

Brannan Product Data Sheet

PDS1101.20.REV3

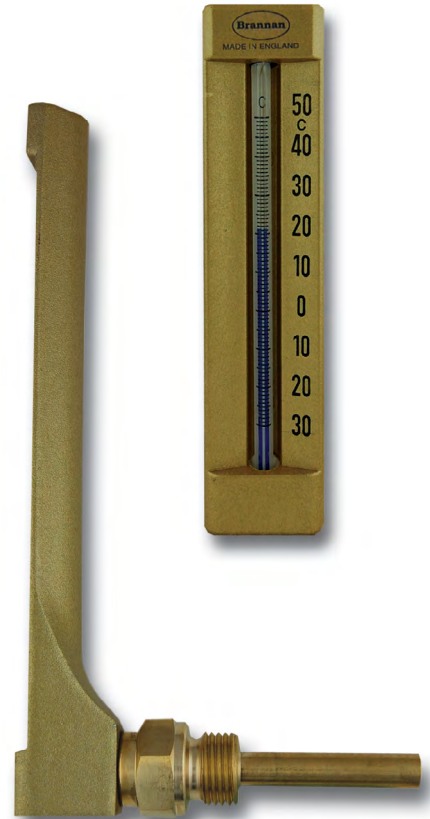
VT020 - 90° Angle V-Line Thermometers

Features

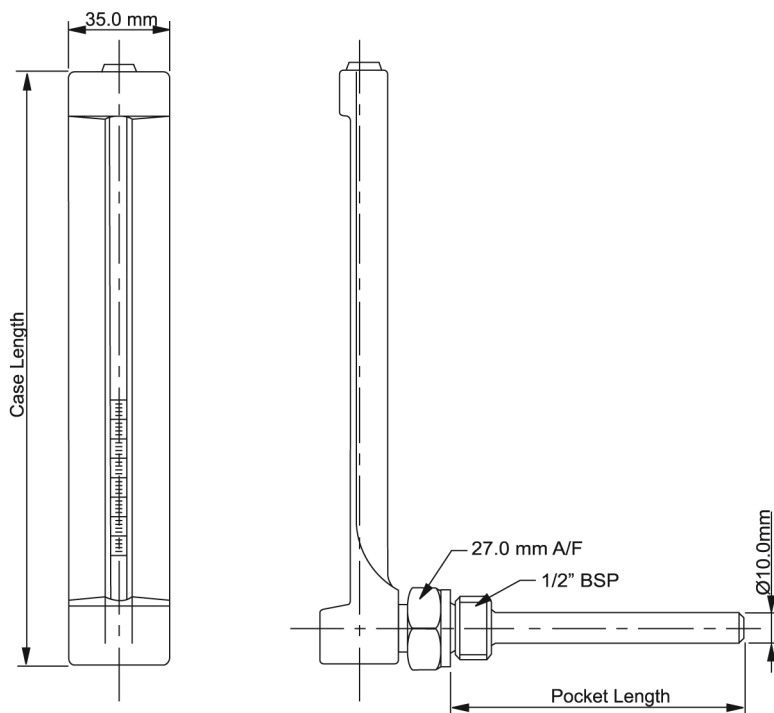
- Glass thermometer in heavy duty protective housing
- Reliable instrument with no moving parts
- Wide choice of pocket lengths and temperature ranges
- Customer branded products available subject to quantity
- Replacement thermometer tubes available (to order, substitute last digit of product number for "6" ie replacement tube for 82/090/0 is 82/090/6)
- **Brannan** quality and accuracy
- For indoor, outdoor and high humidity installations
- Manufactured to DIN 16195
- For accuracy, see above standard
- Made in UK
- Supplied in individual box

Standard Product Specifications

Case Lengths	110mm, 150mm & 200mm
Ranges	-30 to +200°C only or °C&F
Case	< +120°C: polypropylene > +160°C: painted aluminium
Form	90° Angle
Glass Filling	Blue spirit
Connection	1/2" BSP
Pocket	Brass (stainless steel available on request)
Pocket Lengths	30mm, 40mm, 50mm, 63mm, 75mm, 100mm, 160mm, 200mm, 250mm x 10mm diameter



Dimensions



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Measurement for Life.



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VT020 - 90° Angle V-Line Thermometers

Standard Product Numbers - 110mm Case

Range	Divs	30mm Pocket	40mm Pocket	50mm Pocket	63mm Pocket	75mm Pocket	100mm Pocket	160mm Pocket	200mm Pocket	250mm Pocket
-30 to +50°C	1°C	88/090/0	88/091/0	88/092/0	88/093/0	88/094/0	88/095/0	88/096/0	88/099/0	88/097/0
-30 to +50°C&F	1°C	88/100/0	88/101/0	88/102/0	88/103/0	88/104/0	88/105/0	88/106/0	88/109/0	88/107/0
0 to +50°C	1°C	88/150/0	88/151/0	88/152/0	88/153/0	88/154/0	88/155/0	88/156/0	88/159/0	88/157/0
0 to +50°C&F	1°C	88/160/0	88/161/0	88/162/0	88/163/0	88/164/0	88/165/0	88/166/0	88/169/0	88/167/0
0 to +60°C	1°C	88/170/0	88/171/0	88/172/0	88/173/0	88/174/0	88/175/0	88/176/0	88/179/0	88/177/0
0 to +60°C&F	1°C	88/140/0	88/141/0	88/142/0	88/143/0	88/144/0	88/145/0	88/146/0	88/149/0	88/147/0
0 to +100°C	1°C	88/190/0	88/191/0	88/192/0	88/193/0	88/194/0	88/195/0	88/196/0	88/199/0	88/197/0
0 to +100°C&F	1°C	88/180/0	88/181/0	88/182/0	88/183/0	88/184/0	88/185/0	88/186/0	88/189/0	88/187/0
0 to +120°C	1°C	88/220/0	88/221/0	88/222/0	88/223/0	88/224/0	88/225/0	88/226/0	88/229/0	88/227/0
0 to +120°C&F	1°C	88/230/0	88/231/0	88/232/0	88/233/0	88/234/0	88/235/0	88/236/0	88/239/0	88/237/0
0 to +160°C	2°C	88/290/0	88/291/0	88/292/0	88/293/0	88/294/0	88/295/0	88/296/0	88/299/0	88/297/0
0 to +160°C&F	2°C	88/300/0	88/301/0	88/302/0	88/303/0	88/304/0	88/305/0	88/306/0	88/309/0	88/307/0
0 to +200°C	2°C	88/320/0	88/321/0	88/322/0	88/323/0	88/324/0	88/325/0	88/326/0	88/329/0	88/327/0
0 to +200°C&F	2°C	88/330/0	88/331/0	88/332/0	88/333/0	88/334/0	88/335/0	88/336/0	88/339/0	88/337/0

Standard Product Numbers - 150mm Case

Range	Divs	30mm Pocket	40mm Pocket	50mm Pocket	63mm Pocket	75mm Pocket	100mm Pocket	160mm Pocket	200mm Pocket	250mm Pocket
-30 to +50°C	1°C	85/090/0	85/091/0	85/092/0	85/093/0	85/094/0	85/095/0	85/096/0	85/099/0	85/097/0
-30 to +50°C&F	1°C	85/100/0	85/101/0	85/102/0	85/103/0	85/104/0	85/105/0	85/106/0	85/109/0	85/107/0
0 to +50°C	1°C	85/150/0	85/151/0	85/152/0	85/153/0	85/154/0	85/155/0	85/156/0	85/159/0	85/157/0
0 to +50°C&F	1°C	85/160/0	85/161/0	85/162/0	85/163/0	85/164/0	85/165/0	85/166/0	85/169/0	85/167/0
0 to +60°C	1°C	85/170/0	85/171/0	85/172/0	85/173/0	85/174/0	85/175/0	85/176/0	85/179/0	85/177/0
0 to +60°C&F	1°C	85/140/0	85/141/0	85/142/0	85/143/0	85/144/0	85/145/0	85/146/0	85/149/0	85/147/0
0 to +100°C	1°C	85/190/0	85/191/0	85/192/0	85/193/0	85/194/0	85/195/0	85/196/0	85/199/0	85/197/0
0 to +100°C&F	1°C	85/180/0	85/181/0	85/182/0	85/183/0	85/184/0	85/185/0	85/186/0	85/189/0	85/187/0
0 to +120°C	1°C	85/220/0	85/221/0	85/222/0	85/223/0	85/224/0	85/225/0	85/226/0	85/229/0	85/227/0
0 to +120°C&F	1°C	85/230/0	85/231/0	85/232/0	85/233/0	85/234/0	85/235/0	85/236/0	85/239/0	85/237/0
0 to +160°C	2°C	85/290/0	85/291/0	85/292/0	85/293/0	85/294/0	85/295/0	85/296/0	85/299/0	85/297/0
0 to +160°C&F	2°C	85/300/0	85/301/0	85/302/0	85/303/0	85/304/0	85/305/0	85/306/0	85/309/0	85/307/0
0 to +200°C	2°C	85/320/0	85/321/0	85/322/0	85/323/0	85/324/0	85/325/0	85/326/0	85/329/0	85/327/0
0 to +200°C&F	2°C	85/330/0	85/331/0	85/332/0	85/333/0	85/334/0	85/335/0	85/336/0	85/339/0	85/337/0

Standard Product Numbers - 200mm Case

Range	Divs	30mm Pocket	40mm Pocket	50mm Pocket	63mm Pocket	75mm Pocket	100mm Pocket	160mm Pocket	200mm Pocket	250mm Pocket
-30 to +50°C	1°C	82/090/0	82/091/0	82/092/0	82/093/0	82/094/0	82/095/0	82/096/0	82/099/0	82/097/0
-30 to +50°C&F	1°C	82/100/0	82/101/0	82/102/0	82/103/0	82/104/0	82/105/0	82/106/0	82/109/0	82/107/0
0 to +50°C	1°C	82/150/0	82/151/0	82/152/0	82/153/0	82/154/0	82/155/0	82/156/0	82/159/0	82/157/0
0 to +50°C&F	1°C	82/160/0	82/161/0	82/162/0	82/163/0	82/164/0	82/165/0	82/166/0	82/169/0	82/167/0
0 to +60°C	1°C	82/170/0	82/171/0	82/172/0	82/173/0	82/174/0	82/175/0	82/176/0	82/179/0	82/177/0
0 to +60°C&F	1°C	82/140/0	82/141/0	82/142/0	82/143/0	82/144/0	82/145/0	82/146/0	82/149/0	82/147/0
0 to +100°C	1°C	82/190/0	82/191/0	82/192/0	82/193/0	82/194/0	82/195/0	82/196/0	82/199/0	82/197/0
0 to +100°C&F	1°C	82/180/0	82/181/0	82/182/0	82/183/0	82/184/0	82/185/0	82/186/0	82/189/0	82/187/0
0 to +120°C	1°C	82/220/0	82/221/0	82/222/0	82/223/0	82/224/0	82/225/0	82/226/0	82/229/0	82/227/0
0 to +120°C&F	1°C	82/230/0	82/231/0	82/232/0	82/233/0	82/234/0	82/235/0	82/236/0	82/239/0	82/237/0
0 to +160°C	2°C	82/290/0	82/291/0	82/292/0	82/293/0	82/294/0	82/295/0	82/296/0	82/299/0	82/297/0
0 to +160°C&F	2°C	82/300/0	82/301/0	82/302/0	82/303/0	82/304/0	82/305/0	82/306/0	82/309/0	82/307/0
0 to +200°C	2°C	82/320/0	82/321/0	82/322/0	82/323/0	82/324/0	82/325/0	82/326/0	82/329/0	82/327/0
0 to +200°C&F	2°C	82/330/0	82/331/0	82/332/0	82/333/0	82/334/0	82/335/0	82/336/0	82/339/0	82/337/0

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Measurement for Life.



Brannan Product Data Sheet

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VT020 - 90° Angle V-Line Thermometers

110mm Case Product Weights - for Ranges up to 120°C (plastic case)

Components for Ranges up to 120°C	30mm Pocket	40mm Pocket	50mm Pocket	63mm Pocket	75mm Pocket	100mm Pocket	160mm Pocket	200mm Pocket	250mm Pocket
Pocket	109g	112g	114g	119g	120g	126g	147g	159g	169g
Tube	10g	12g	14g	16g	19g	21g	30g	35g	41g
110mm Plastic Case	41g	41g	41g	41g	41g	41g	41g	41g	41g
Plug and washers	3g	3g	3g	3g	3g	3g	3g	3g	3g
NET TOTAL WEIGHT	163g	168g	172g	179g	183g	191g	221g	238g	254g
Box / * bubble wrap only	25g	25g	25g	25g	25g	25g	28g	3g*	3g*
GROSS TOTAL WEIGHT	188g	193g	197g	204g	208g	216g	249g	241g	257g

110mm Case Product Weights - for Ranges over to 160°C (metal case)

Components for Ranges over to 160°C	30mm Pocket	40mm Pocket	50mm Pocket	63mm Pocket	75mm Pocket	100mm Pocket	160mm Pocket	200mm Pocket	250mm Pocket
Pocket	109g	112g	114g	119g	120g	126g	147g	159g	169g
Tube	10g	12g	14g	16g	19g	21g	30g	35g	41g
110mm Metal Case	97g	97g	97g	97g	97g	97g	97g	97g	97g
Plug and washers	3g	3g	3g	3g	3g	3g	3g	3g	3g
NET TOTAL WEIGHT	219g	224g	228g	235g	239g	247g	277g	294g	310g
Box / * bubble wrap only	25g	25g	25g	25g	25g	25g	28g	3g*	3g*
GROSS TOTAL WEIGHT	244g	249g	253g	260g	264g	272g	305g	297g	313g

Packaging Details for 110mm Cases

V-Lines with pocket lengths of up to 160mm are packed in individual boxes.

Pocket lengths over 160mm are wrapped individually in protective plastic bubble sheeting.*

Box Dimensions: Pocket lengths up to 100mm - 120 x 160 x 40 x 35 x 40mm

Pocket lengths up to 160mm - 160 x 220 x 40 x 35 x 40mm

150mm Case Product Weights - for Ranges up to 120°C (plastic case)

Components for Ranges up to 120°C	30mm Pocket	40mm Pocket	50mm Pocket	63mm Pocket	75mm Pocket	100mm Pocket	160mm Pocket	200mm Pocket	250mm Pocket
Pocket	109g	112g	114g	119g	120g	126g	147g	159g	169g
Tube	10g	12g	14g	16g	19g	21g	30g	35g	41g
150mm Plastic Case	59g	59g	59g	59g	59g	59g	59g	59g	59g
Plug and washers	3g	3g	3g	3g	3g	3g	3g	3g	3g
NET TOTAL WEIGHT	181g	186g	190g	197g	201g	209g	239g	256g	272g
Box / * bubble wrap only	33g	33g	33g	33g	33g	33g	36g	3g*	3g*
GROSS TOTAL WEIGHT	214g	219g	223g	230g	234g	242g	275g	259g	275g

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VT020 - 90° Angle V-Line Thermometers

150mm Case Product Weights - for Ranges over to 160°C (metal case)

Components for Ranges over to 160°C	30mm Pocket	40mm Pocket	50mm Pocket	63mm Pocket	75mm Pocket	100mm Pocket	160mm Pocket	200mm Pocket	250mm Pocket
Pocket	109g	112g	114g	119g	120g	126g	147g	159g	169g
Tube	10g	12g	14g	16g	19g	21g	30g	35g	41g
150mm Metal Case	117g	117g	117g	117g	117g	117g	117g	117g	117g
Plug and washers	3g	3g	3g	3g	3g	3g	3g	3g	3g
NET TOTAL WEIGHT	239g	244g	248g	255g	259g	267g	297g	314g	330g
Box / * bubble wrap only	33g	33g	33g	33g	33g	33g	36g	3g*	3g*
GROSS TOTAL WEIGHT	272g	277g	281g	288g	292g	300g	333g	317g	333g

Packaging Details for 150mm Cases

V-Lines with pocket lengths of up to 160mm are packed in individual boxes.

Pocket lengths over 160mm are wrapped individually in protective plastic bubble sheeting.*

Box Dimensions: Pocket lengths up to 100mm - 160 x 160 x 40 x 35 x 40mm

Pocket lengths up to 160mm - 160 x 220 x 40 x 35 x 40mm

200mm Case Product Weights - for Ranges up to 120°C (plastic case)

Components for Ranges up to 120°C	30mm Pocket	40mm Pocket	50mm Pocket	63mm Pocket	75mm Pocket	100mm Pocket	160mm Pocket	200mm Pocket	250mm Pocket
Pocket	109g	112g	114g	119g	120g	126g	147g	159g	169g
Tube	10g	12g	14g	16g	19g	21g	30g	35g	41g
200mm Plastic Case	76g	76g	76g	76g	76g	76g	76g	76g	76g
Plug and washers	3g	3g	3g	3g	3g	3g	3g	3g	3g
NET TOTAL WEIGHT	198g	213g	207g	214g	218g	226g	256g	273g	289g
Box / *bubble wrap only	35g	35g	35g	35g	35g	35g	42g	*3g	*3g
GROSS TOTAL WEIGHT	233g	248g	242g	249g	253g	261g	298g	276g	292g

200mm Case Product Weights - for Ranges over to 160°C (metal case)

Components for Ranges over to 160°C	30mm Pocket	40mm Pocket	50mm Pocket	63mm Pocket	75mm Pocket	100mm Pocket	160mm Pocket	200mm Pocket	250mm Pocket
Pocket	109g	112g	114g	119g	120g	126g	147g	159g	169g
Tube	10g	12g	14g	16g	19g	21g	30g	35g	41g
200mm Metal Case	97g	97g	97g	97g	97g	97g	97g	97g	97g
Plug and washers	3g	3g	3g	3g	3g	3g	3g	3g	3g
NET TOTAL WEIGHT	224g	229g	233g	240g	244g	252g	282g	294g	310g
Box / *bubble wrap only	35g	35g	35g	35g	35g	35g	42g	*3g	*3g
GROSS TOTAL WEIGHT	259g	264g	268g	275g	279g	287g	324g	297g	313g

Packaging Details for 200mm Cases

V-Lines with pocket lengths of up to 160mm are packed in individual boxes.

Pocket lengths over 160mm are wrapped individually in protective plastic bubble sheeting.*

Box Dimensions: Pocket lengths up to 100mm - 225 x 160 x 40 x 35 x 40mm

Pocket lengths up to 160mm - 225 x 210 x 40 x 35 x 40mm

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Measurement for Life.



Brannan Product Data Sheet

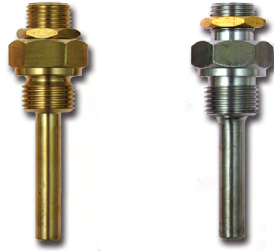
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VT020 - 90° Angle V-Line Thermometers

Replacement V-Line Pockets

- Available in brass or stainless steel
- 1/2" BSP connection (3/8" BSP and NPT options available on request)
- Thread connection for straight V-Line case
- Brass pockets available in 30mm, 40mm, 50mm, 63mm, 75mm, 100mm, 160mm, 200mm, 250mm & 400mm lengths
- Stainless steel pockets available in 30mm, 40mm, 50mm, 63mm, 75mm, 100mm and 160mm lengths

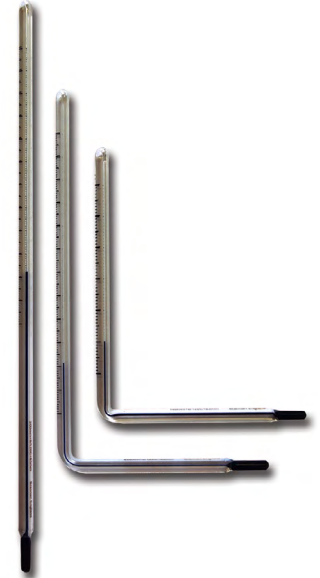
Pocket Length	1/2" BSP Pockets	
	Brass	Stainless Steel
30mm	95/616/0	95/658/0
40mm	95/617/0	95/656/0
50mm	95/618/0	95/649/0
63mm	95/607/0	95/650/0
75mm	95/619/0	95/659/0
100mm	95/608/0	95/651/0
160mm	95/612/0	95/652/0
200mm	95/609/0	-
250mm	95/623/0	-



Replacement V-Line Tubes

Replacement thermometer tubes available (to order, substitute last digit of product number for "6" ie replacement tube for 81/090/0 is 81/090/6)

- Available to fit all case sizes and stem lengths
- Wide choice of temperature ranges
- Brass pockets available in 30mm, 40mm, 50mm, 63mm, 75mm, 100mm, 160mm, 200mm & 250mm lengths
- Stainless steel pockets available in 30mm, 40mm, 50mm, 63mm, 75mm, 100mm and 160mm lengths



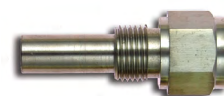
V-Line Over-Pockets

- Pockets / thermowells for use with V-line thermometers
- Allows V-line thermometers to be removed while system is filled
- Available in chrome plated mild steel or stainless steel
- For 1/2" BSP female x 1/2" BSP male V-lines
- Chrome plated mild steel over-pocket to suit 63mm or 100mm pockets in 75mm or 110mm lengths
- Stainless steel over-pocket to suit 63mm, 100mm or 160mm pockets in 75mm, 110mm or 170mm lengths
- Stainless steel over-pocket for use with corrosive liquids

Pocket Length	Chrome Plated Over-Pockets	
	To Suit 1/2" BSP 63mm Pocket	To Suit 1/2" BSP 100mm Pocket
75mm	62/065/0	-
110mm	-	62/067/0



Pocket Length	Stainless Steel Over-Pockets		
	To Suit 1/2" BSP 63mm Pocket	To Suit 1/2" BSP 100mm Pocket	To Suit 1/2" BSP 160mm Pocket
75mm	62/068/0	-	-
110mm	-	62/070/0	-
170mm	-	-	62/071/0



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