



**FALCON**  
Accessories catalog



# OneProd

## **FALCON** Accessories catalog

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## INTRODUCTION

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**ONEPROD FALCON** is a multi-channel portable data collector / analyzer. It can acquire simultaneously measurements coming from 4 sensors, in addition to a tachometer input. Its different functionalities may require the use of various accessories.

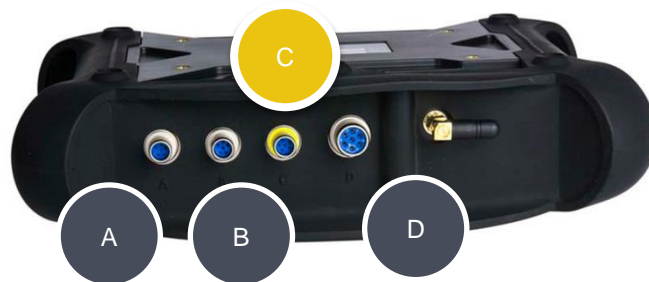
This document will present the available accessories.

*Pictures shown in this document are non-contractual pictures; technical specifications might change at any time.*

## FALCON CONNECTORS

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Measurement accessories will have to be connected on FALCON top connectors presented below.



- **FALCON Connector A:** Connection of wired accelerometers Channel 1 (& 3 with the use of a Y adapter)
- **FALCON Connector B:** Connection of wired accelerometers Channel 2 (& 4 with the use of a Y adapter)
- **FALCON Connector C:** Connection of an external tachometer, or to a source of power supply through an external adapter (Yellow mark)
- **FALCON Connector D:** Can be used for the connection of headphones through external adapter, or for the connection to the Ethernet network through an external adapter

## FALCON STANDARD PACKAGE ACCESSORIES

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Reference	Description
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CAB1412	USB connection cable
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FLC3067000	FALCON power supply with EU, US/JP and UK adapters
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FLC1025000	FALCON Screen protection (Slim Films x5) <i>(do not use with FALCON-EX, may generate electrostatic discharge)</i>
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ACM1370	Shoulder carrying belt
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CPC1231000	Voltage input 2 m straight cable with BNC connector for FALCON Channel A or B
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Used for:

- Connection to a monitoring rack
- Connection to junction box
- Measurement of a process data (DC)



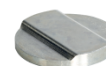
Only included in **FALCON Expert** packages:

CPC1227000	2m Straight cable for BNC tachometer input on FALCON Channel C ECTAc (YELLOW RING) / BNC
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## WLS ACCELEROMETER & ACCESSORIES

Reference	Description
CAC3222000	PACK WLS accelerometer WLS for safe area & Accessories: <ul style="list-style-type: none"> <li>• 1x WLS Wireless tri axial accelerometer</li> <li>• 1x USB charger</li> <li>• 1x USB cable</li> <li>• 1x Bi polar magnet suited for curved shafts</li> <li>• 1x Belt-Potch</li> </ul>
FLC3089000	Spare power supply for WLS with EU, US/JP and UK adapters and its USB cable
ACA1026000A	Bi-polar magnet for WLS, suited for curved shafts M6 mounting, $\varnothing$ 35 x H 19 mm. The orientation of the magnet can be adjusted with the captive screw
ACA3119000A 50 units	Cementing studs for bipolar magnet (ACA1026000A)
ACA1024000	Flat magnet for WLS M6 mounting, $\varnothing$ 35 x H 17 mm
ACA3117000A 100 units	100x M6 cementing stud for WLS sensor, $\varnothing$ 35 mm, stainless steel
ACA3118000A 50 units	50x M6 cementing studs with X mark for WLS sensor, $\varnothing$ 35 mm, stainless steel



## ASH201-A ACCELEROMETER & ACCESSORIES (3-PIN BAYONET, M6)

**Reference**      **Description**

CAP3123000      PACK ASH201-A accelerometer 2m including:

- 1x ASH201-A Accelerometer
- 1x 2m Spring cable
- 1x Flat magnet
- 10x Cementing studs

Delivered as standard with all **FALCON CBL** packages



CAP3124000      PACK ASH201-A accelerometer 5m including:

- 1x ASH201-A Accelerometer
- 1x 5m Straight cable
- 1x Flat magnet



CAC3110000      Spare ASH201-A IEPE Accelerometer  
100mV/g +/-5%  
0.5Hz-14kHz @3dB  
Axial bayonet connector output  
M6 mounting hole



CPC1213000      2m spring cable for ASH201-A



4611QAA          5m straight cable for ASH201  
4611QBA          10m straight cable for ASH201  
CPC1220000      15m straight cable for ASH201



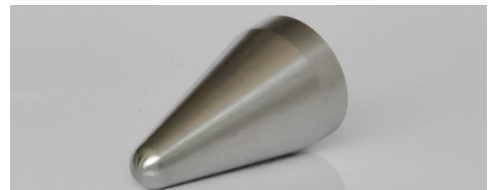
ACA1025000      Flat magnet for ASH201-A  
M6 mounting,  $\varnothing$  28 x H 17 mm



ACA3120000A    100x M6 Aluminum cementing studs  
100 units  
M6 mounting,  $\varnothing$  22 mm,



ACA1011000      Contact point, M6 mounting



## ASH205-B ACCELEROMETER & ACCESSORIES (2-PIN MIL, 1/4-28)

Reference	Description
FLC3071000	PACK ASH205-B accelerometer 2m including <ul style="list-style-type: none"> <li>• 1x ASH205-B Accelerometer</li> <li>• 1x 2m Spring cable</li> <li>• 1x Flat magnet</li> <li>• 10x Cementing studs</li> </ul> Delivered as standard with all <b>FALCON MIL</b> packages
FLC3070000	PACK ASH205-B accelerometer 5m including <ul style="list-style-type: none"> <li>• 1x ASH205-B Accelerometer</li> <li>• 1x 5m Straight cable</li> <li>• 1x Flat magnet</li> </ul>
860238	Spare ASH205-B IEPE Accelerometer 100mV/g +/-5% 0.5Hz-14kHz @3dB MIL-C-5015 2-pins connectors output 1/4-28 mounting hole
CPC1219000A	2m spring cable for ASH205-B
CPC1223000A	5m straight cable for ASH205-B
ACA1032000	Flat magnet for ASH205-B 1/4-28" mounting, Ø 28 x H 17 mm
ACA3122000A 100 units	100x 1/4-28" cementing studs Ø 20 mm, stainless-steel





## EXTERNAL TACHOMETER & ACCESSORIES

Reference	Description
FLC3026000A	External tachometer kit including: <ul style="list-style-type: none"> <li>• 1x optical laser tachometer</li> <li>• 1x 1.5m straight cable</li> <li>• 1x 5m extension cable</li> <li>• 1x Magnetic holder</li> <li>• 1x 3-finger clamp</li> <li>• 1x reflective tape</li> </ul>
ACC1072000	Optical triggering device with laser sighting
CPC1228000	1.5m Straight cable for FALCON optical triggering device (ECTAC/M12)
CPC1226000	5m extension cable (M12/M12)
850910	Reflective adhesive tape (per m)
ACC1081000	Magnet holder



## ACCESSORIES FOR EXPLOSIVE ENVIRONMENTS

Reference	Description
FLC3041000	<p>PACK WLS-EX accelerometer with Flat Magnet</p> <ul style="list-style-type: none"> <li>• 1x WLS-EX Wireless tri axial accelerometer</li> <li>• 1x USB charger</li> <li>• 1x USB cable</li> <li>• 1x Flat magnet</li> <li>• 5x Cementing studs</li> </ul> <p>Delivered as standard with all <b>FALCON-EX WLS</b> packages.</p>
FLC3087000	<p>Spare WLS-EX accelerometer with its USB power supply</p> <p><b>ATEX II 3 G Ex ic IIC T4 Gc</b> <b>Ex ic IIC T4 Gc</b></p> <p>Ø42 x H116 mm 373g M6 threaded hole Stainless steel IP65 80g</p>
ACC1074000	<p>EX laser tachometer</p> <p><b>ATEX, IECEx: II 1 G</b> <b>Ex ia op is IIC T4 Ga (-20°C ≤ Ta ≤ +40°C)</b></p>
FLC3042000A	<p>PACK EX External tachometer, including:</p> <ul style="list-style-type: none"> <li>• 1x optical laser tachometer</li> <li>• 1x 1.5m straight cable</li> <li>• 1x 5m extension cable</li> <li>• 1x Magnetic holder</li> <li>• 1x 3-finger clamp</li> <li>• 1x reflective tape</li> </ul>
CAP3064000	<p>PACK ASH201-EX accelerometer 2m</p> <ul style="list-style-type: none"> <li>• 1x ASH201-EX Accelerometer</li> <li>• 1x 2m Spring cable</li> <li>• 1x Flat magnet</li> <li>• 10x Cementing studs</li> </ul> <p>Delivered as standard with all <b>FALCON-EX CBL</b> packages</p>
CAP3129000	<p>PACK ASH201-EX accelerometer 5m including:</p> <ul style="list-style-type: none"> <li>• 1x ASH201-EX Accelerometer</li> <li>• 1x 5m Straight cable</li> <li>• 1x Flat magnet</li> </ul>



860450	Spare ASH201-EX IEPE Accelerometer 100mV/g +/-5%, 0.6Hz-15kHz@3dB, axial bayonet connector output, M6 mounting hole		
FLC3080000	PACK ASH205-B-EX accelerometer 2m including <ul style="list-style-type: none"> <li>• 1x ASH205-B-EX Accelerometer</li> <li>• 1x 2m Spring cable</li> <li>• 1x Flat magnet</li> <li>• 10x Cementing studs</li> </ul>		
FLC3084000	PACK ASH205-B-EX accelerometer 5m including <ul style="list-style-type: none"> <li>• 1x ASH205-B-EX Accelerometer</li> <li>• 1x 5m Straight cable</li> <li>• 1x Flat magnet</li> </ul>		
CAC3198000	Spare ASH205-B-EX: IEPE Accelerometer, 100mV/g +/-5%, 0.5Hz-14kHz@3dB, MIL-C-5015 2-pins connectors output, 1/4-28 mounting hole		
FLC1026000	Screen protection frame for FALCON-EX		
FLC1030000	FALCON-EX Spare battery		
FLC1018000	FALCON-EX connector trapdoor		

## CURRENT CLAMP




AVI1009000 Current clamp,  
1mV/A,  
30 Hz to 5 kHz,  
cable diameter 52 mm

To be connected to FALCON with BNC cable  
input CPC1214000 (not included)



## INSTRUMENTED IMPACT HAMMERS

Instrumented Impact hammers can be connected to the FALCON with the BNC Input cable CPC1214000. The reference measurement channel will always be the **Channel 1 (connector A)**

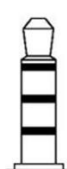
REFERENCE	CAC3106000	CAC3107000	CAC3108000
			
<b>Performance</b>			
Sensitivity ( $\pm 15\%$ )	0.23 mV/N	0.23 mV/N	0.23 mV/N
Measurement Range	$\pm 22,000$ N pk	$\pm 22,000$ N pk	$\pm 22,000$ N pk
Frequency Range (-10 dB) [1][2]			
(Hard Tip)	5 kHz	1 kHz	750 Hz
(Medium Tip)	1.7 kHz	700 Hz	650 Hz
(Soft Tip)	250 Hz	450 Hz	350 Hz
(Super Soft Tip)	150 Hz	400 Hz	250 Hz
Resonant Frequency	$\geq 22$ kHz	$\geq 12$ kHz	$\geq 5$ kHz
Non-Linearity	$\leq 1\%$	$\leq 1\%$	$\leq 1\%$
<b>Electrical</b>			
Excitation Voltage	18 to 30 VDC	18 to 30 VDC	18 to 30 VDC
Constant Current Excitation	2 to 20 mA	2 to 20 mA	2 to 20 mA
Output Impedance [1]	<100 ohms	<100 ohms	<100 ohms
Output Bias Voltage [1]	8 to 12 VDC	8 to 12 VDC	8 to 12 VDC
Discharge Time Constant	$\geq 2000$ sec	$\geq 1400$ sec	$\geq 2000$ sec
<b>Physical</b>			
Sensing Element	Quartz	Quartz	Quartz
Sealing	Epoxy	Hermetic	Hermetic
Hammer Mass	0.32 kg	1.1 kg	5.5 kg
Head Diameter	2.5 cm	5.1 cm	7.6 cm
Tip Diameter	0.63 cm	5.1 cm	7.6 cm
Hammer Length	22.7 cm	37 cm	89 cm
Electrical Connection Position	Bottom of Handle	Bottom of Handle	Bottom of Handle
Extender Mass Weight	200 gm		
Electrical Connector	BNC Jack	BNC Jack	BNC Jack
Model	086D05	086D20	086D50
<b>Supplied accessories</b>			
Extender - steel, 1.0" diameter	✓		
Tip - super soft	✓	✓	✓
Adaptor for Tip - super soft	✓		
Hard Tip	✓	✓	✓
Medium Tip	✓	✓	✓
Soft tip	✓	✓	✓

## FALCON AUDIO LISTENING

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The headphone adapter is necessary to be able to listen to vibration signals or to record audio comments. It is plugged on the **channel D** at the top of the FALCON. No firmware option is needed.

CPC1229000A Adapter for headphone  
(For 3.5 mm jack, AHJ standard: 1 and 2  
audio, 3 ground, 4 micro phone)



Pin 1  
Pin 2  
Pin 3  
Pin 4



To use it, see instrument user manual (§ ‘🎧 Listening to the signal’ and § ‘🎤 Vocal note’)

## FALCON ACCESSORIES FOR HARSH ENVIRONMENT

External power supply and network adapters are available and allow for charging FALCON and connecting FALCON to the network in industrial environment, as it doesn't need to open the trapdoor to access to the standard power supply connector.

FLC3090000 Falcon accessories pack for dusty environments includes:

FLC1009000 External Power supply adapter for connection on FALCON channel C ECTAc (YELLOW RING) /Jack length 0.2m



FLC1010000 External Network cable adapter for connection on FALCON channel D ECTAd/Jack, length 0.2m



FLC1013000 Set of FALCON connector protection  
3 small size for connectors A, B and C and 1 large for connector D



## FALCON 4-CHANNEL MEASUREMENT ACCESSORIES

Reference	Description
FLC1003000	20cm Y ECTA / ECTA Adapter for FALCON channel 3 or 4 2 units needed for 4-channel measurements
FLC1004000	20cm Y ECTA / BNC Adapter for FALCON channel 3 or 4 2 units needed for 4-channel measurements



**Note that the use of multiple analog channels is controlled by the firmware options.**

All FALCON Essential & Smart packages come with 1 analog channel activated.

All FALCON Expert packages come with 4 analog channels activated.

## FALCON PROXIMITY PROBES ACCESSORIES

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FLC1005000 5 m straight cable FALCON signal input/Proximity probe

ECTA/(Com, Sig, -24VDC)

To be used if the driver of the proximity probe is has its own power supply, the driver can be connected to channel A or B using the following cable



FLC1006000 5 m straight cable for FALCON channel C input/Proximity probe

ECTAc (YELLOW RING) /(Com, Sig, -24VDC)

To be used if the driver does not have its own power supply, the driver can be connected to channel C (yellow ring) using the following cable. FALCON will provide the necessary power supply to the driver.



## FALCON SPARE PARTS

Reference	Description	
FLC1035000	FALCON Standard Spare battery Cannot be used with FALCON-EX	
FLC1030000	FALCON-EX Spare battery	
FLC1025000	FALCON Screen protection (Slim Films x5) Cannot be used with FALCON-EX	
FLC1026000	Screen protection frame for FALCON-EX (can also be used with standard FALCON)	
FLC1017000	FALCON connector trapdoor Cannot be used with FALCON-EX	
FLC1018000	FALCON-EX connector trapdoor	
FLC1019000	FALCON & FALCON-EX Spare set of straps	
FLC1020000	FALCON & FALCON-EX Spare rubber protection	
FLC1022000	FALCON & FALCON-EX Spare Wifi antenna	
FLC1023000	WLS & WLS-EX spare rubber cap	
FLC3116000	FALCON Spare empty transport case. It include specific locations to store the device, 4 standard accelerometers with magnets, 1 WLS with magnet, 1 laser tachometer, 1 magnet holder, power supply modules and extra room under the trap to store cables	





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ACOEM offers comprehensive products and services comprising smart monitoring, diagnosis and solutions, drawing upon its unique expertise in the field of vibrations and acoustics.

ACOEM contributes to the improvement of:

- quality of life and risk prevention in urban and industrial environments
- productivity and the reliability of industrial processes
- the design of robust and high-performance products with low noise levels
- protection of sites, vehicles and people in hostile environments

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