

# Product data sheet

✉ [sales@brannan.co.uk](mailto:sales@brannan.co.uk)

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## 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:

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

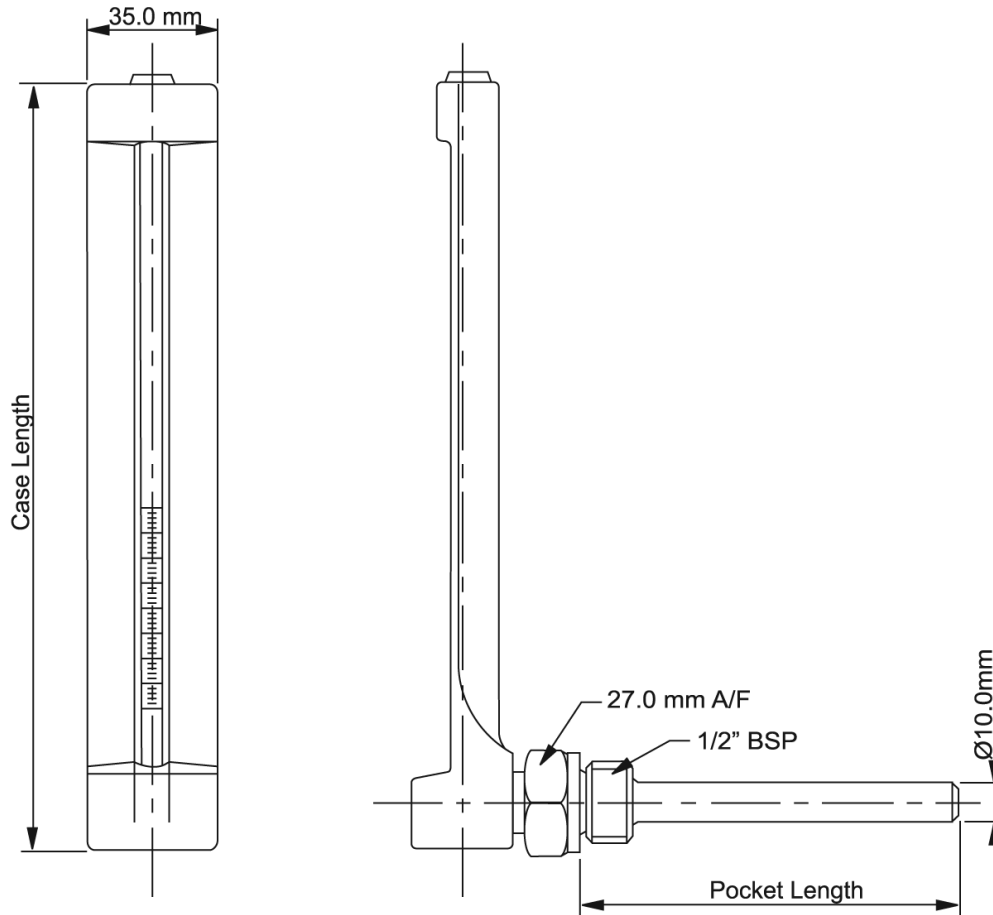
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## Dimensions:



## 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

# Product data sheet

## 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

## 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
<b>NET TOTAL WEIGHT</b>	<b>163g</b>	<b>168g</b>	<b>172g</b>	<b>179g</b>	<b>183g</b>	<b>191g</b>	<b>221g</b>	<b>238g</b>	<b>254g</b>
Box / * bubble wrap only	25g	25g	25g	25g	25g	25g	28g	3g*	3g*
<b>GROSS TOTAL WEIGHT</b>	<b>188g</b>	<b>193g</b>	<b>197g</b>	<b>204g</b>	<b>208g</b>	<b>216g</b>	<b>249g</b>	<b>241g</b>	<b>257g</b>

# Product data sheet

## 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
<b>NET TOTAL WEIGHT</b>	<b>219g</b>	<b>224g</b>	<b>228g</b>	<b>235g</b>	<b>239g</b>	<b>247g</b>	<b>277g</b>	<b>294g</b>	<b>310g</b>
Box / * bubble wrap only	25g	25g	25g	25g	25g	25g	28g	3g*	3g*
<b>GROSS TOTAL WEIGHT</b>	<b>244g</b>	<b>249g</b>	<b>253g</b>	<b>260g</b>	<b>264g</b>	<b>272g</b>	<b>305g</b>	<b>297g</b>	<b>313g</b>

## 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
<b>NET TOTAL WEIGHT</b>	<b>181g</b>	<b>186g</b>	<b>190g</b>	<b>197g</b>	<b>201g</b>	<b>209g</b>	<b>239g</b>	<b>256g</b>	<b>272g</b>
Box / * bubble wrap only	33g	33g	33g	33g	33g	33g	36g	3g*	3g*
<b>GROSS TOTAL WEIGHT</b>	<b>214g</b>	<b>219g</b>	<b>223g</b>	<b>230g</b>	<b>234g</b>	<b>242g</b>	<b>275g</b>	<b>259g</b>	<b>275g</b>

## 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
<b>NET TOTAL WEIGHT</b>	<b>239g</b>	<b>244g</b>	<b>248g</b>	<b>255g</b>	<b>259g</b>	<b>267g</b>	<b>297g</b>	<b>314g</b>	<b>330g</b>
Box / * bubble wrap only	33g	33g	33g	33g	33g	33g	36g	3g*	3g*
<b>GROSS TOTAL WEIGHT</b>	<b>272g</b>	<b>277g</b>	<b>281g</b>	<b>288g</b>	<b>292g</b>	<b>300g</b>	<b>333g</b>	<b>317g</b>	<b>333g</b>

## 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

# Product data sheet

## 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
<b>NET TOTAL WEIGHT</b>	<b>198g</b>	<b>213g</b>	<b>207g</b>	<b>214g</b>	<b>218g</b>	<b>226g</b>	<b>256g</b>	<b>273g</b>	<b>289g</b>
Box / *bubble wrap only	35g	35g	35g	35g	35g	35g	42g	*3g	*3g
<b>GROSS TOTAL WEIGHT</b>	<b>233g</b>	<b>248g</b>	<b>242g</b>	<b>249g</b>	<b>253g</b>	<b>261g</b>	<b>298g</b>	<b>276g</b>	<b>292g</b>

## 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
<b>NET TOTAL WEIGHT</b>	<b>224g</b>	<b>229g</b>	<b>233g</b>	<b>240g</b>	<b>244g</b>	<b>252g</b>	<b>282g</b>	<b>294g</b>	<b>310g</b>
Box / *bubble wrap only	35g	35g	35g	35g	35g	35g	42g	*3g	*3g
<b>GROSS TOTAL WEIGHT</b>	<b>259g</b>	<b>264g</b>	<b>268g</b>	<b>275g</b>	<b>279g</b>	<b>287g</b>	<b>324g</b>	<b>297g</b>	<b>313g</b>

### 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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## 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	-
400mm	95/624/0	-

## 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 & 400mm 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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