

## MC120420

### Magnetic field sensors • Proximity switches

sensor magnetic, all-steel, M12x1 72long, Sn: 40mm, 10-30V DC, 1x PNP  
 Anticoincidence, Connector M12 4pin, IP67, Stainless steel 1.4305, LED, 2.8mT

including Nut



Magnetic proximity switches are contact-free sensors. They detect magnetic objects and - or magnets, regardless of whether they move or not. Since magnetic fields penetrate all non-magnetizable materials, the sensors can detect magnets through walls made of nonferrous heavy metal, stainless steel, aluminum, plastic, wood or through excessive sailing, for instance. The achievable sensing range of the devices depends on the strength of the affecting magnetic field. Magnetic sensors are used for positioning (e.g. position checks on hoisting gear), speed checks (e.g. on conveyor belts or transmission cog wheels through the aluminum housings) or for position detection (e.g. of goods carriers).

#### Electrical features

Number of switching outputs	1
Display	LED display
Type of switching function	Exclusive-OR
Type of electrical connection	Connector M12
Type of switching output	PNP
Rated switching current	200 mA
Absolute hysteresis	6 mm
Short-circuit protection	Yes
No-load current	20 mA
Magnetic sensitivity	2.8 mT
Number of pins	4
Switching distance	40 mm
Switching frequency	1000 Hz
Voltage drop	2 V
Reverse polarity protection	Yes
Operating voltage (DC)	10 - 30 V

**Mechanical features**

Design	Cylinder, screw-thread
Diameter	12 mm
Thread length	45 mm
Thread pitch	1 mm
Length	72 mm
Degree of protection (IP)	IP67
Active area material of sensor	Stainless steel 1.4305
Housing material	Stainless steel 1.4305
Thread dimension	M12
Ambient temperature	-25 - 70 °C

**Other features**

Harsh environmental conditions	Yes
Oil and cooling lubricants	Yes

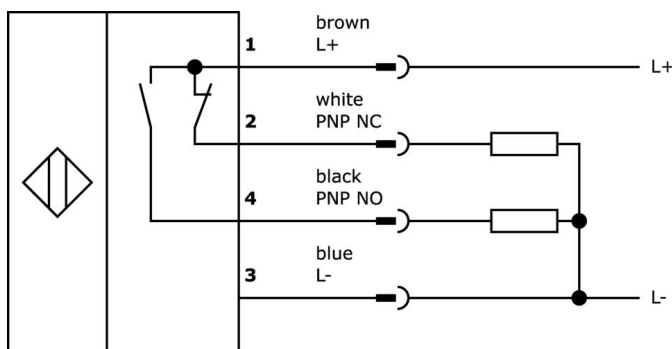
**Classification**

ETIM 8	EC002544 Magnetic proximity switch
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**More**

IPF Product Group	230 magnetic sensors
packaging dimensions	120 x 100 x 17 mm
gross weight	30 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

**Connection**



**Extract accessories program**

**VK200321**



Connection cable, 2m, M12  
Female (socket) 4pin Angular, Free conductor end, 4x0.34mm<sup>2</sup>, PUR (Polyurethane), Ø4.7mm, 250V, -40-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

**VK200325**



Connection cable, 2m, M12  
Female (socket) 4pin Straight, Free conductor end, 4x0.34mm<sup>2</sup>, PUR (Polyurethane), Ø4.7mm, 250V, -40-90°C, IP67, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silicone-free

**VK030F62**



Connection cable, 0.3m, M12 socket 3-pin angular, M8 connector 3-pin straight, 3x0.34mm<sup>2</sup>, PUR (polyurethane), IP67, LED, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

**VK060F62**



Connection cable, 0.6m, M12 socket 3-pin angular, M8 connector 3-pin straight, 3x0.34mm<sup>2</sup>, PUR (polyurethane), IP67, LED, suitable for trailing chain and torsion resistant, oils and cooling lubricants, welding area, silicone-free

**VK003021**



Cable socket, Angular, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

**VK003025**



Cable socket, Straight, Suitable for self-assembly, Screw connection, Ø3-6.5mm, 4A, 60V, -25-90°C, M12 Female (socket) 5pin, IP67, PBT

**AM000001**



Accessories, magnetic, Ø20mm 6.5long, strontium ferrite, internal hole Ø4.3mm, 25-130°C

**AM000002**



Accessories, magnetic, Ø32mm 15long, strontium ferrite, internal hole Ø5.6mm, 25-130°C

**VK003020**



Cable socket, angular, self-assembly, screw connection, Ø3-6.5mm, 4A, 240V, -25-90°C, M12 socket 4-pin, IP67, PBT

You can find further accessories on our homepage



**Installation**

Mounting / installation may only be carried out by a qualified electrician!



**Disposal**

WEEE number according to § 6 para. 3 ElektroG: 40951076

**Safety warnings**

/ Before initial operation, please make sure to follow all safety instructions that may be provided in the product information.

/ Never use these devices in applications where the safety of a person depends on their functionality.