

MCP820M INDOOR ADDRESSABLE CALLPOINT

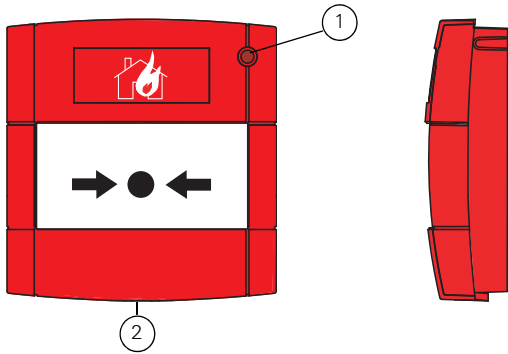


Fig. 1: MCP820M Indoor Addressable Break Glass Callpoint
 1 – Short Circuit Isolator Activation (Yellow) and Alarm Indicator LED (Red)
 2 – Test/Release Key Access

Introduction

The MCP820M Addressable Break Glass Callpoint is an indoor callpoint for marine applications.

The callpoint is designed to monitor and signal the condition of a switch contact that is operated by breaking a glass sheet.

Any change in the status of the switch is immediately communicated to the control panel.

The MCP820M has an integral short-circuit isolator for monitoring the field wiring.

The MCP820M callpoint meets the requirements of EN54 Pt. 11 and EN54 Pt. 17.

Mechanical Construction

The housing consists of a combined test, reset and lid release mechanism, main assembly and back box. These components retain the break glass element. A dual colour status indicator LED is provided at the front of the main assembly.



Mounting

The callpoint is not suitable for external mounting.

Operation

The MCP820M consists of a switch contact which is operated by breaking the glass sheet. When the callpoint is addressed by the control panel, it signals the condition of this switch contact to the control panel. The LED on the front of the callpoint is normally OFF, until the glass is broken, then it is turned ON until the glass is replaced. In case of any emergency situation, the LED is illuminated in red to indicate the 'ALARM' condition.

The callpoint is resettable, it can be tested at any time with the aid of the callpoint test key provided. Insert the key fully into the bottom of the housing and pull down and remove, to release the bottom of the housing and break glass element. To reset the callpoint, slide the bottom of the housing upwards until it locks in position.

If a section of the loop wiring adjacent to the MCP820M is shorted, the built in short-circuit isolator trips, isolating the shorted section. The LED is illuminated in yellow to indicate that the isolator is tripped. This status remains until the short is removed.

Short-Circuit Line Isolator

A built-in short-circuit line isolator incorporated into the callpoints means that when a single short circuit fault occurs on a loop, all the addressable devices will continue to operate.

Parameter	Isolator	
V_{\min} , V_{\max} , V_{nom}	Line voltage range	20V - 40V, 35V nominal
$V_{\text{SO min}}$, $V_{\text{SO max}}$	Isolator trip threshold range	18.5V - 19.99V
$V_{\text{SC min}}$, $V_{\text{SC max}}$	Isolator recovery threshold	2.9V, 3.5V
$I_{\text{C max}}$	Maximum rated continuous current	1.1A
$I_{\text{L max}}$	Leakage current into short circuit (isolated tripped)	10mA
$I_{\text{S max}}$	Maximum rated switching current	1.1A non-inductive
$Z_{\text{C max}}$	Maximum series impedance	0.5 Ω
$Z_{\text{C typ}}$	Typical series impedance	0.25 Ω

Table 1: Isolator characteristics

Technical Specification

Table 2 shows the technical specification information.

Parameter	Value
Material Housing	Flame Retardant ABS
Environment	Indoor applications
Operating Temperature	-10 to +55 °C
Storage Temperature	-30 to +70 °C
Operating Humidity	Up to 95 % non-condensing
Dimensions (HWD)	93 x 89 x 27.5 mm
Weight	110 g (without backbox)
Mounting Requirements	Surface/Flush Mounting

Table 2: Technical Specifications

Parameter	Value
Approvals	<ul style="list-style-type: none"> ■ Product family standard EN50130-4 in respect of Conducted Disturbances, Radiated Immunity, Electrostatic Discharge, Fast Transients and Slow High Energy ■ EN61000-6-3 for emissions ■ Marine Equipment Directive (MED) ■ Construction Products Regulation (CPR) fulfilling the requirements of: <ul style="list-style-type: none"> – EN 54-11:2001+A1:2006 for Manual Callpoints – EN 54-17:2005 for Short-Circuit Isolators

Table 2: Technical Specifications (cont.)

Terminals

Fig. 2 shows connection to the MCP820M made via the 4 way terminal connector as shown in table 3.

Table 3 shows the terminal information.

Description	Marking	Comment
Loop Interface	1	L+ IN
	2	L- Left
	3	L+ OUT
	4	L- Right

Table 3: Terminals

Ordering Information

Components	Ordering Numbers
MCP820M Break Glass Callpoint	5 14.800.609
MCP EN54 Pt11 Spare Glass (pk 5)	515.001.119
Deformable replacement for the glass	515.001.127
KAC Backbox	515.001.021

Table 4: Ordering Information

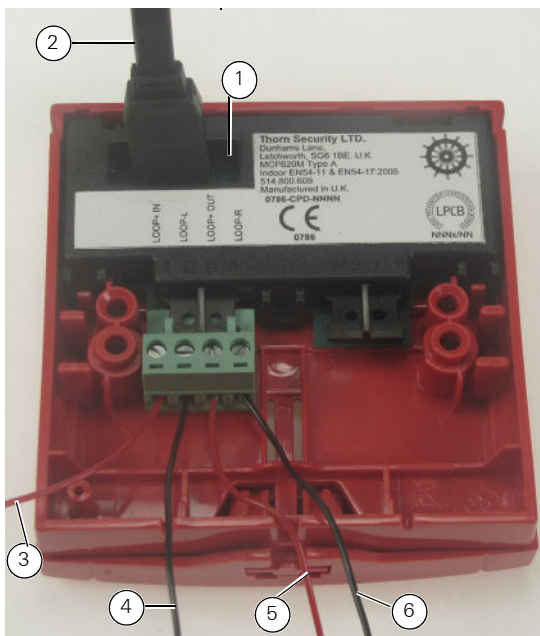



Fig. 2: MCP820M Rear View and Wiring Information
 1- Ancillary Programming Port
 2- Ancillary Programming Lead
 3- Connected to Loop+IN
 4- Connected to Loop-Left
 5- Connected to Loop+Out
 6- Connected to Loop-Right

CPR Information

 <p>2831</p>
<p>Tyco Fire & Security GmbH, Victor von Bruns-Strasse 21, 8212 Neuhausen am Rheinfall, Switzerland DoP-2015-4080</p>
<p>EN54-11 and EN54-17:2005 Manual callpoint with Short-Circuit Isolator for fire detection & fire alarm systems for buildings Type A, Indoor MCP820M</p>
<p>Essential Characteristics EN54-11 Nominal activation conditions / Sensitivity and Performance under fire conditions: Pass EN54-17:2005 Performance under fire conditions: Pass EN54-11 and EN54-17:2005 Operational reliability: Pass Durability of operational reliability temperature resistance: Pass Durability of operational reliability; vibration resistance: Pass Durability of operational reliability; humidity resistance: Pass Durability of operational reliability; corrosion resistance: Pass Durability of operational reliability; electrical stability: Pass</p>

