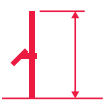
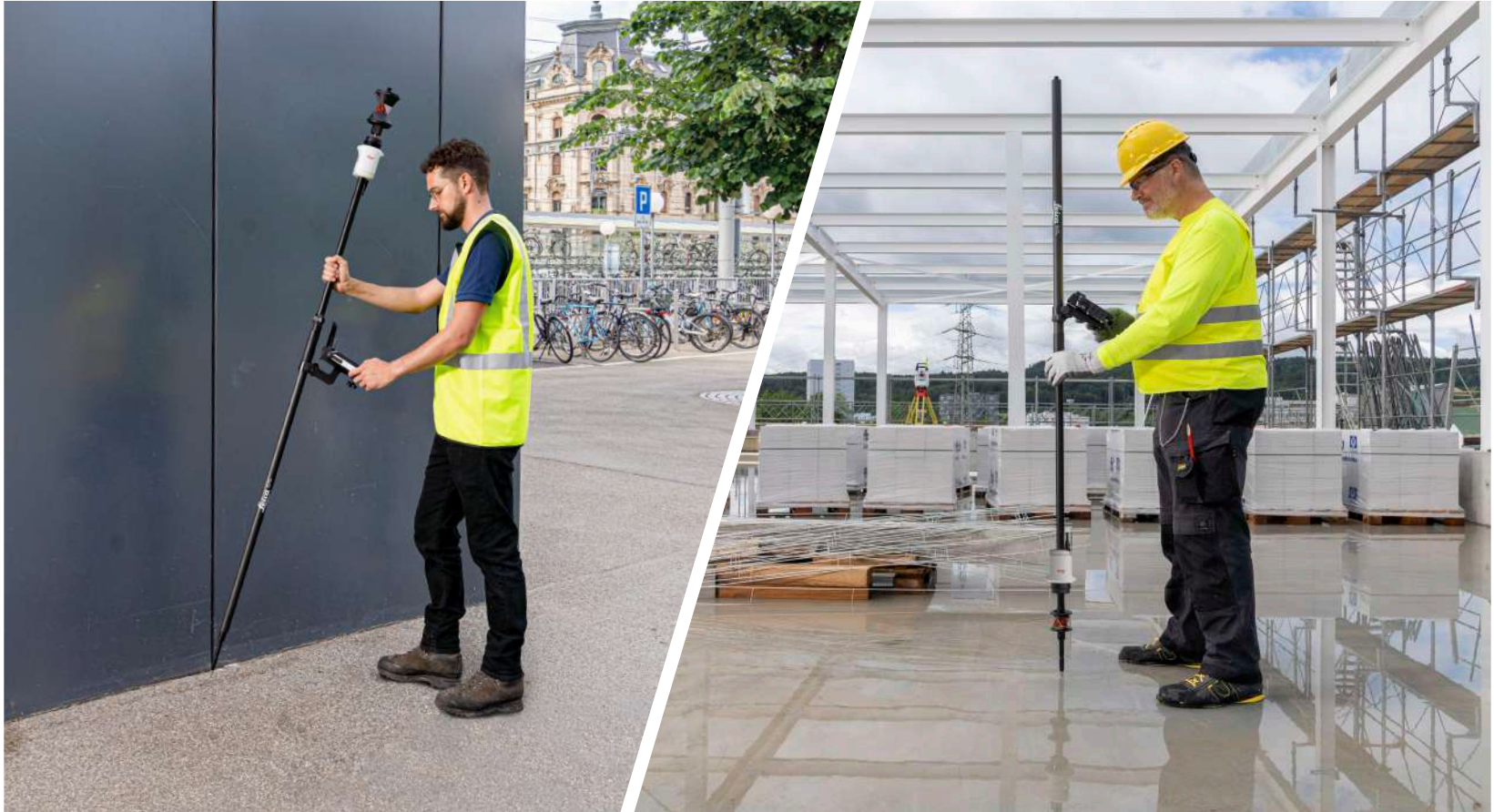


# Leica AP20 AutoPole

## Data sheet



### PoleHeight

Save time and eliminate mistakes that result from both height reading and manual input into the application software. Whenever the pole height changes, the automatic PoleHeight function will update the height settings to ensure reliable and accurate measurements.



### Tilt Compensation

Increase productivity and efficiency with tilt compensation that eliminates the necessity to level the pole. Measure inaccessible points, conveniently increase your overall measurement output and ensure highest job standards by verified compensation of the tilted pole alignment.



### TargetID

Be unstoppable with the TargetID feature! Automatic target search, identification and locking prevents measurements to foreign targets and avoids interruptions that can occur on a busy, multi-crew construction or measurement site.



[leica-geosystems.com](http://leica-geosystems.com)



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# Leica AP20 AutoPole

Leica AP20 AutoPole is the only smart system on the market that solves three common workflow problems surveying and construction professionals face daily:

- entering the pole height manually into the field software
- having to level the pole
- accidentally locking to a foreign target at a busy site

The AP20 helps users work more efficiently, trust the data they gather and increase productivity overall. The result is faster completion of projects while maintaining high quality standards.



## POLEHEIGHT

|                    |                       |            |
|--------------------|-----------------------|------------|
| Accuracy in height | At snap-lock position | +/- 1.0 mm |
|--------------------|-----------------------|------------|

## TILT COMPENSATION

|                                       | Target height (m) | Additional pole tip uncertainty <sup>1</sup> for tilt down to 90°, typically |                       |
|---------------------------------------|-------------------|--|-----------------------|
|                                       |                   | Horizontal (2D)  | Vertical (1D)         |
|                                       | 0.228*            | 1 mm + 0.1 mm/° tilt   | 1 mm + 0.05 mm/° tilt |
|                                       | 1.600             | 3 mm + 0.6 mm/° tilt   | 1 mm + 0.05 mm/° tilt |
|                                       | 2.000             | 4 mm + 0.7 mm/° tilt   | 1 mm + 0.1 mm/° tilt  |
| Tilt range <sup>2</sup>               | +/- 180°          |  |                       |
| Range to total station <sup>2,3</sup> | Typically 300 m   |  |                       |

## TARGETID

|                         |                 |
|-------------------------|-----------------|
| Number of different IDs | 16              |
| Working range           | Typically 150 m |

## GENERAL

|                              |   |   |
|------------------------------|---|---|
| Power management             | Exchangeable Lithium-Ion battery (GEB321)   | Operating time typically >16 h for AP20 H / AP20 ID and 6 h for AP20 T / AP20                         |
| Weight                       | AP20 including battery  | 0.5 kg (1.1 lbs)  |
| Environmental specifications | Working temperature range<br>Storage temperature range<br>Dust & Water (IEC 60529) / Humidity | -30°C to +60°C (-22°F to 140°F)<br>-40°C to +80°C (-40°F to 176°F)<br>IP67 / max. 95%, non-condensing |

| LEICA AP20 AUTOPOLE VARIANTS       | AP20 H             | AP20 ID              | AP20 T              | AP20                |
|------------------------------------|--------------------|----------------------|---------------------|---------------------|
| PoleHeight                         | ✓                  | ✗                    | ✓                   | ✓                   |
| Tilt Compensation <sup>4</sup>     | ✗                  | ✗                    | ✓                   | ✓                   |
| TargetID <sup>5</sup>              | ✗                  | ✓                    | ✗                   | ✓                   |
| LEICA AP20 CONNECTIVITY            | AP20 H             | AP20 ID <sup>5</sup> | AP20 T <sup>4</sup> | AP20 <sup>4,5</sup> |
| MS60                               | ✓                  | ✓                    | ✓                   | ✓                   |
| TS60                               | ✓                  | ✓                    | ✓                   | ✓                   |
| TM60                               | ✓                  | ✗                    | ✗                   | ✗                   |
| TS13                               | ✓                  | ✓                    | ✗                   | ✗                   |
| TS16                               | ✓                  | ✓                    | ✓                   | ✓                   |
| iCR70 / iCR80                      | ✓                  | ✓                    | ✓                   | ✓                   |
| LEICA AP REFLECTOR POLE VARIANTS   | GLS51 <sup>6</sup> | GLS51F <sup>7</sup>  | CRP4 <sup>6</sup>   | CRP5 <sup>7</sup>   |
| Surveying, stub interface          | ✓                  | ✓                    | ✗                   | ✗                   |
| Construction, 5/8" screw interface | ✗                  | ✗                    | ✓                   | ✓                   |
| Snap lock position every           | 5 cm               | 0.2 ft               | 5 cm                | 1.0 ft              |

✓ = Standard ✗ = Not available

1. Measurement precision, accuracy, reliability and time for initialisation are dependent upon various factors including angular and distance accuracy of the total station, target type, atmospheric conditions, target height and level of pole tilt.
2. Free line of sight to target required

3. Using radio handle RH18 or CCD18 connected to AutoPole
4. Requires total station with target lock functionality and radio handle RH18 or CCD18
5. Requires total station with prism fast search functionality
6. Metric scale
7. Feet scale

\* 0.228 m refers to height with CRP10 attached to GRZ122



Scan to find out more about  
**AP20 for Construction**



Scan to find out more about  
**AP20 for Surveying**

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