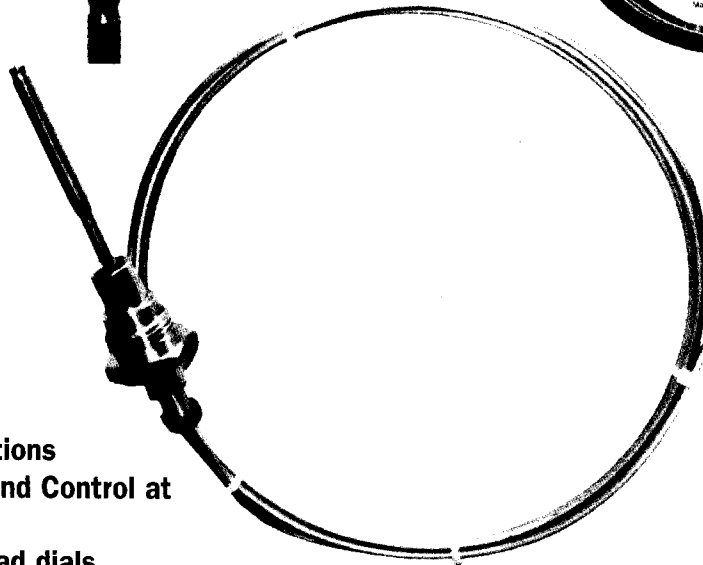
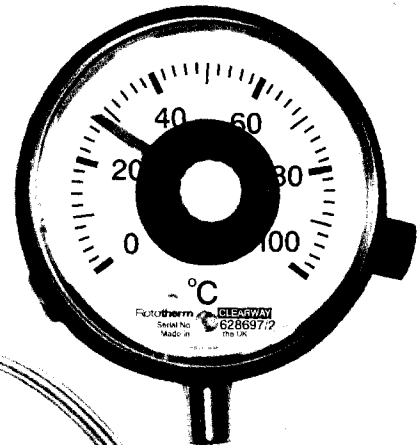
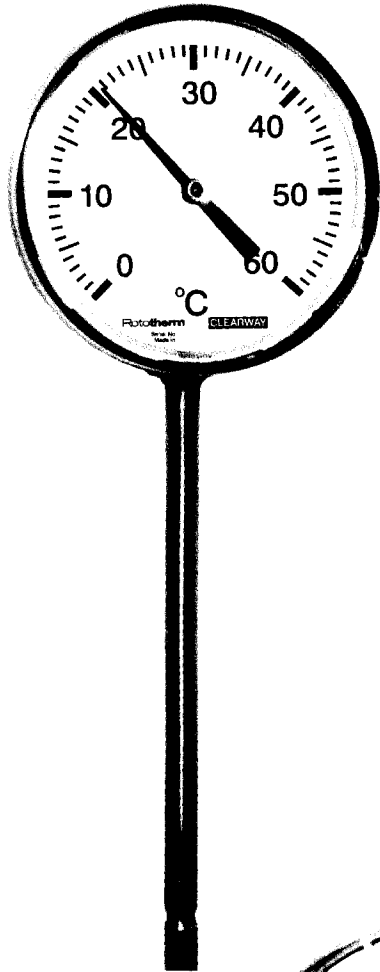


NR/NC7-98

CLEARWAY FILLED SYSTEM TEMPERATURE INDICATORS & INDICATOR CONTROLLERS



- 100 or 150 mm case options
- Temperature Indication and Control at low cost
- Clear design - easy to read dials
- Easy to install
- Robust and corrosion-resistant fibre glass case
- Maintenance free: reliable under the most arduous conditions
- Instruments tailor-made for customer's applications

Rototherm
instrumentation and control

CLEARWAY FILLED SYSTEM TEMPERATURE INDICATORS & INDICATOR CONTROLLERS

This versatile range of temperature instrumentation has been designed for easy selection of the particular specification you require and for efficient and speedy manufacture in our factory.

The Rototherm range of "Clearway" filled system thermometers offer robust yet accurate instruments with rigid stems for direct mounting or flexible capillaries for remote reading.

Most models may be specified with electrical contacts to provide alarm or control functions - built in relay and regulator versions are available for switching heavier electrical loads.

Clearway filled system thermometers may be specified with mercury or "filsafe" non toxic filling medium.

Clearway thermometers can be specified with either 100mm or 150mm dial sizes. Housed in tough fibreglass casing the instruments are suitable for wall, panel, bracket or rigid stem mounting. Rimless, screw-on perspex covers provide ease of reading through a wide angle of vision. A screw-on window seals against dust and moisture.

STANDARD TEMPERATURE RANGES FOR ALL MODELS

Temperature Range		Approximate "L" Dimension		
		Stem Diameter 12.7 mm		
°C	°F	Filsafe Xylene	Filsafe Gas	Mercury
-30/+70	-20/160	-	-	150
0/60		100	-	200
0/100	30/220	100	-	150
0/120	30/250	100	-	125
0/160	30/300	75	175	125
0/200	50/400	-	175	100
0/300	0/550	-	175	100
0/400	0/700	-	175	100

Other ranges are available - please contact Rototherm Sales

Models

specify NC or NR for non-toxic "Filsafe" instruments and MC or MR for mercury filled instruments

NC742	100mm dial Wall Mounting	Bottom Entry	NR742	100mm dial	Bottom Entry
NC746	100mm dial Panel Mounting	Bottom Entry	NR746	100mm dial	Back Entry
NC748	100mm dial Bracket Mounting	Bottom Entry	NR748	100mm dial Bracket Mounting	Bottom Entry
NC762	150mm dial Wall Mounting	Bottom Entry	NR762	150mm dial	Bottom Entry
NC766	150mm dial Panel Mounting	Bottom Entry	NR766	150mm dial	Back Entry
NC768	150mm dial Bracket Mounting	Bottom Entry	NR768	150mm dial Bracket Mounting	Bottom Entry

ELECTRICAL CONNECTIONS

Control pointers can be ordered to perform one of three functions:

- Loose Red Pointer - Displays against the dial a maximum or minimum value to remind operators of the temperature limit. Colour - red.
- Control Pointer - Used to control or provide alarm at the temperature to which it is set. Fitted with electrical spring-loaded contacts arranged to make ("high" contacts) or to break ("low" contacts) when the temperature indicating pointer rises past the control pointer. Colours - "high" - red; "low" - blue.
- Maximum Pointer - registers on the dial the maximum or minimum values to which a process is subjected. Colour - blue.

Electrical Contact Options - Maximum (High) & Minimum (Low)

A.	Minimum (low) contact	Blue
B.	2 Minimum contacts with fixed differential	Blue
C.	Maximum (high) contact	Red
D.	2 Maximum contacts with fixed differential	Red
E.	Maximum reading pointer	Red
F.	Maximum and minimum alarm contact	Red & Blue
G.	Maximum contact maximum reading pointer	Red & Red
H.	Maximum and minimum reading pointer	Red & Blue
J.	Maximum value setting pointer	Red
Q.	Maximum contact with minimum reading pointer	Red & Blue
R.	Minimum value reading pointer	Blue
S.	Minimum contact with maximum reading pointer	Blue & Red
T.	Minimum contact with minimum reading pointer	Blue & Blue
U.	2 Maximum independently adjustable contacts	Red & Red
V.	2 Minimum independently adjustable contacts	Blue & Blue

Relays can be fitted to instruments as follows:

Clearway instruments can be fitted with one or two 1A relays

Regulators are fitted with either one 30A or alternatively with one or two 5A relays. Arc suppression components are incorporated.

SPECIFICATIONS

Case	Fibre Glass case fitted with screw on perspex window, weatherproof to IP64.
Dial	Clearly marked with black characters on a white background
Filling Medium	Non-Toxic "Filsafe" or Mercury Sensitive length, X, depends on temperature range and is indicated by shallow waisting on bulb or stem.
Fitting	1/2" BSP stainless steel gland - other thread sizes available
Temperature Range	See table
Accuracy	+/- 1% FSD +/- 2% with Contact Head
Movement	Direct acting bourdon tube with bimetallic compensator.
For instruments fitted with a Rigid Stem	
Stem material	Stainless Steel to BS970 316 S11/531
Stem Dimensions	12.7 mm diameter. Standard lengths 200mm, 300mm, 400mm, 500mm.
For instruments fitted with Capillary	
Bulb/Stem	Stainless Steel to BS970 316 S11/531 Type 301, Type 302 or Type 303. See table for bulb details. Immersion length "L" must be specified at time of ordering for type 303 bulbs.
Capillary	Microbore stainless steel tube with 3mm OD stainless steel protection and 150mm of stainless steel interlock armouring. Other protections available.

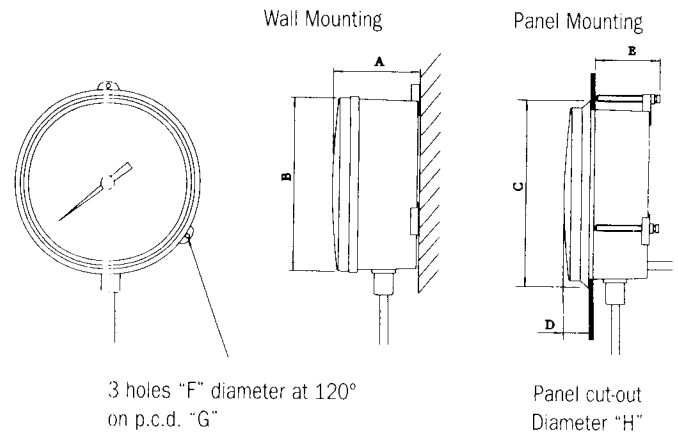
In-line connector

A tough moulded plastic, in-line connector, rated to IP67, with screw ring assembly/disassembly. Cable entry to case, plug and socket is by means of nylon cable glands. This type of connection is only used for an instrument having electric contacts and no relays.

Gland Entry

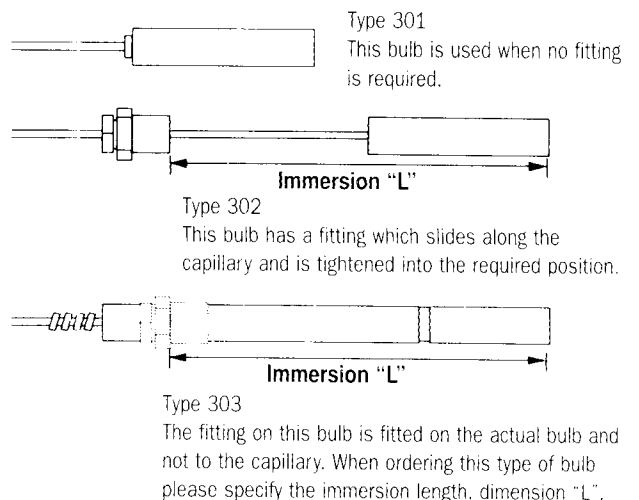
Instrument is fitted with a nylon cable gland in the side or rear of the case. This type of connection is used for an instrument which incorporates one or two relays. It is also available as an alternative to the in-line connector shown above.

DIMENSIONS



Dim.	Wall Mounting		Panel Mounting	
	100mm	150mm	100mm	150mm
A	66mm	66mm	-	-
B	106mm	158mm	-	-
C	-	-	125mm	169mm
D	-	-	22mm	22mm
E	-	-	52mm	52mm
F	4mm	4mm	4mm	4mm
G	112mm	170mm	112mm	170mm
H	-	-	108mm	159mm

BULB TYPES



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