## 2. Mounting

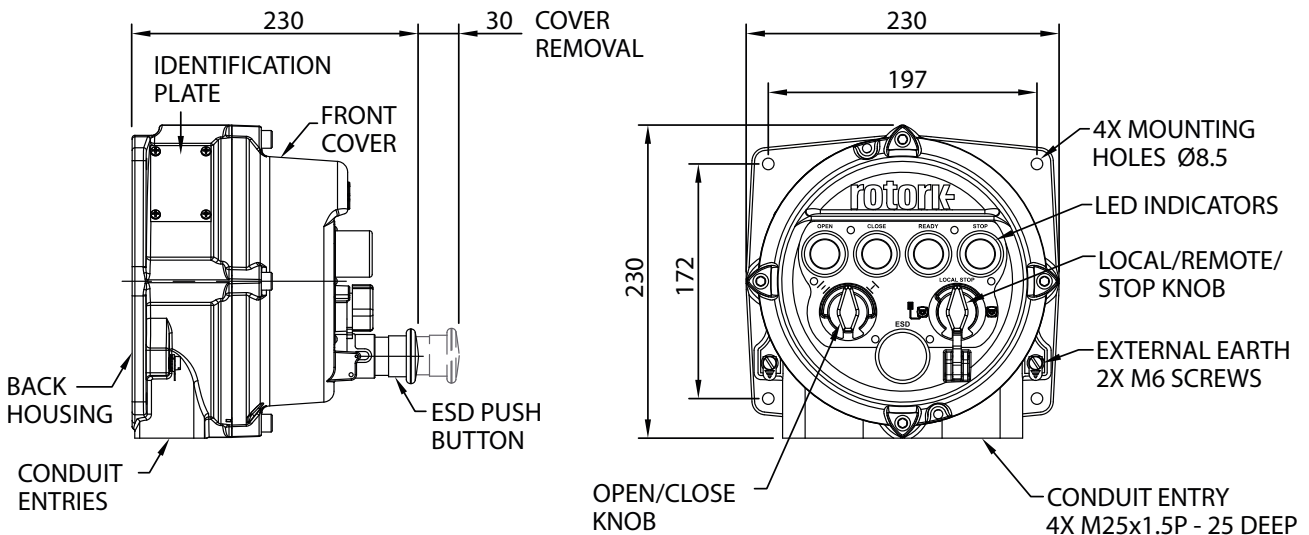
### Local Hand Station Mounting

The Local Hand Station (LHS) can be mounted either directly on a wall or to a pole using suitable 'C' brackets. Space should be left around the housing to allow for the fitting of cable glands or conduit. Positioning of the LHS should be such that easy viewing and operation can be carried out at eye level. Removal of the FRONT cover is not necessary in order to mount the unit but the front cover needs to be removed when cabling to the actuator/DCS.

The back housing may be mounted in any position (90° increments) to accommodate different cable / conduit entry requirements. In order to maintain the correct operating and viewing of the Control knobs/LED indicator, rotate the front cover to suit.

#### NOTE: Maximum Unit Weight = 5.7 kg

- Locate a suitable place (flat vertical wall or structure) to mount the LHS unit. The control knobs and LED indicator should be accessible for operation and easily viewable.
- Mark up a template using the diagrams below. Use a template to mark the wall or structure.
- Ensure any work permits are obtained before starting work. Prepare the mounting holes using suitable tools.
- Select suitable fixings by referring to the weight above for details of the LHS assembly.
- Install the LHS unit to the structure. Tighten the fixings to ensure a secure hold.



### 3. Settings

#### Enabling the Local Hand Station Mode on the Paired Actuator

The paired actuator has to be in remote control mode to operate using LHS.

#### Local Hand Station Settings

**NOTE: The following settings can be carried out at the LHS.**

**Setting the Local Mode:** The Local Hand Station is intended to work when the actuator is set to Remote Control and LHS is at Local Control Mode only.

**Setting the Remote Mode:** When the Local Hand Station is set at remote control mode you can operate the actuator through DCS only.

Actuator Selectors (High Priority)	Local Hand Station Selectors	Actuator Control
Remote	Local	Local Hand Station
Remote	Remote	DCS
Local	Local	Actuator*
Local	Remote	Actuator*

\* Actuator remains in control unless the Remote mode is enabled.  
When Remote mode enabled, the LHS shares control despite the actuator set for Remote Control.

### 4. Electrical Connections

The LHS unit powered by actuator AC/DC customer supply, Four cable entries are available at the bottom of the housing and is supplied with M25 as standard. A thread adaptor can be supplied for other thread sizes including imperial threads.

The interconnecting cable is not supplied. Below is a table of the minimum cable specification for remote mounting up to 20 m.

No.	Parameters	Specifications
1	Type of cable	Shielded multiconductor cable
2	No. of cores	10
3	Wire gauge	22 Awg
4	Conductor material	Copper
5	Core insulation material	PVC
6	Shield type	Foil
7	Outer sheath	PVC
8	Voltage rating	300 V
9	Current rating	≥1 A

*Electrical Cable Specification for Actuator to LHS*

No.	Parameters	Specifications
1	Type of Cable	Hook up
2	Wire Gauge	22 AWG
3	Conductor Material	Copper
4	Core Insulation Material	PVC
5	Voltage Rating	300 V
6	Current Rating	≥1 A

*Electrical Cable Specification for Actuator internal wiring*

### Earth Ground Connection

A dedicated external earth point is provided for the attachment of a protective earth cable.

Refer to LHS wiring diagram for termination details.

### Cable Entry

Only appropriately certified flameproof cable glands or conduit may be used in hazardous locations. The four cable entries are tapped M25 x 1.5p. In hazardous locations, only certified flameproof thread adaptor can be used. Unused cable entries must be blanked using Ex d IIC certified blanking elements. Ex blanking elements and threaded adaptors must not invalidate the degree of ingress protection IP68 (1.2 metres for 48 hours).

Please follow the instructions in LHS mounting before attempting to cable up the unit.

- Once the cable specification has been selected, cut to the appropriate length (leaving approx. 20 mm at each end for final termination).
- Feed the cable to both the actuator and LHS terminal compartments and secure the glands to ensure watertight integrity is maintained.
- Strip back the insulation and braiding so that the inner twisted pair cores are exposed and fit AMP type ring terminal crimps to each wire and shield braid. Insulate the braid to prevent short circuits.
- Connect the terminals in each compartment to the correct terminal number by following the wiring diagram supplied.

## 5. Approvals

Refer to LHS nameplate for unit specific approval details.

### European – Hazardous Area

ATEX (2014/34/EU) II 2 G  
Ex db IIC T6 Gb, IP68  
Temperature -20 °C to +70 °C (-4 °F to +158 °F)

### International – Hazardous Area

IEC. IEC60079-0 & IEC60079-1  
Ex db IIC T6 Gb, IP68  
Temperature -20 °C to +70 °C (-4 °F to +158 °F)

### Indian – Hazardous Area

IS/IEC 60079-0 & IS/IEC 60079-1  
Ex d IIC T6 Gb, IP68  
Temperature -20 °C to +70 °C (-4 °F to +158 °F)

### Maximum Constructional Flamepath Gaps - ATEX / IECEx / Indian Certification

Flamepath	Max. Gap (mm)	Min. Length (mm)	Equipment Type
Front Cover / Back Housing	0.15	27.00	LHS
Front Cover / Control Selector	0.11	25.00	LHS

### ATEX / IEC / Indian Certified LHS

#### ⚠ SPECIAL CONDITIONS

This Local Hand Station equipment includes some exterior non-metallic paints including the protective coating. To avoid the possibility of static build up, cleaning must only be carried out with a water dampened cloth.

Only Rotork recommended grease to be applied on flamepath joint.

When the temperature of cable is higher than 70 °C at entry point or 80 °C at branching point then use suitable cable and cable glands.

#### ⚠ THREAD DETAILS FOR ATEX AND IECEx APPROVAL

Threaded Flamepath	Thread Size	Thread Length	Equipment Type
Cable Entries	M25x1.5	25.00	LHS
ESD	M20x1.5	15.00	LHS
LED	M20x1.5	15.00	LHS

#### ⚠ EXTERNAL ENCLOSURE FASTENERS

The cover fastening screws are stainless steel socket head cap screws of property class A4-70 M8 and yield stress 450 Mpa.

Rotork has maintained more stringent gaps than those required by the standard. The user must refer to Rotork before carrying out any repairs or refurbishment to the equipment.

Separately certified entry devices conforming to standards IEC 60079-0 Ed 7.0 and IEC 60079-1 Ed 7.0 for level of protection 'db' must be fitted. Entry devices must be utilised within their respective Specific Conditions of Use and be utilised within their respective service temperature and IP ratings.

## 6. Environmental

End user advice on disposal at end of life of the product.

Subject	Definition	Remarks / examples	Hazardous	Recyclable	EU Waste Code	Disposal
Electrical & Electronic Equipment	Printed circuit boards Wire	All Products	Yes	Yes	20 01 35	Use specialist recyclers
	LED Indicator	All Products	Yes	Yes	17 04 10	
Glass	Soda Lime	LED Indicator Lamps	No	Yes	16 01 20	Use licensed recyclers
Plastics	Delrin	LED Indicator Diffuser	No	Yes	17 02 04	Dispose as general commercial waste, use specialist recyclers
Grease	MULTIS MS2 / LITHIUM GREASE	Flamepath Joint	Yes	No	13 02 08	Will require special treatment before disposal, use specialist recyclers or waste disposal companies
Metals	Aluminium	Back Housings and Covers, LED Housing	No	Yes	17 04 02	Use licensed recyclers
	Copper/Brass	Wire	No	Yes	17 04 01	
	Iron/Steel	Indicator label, Latch	No	Yes	17 04 05	
Rubber	Seals & O-rings	Cover	Yes	No	16 01 99	May require special treatment before disposal, use specialist waste disposal companies

In all cases check local authority regulation before disposal.

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A full listing of our worldwide sales and service network is available on our website.

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