Sensors for Pneumatic Cylinders

Balluff's magnetic field cylinder sensors are based on non-contact, solid-state sensor technology that is compatible with both reed and Hall Effect magnetic pole orientations, making them the ideal replacement for standard magnetic switches. Electrically rugged, they feature short circuit protection, overload protection, and reverse polarity protection…all backed by Balluff's exclusive Lifetime Warranty. Improved sensor performance and better reliability results in less downtime and increased productivity. With Balluff's magnetic field sensors, you install and forget them.

Balluff's compact BMF sensors are designed to fit either C-slot or T-slot extrusions and require no additional brackets for mounting. These sensors fit flush into the slot, offering better sensor protection…nothing sticking out and nothing in the way. Flush mounting sensors make installation in space critical applications easier and less time consuming. In addition, cable clips are included for cleaner cable routing and better strain relief.

BMF Standard Specifications	
Rated supply voltage	24 V DC
Supply voltage range	10...30 V DC,
Max. load current	100 mA,
Short circuit protection	Yes
Polarity reversal protection	Yes
Function indicator	Yes
Output function indicator	Yellow LED
Degree of protection	IP67
Temperature range	-25° C...+85° C
Approvals	CE and cULus
Cable material	PUR
Rated switching field	15 gauss
Assured switching field	25 gauss

BMF 204 and BMF 214 C-slot – Slide-in

These magnetic field sensors are C-slot styles that are bracketless and provide rock-solid holding.

Position detection with compact sensors for C-slots

BMF 204 – Designed for 3.8 mm slot
BMF 214 – Designed for 4 mm slot

- Slides into the C-slot from the end
- Superior holding strength
- Miniature design for short stroke cylinders and grippers
- Precise, accurate positioning

Series	
Cable length	
Connection	
PNP	No contact

BMF 243 C-slot – Drop-in

Position detecting with compact sensors for C-slots

BMF 243 C-slot – Single sensor

- New mounting design – solid hold in the slot
- Drop-in installation – can be installed even on cylinders with an end plate
- Compact design – flush mounted
- Short housing (24 mm) – can be used in space-critical applications

Series	
Cable length	
Connection	
PNP	NO
PNP	NC
NPN	NO
NPN	NC

BMF 235 T-slot – Drop-in

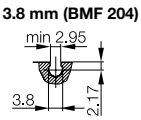
Position detection with compact sensors for T-slots

BMF 235 – The new standard for every T-slot

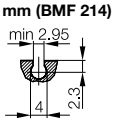
- Large, ultra-bright LED for easy diagnostics
- Installs from above into the T-slot – drop-in installation
- Installs with standard screwdriver or 1.5 mm Allen wrench
- Short, compact design with greater holding strength

Series	
Cable length	
Connection	
PNP	NO
PNP	NC
NPN	NO
NPN	NC

Festo
C-slot 10



SMC
C-slot



	BMF 204				BMF 214				
	.3 m	.3 m	.5 m	2 m	.3 m	.3 m	.5 m	2 m	5 m
	M8	M12	M8	PU cable	M8	M12	M8	PU cable	PU cable
	BMF0002	**BMF00A6**	**BMF0003**	**BMF0001**	**BMF00A2**	**BMF00FC**	**BMF00A3**	**BMF00A1**	**BMF00E3**

	BMF 243					
	.3 m	.5 m	.3 m Silicon	.3 m	.3 m	2 m
	M8	M8	M8	M12	M12	PUR cable
	BMF00EL	**BMF00F3**	**BMF00H7**	**BMF00ER**	**BMF00H6**	**BMF00EF**
	BMF00EM					**BMF00EH**
	BMF00EN					**BMF00EJ**
	BMF00EP					**BMF00EK**

	BMF 235				
	.3 m	.5 m	.3 m	.5 m	2 m
	M8	M8	M12	M12	PU cable
	BMF00C4	**BMF00CF**	**BMF00C5**	**BMF00CL**	**BMF00AR**
	BMF00C6				**BMF00AT**
	BMF00C2				**BMF00AU**
	BMF00C3				**BMF00AW**

Consult Balluff website for latest technical and wiring specifications.

V-TWIN®

Balluff's V-Twin® magnetic field sensors provide two sensors with a single connector in either an M8 or M12 configuration.

Substantial savings when using two sensors on one cylinder

- One, four-conductor cable verses two, three-conductor cables
- Less installation hardware
- Fewer wiring terminations
- Less installation time
- Lower initial costs compared to two separate sensors
- Double the number of sensors into a multiple interface block or sensor hub

V-Twin® M8

V-Twin® M12

Series	V-Twin® 204 C-slot		V-Twin® 214 C-slot		V-Twin® 243 C-slot			V-Twin® 235 T-slot	
Cable length	.3 m	.3 m	.3 m	.3 m	.3 m	.3 m	.3 m Silicon	.3 m	.3 m
Connector	M8	M12	M8	M12	M8	M12	M8	M8	M12
PNP NO	**BMF0006**	**BMF0005**	**BMF00A5**	**BMF00A4**	**BMF00ET**	**BMF00F9**		**BMF00CA**	**BMF00C9**
NPN NO						**BMF00FA**	**BMF00H4**		

Consult Balluff website for latest technical and wiring specifications.

Know Your Cylinder? Find Your Sensor.

Balluff's exclusive, easy-to-use online Pneumatic Cylinder Sensor Resource Center is designed to help you select the best solution for specific cylinder models.

The web-based interface will generate up to three sensor recommendations for each application. The Resource Center is designed to help you make a preliminary selection of products so you can download sensor datasheets and mounting bracket installation instructions.

The Resource Center will reduce your design time, aid you in component standardization, and ultimately provide you with a reference guide that will help reduce downtime when a replacement sensor is needed.

Visit: **www.balluff.us/bmfcenter**