



OPTRONIC

Control Technology and Sensors



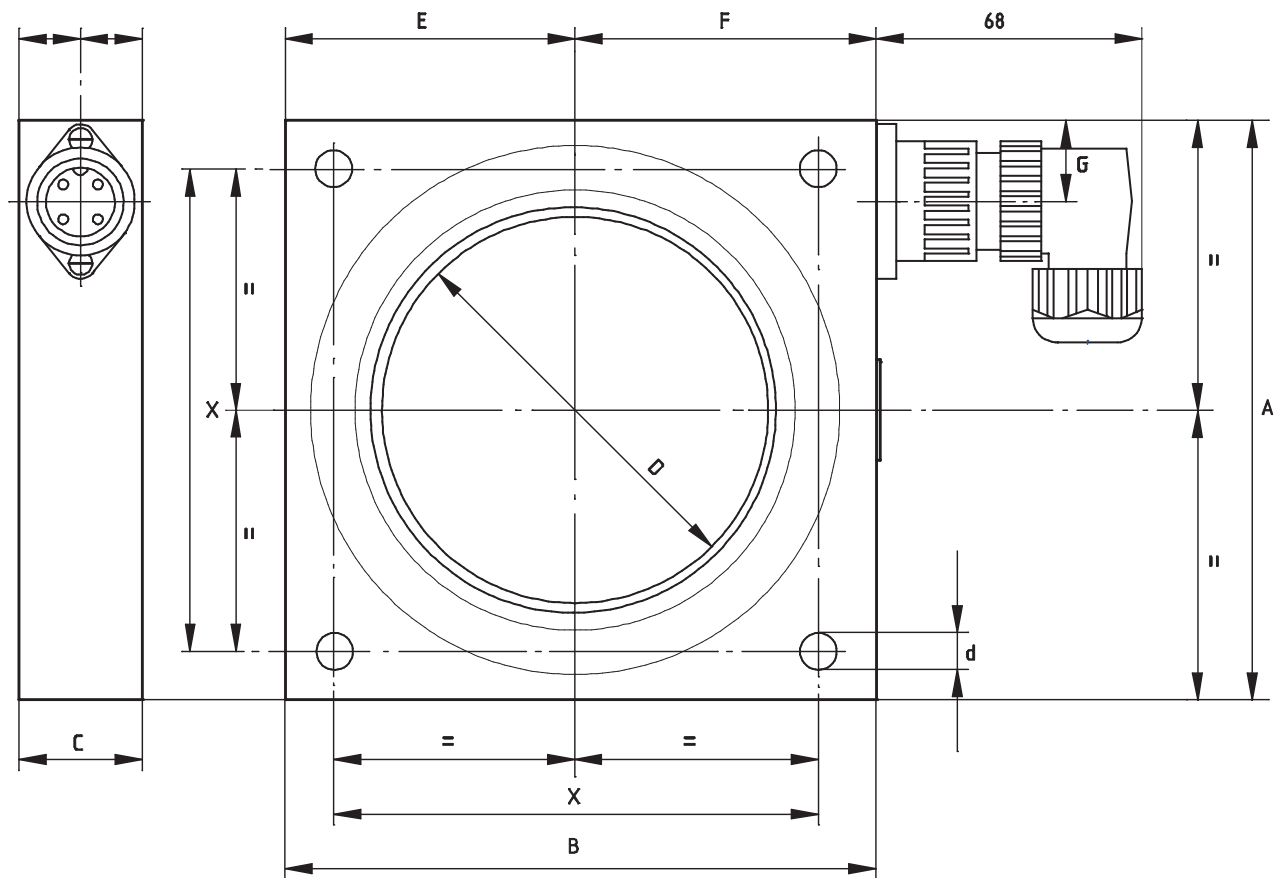
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Inductive Sensing Coil IRT

Contact-Free Detection of Metallic Material

- Typical application areas: Tube processing machines (Straightening, Pilgering), tube feeding by mandrel bars
- High operational reliability under difficult conditions
- Position and orientation independent object detection
- Insensitive to non-metallic contamination
- Insensitive to environmental influences like temperature and humidity
- Response sensitivity largely constant in the entire sensor area
- Detection of even small objects (ferromagnetic bar material with $\varnothing 1.25\text{mm}$)
- Available in various dimensions
- Self-adjusting in combination with control unit IRV20:
 - Automatic compensation of environmental metal masses
 - Automatic compensation of environmental electromagnetic fields
 - Automatic adjustment of the optimum response sensitivity related to the immersion depth of the material in the coil
 - Adjustment remains stored after power-off
- Extremely robust design:
 - Coil body milled from durable solid plastic
 - Sensing coil sealed in coil body
- Up to 3m long connection cable between IRT and IRV
- Protection class IP65



Part Name	Dimension (in mm)								
	D	A	B	C	E	F	G	X	d
IRT25A	25	90	97	32	45	52	21	70	7
IRT40A	40	100	106	32	50	56	21	80	7
IRT50A	50	100	112	32	50	62	21	80	9.5
IRT60A	60	120	120	32	60	60	21	95.5	9.5
IRT75A	75	135	135	32	67.5	67.5	21	109.6	9.5
IRT100A	100	150	153	32	75	78	21	125	9.5
IRT150A	150	210	210	32	105	105	35	180	9.5
IRT200A	200	260	260	32	130	130	45	220	9.5
IRT250A	250	310	310	32	155	155	50	270	9.5
IRT300A	300	380	380	35	190	190	90	300	12



Parameter	IRTxxxA
Smallest Detectable Bar Diameter: Ferromagnetic Material	5% of Sensing Coil Diameter
Smallest Detectable Bar Diameter: Non-Ferrous Metal, Stainless Steel	15% of Sensing Coil Diameter
Suitable Control Units	IRT10, IRT11, IRT20
Length of Connection Cable between IRV und IRT	maximum: 3m, standard: 2m
Allowed Ambient Temperature	0° to +80°C
Protection Class	IP65

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